

LEVIATHAN AS FOREIGN INVESTOR:  
EVIDENCE FROM SOVEREIGN WEALTH FUNDS

A Dissertation

by

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Submitted to the Office of Graduate and Professional Studies of  
Texas A&M University  
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

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May 2015

Major Subject: Political Science

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## ABSTRACT

How does state ownership affect sovereign wealth funds (SWFs) investment abroad? This dissertation aims to answer this question by providing a general theoretical framework and a detailed deal-level analysis. I argue that two attributes of state ownership affect SWF investment behaviors. First, SWFs face greater discrimination by the host country than do private investors. Since the discrimination is heightened when the home and host countries have poor political relations, SWFs are more likely to invest in host countries with which they have better political relations. Furthermore, SWFs are likely to partner with other investors in order to mitigate the discrimination by the host country. Second, state ownership leads SWFs to be more risk-tolerant than private investors. The observable implication is that SWFs are less likely to be deterred than are private investors by institutional distance between the home and host countries when investing abroad.

I also argue that even though state ownership may motivate SWFs to pursue strategic interests on behalf of the home government, different governments often have different strategic objectives. This suggests that SWFs may behave differently even when investing in strategic industries. To illustrate this point, I investigate the energy industry and argue that SWFs from energy-poor countries are more likely to invest in the energy industry compared to other types of investors in pursuit of energy security for the home country. However, foreign investment in the energy industry is likely to face more resistance by the host country than investment in other industries. This resistance would

increase with the deterioration of bilateral relations, especially for SWFs from energy-poor countries.

To test these claims, I construct a unique dataset from several sources. My analysis covers more than 7,000 foreign acquisitions between 1981 and 2012. Using various model specifications, I find consistent evidence to support my main arguments.

This dissertation contributes to the SWF studies as well as several relevant literatures. My interdisciplinary approach integrates theoretical arguments from international relations with existing international business literature. By examining the effect of state ownership on foreign investment, this dissertation enhances our understanding of the recent rise of state capitalism.

## ACKNOWLEDGEMENTS

First and foremost, I would like to express my gratitude to Professor Quan Li for being an excellent teacher and mentor. His insightful comments have greatly helped me to develop my dissertation at every stage of my research. Without his guidance and patience, this dissertation would not have been possible.

I am also deeply indebted to Professor Lorraine Eden for her advice at the initial stages of my dissertation research. Her expertise was critical in helping me to understand the cutting edge research in international business. I would also like to thank the other members of my committee, Hyeran Jo and Erica Owen. They have been willing to read various versions of my works and give me detailed comments. I would also like to thank Professor Robert Weiner, who provided me with much useful advice and a plethora of reading materials which laid the foundation for my overall research project. I have also learned a great deal from him as a coauthor. Finally, I want to thank Professor Ron Matthews, who, eight years ago, suggested that I complete a Master's degree in international political economy. Without his support I do not know if I could be where I am today.

I received financial support from the Political Science Department, College of Liberal Arts at Texas A&M University, as well as CIBER at George Washington University. I am grateful to both for making it possible for me to complete my research.

I also want to recognize my graduate colleagues at TAMU. I am grateful for the support from Blake Garcia, Clayton Webb, and Mitchell Radtke. I would like to thank

Ohbet Cheon for her tireless support throughout some challenging circumstances. My sincere thanks go to Ling Zhu, Kate Bryant, Yao-Yuan Yeh, Norberto Morales, Benjamin Tkach, Carla Flink, Abhi Moulick, Sejin Koo, Piotr Urbanski, Soren Jordan, Angel Molina, and Nicholas Conway. I always think of our times together very fondly.

I must also thank my parents and extended family for their support and care. My parents have fully supported my career choices. Rather than being anxious on my behalf when I face challenges, they constantly pray for me privately. Finally, I reserve special thanks to my wonderful husband, Xiaobo, to whom I owe perhaps the biggest thanks of all. He has walked with me through this process, listening to my ideas, giving me feedback, and helping to take care of our baby girl. I thank my little daughter for being so easy going (and cute!), and for offering me unconditional trust and love. Every time I see her smiling face, my stress instantly goes away. To these last two most of all, I am eternally grateful for too many things to mention here.

## NOMENCLATURE

ADIA	Abu Dhabi Investment Authority
BvD	Bureau van Dijk
CFIUS	Committee on Foreign Investment in the United States
COPDAB	Conflict and Peace Data Bank
CNOOC	China National Offshore Oil Corporation
CIC	China Investment Corporation
FDI	Foreign Direct Investment
GDELT	Global Data on Events, Location, and Tone
GDP	Gross Domestic Product
GIC	Government of Singapore Investment Corporation
ICRG	International Country Risk Guide
IPE	International Political Economy
KIA	Kuwait Investment Authority
LoF	Liability of Foreignness
M&A	Mergers and Acquisitions
MID	Militarized Interstate Disputes
MNE	Multinational Enterprise
SAFE	State Administration of Foreign Exchange
SDC	Security Data Corporation
SOE	State-Owned Enterprise

SWF	Sovereign Wealth Fund
SWFI	Sovereign Wealth Fund Institute
UN	United Nations
WEIS	World Events Interaction Survey

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## CHAPTER I

### INTRODUCTION

Sovereign wealth funds (SWFs) are large pools of capital owned and controlled by governments and invested in domestic and foreign markets. In recent years, SWFs have grown rapidly in number and size (Gilson and Milhaupt, 2008); with total assets estimated at 5.78 trillion US dollars in 2013 (SWF Institute, 2014), SWFs invest more than double the assets managed by hedge funds worldwide.

The growth of SWFs has raised many policy debates over the potential politicized nature of SWFs. Indeed, the fact that SWFs are owned and controlled by governments, and have large and continuous sources of funding, raises the concern that SWFs may use their portfolios to achieve certain political objectives (e.g., Summers, 2007; Gieve, 2008). Therefore, the question of whether SWFs are politically driven plays a central role in debates regarding SWFs.

However, this question may not be the correct one. The very fact that SWFs are state-owned predetermines that SWFs will be influenced by political motives – indeed, it would be surprising if SWF managers could ignore the preferences of a single powerful shareholder, even more so as some report directly to the head of state (Megginson and Fotak, 2014). Therefore, it is not whether or not SWFs are politically driven that must be examined. In this dissertation, I focus on the ways in which state ownership affects SWF's foreign investments, and more specifically, how the state ownership affects the interaction between SWF investment strategies and the responses from the host countries.

Shifting the debate to these questions could generate important insights in our understanding of SWFs for two reasons. First, it is very difficult, if not impossible, to identify systematic evidence of the political motivations of an investor without making some strong assumptions. SWFs' lack of transparency makes this task even more difficult. However, the impact of state ownership on SWF's investment behavior could be easier to identify empirically, thus allowing scholars to draw clear implications from SWF investments. Second and more importantly, my dissertation takes into account the ways through which host countries can react strategically to SWFs with political motivations. Policymakers from host countries have expressed increasing concerns about the expanding role of governments as global investors in both target firms and host governments. Target firms become at least partially state-owned as a result of SWF investment and as such, many share a major concern that the target firms become less efficient than privately-owned firms following the acquisition. In addition, state investors are likely to have political or strategic interests instead of commercial ones, some of which may threaten the national security and sovereignty of the host countries. As a result, a host country may take action to ensure that its national security concerns are addressed. Thus, investigating SWF investment in light of state ownership provides valuable insight into the between SWF investment strategies and the responses from the host countries.

As will be discussed in more detail in Chapter 2, recent developments in political science have paid greater attention to how politics affect SWF investment through state ownership. However, the vast majority of this research is based on case studies (e.g.,

Shih, 2009; Clark and Knight, 2011; Foldal, 2010). For instance, Shih (2009) compares SWFs from a highly unified autocracy (i.e., Singapore) and a fragmented authoritarian regime (i.e., China), and finds that neither of the SWFs pursues any geopolitical objectives, but for different reasons. Shih argues that the investment behavior of the Singaporean SWF is more likely to be driven by profit maximization, while the Chinese SWF may be too preoccupied with domestic political and bureaucratic infighting to do any international harm. However, this approach has two main shortcomings. It does not take into account the role of an important political factor--bilateral relations—in the SWF's investment decisions. Furthermore, the results in Shih (2009) are driven by two case studies, thus providing limited implications because it does not systematically test the claim across countries and time.

Meanwhile, various studies in finance literature have undertaken comparisons of investments by SWFs and private investors (Avendaño and Santiso, 2011, Johan et al, 2013; Karolyi and Liao, 2015; Chhaochharia and Laeven, 2009; Dewenter et al., 2010; Kotter and Lel, 2011). The scholars assume that the objective of private firms is profit-maximization. They propose that systematic differences in the investment decisions between SWFs and private investors indirectly provide evidence that SWF investments have non-commercial motivations. Therefore, on the basis of the observed differences between SWFs and private investors, scholars conclude that SWFs are politically motivated. However, the research design of these studies is problematic because it ignores the fact that the observed foreign investment outcomes are due to interactions



between the institutional pressures from the host country and the potential objectives of the home government.

This dissertation furthers the study of SWFs and proposes a theoretical framework to explore the impact of state ownership on SWF's foreign investment and the strategic interaction between SWFs and the host countries. The core of my argument builds on two basic affects of state ownership. First, state ownership of an SWF brings with it the home country's influence into the host country, and thereby triggers greater discrimination by the host country. Second, due to state ownership, SWFs can tolerate risks associated with foreign investment. This is not only because SWFs have a long-term time horizon and do not face the same account ability to shareholders as private investors do, but also because they are obligated to further state's ends, even at the expense of corporate wealth when necessary. Accordingly, I identify several factors underlying the investment decisions of SWFs in Chapter 4.

In this dissertation, special attention is paid to the ways in which SWFs may pursue the strategic interests on behalf of their home governments, in particular when investing in strategic industries. Needless to say, different countries have different strategic interests; consequentially, SWFs may have heterogeneous investment preferences, even in industries that are globally considered to be strategic. Therefore, using the energy industry as an example because of its strategic importance, Chapter 5 investigates how state ownership affects SWF investment in strategically important industries. By distinguishing between energy-poor and energy-rich countries, this study allows us to identify the heterogeneity in SWFs strategic objectives. It is worth noting

that Chapter 4 examines which *country* an SWF chooses to invest in as a result of the interaction between that SWF and a host government, and Chapter 5 explores which *industry* an SWF chooses to invest in based on its home government's strategic goals.

It should be noted at the outset that in this dissertation I only investigate SWF's direct investments instead of portfolio investments. The former are considered to be more aggressive by making multibillion dollar acquisitions and exercising a certain degree of management control over the target firm. Therefore, I argue that the direct investments of SWFs are more likely to be associated with geopolitical factors than other types of investments. If one does not find evidence of the impact of geopolitical factors in these investments, the controversy regarding SWF's potential political motivations may be unfounded. Table 1 lists the types of SWF investments examined in the current SWF literature. It shows that a majority of the studies investigate portfolio investment, with only three papers examining direct investment of SWFs.

Here I use a broader rather than strictly defined definition of foreign direct investment (FDI). The standard definitions of FDI require a foreign firm to exercise ownership control over a company, generally using 10 percent of voting shares as a threshold. While SWFs acquire a block of shares smaller than 10 percent at times, these investments can be significant for two reasons. First, when share ownership is much dispersed, even stakes of 5 to 10 percent are important for control (Thatcher, 2013). Moreover, SWF investments have often involved major national companies, sometimes in strategically important industries such as high technology, energy and defense.

Foreign acquisitions of small magnitude in these industries may be sufficient to raise national security concerns by host governments.

### **Defining Sovereign Wealth Funds**

Before proceeding, it is important to have a clear definition of SWFs. The term SWF was coined by Razanov (2005). While scholars have not reached a consensus on exactly what constitutes an SWF, most definitions suggest that SWFs are state-owned investment funds that make long-term domestic and foreign investments (Fotak et al., 2008).

Some institutions and researchers offer very broad definitions that encompass any investment vehicles funded by “sovereign wealth”, including government pension funds, development banks and other investment funds (Balding, 2008). This expansive definition leads to a group of heterogeneous government funds being considered as SWFs, even though there are important differences between these funds in terms of organizational structure, investment objectives, compensation policies and degrees of financial transparency. However, using the expansive definition, government pension funds and SOEs would – inaccurately—be considered SWFs. SWFs are different from government pension funds which have well-defined liabilities. They are also distinct from state-owned enterprises (SOEs) which primarily focus on production or the provision of services (IMF, 2008).

In this dissertation, therefore, I employ a narrower definition as in Truman (2007, 2008) and Lyons (2007). As defined by Truman (2007), SWFs are “a pool of domestic and international assets owned and managed by governments to achieve a variety of

economic and financial objectives, including the accumulation and management of reserve assets, the stabilization of macroeconomic effects and the transfer of wealth across generations.” In Chapter 3, I will describe the characteristics of SWFs in greater detail.

### **The Argument in Short**

My central argument is twofold. First, host countries are concerned that SWFs may pursue non-commercial objectives; they may therefore discriminate against SWF investments compared to private investments in both pre- and post-entry phases. Positive political relations between home and host countries diminish such discriminatory treatment, thus providing SWFs with more freedom in their investments. The observable implication is that SWFs are more likely to be associated with acquisition deals than private investors in host countries with whom they have better bilateral relations. In order to reduce the discrimination SWFs encounter in host countries with whom their home country has poor bilateral relations, SWFs can choose to invest in a foreign country *with* other investors. Consequently, I argue that partnering with other investors helps SWFs mitigate discrimination and increases their likelihood of acquisition success when competing with private investors.

Second, I argue that SWFs are likely to tolerate risks and uncertainty associated with foreign investment because SWFs do not face the same pressure from shareholders as private investors do due to SWFs’ “soft budget constraints” and little explicit liabilities to be paid to shareholders. Moreover, there is no clear principal to monitor the fund performance in SWFs. Even when the performance is evaluated, economic returns

are not the only criteria that affect the tenure of fund managers. In essence, SWF investment decisions are not held at the same level of accountability as private investors, and they may be willing to sacrifice economic gains when pursuing political interests for the home country. The observable implication is that SWFs are less likely to be deterred by institutional distance between the home and host countries than private investors are when investing overseas, even when institutional distance increases risks and uncertainty of foreign investment (Eden and Miller, 2004).

Going beyond this general theoretical framework, I investigate SWF investment behavior in the energy industry as a case to study the heterogeneous motivations of SWFs. The energy industry is an intriguing case because it generates significant implications both economically and politically for political leaders. Host countries may be concerned that a foreign country's SWF could take control of a large oil company, thereby giving the SWF the power to redirect natural resources to the SWF's home country or sell these resources at a discounted price. A more urgent concern is that giving a potentially adversarial home country access to scarce and strategically important energy resources in a host country helps to strengthen very military capabilities of the home country that would be used against the host country in the event of a militarized conflict.

However, the energy industry is politically sensitive only for SWFs from a particular type of countries. On the side of the home country, SWFs from energy-poor countries are more likely, due to their need for energy security, to invest in the energy industry than are SWFs from energy-rich countries. Furthermore, I argue that energy

security concern induces SWFs from energy-poor countries to be more likely than private investors to invest in the energy industry from the same energy-poor countries. Turning to the host country side, foreign investment in this industry is likely to face more resistance by the host country than foreign investment in other industries. Because of the strategic importance of the energy industry, this resistance would be greater when there are poorer bilateral relations between the home and host countries. Moreover, SWFs from energy-poor countries are likely to encounter closer scrutiny by host governments because SWFs from energy-poor countries may invest in the energy industry not purely for financial reasons. As a result, SWFs from energy-poor countries are more sensitive to the bilateral relations between the home and host countries than are SWFs from the energy-rich countries or private investors from both types of countries.

### **Empirical Contributions**

To test these claims, I construct a new dataset from several sources, including Thomson Reuters Security Data Corporation's (SDC) Platinum, Bureau van Dijk (BvD)'s Zephyr, and Standard & Poor's Capital IQ. My analysis covers more than 7,000 cross-border acquisitions (both SWF and private investments) for the period 1981-2012. This dataset is unique in that it covers private investments as a benchmark and includes investments involving multiple acquirers. This dataset contributes significantly to the existing body of SWF acquisition datasets and leads to a new understanding of SWF investment at the deal level.

In order to examine the impact of bilateral relations, I take advantage of a new events dataset as well as other commonly used measures such as security alliance and

the similarity of UN voting records in order to capture various dimensions of interstate relations. Using this variety of inputs sheds light on the nuances of how bilateral relations between states affect foreign investment. More specifically, my results suggest that investors are more likely to look to media reports and alliance ties than to the pattern of UN voting records to assess whether they will be welcome in a host country. Using various model specifications, I find consistent evidence to support my main arguments.

### **Broad Implications of the Project**

This dissertation contributes to the SWF literature by addressing the role of international relations in issues concerning international business and finance. Previous political science research on SWFs primarily focuses on the country characteristics (Shih, 2009; Clark and Knight, 2011; Foldal, 2010; Chwioroth, 2010), but they fail to explain the role of bilateral relations in SWF investment decisions. However, all SWF investments are bilateral in nature, and I develop a theoretical framework to incorporate the role of bilateral relations between two countries in order to understand SWF investment decisions. In addition, I extend the analysis to deal-level data, which allows me to elucidate the differences between SWF and private investors in investment behavior.

Meanwhile, although there is a growing literature on SWFs in finance, very little attention has been paid to the role of political factors in SWF investment decisions. A thorough search of the literature reveals that Knill et al. (2012) and Johan et al. (2013) are the only two studies that focus on the role of interstate political relations in SWF investment decisions. Surprisingly, both studies find that SWFs tend to invest in

countries with which they have weaker political relations. My work goes far beyond their studies by developing a theoretical framework based on the nature of state ownership, employing more comprehensive data from which to draw empirical evidence, as well as improving the measures of interstate political relations.

This dissertation is also relevant to the studies of FDI because I highlight the role of government ownership in FDI. The existing literature on FDI mostly applies to firms that are structurally separate from home-country governments and may not hold for firms that are themselves partly or wholly state-owned (e.g. Putnam, 1988; Henisz, 2000; Li and Resnick, 2003). Therefore, this dissertation extends previous studies of FDI by examining the impact of government ownership in mergers and acquisitions (M&A) investment.

In addition, this dissertation sheds light on a rising phenomenon in the global economy, i.e., state capitalism. Previous studies have found differences in international investment patterns between operating SOEs and private firms (Knutsen et al., 2012, Duanmu, 2014). My study departs from these studies in two significant ways. First, most previous studies infer the political factors of SOEs based on different international investment patterns between SOEs and private firms. However, these differences can be due to several factors. For example, they may be due to SOEs' inefficient choice of targets or lower effectiveness in assessing likely outcomes (Megginson and Netter, 2001). They could also result from differences in management capabilities brought by the investing firm to the target, but not necessarily due to political objectives that result



from state ownership. Thus, it is critical to isolate political influences by modeling them explicitly rather than drawing inferences from differences in investment patterns.

Second, my work departs from previous studies in that I argue that comparing SWFs to private investors allows us to clearly identify the effects of state ownership on investment behavior. Unlike SOEs, SWFs are purely investors, not operating entities. They typically do not expand abroad on their experience operating at home, nor do they build firm-level capabilities to be exploited in foreign markets. Thus, it is unlikely that any differences in sensitivity of SWFs and private investors to geopolitical factors are related to operational capabilities.

Furthermore, this study extends the theory of liability of foreignness (LoF) by examining how foreign state control or ownership alters the LoF. Starting with Hymer (1976), scholars in international business have recognized that foreign firms face the LoF, i.e., disadvantages against domestic firms when doing business abroad. While there is considerable discussion in the literature about how the LoF can affect firm performance (Zaheer, 1995; Miller and Parkhe, 2002; Perez-Batres and Eden, 2008), few studies distinguish how the liability varies across heterogeneous firms. This study fills this gap in the literature and helps to understand the effect of foreign state ownership on the LoF.

Finally, this dissertation follows the new direction in the field of international political economy (IPE) by emphasizing the importance of micro-level analysis. Most studies in this field focus on the country-level analyses or sector-level analyses and infer the mechanisms driving the behavior of individual firms from macro-level variables. In

recent years scholars have started to use firm-level data to understand IPE issues such as corruption (Jensen et al., 2010), political risks (Jensen, 2008) and property rights (Weymouth and Broz, 2013). In this dissertation, I have collected comprehensive data from multiple sources on SWF acquisitions, an approach that is superior to most studies in the current literature. The micro-level data analysis that I supply not only provides valuable new insights into IPE issues, but also enables us to understand the variation in firm behavior within countries.

### **Organization of the Dissertation**

Chapter 2 evaluates the current scholarship on SWFs as well as the broader literature on FDI, foreign aid, and SOEs, and identifies their limitations in our understanding of SWF investments. After reviewing the state of the literature, I move on in Chapter 3 to describe the characteristics of SWF investments based on my newly constructed dataset.

The central question of this study is how state ownership affects SWF investments. Chapter 4 offers a theoretical framework to answer this question. I first discuss how discriminatory treatment affects SWF investments compared to private investors, as well as the investment strategies of SWFs in order to mitigate discrimination. Then I turn to the impact of state ownership on SWF investment regarding risk-taking behaviors. I ground my theoretical arguments with statistical analysis by using a deal-level dataset drawn from 1987 to 2012.

In Chapter 5, I study the heterogeneous motivations within SWFs by analyzing foreign investment in the energy industry. My data analysis suggests that SWFs from

energy-poor countries are more likely to invest in the energy industry compared to either SWFs from energy-rich countries or private investors from energy-poor countries.

Chapter 6 concludes and discusses my future research agenda.

## CHAPTER II

### EXISTING THEORETICAL ARGUMENTS

Understanding the SWF investment requires us at the very least to review the scholarship on two general research questions. First, what are determinants of foreign investment? Second, how does state ownership affect foreign investment decisions? These are familiar questions to IPE scholars, but not necessarily in the context of SWFs. This dissertation is the first step in a broader research agenda that seeks to understand the role of a state in foreign investment by SWFs.

The overall objective of this chapter is to provide a review of extant research. In addition to the work that specifically investigates SWF investments, I also review three related literatures: foreign direct investment, foreign aid, and the internationalization of SOEs. Related to the first question, FDI is a common form of foreign investment, and scholars have identified a number of political determinants. Considering that foreign investments by SWFs broadly fall into the category of FDI, it is important to present a review of this literature and illustrate the ways in which my study fits into the larger study of FDI.

When it comes to the second question concerning the role of a state, studies of foreign aid and the internationalization of SOEs have offered numerous insights. Like SWFs, foreign aid is an important foreign policy tool to project state power into the territory of other states. As pointed out by Alesina and Dollar (2000), while FDI pays more attention to economic incentives such as policies on property rights protection in the host countries, foreign aid flows tend to serve broad foreign policy purposes and

respond to political considerations. Hence, the literature on foreign aid is helpful in understanding how political factors potentially shape the preferences for foreign economic policy such as the cross-border investments of SWFs.

Finally, SWFs are not the only vehicle for sovereign investment abroad. Although SOEs have traditionally been operating exclusively in the domestic market, they have increasingly competed with private firms in the global market in recent decades. One may consider that SWF is a special form of SOE, thus the literature on the SOEs may inform us about the political determinants of SWF investment.

The contribution of this dissertation is threefold. First, the FDI literature pays little attention to the home country's government interest in shaping foreign investment. My theoretical argument highlights the important role of state ownership in foreign investment through SWFs. Second, unlike the allocation of foreign aid that largely reflects the foreign policy goals of the greater powers, SWF investment offers an excellent opportunity to investigate the potential financial impact of developing countries. Third, the existing literature finds that state-owned MNEs differ from their private counterparts with respect to objectives, institutional pressures by the host countries, and investment strategies. These differences are used to draw an inference about political influence of state ownership. In this dissertation, I will explicitly model the political factors to examine the underlying mechanisms through which state ownership shapes SWFs' investment behavior.

In what follows, I first survey the existing literature on SWFs in order to identify key arguments that have been put forth by various scholars. Considering that foreign

investment by SWFs is one type of FDI, I discuss the key political determinants of FDI identified in the literature. Notably one significant difference in this study from the research on FDI is that I highlight the role of state ownership in SWF's investment behavior. As a result, I survey theories from the foreign aid and SOE literature. Specifically, I demonstrate that while the earlier studies on SOEs may shed light on SWFs, one requires a specific theory to understand the overseas investment of SWFs.

### **Current Research on SWFs: What Has Been Done?**

There is a small but growing body of literature that studies SWF's investment behavior; the majority of this literature is motivated by the question of whether SWFs are politically driven. Overall, we can distinguish three broad strands of research approach that examine the non-commercial objectives of SWFs: (1) the investigation of SWF objectives by exploring their target selection (2) the impact of SWF investment on target firms' performance, and (3) the political determinants of SWF investment. The existing studies have primarily focused on the first two approaches.

By and large, scholars in finance and international business research are interested in investigating SWFs' target selection. Scholars compare the firm (Avendano and Santiso, 2009; Kotter and LeI, 2011), industry (Dyck and Morse, 2011) and host country (Chhaochharia and Laeven, 2008) characteristics of SWF targeting firms with those of other institutional investors (e.g., mutual funds, pension funds, and other government acquirers). The rationale is that if SWF investment behaviors do not resemble that of private investors, SWF investment decisions may be driven by some noncommercial objectives.

Yet these studies of target selection offer contradicting conclusions. By analyzing international holdings of 20 SWFs in public traded firms in 58 countries over the period of 2002-2007, Fernades (2009) evaluates the effects of country and firm characteristics on the probability of being chosen by an SWF. His study refutes the suspicion that SWFs might aim to import corporate intelligence to their home countries, because he finds that SWFs do not have a particular preference for high-tech firms (as proxied by the ratio of R&D to assets). Chhaochharia and Laeven (2009), on the other hand, claim that SWFs may have non-financial motives. Based on their newly collected data on public equity investments by SWFs during 1996-2008, they find that SWFs invest disproportionately in oil companies and financially constrained firms. They suggest that these investments in strategic industries are driven by non-financial motives.

I argue that explanations of the mechanisms underlying this connection remain unclear. As I show in Chapter 5, not all SWF investments in the energy industry are politically driven. SWFs from energy-poor countries invest in this industry to pursue energy security for the home country. By contrast, SWFs from energy-rich countries may have more cumulative knowledge and experience about the oil industry than other new business domains and thus make it more profitable to invest in foreign oil companies; this has nothing to do with political objectives. Moreover, if SWFs aim to increase the wealth of future generations and to improve the efficiency of global asset allocation, SWFs should have invested in better performing firms. But there are chances that SWFs are either just not good at picking winners or they are long-term investors (Knill, Lee and Mauck, 2012). Furthermore, Chhaochharia and Laeven(2009) ignore the

diversity of SWFs by using public pension funds as a single benchmark. Although it is appropriate to compare Government Pension Fund of Norway with public pension funds, but less so for other SWFs such as Khazanah, Mubadala, and Temasek, which behave more like private equity funds (Castelli and Scacciavillani, 2012).

The second research approach focuses on examining the impact of SWF investment on target performance. Scholars either investigate the impact on operational measures of performance, such as ROA (return on assets), ROE (return on equity), net profit margin (Fernades, 2009), or perform an event study on the market reaction to SWF announcements (Chhaochharia and Laeven, 2009; Dewenter et al., 2010; Fotak et al., 2008; Kotter and Lel, 2008). The logic of this approach is that SWF investments undermine firm performance because they are at least partially driven by some non-commercial objectives. However, the findings in this line of research remain inconclusive. The studies investigating SWFs' impact on operational measures of performance contend that SWF ownership is positively valued by the market (Fernades, 2009). However, scholars employing event study posit that SWF investments have a positive effect on target firms' stock prices in the short-run (around the announcement date) but have generated ambiguous results on firm performance in the medium-term to long-run. Meanwhile, Bortolotti et al. (2010) identify a negative effect of SWF investment on firm performance, and Kotter and Lel (2009) find no substantial impact. While these findings clearly have some relevance for understanding SWFs, it is not the target performance that concerns the recipient governments the most, but the political motivations of the SWF's home country.



Kotter and Lel (2011) extend this line of research, and they develop an explanation linking SWF motives with their transparency. They argue that SWFs with non-commercial objectives are more likely to be opaque in order to conceal information about their investment activities. By investigating the acquisitions of public and private targets by SWFs over the period of 1984-2009, Kotter and Lel (2011) find that the market participants react favorably to investment by transparent SWFs, suggesting that they consider transparent SWFs as profit-oriented investors. Undoubtedly the positive impact of SWF transparency on the market reaction supports that SWFs should increase their disclosure standards. Nevertheless, the fact that investments by opaque SWFs are less welcomed by market participants is one thing; whether those investments are driven by any political motives is another. In other words, market participants may have completely different concerns than do recipient governments.

Mostly due to the lack of direct examination about the causal direction in these two approaches, the objectives of SWF investment remain unclear. As a consequence, some scholars start to shift their attention to directly examine the political determinants of SWF investment, both at domestic and international levels, as the third approach. Berstein et al. (2013) show that at the domestic level, the involvement of politicians in SWFs provides an explanation for the propensity of SWFs to invest domestically. In an analysis of investments in public firms by 29 SWFs between 1984 and 2007, Berstein et al. (2013) find that SWFs in which politicians are involved are more likely to invest in domestic assets. However, they cannot conclude whether such home bias is poor investment choice or whether the investments are “distorted by political or agency

considerations.” Both interpretations are possible and have been illustrated by cases in other studies. For instance, Le Borgne and Medas (2008) demonstrate the poor performance of SWFs in the Pacific island countries due to their weak public financial management systems and lack of spending controls. Shih (2009) shows that the investment decisions of China’s SWFs are affected by domestic political infighting. Regardless of which interpretation holds, neither can justify the validity of potential policy concerns by recipient countries. If it is the former case, the lack of financial knowledge and experience may prevent SWF countries from intentionally doing any harm by using such an “economic weapon”. If it is the latter case, the leaders in SWF countries may be overwhelmed by domestic considerations, which give more weight to social welfare or political returns instead of any geopolitical agenda.

At the international level, Knill, Lee and Mauck (2012) suggest that political relations between a SWF sponsoring country and recipient country is a significant determinant of SWF investment for the over SWF 900 acquisitions of public and private targets considered. Specifically, they find that SWFs tend to invest in countries with which they have weaker bilateral relations. These results contrast with the international trade/FDI and bilateral relations literature. They interpret the results as an indication of at least partially non-commercial motives in SWF investment decisions.

These empirical results are clearly mixed, though some of the variations can be explained by the differences in time periods, SWFs, and investment types as well as by differences in the operationalization of the dependent and independent variables. A most widely used empirical approach is to estimate the likelihood that a fund will target a

specific firm using a logit model or other discrete choice model (e.g., Kotter and Lel, 2009; Fernandes, 2009).

This dissertation contributes to the SWF literature in several ways. First, I argue that it is important to revisit the fundamental research question in the studies of SWF. The current debate about SWFs is whether they are politically motivated. However, testing an individual's motivation is empirically difficult because the motivations leading to the investment decision are inherently hard to observe. More importantly, focusing on whether SWFs are politically motivated overlooks the fact that the host country can react strategically to politically motivated SWFs. Even when SWFs pursue strategic interests on behalf of the home country, the host government will not watch idly while SWFs exert undue influences, as the host governments will ensure that their national security concerns are addressed. Consequently, we should understand the role of state ownership on SWF investment by considering it as an interaction between the SWFs and host governments. In particular, we should examine how state ownership creates additional barriers to entry for SWFs and the consequent responses from SWFs.

Second, I analyze the direct investment of SWFs, while most studies focus on equity investment by SWFs. Some SWFs invest indirectly through equity investment. For instance, the Government Pension Fund of Norway allocates the majority of its wealth into thousands of pension and investment funds operating across global capital markets. In this case, their activities in global capital markets are almost "invisible" so that their asset management activities have never raised any political concern in Western countries. In contrast, other SWFs such as Abu Dhabi Investment Authority (ADIA),

China Investment Corporation (CIC), Kuwait Investment Authority (KIA) and Government of Singapore Investment Corporation (GIC) make direct investments in both domestic and foreign firms. They are considered to be more aggressive in their asset allocation; therefore, these investments most often attract attention from media and generate suspicion from the Western political world (Castelli and Scacciavillani, 2012:82). I argue that the direct investments of SWFs are more likely than other types of investment to be associated with political motivations. If one does not find evidence of the impact of geopolitical factors in these investments, the suspicion that SWFs can act politically could be unfounded.

Third, I explicitly analyze and model bilateral political relations in my study. Although there is plenty of finance literature examining factors that render a target firm attractive to SWF investment, bilateral political relations have only been marginally analyzed in this context. Most studies concentrate on macroeconomic factors and deal-specific factors.

The exception to this is Knill, Lee and Mauck (2012), as noted earlier. Though similar in their works on examining the effect of bilateral political relations on SWF transactions for public and private acquisitions, my study in Chapter 4 differs in terms of the empirical strategy. First, Knill et al. (2012) employ the similarity of UN voting records as a proxy for political relations by assuming that countries with dissimilar voting patterns in the UN have conflicting political interests. However, as Kastner (2007) notes, one obvious caveat of using this measure is that any particular vote in the UN may or may not concern issues about which home and host countries seriously care.

In Chapter 4, I will explore various measures of bilateral relations. The most commonly used measures include both hostile relations (such as militarized interstate disputes, economic sanctions, transnational terrorist incidents) and supportive relations (such as foreign aid, trade ties, foreign investment, alliances, similarity of voting patterns in the United Nations General Assembly). Some scholars also use events data such as Global Data on Events, Location, and Tone (GDELT), Conflict and Peace Data Bank (COPDAB), World Events Interaction Survey (WEIS), which code daily interactions between states on an intensity scale ranging from most conflictual to most supportive (e.g., Thyne, 2006). While these political events may be less costly and stable than the commonly used indicators, the former can be found in numerous anecdotes in the media and are more visible and well-advertised to foreign investors. Thus, the effect of daily political events on cross-border M&A deals may be as strong as that of the commonly used indicators, or even stronger. Second, Knill et al. (2012) conduct country-level analysis instead of transaction level, using either the dollar amount or the number of SWF investment in a given country in a given year as a dependent variable. Thus, they are unable to control for much unobserved heterogeneity across industries, funds, and years.

Finally, it is important evaluate the heterogeneity among SWFs when considering their behaviors and impacts. I provide a detailed analysis of SWFs investment in the energy industry in order to understand by example the heterogeneity within SWF groups. As I will show in Chapter 5, the energy industry is politically sensitive only for SWFs from a particular type of country.

In sum, this dissertation addresses several shortcomings in the current understanding of SWF investments outlined above and provides new evidence on the objectives of SWF investment. In particular, I contribute to the literature by shifting the debate to a more appropriate question, focusing on the acquisition investment of SWFs, assessing various alternative measures of political relations, and investigating the heterogeneity within SWF groups.

### **FDI Determinants: The Big Picture**

Before turning to more detailed analysis of SWF investments, it is important to demonstrate how my dissertation fits into the larger picture. Due to state ownership, SWFs may be directed to pursue government objectives, rendering their investment decisions subject to political influence. The literature on FDI has offered three explanations of the political determinants of foreign investment that may shed light on SWF studies.

In the first account, the location choice of foreign investment has been attributed to the political institutions of the host country (Oneal 1994; Henisz 2000; Jensen 2003, 2006; Li and Resnick 2003; Li 2006). Some scholars claim that authoritarian regimes promote a stable investment environment and attract FDI because they are less subject to policy uncertainty that results from electoral cycles (Huntington 1968; Oneal 1994; Tuman and Emmert 2004). At the same time, autocratic countries may offer more tax incentives to foreign investors and impose fewer restrictive regulations (Li and Resnick 2003). Alternatively, others believe that democratic institutions attract FDI as they are more likely to reduce political risks for foreign investors and protect property rights

(Jensen, 2003, 2006; Biglaiser and Danis, 2002; Li and Resnick, 2003). It is worth noting that the theoretical debate on the relationship between regime type and FDI has not been resolved by empirical research because the empirical studies generate contradictory results (e.g., Li and Resnick, 2003; Choi, 2009; Jensen, 2003; Li, 2009; Harms and Ursprung, 2002; Busse, 2004).

The second explanation, in part overlapping with the first one, emphasizes political stability in the host country. Scholars argue that political instability in the host country has a negative effect on FDI flows (Schneider and Frey, 1985), albeit with mixed empirical results (Woodward and Rolfe, 1993; Olibe and Crumbley, 1997; Sethi et al., 2003). Globerman and Shapiro (2003) find that political instability does not influence the probability of whether a country receives any FDI inflow, but reduces the amount of FDI inflow a country receives.

The political environment of a host country is common to all of its potential foreign investors. If democratic regime and political stability can explain the investment flows alone, then one cannot explain why a host country is attractive to foreign investors from one country but not from others. Therefore, FDI should also depend on political factors that are dyad-specific. By stressing bilateral relations between the home and host countries, the third theoretical account in FDI literature supplies a more convincing explanation for the political determinants of FDI. The mainstream of international political economy literature suggests that friendly bilateral relations between states promote FDI. From the perspective of the home and host governments, interstate military conflict may lead to policy changes that decrease bilateral investment due to

security externalities (Li and Vashchilko, 2010). From the perspective of economic actors, investors consider economic dealings with counterparts from rival countries riskier and thus preemptively avoid investment in countries with conflicting interests.

However, the empirical evidence on this account remains inconclusive. Some studies find a positive relationship between political relations and economic relations in general (Biglaiser and DeRouen, 2007), while others find it only within certain dyads (Li and Vashchilko, 2010) or certain types of investment (Li, 2006). Although extant research in FDI provides important insights, this literature has failed to provide a reasonable answer to at least three main issues. First, previous studies often begin with a premise that host countries attempt to attract FDI. Drawn from their findings, scholars make suggestions on how to improve the attractiveness of host countries, such as democratization or improving property rights protection. This is partly because most host countries that they have examined are emerging and developing countries, which heavily depend on foreign capital and investment for economic growth. Nevertheless, outward FDI from the developing countries such as China and India has rapidly increased in the last few decades. This new phenomenon not only casts doubts on the generalizability of previous findings, but also raises important questions regarding their investment strategies and motivations, especially when investors from developing countries undertake investments in developed countries.

Second, most studies in the FDI literature generally concentrate on overall flows without distinguishing among different types of FDI. Firms can invest abroad in either the form of greenfield investment or mergers and acquisitions (M&A), and the majority



of aggregate FDI flows are created in the latter form (Kang and Johansson, 2000; Chen and Findlay, 2002). However, few studies in the IPE literature have examined the political determinants of cross-border M&A. In this respect, previous findings on FDI may be biased to some extent. For example, Davis and Meunier (2011) show that political shocks between states do not undermine trade or investment flows, in part because sunk costs reduce incentives for state and private actors to link political and economic relations. However, it is unclear whether it is because investors are constrained by sunk costs or because the political tensions between states are not too intense to change their investment behavior. M&A investment does not require investors to build a new establishment as greenfield investment does, implying a lower level of sunk costs. Consequently, examining M&A investment will facilitate a better understanding of how diplomatic climate between states influence FDI.

Finally, most studies assume that multinationals invest abroad by exploiting their ownership-specific and internalization advantages and secure higher returns (Dunning, 1998; Li and Resnick, 2003; Jensen, 2003). This study challenges this assumption by taking into account other objectives in investment decisions. In addition to pursuing profits, multinationals, especially those with state ownership, may undertake foreign investment for non-economic objectives. In this regard, foreign aid offered by the official government may be more relevant to the present study, because foreign aid serves as an instrument to engage other nations in pursuit of foreign policy goals. Since SWFs may also be directed to pursue those foreign policy goals, the following section briefly reviews the political economy of foreign aid allocation.

## **Political Economy of Foreign Aid**

The previous literature on foreign aid concludes that donors have four main considerations in their foreign aid allocation decision, namely (1) development concerns, (2) commercial importance, (3) strategic importance, and (4) ideological concerns. First, considerable debate focuses on the impact of foreign aid on economic growth. In his seminal work, Boone (1996) finds that foreign aid finances consumption rather than investment, although the foreign aid that can more efficiently promote the society-wide development would come from aid financing investment. Hansen and Tarp (2000) offer an extensive review of this debate and conclude that foreign aid can promote growth in developing countries.

Second, existing studies demonstrate that donor countries' motivation for providing aid also arises from their commercial interest in securing trade benefits. Scholars stress that a higher level of total exports of donor countries to the recipient countries results in greater aid allocation (Dudley and Montmarquette 1976; Neumayer 2003). Younas (2008) goes further and claims that OECD countries allocate more aid to recipient countries who import goods in which donor countries have a comparative advantage in production.

Third, strategic motives behind foreign aid have been identified in the previous paper. While there is general agreement that donors rarely give aid without strategic considerations (Easterly 2006; Moyo 2009), the measurement of "strategic interest" varies from study to study. Previous research has found that foreign aid receipts are positively related to arms imports (Maizels and Nissanke 1984; Hess 1989), similarity of

voting patterns with the donors in the general assembly of the United Nations (Dreher and Jensen, 2003), Security Council membership (Kuziemko and Werker, 2006), former colonial ties (Alesina and Dollar, 2000), etc. These strategic interests are also discussed in the cross-border investments of SWFs. Just as donors may provide foreign aid for geopolitical reasons, there is a great concern about the role of politics in investment decisions of SWFs. Thus in this dissertation I consider some types of “strategic interest” employed in the foreign aid literature. Specifically, I consider the case of the energy industry in Chapter 5 because it allows us to investigate the heterogeneous motivations of SWFs from energy-poor and energy-rich countries.

Finally, foreign aid may also be driven by more than material interests. Studies investigate the impact of ideological values, such as democracy and human rights on aid allocation (Allison and Beschel, 1992; Clad and Stone, 1992; Deibel, 1993; Diamond 1992).

A survey of the foreign aid literature uncovers some important determinants of foreign economic policy. I advance this literature by expanding the analysis to other foreign policy behaviors, i.e., SWF investment. The allocation of foreign aid largely reflects the foreign policy goals of the greater powers, with most of the existing literature exclusively focusing on the U.S. foreign aid. The foreign investments of SWFs provide scholars of international relations with a unique opportunity to evaluate the potential financial influence of the developing countries. While in certain respects the foreign aid theories can be readily applied to the cross-border investment of SWFs, there are inevitable gaps. For instance, given the fact that most SWFs are established by

developing countries with less political power, the motivation of promoting ideological values is unlikely, at least in the short term, and is not explicitly considered in the present study. Consequently, this dissertation generates some implications for what to expect from current SWF investments in the era of global capitalism.

### **Insights from the SOE Literature**

It should be noted that SWFs are not the only financial vehicle that countries use to invest abroad. SOE is another way through which countries undertake foreign investments. Like SWFs, SOEs are subject to significant influence by home country's government, serving national interests or those of ruling elites. Their participation in the private market looks substantially like those of SWFs. Particularly when engaging in investment activities abroad, both SOEs and SWFs raise concerns about whether such investment is driven by commercial or political objectives, which leads to rising protectionist policies. Given these similarities between SOEs and SWFs, does the SOE literature offer any useful insights in the current investigation on SWFs? In other words, how does state ownership affect SOE investment abroad?

Previous scholarship focuses on investigating the political impact of state ownership from the perspectives of the home and host countries, respectively. From the home country's perspective, the home government may encourage SOEs to engage in foreign investment for non-economic objectives. Those objectives include seeking new markets, obtaining technology, securing resources, promoting foreign policy goals and exporting social policies to host countries (Vernon 1984, Anastassopoulos, Blanc et al. 1987).

From the host country's perspective, the non-economic objectives of SOEs are often considered as detrimental to the host country (Globerman and Shapiro, 2009). As a consequence, SOEs face a higher level of institutional pressures by the host country than do private enterprises (Chen and Young, 2010; Globerman and Shapiro, 2009; Nyland, Forbes-Mewett, and Thomson, 2011; Sauvant, 2010). As a result, institutional pressures eventually induce SOEs to make extra efforts to gain local legitimacy. Cui and Jiang (2012) support this view in their investigation of Chinese outward FDI projects during 2000-2006. They find that the effects of host institutional pressures on a firm to choose a joint ownership structure are stronger when the share of equity held by state entities in the firm is high.

As a result, these incompatibilities between home country's strategic interests and host country's resistance largely affect the cross-border investment by SOEs (Gordon and Tash, 2009; Kowalski et al., 2013; Shapiro and Globerman, 2012). Research has shown that indeed SOEs' FDI patterns differ from those of private firms from the same home country, with respect to investment location (Knutsen et al, 2011, Duanmu et al, 2014), size (Wang et al, 2013), entry mode (Meyer et al, 2014), and level of ownership of subsidiaries (Pan et al, 2014). These studies mostly rely on the experience of a single country – China<sup>1</sup> – and their generalizability is unknown.

Moreover, these differences can be a result of several factors. Besides political objectives of state ownership, these differences may be due to inefficient choice of targets by SOEs (Megginson and Netter, 2001) or differences in management

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<sup>1</sup> The only exception is Knutsen, Rygh and Hveem (2011).

capabilities brought by the investing firm to the target. Thus, one should explicitly model the political influences rather than drawing inferences from differences between SWF investment and private investment.

Despite these limitations, do the theories on SOEs apply to SWFs? Do we need a special theory for SWFs? Although many of the characteristics of SOEs and SWFs are similar, a number of differences are notable; thus, SOE theories may not hold for SWFs for the following reasons. First, paying attention to objectives and investment portfolio illuminates critical differences between SWFs and SOEs. Because SWFs are commonly funded by the transfer of foreign exchange assets or oil revenue, they are set up to pursue broader objectives than SOEs. These objectives include diversifying and improving the return on exchange reserves or oil revenue, shielding the domestic economy from commodity price fluctuations, accumulating savings for future generations or other unspecified objectives. In contrast, the SOE is held by the central or local government and is funded by the government grants and corporate profits. SOEs are often driven by industrial/regional policy and/or the supply of public goods (often in utilities and infrastructure). For example, SOEs in China have been seen as maintaining employment in order to reduce social tensions that might arise through massive layoffs of workers. However, it is unlikely that the Chinese government would make employment preservation a goal of SWFs investing abroad.

Finally and most importantly, unlike SOEs, SWFs are purely investment vehicles and not operating enterprises. They typically do not expand abroad on their experience operating at home. Nor can they build firm-level capabilities to be exploited in foreign

markets. Thus, if one identifies any differences in sensitivity of SWFs and private investors to geopolitical factors, it is unlikely that the differences are related to operational capabilities. Consequently, comparing SWF foreign investment behavior to that of private investors allows us to identify more clearly the effects of state ownership.

### **Conclusions**

To summarize, current scholarship on SWFs has not systematically looked at the potential political determinants of SWF investment. At best, we have partial answers to the question. Furthermore, I contend that scholars should shift their attention from focusing on whether SWFs have political motivation to the question of how the nature of state ownership affects SWF investment and their interaction with host countries.

Meanwhile, current literature on FDI finds that the political regime, political stability, and bilateral relations between the home and host countries are important when MNEs make investment decisions. However, it fails to consider the role of state ownership in shaping the foreign investment behavior. Foreign aid literature informs us that the state can employ foreign economic policy to serve the development, commercial, strategic and ideological objectives. These objectives reflect the foreign policy goals of the great powers such as the United States, but may not be generalizable to that of developing countries. Finally, prior research on the internationalization of SOEs argues that the incompatibilities of home country's strategic interests and host country's institutional pressure make the cross-border investments by SOEs different from their private counterparts. Nevertheless, the effect of state ownership on such difference may be confounded by different operational capabilities in SOEs and POEs. Unlike SOEs, SWFs

are purely investors and not operating entities. Thus, comparing SWFs and private investors allows us to identify the effects of state ownership more clearly. With these insights, it is now possible to move on to a new theory of SWFs.



## CHAPTER III

### A PRIMER ON SWF INVESTMENT

In the previous chapter I reviewed the recent scholarships on SWFs. One limitation of these studies is that they fail to explain the micro-level mechanism underlying SWF investment, in part because these studies are based on data at the country level.

Investigating deal-level data advances our understanding of SWF investment because it allows us to account for heterogeneity in the individual transactions. For instance, the negotiations over investments vary considerably from deal to deal. The individual transactions that SWFs engage in are situated in complex circumstances derived from the involved parties' technological and organizational skills, global experience, industries, entry mode, institutional environment as well as diplomatic climate during the transaction period. Hence, using country-level analysis fails to explain a large portion of the variation in individual transactions. Moreover, a recent development in the field of IPE has emphasized moving from country-level data to individual- and firm-level data. Scholars have generated micro-level evidence to understand corruption (Jensen et al., 2010), political risks (Jensen, 2007), property rights (Weymouth and Broz, 2013) and other IPE issues.

This dissertation follows this new development by investigating the political determinants of SWF investment through the lens of deal-level data. In what follows, I briefly discuss the deal-level data of SWF investments that I have collected, and

summarize the basic statistics concerning the characteristics and recent growth of SWF investments based on this newly collected dataset.

My dataset has several important features. First, distinct from most studies on equity investment by SWFs (e.g., Fotak et al, 2008; Fernandes 2009), my dataset contains the direct investments of SWFs. As discussed in Chapter 2, equity investments in global capital markets such as those by Norway's SWF are almost "invisible" so that their asset management activities have never raised any political concern in Western countries. In contrast, other SWFs focused on direct investment in either domestic or foreign markets are considered to be more aggressive in their asset allocation. These SWFs claim that commercial motivation is primarily responsible for their choices of direct investment instead of equity investment. That is, they attempt to avoid investment expenses to private-equity firms, which typically charge 2% on assets and take 20% of any profit (*Wall Street Journal*, 2014). However, financial analysts argue that these investments are more likely to be associated with political motivations than other types of investment (Castelli and Scacciavillani, 2012:82). Hence, the analysis of direct investment deals allows me to investigate the role of geopolitical factors, if such a role exists, in these investments.

Second, my dataset also includes acquisition deals by private investors. Most of the SWF studies in the finance literature examine governance features, investment patterns and financial impact of SWFs without using other wealth managers as a benchmark. In doing so, these studies provide stylized facts about SWF investments, which are interesting and important for an academic financial audience. Nevertheless,

we cannot go beyond these stylized facts and suggest whether SWFs pursue non-commercial objectives by adopting this research design. A benchmark investor is essential when exploring the objectives of SWF investments—one should expect that SWF investment decisions diverge from those of benchmark investors if SWF investments have political motives.

Unfortunately, there is no consensus on what constitutes the benchmark investor when studying the investment profile of SWFs. Some studies look at other large institutional investors, such as hedge funds, mutual funds, or pension funds (Avendano and Santiso 2009). There are some similarities between SWFs and these classes of investors. For instance, SWFs are similar to hedge funds in that both are stand-alone, unregulated pools of capital to purchase large ownership stakes in foreign companies (Bortolotti et al. 2010). SWFs resemble pension funds in respect to long-term investment horizons and preference for diversifying across multiple investment categories. However, important differences remain between SWFs and these investors, such as objectives, funding sources, and regulations. More specifically, unlike mutual and pension funds, SWFs represent foreign government assets with no specific liabilities to be paid to shareholders (Kotter and LeI 2008). SWFs also differ from hedge funds in that the former uses little leverage.<sup>2</sup> Since the focus of this dissertation is how state ownership affects SWF investment overseas, I use private investors as a broad

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<sup>2</sup> Leverage is the degree to which an investor or business is utilizing borrowed money. On the one hand, companies that are highly leveraged may be at risk of bankruptcy or unable to find new lenders in the future. On the other hand, leverage can increase the shareholders' return on investment and often there are tax advantages associated with borrowing.

benchmark. To that end, I have also collected data on cross-border acquisitions both by SWFs and private investors.

It is important to collect data on SWF acquisitions from multiple sources. Similar to other studies (Bortolotti et al., 2009; Bernstein et al., 2013), I collected the acquisition data by SWFs from a number of financial databases. For example, Hartmann (2005), after searching for a number of deals from several transaction data sources, find that a significant number of deals could be missed if a single data source is used. Those missing deals are generally either small or undisclosed. In addition, SWFs may also have incentives to hide information on purchases of foreign strategic assets; therefore collecting data from multiple sources is necessary.

In sum, an analysis of SWF acquisitions requires a more comprehensive data collection, including information on acquisitions both by SWFs and by private investors. To assess the objectives of SWF investment, I also investigate the role of joint investment.

Proceeding from here, I first discuss the data sources from which I collected information on the cross-border acquisitions and detail the construction of the SWF acquisition data used in this dissertation. I then present statistics on sample selection and the characteristics of SWF acquisitions. To illustrate the evolution of SWF acquisitions over time and across countries, I describe their temporal variation and geographic distribution. I also provide some evidence on joint investment. The final section provides conclusions.

## **Data Sources and Construction**

In order to get a complete picture of SWF acquisitions, I combined the cross-border acquisitions from three financial databases, namely Thomson Reuters SDC Platinum, BvD's Zephyr, and Standard & Poor's Capital IQ. Each data source has its own advantages and disadvantages, but they complement each other in order to obtain a complete picture of SWF investments. For example, SDC offers the longest M&A data since 1980 and is the industry standard used by investment banks, law firms, and media outlets around the world. However, because it covers only larger transactions and a higher proportion of publicly-listed targets, using this source exclusively would introduce a sample selection bias. By contrast, Zephyr, with no minimum deal value for a transaction to be included, covers deals of smaller value than SDC. Furthermore, Zephyr contains a direct link, via the BvD identification number in Orbis, to each firm's ownership information. This could facilitate identifying the foreign investments of SWFs through their majority-owned subsidiaries. Finally, Capital IQ claims that it offers more accurate and timely data than other data sources. I also use it to further extend and produce more coverage of SWF investments.

### **Data Collection Procedure**

My data collection followed a three-step procedure. As a first step, I collected acquisition data in all the countries by searching the SDC Platinum database with a positive value for the data point "Buyside Sovereign Wealth Fund Involvement Flag". A number of data items were collected, including the announcement date, transaction value, percentage of shares acquired, the target's and the acquirer's names, their industry

sectors, countries of domicile, SWF involvement flag, as well as SWF name and role.<sup>3</sup> As shown in Table 2, I ranked the acquirer countries by the number of SWF acquisitions, and concentrated on the top ten active SWF countries that have at least 10 cross-border acquisitions by SWFs. As shown in column (4), this captures 96.85 percent of the SWF transactions. Those with fewer acquisitions are not considered because otherwise it is hard to compare SWF with private investors from the same home country.

SWFs often invest through a myriad of subsidiaries. For example, China's State Administration of Foreign Exchange (SAFE) invests in foreign equities mainly through its Hong Kong-based subsidiary SAFE Investment Company (Chhaochharia and Laeven 2009). Thus in my second step, I used the Sovereign Wealth Fund Institute (SWFI) list of SWFs and gathered all ownership information for these funds from Bureau van Dijk's Orbis database to identify the subsidiaries of SWFs. Then I obtained cross-border acquisition data by SWFs and their majority-owned subsidiaries (in which SWF has at least a 50% ownership stake) from Zephyr and Capital IQ database.

Thirdly, I combined the transaction data from the three data sources (SDC, Zephyr, and Capital IQ) and deleted the duplicate observations. Because no universal transaction identification codes exist among various data sources, and some deal variables (such as the announcement date, target's and acquirer's names) are recorded differently in these data sources even for the same transaction, I identified the duplicate observations using the keywords: announcement year, month, the target's country code, and its primary SIC codes, and then manually checked for accuracy.

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<sup>3</sup> The role of SWFs in most cases includes acquirer and its immediate, intermediate, or ultimate parent. In some cases, the SWF also plays a role on the target side.

Since I am interested in the role of bilateral political factors in SWF investment decisions, I only considered cross-border deals. I applied a number of filters commonly used in the M&A literature (Gaspar, Massa et al. 2005, Betton, Eckbo et al. 2008). If SWFs invest in foreign firms for reasons of political “blackmail” or espionage, it would be plausible to suspect that these objectives should be more evident in large transactions. Accordingly, attention should be primarily focused on large transactions in assessing SWFs’ potential political objectives.<sup>4</sup> More specifically, I excluded acquisitions with total assets of less than US\$10 million and the fractional stake in the target less than 5 percent, which cutoffs are commonly used in M&A literature (e.g., Ben-Amar and Andre 2006; Yen and Andre, 2007). Furthermore, since divestitures,<sup>5</sup> spin-offs,<sup>6</sup> repurchases,<sup>7</sup> and self-tenders<sup>8</sup> often undertake different considerations from acquisitions, these types of restructuring activities were excluded. Targets from tax havens such as British Virgin Islands and Cayman Islands were also excluded. The final dataset covers 7142 acquisitions (both SWF and private investments) in 145 target countries from 10 SWF acquirer countries and 26 non-SWF countries over the period of 1981-2012.<sup>9</sup>

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<sup>4</sup> This is not inconsistent with the earlier justification of the use of various data sources because some deals with a market value of slightly over US\$10 million may be excluded in SDC but not in Zephyr.

<sup>5</sup> Divestiture means the partial or full disposal of a business unit through sale, exchange, closure or bankruptcy.

<sup>6</sup> Spin-off means divisions of companies that then become independent businesses with assets, employees, intellectual property, technology, or existing products that are taken from the parent company.

<sup>7</sup> Repurchase means that a company buys back its own shares from the marketplace, reducing the number of outstanding shares.

<sup>8</sup> Self-tender means that a company buys back its own shares through a tender offer for a price well above fair market value.

<sup>9</sup> Since SWFs sometimes invest with private investors in non-SWF countries, the 26 non-SWF acquirer countries are included.

While the dataset offers a unique SWF acquisition data, two limitations in constructing the dataset should be noted. The first limitation is that I collected SWF deals from SDC, Zephyr, and Capital IQ, yet only rely on SDC for non-SWF deals (see Table 3) because applying the above mentioned steps on a much larger number of private acquisitions would require heavy manual work.<sup>10</sup> Thus, I checked whether we can only rely on SDC for non-SWF deals. SDC is considered as the most comprehensive and widely used data source for M&A transactions. If a majority of the non-SWF deals in Zephyr and CIQ are covered in SDC, the sample selection bias may be acceptable. Otherwise, one may be concerned that acquisition investments by private investors are underrepresented. As it demands tremendous time and effort to test it for all the sample countries,<sup>11</sup> I assess it only in Singapore's case, which has the most number of acquisition transactions according to the SDC database. Before proceeding further, two points should be noted. First, while SDC covers data as early as 1981, when Singapore's SWF was established, I examine SDC data only from 1986 here in order to make it more comparable with Zephyr and Capital IQ databases. Second, in order to compare duplicate deals *across* data sources instead of *within* data sources, "duplicate" transactions with the same year, month, target country code, and target industry within the same data source are removed before comparing the duplicate deals across data sources.

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<sup>10</sup> Identifying the duplicate transactions in the three data sources is difficult because there is no common identifier among the various sources. Matching based on company's name is also not feasible for this large number of private acquisitions as there are different spellings, languages, abbreviations or even slight misspelling of the same company's name.

<sup>11</sup> To test it for all the sample countries, one needs to download and combine all the acquisition data from the three sources and delete the duplicate transactions.



Table 4 reports the results for Singapore's transactions. It shows that SDC database covers more than 80% of the private investment deals from Zephyr database (3,040 duplicate deals out of 3,836 for Singapore) and 70% from Capital IQ (519 out of 718 for Singapore). In addition, SDC covers a total of 7,992 cross-border private deals for Singapore, much larger than the 3,836 in Zephyr and the 718 in Capital IQ. Consequently, relying on SDC to measure private investment deals allows us to capture the majority of all the recorded private deals, at least in the case of Singapore. The size of the sample is large enough to be representative of the underlying population of cases.

Another concern regarding the dataset is the treatment of deals with multiple acquirers. 481 among 7142 acquisition deals (both SWF and private investments) are acquired by more than one investor, 168 of which involve at least one SWF. I treated those deals as separate ones, so the unit of analysis is deal-acquirer. The three data sources have various coding schemes when multiple acquirers are involved and this leads to missing values. Zephyr has the cleanest data with respect to multiple acquirers. However, I could not identify the acquirer names when there are multiple acquirers in SDC because the entries for acquirer names are coded as "investor group" in those cases. Furthermore, in Capital IQ with multiple acquirers, about a quarter of investors' nations (15 out of 64) and Standard Industrial Classification (SIC) codes (12 out of 64) are missing. Although the dataset is still far from perfect, to my knowledge, this dataset represents a major advancement of SWF acquisition dataset in the current literature.

## **Characteristics of Sample Countries**

The final sample consists of 7142 cross-border acquisition deals (622 acquired by SWFs and 6520 by private investors) from the following ten SWF countries: China, South Korea, Kuwait, Kazakhstan, Libya, Malaysia, Oman, Qatar, Singapore, and United Arab Emirates (UAE). The data are from SWF inception years for the respective sample countries through 2012. While Norway has the largest SWF in the world in terms of asset value, this country is not included because as noted earlier, Norwegian SWF allocates the majority of their assets into debt securities instead of M&A transactions.

These ten countries are ideal for a study of cross-border acquisitions by SWFs. Most of the sample countries are authoritarian regimes except for Malaysia and South Korea, with a democracy score less than six. Those authoritarian countries are good samples to test my research hypotheses. Given the nature of authoritarian regimes, dictators are, presumably, subject to fewer institutional constraints to exercise control over sovereign wealth for reasons of political positioning than political leaders in democratic regimes. Therefore, the influence of political factors is expected to be stronger in this sample than in democratic countries such as the United States. If one fails to find that political factors have an impact on SWF investment in this sample, it would be less plausible to suspect political objectives of SWFs.

Table 5 lists the target countries, ranking them from largest to smallest number of cross-border acquisitions by SWFs. It covers 145 target countries from 1981 to 2012. India leads the list with 217 deals, followed by the United States with 206 deals.

Table 6 reports descriptive statistics on the SWFs covered in my sample, including their names, country of origin, year of inception, estimated asset size, and source of funding, taken from SWF Institute (SWFI). While half of the SWFs in my sample obtain their funds from oil revenues, the other half obtain their funds from other sources, such as foreign exchange reserves. Oil-based funds are mostly located in the Middle East. 49 additional SWFs are listed in the SWFI yet not covered by my sample because they are small in terms of asset value under management, non-federal funds,<sup>12</sup> sovereign pension funds (SPFs),<sup>13</sup> or not actively engaged in cross-border acquisitions. The 17 SWFs of the sample manage \$3250.4 billion of assets in total, about 65 percent of the total assets owned by all SWFs.

## **Summary Statistics**

### **Temporal Evolution**

In order to present the characteristics of SWFs covered by my sample, this section provides some summary statistics. I begin with the temporal evolution because some scholars recognize the possible change over time in the SWF investments (Beck and Fidora 2009). While the first SWF was established in Kuwait in 1953, I begin my study from the early 1980s because SWFs became active only over the past decades. Figure 1 shows trends in cross-border acquisitions acquired by SWFs in the top ten countries by years. The pattern shows that SWFs began to invest abroad from the mid-

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<sup>12</sup> The non-federal funds such as Alaska Permanent Fund and Permanent Wyoming Mineral Trust Fund are excluded because the present study focuses on political determinants at national level such as bilateral political relations and institutional distance between the home and host countries, and not at individual state level.

<sup>13</sup> The SPFs such as Australia Future Fund and Canada Pension Funds are excluded because they typically have limited foreign investment assets, and they differ significantly in terms of governance structure because of the nature of the liabilities on their balance sheets (Aizenman and Glick 2008).

1980s. This is because most oil producing countries set up the first wave of SWFs after the increase in oil price in the 1970s and 1980s. The second wave of SWFs was set up in the wake of the Asian financial crisis in the late 1990s. Most emerging countries in East Asia shifted from debtors to creditors and held more foreign reserves than necessary. The consequence of this can be observed in the rapid increase in the number of cross-border acquisitions by SWFs from 2000 onward.

Table 7 presents summary statistics by year on the number and the cumulative value of cross-border acquisition deals involving at least a five percent stake in a target firm.<sup>14</sup> In Panel A, I report those associated with SWF acquirers and, in Panel B, those with private acquirers as a benchmark. In each panel, I present the total number of deals, the number of deals in which transaction values are reported, the average and cumulative deal value, the number of abandoned deals, those involving less than 10% of target shares, those involving more than 50% but less than 100% of target shares, and those involving buyouts of target firms. My overall sample across all years constitutes 7142 deals cumulatively totaling \$332 billion in value.

Four interesting findings stand out. First, as also demonstrated in Figure 1, Table 7 shows that a significant increase in SWF acquisitions occurred in 2007 and 2008, in terms of both deal number and cumulative deal value.<sup>15</sup> About 23% of all SWF acquisitions and 37% of the cumulative value were concentrated in those two years. Acquisition activity by private investors also increased during 2007-2008, but not as

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<sup>14</sup> This threshold is chosen because owners who possess more than five percent of the shares would have some degree of managerial control on the firm. Besides, there is no general disclosure requirement for shareholders that hold less than five percent of a company's equity.

<sup>15</sup> This justifies that year dummies in the empirical models are necessary.

rapidly in terms of the cumulative value of all deals (only 28%). This change is primarily because SWFs took stakes in large financial institutions during the beginning stages of the global financial crisis of 2007-2008. However, as bank stocks tumbled and the crisis further expanded, SWFs significantly reduced their investments (Jory, Perry et al. 2010).

Second, about 66% of the SWF deals (360 out of the total 546) report deal values, while such ratio for private investors is slightly lower at 62% (4107 out of 6533). Thus, there is no evidence that SWFs are substantially less transparent than private investors from the perspective of disclosing the deal values. Various factors can explain why the companies do not disclose deal value. It is probably because the deal value is too small to report, countries (usually the seller countries) have varying disclosure standards and regulatory requirements, or the parties to the transaction choose to not do so.

Third, comparing the deal values of acquisitions by SWFs with those by private investors in column (3) and (4), it is clear that the average deal value involving an SWF acquirer is similar to that of private investors (\$4 billion versus \$3 billion). However, the cumulative transaction values of SWF acquisitions are only one-third of that of private ones. This is not surprising as total SWF assets are relatively small compared with the more than \$50 trillion of funds managed by private investors (Beck and Fidora 2008).

Since many scholars and policymakers fear that SWFs are used strategically and politically to exercise significant influence over foreign firms, the fourth finding concerns how often an SWF seeks active control of a company. As regards the stake acquired in target companies listed in the last three columns of Table 7, SWFs are

passive investors. 61% of SWF deals involve more than 50% of a company's outstanding capital, while 88% of private deals do.<sup>16</sup> Equality testing of these proportions indicates that these proportions are not statistically significant. This provides further evidence to support the notion that SWFs are not more likely to exercise significant control over foreign firms than are private investors. In fact, some SWFs such as the Abu Dhabi Investment Authority have a stated policy to avoid majority stakes in foreign companies (Balin 2008). Additionally, both China and Russia have promised the U.S. Treasury that they would stay out of strategic purchases in the next five years (Lowery 2007).

Compared to private investors, SWFs' reluctance to control foreign firms either stems from regulatory restrictions of host countries or from the willingness of SWFs themselves, or from both. In other words, this may result from a number of regulations that prevent SWFs from acquiring control over U.S. firms (Rose 2008). An alternative explanation is that SWFs increase monitoring costs by other investors because SWFs might not hold purely commercial motives in the target firms. If these increased agency costs lower the share prices of target firms and if SWFs are purely commercially motivated, it would provide SWFs with the incentive to invest passively in order to reassure other investors of their passivity. Nevertheless, these increased agency costs would be less important for SWFs with political objectives if the political gains are weighted over economic loss. Note that not taking majority stakes does not mean that

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<sup>16</sup> This ratio is calculated based on the sample in which the information on percentage of shares acquired is available.

they are insignificant: at times, stakes of 6-7 percent are the largest ones in the company (Thatcher 2012).

### **Geographic Distribution**

Among the controversies about SWFs, one specific concern is that SWFs may predominately invest in certain countries to serve political objectives, thus posing a threat to national interests of host countries. Thus, I turn to the geographic distribution of SWF acquisitions. In Table 8, I report the deal number and deal values by acquirer country (Panel A) and by target country (Panel B).

On the one hand, some countries initiate more cross-border acquisitions through SWFs than others. The countries that have the most intensive cross-border M&A activity acquired by SWFs include Qatar (42% of deals among the ten SWF countries, 68% of deal value), Kazakhstan (36%, 15%), Libya (25%, 48%), United Arab Emirates (20%, 43%), and Singapore (8%, 47%). By raw cumulative deal value, however, Singapore leads the list with 291 deals and \$51 billion of deal activity, both statistics that far exceed any other country in the sample. Such domination can be explained by largely, though not exclusively, by the differences in fund sizes and the willingness to engage in direct investments. For example, the two Singapore funds, Temasek Holdings and the Government of Singapore Investment Corporation, spent \$15.7 billion in 2013, accounting for about a third of direct investments by state investors globally that year (Wille 2014).

On the other hand, the recipient countries of SWF investments are geographically diverse. As shown in Panel B of Table 8, the United States is the largest target market,

with 64 deals. Besides large industrialized economies, SWFs also allocate sizable assets in emerging markets. In terms of number of SWF deals, China is the largest target market (58 deal counts), followed by India (35).

### **Joint Investment**

It is important to stress that my data also include transactions involving multiple acquirers. In Table 9, I report the SWF acquirer countries ranked from highest to lowest fractions of joint acquisitions measured by cumulative deal value by acquirer country. The SWF acquirer countries in which joint acquisitions dominate SWF deals include South Korea (81% of deal value, 50% of deal counts), Kuwait (37%, 40%), and Libya (44%, 33%). More importantly, in terms of raw numbers, it also shows that a concentration of joint acquisitions occurs in Singapore (62 deals and \$128 billion). A closer look at the data shows that 28 of these joint acquisitions are in India, 15 in Indonesia, 15 in China, and 11 in the United States.

To further investigate the identity of partners who jointly invest with SWFs, Table 10 presents data on deals acquired by at least one SWF.<sup>17</sup> It shows that when participating in joint acquisitions, SWFs appear to have a preference for private firms as partners instead of other SWFs. One explanation for the greater proportion of joint acquisitions with private investors is that SWFs attempt to minimize political opposition by the host country by investing with private investors.

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<sup>17</sup> Notice that the number of joint acquisitions is fewer than that in Table 8, because this table only relied on Zephyr and Capital IQ databases. Information about who is the co-investor is unavailable in SDC, as co-investors are coded as “Investor Group”.



## Conclusion

In sum, a comparison of cross-border acquisitions by SWFs and private investors, which is summarized in Table 11, highlights several important characteristics of SWF acquisitions. Overall, SWFs appear to follow an investment strategy similar to that of private asset managers. Although there are great differences in number and value of acquisitions by SWFs and private investors, they have similar fractions of deals that disclose information regarding the transaction value.<sup>18</sup> However, these descriptive statistics are subject to over-simplification. Such similarity between SWFs and private investors may be inextricably linked to different political and macroeconomic determinants. In other words, the investment patterns of SWFs may be dictated by political and strategic considerations, which may have little to do with private investments. For instance, the observed nondisclosure behavior of SWFs and private investors may arise from different considerations. Whereas private investors may respond more to the economic and institutional variables (e.g., the host country's jurisdiction does not impose a disclosure obligation),<sup>19</sup> SWFs are probably constrained by the host country's political pressures when acquiring strategic assets and are thereby reluctant to disclose certain types of information. In this circumstance, the political factors do not contribute to the investment patterns of SWFs and private investors to the same extent, albeit with similar patterns observed. Hence, this raises a more interesting question: are SWFs and private investors equally sensitive to political factors? Further

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<sup>18</sup> The difference is not statistically significant.

<sup>19</sup> This is consistent with the institution-escape view in the international business literature that emphasizes the outward foreign direct investment as escape response from the home country institutions.

in-depth analysis with statistical tools in the next chapter will help test inside the “black box” and examine the political and economic determinants of SWF investments.

Moreover, although government ownership of SWFs makes their investment sensitive from a political perspective, my data suggests that SWFs appear to avoid controlling shares in the target firms and prefer joint acquisitions compared to private investors. It is not straightforward, however, to ascertain whether those strategies that SWFs utilize to stay out of the public limelight in host countries are a result of restrictive regulations of host countries or a choice of SWFs. This topic has important implications because if it is the former case, SWFs may exert influence behind the scenes. In order to answer this question, I will develop a theoretical framework of SWF investment by taking into account key political and institutional factors and will undertake various empirical analyses in the following chapters.

## CHAPTER IV

### THE EFFECT OF STATE OWNERSHIP ON SWF INVESTMENT

How does state ownership affect SWF investment abroad? Or, to put it differently, how does state ownership raise entry barriers and yield competitive advantages or disadvantages for SWFs? How do SWFs deal with additional entry barriers and take advantage of the opportunities provided by state ownership? In this chapter, I first address these questions in order to understand the ways in which state ownership influences SWFs' investment behavior. I then test my arguments based on the dataset of deal-level cross-border acquisitions by SWFs and private investors.

As Drezner (2008) noted, "SWFs sit at the intersection of high finance and high politics." The interplay of finance and politics induces SWFs to behave in at least two different ways. First, SWFs can be employed by the home government as an investment vehicle to pursue political goals. Recognizing this, host countries are often concerned that home countries may be using SWFs to further political or non-economic goals. These politically motivated investments may generate risks for the national security of the host countries. Therefore, host states are more cautious about SWF investment and impose more restrictions on SWFs compared to private investors, especially when they have survival concerns in an anarchical, self-help system especially when they feel that the home country is a threat to national security. Since the discrimination is higher against SWFs from potentially adversarial home countries, SWFs are more likely to engage in acquisition deals in host countries with which they have better bilateral relations. Furthermore, in order to alleviate the additional discrimination, SWFs may

also choose to invest in a foreign country with other investors. Consequently, I argue that partnering with other investors helps SWFs mitigate discrimination and increase their likelihood of acquisition success when competing with private investors.

The second way in which the interplay of finance and politics affects SWF behavior is that SWFs may seek economic gains through political leverage, thus giving SWFs a competitive advantage over private investors. Although both SWFs and private investors face risk and uncertainty when investing abroad, SWFs can tolerate a higher level of risk and uncertainty due to state ownership. This is because SWFs have “soft budget constraints”, little explicit liabilities, no clear principal to monitor their performance, as well as the need to pursue political interests at the expense of profits when necessary. One observable implication is that SWFs are less likely to be deterred by institutional distance between the home and host countries than private investors are when investing overseas, even when institutional distance increases risks and uncertainty.

To evaluate my arguments, I use an original dataset on SWF investments that I have constructed. As discussed in Chapter 3, this dataset has information on several important characteristics of SWF acquisitions. Using this newly collected dataset, I analyze the SWF acquisitions at the deal level from 1987 to 2012. I employ logit models to estimate the effects of bilateral relations, institutional distance and joint ventures on the observed cross-border acquisitions. My statistical analysis demonstrates that better bilateral political relations and greater institutional distance between the home and host countries increase the likelihood of cross-border acquisitions by SWFs relative to private

firms. Furthermore, my analysis suggests that SWFs are more likely to engage in joint ventures than are their private counterparts.

In what follows, I first investigate how discriminatory treatment by the host government results in greater additional costs for SWFs compared to private investors and how SWFs deal with the additional discriminatory treatment. Next, I consider how state ownership affects SWFs' ability and willingness to tolerate risks with regard to the uncertainties of foreign investments. I then discuss the definition and measurement of variables as well as the model specification. Finally I present the empirical results.

### **Discriminatory Treatment and SWF Investment**

The first effect of state ownership on SWF investment is with respect to the discriminatory treatment by host countries. Starting with Hymer (1976), scholars in international business have recognized that foreign firms face disadvantages compared to domestic firms when doing business abroad. Zaheer (1995) introduces the notion of LoF, defining it as additional costs faced by foreign firms but not by local firms. Many other studies (Delios and Henisz, 2000; Nagarajan, 2001) also recognize that due to political factors, host governments systematically discriminate against foreign investors and give preferential treatment to domestic firms.. As specific examples, Delios and Henisz (2000) find that governments are more likely to expropriate foreign firms compared to domestic ones, and Mezias (2002) points out that foreign subsidiaries face a significantly greater number of labor lawsuits in the United States than do domestic firms.

The underlying logic of this discriminatory treatment is derived from several fundamental premises in the international relations literature. First, international anarchy is the principal force shaping the motivations and behaviors of states (Waltz, 1959). States that operate in an anarchy system must be concerned first with survival before anything else. Second, because gains from economic exchanges between states can turn into military, security or other advantages, economic exchanges such as international trade can generate security externalities (Gowa, 1989). If improvement in military power occurs for one side in a pair of potential adversaries, a state concerned about its survival would be more cautious in its economic activities with its adversary (Kirshner, 1999; Gowa and Mansfield, 1993). It is clear, then, that states have incentives to use economic statecraft to reward friends and punish foes (Mastanduno, 1998; Skalmes, 2000). Host countries therefore tend to encourage trade and investments with political allies, for example granting subsidization of political-risk insurance (e.g., Overseas Private Investment Corporation in the United States) and access to capital (e.g. state banks in China). In addition, they often impose additional barriers and restrictions on trade and investment with political adversaries such as sanctions (Biglaiser and Lektzian 2011).

I contend that this logic also applies to SWF investments. If the gains from their economic exchanges are used for military ends, then gains to SWFs are much more likely to raise host country national security concerns than are gains to private investors. As government-controlled entities, SWFs have a reputation for lacking transparency, being susceptible to government influence, and pursuing national political objectives. Thus, SWFs under foreign state control are likely to face greater discrimination abroad

through political backlash and legal restrictions than are private foreign firms. Such discriminatory treatment is not only present in barriers prior to entry, but also occurs post entry. Due to state ownership, even a priori justified SWF investment may be discriminated by the host country. This post-entry discrimination may be in the form of expropriations, breaches of contract and discriminatory taxation that can negatively affect the expected returns of an investment.

Several host countries have explicitly expressed concerns over SWF investments. Hillary Clinton, as the U.S. Secretary of State, called for regulating SWFs (Badian and Harrington, 2009). The German government has announced that it would introduce measures that restrict SWF investments, especially if SWFs attempt to invest in strategic industries. French President Nicolas Sarkozy has claimed that he would protect French companies against possible takeover by SWFs (*The Economist*, 2008).

These discriminatory treatments faced by foreign investors are particularly salient when the home and host countries have adverse bilateral relations. For example, if the relationship between the home and host governments goes sour, the host country may be concerned that an SWF with direct ownership in a foreign firm would manipulate production or availability of scarce goods or resources for the benefit of its home market, or an SWF in control of strategically important industries would threaten the national security of the recipient country.

Thus, host governments are more likely to restrict SWF investments from potentially adversarial home countries than they are from allies. For example, when the management of six US ports fell into the hands of the UAE SWF-owned company DP

World (DPW) through a sale, various American politicians protested against it by arguing that it would compromise the United States' national security, and ultimately derailing the deal. Interestingly, the management of the same US ports had already been in foreign hands prior to the proposed deal – with a British firm Peninsular and Oriental Steam Navigation Company (P&O) operating them. In another good example, China National Offshore Oil Corporation (CNOOC), a Chinese state-owned company, had to drop its bid to buy an American oil company Unocal when facing mounting opposition from within the US Congress. These examples clearly demonstrate the negative impact that poor bilateral relations can have on SWFs foreign investments.

In comparison, private investors are discouraged by poor political relations to a lesser degree than are SWFs. On the investors' side, private firms lack incentives to link political and economic relations because they typically operate for profit maximization. In addition, sunk costs prevent them from changing investment patterns in response to fluctuating political tensions between the home and host countries (Davis and Meunier, 2011). On the host country's side, private investments can lead to more efficient economic outcomes than do investments by state-owned enterprises (e.g., Dewenter and Malatesta, 2000). If the host government imposes economic sanctions on private foreign investment in response to worsening political relations with the home country, the host country would discourage private foreign capital in the future and thus lose more economic efficiency than it does by sanctioning SWFs. Furthermore, unlike SWFs, traditional funds such as pension funds generally have clearly defined liabilities. In other words, key participants know – at least with a high degree of confidence – for what



purpose, when, and how much the assets will be managed (Rozanaov, 2009). Thus, the relative transparency of private firms reduces the security concerns of host governments.

In sum, SWFs face additional discriminatory treatment compared to their private counterparts, but the level of discrimination is contingent upon the quality of bilateral relations between the home and host countries. That is, SWFs encounter a lower level of discrimination when the home and host countries have amicable bilateral relations. Consequently, SWFs are more likely to invest in countries that are friendly to their home country. Without a friendly diplomatic climate, SWFs face a higher level of discrimination than do private investors, and thus are less likely to acquire the target firm.

It should be noted that an alternative explanation for the fact that SWFs are less likely to enter politically hostile hosts is that SWFs may want to avoid hostile states as the latter is often associated with higher risks. Indeed, deteriorating bilateral relations between states could increase the risk of seizure of investment returns, while an improvement in the bilateral relations can guarantee foreign investors a better protection of property rights and reduce expropriation risks. I argue that private investors may attempt to avoid hostile host countries in order to prevent economic losses, but this may not hold for SWFs. As illustrated below, SWFs have a greater ability to accept risk than do their private counterparts due to state ownership. Therefore, SWFs are less likely to enter politically hostile host countries primarily as a result of the discrimination by host governments rather than because of higher risk tolerance of SWFs.

**Hypothesis 1:** Bilateral relations between the home and host countries are positively related to the likelihood of a target firm being acquired by a SWF rather than a private investor.

### **SWFs' Strategies to Overcome Discrimination**

Given the discriminatory treatment that SWFs face when making overseas investments, SWFs adopt various strategies to mitigate the discrimination. One of these strategies is to partner with other investors.

First, teaming up with other investors will reduce discrimination. As discussed earlier, SWFs face a higher level of discriminatory treatment and find it difficult to obtain legitimacy as compared to private investors, in particular in countries with which they have poor bilateral relations. These disadvantages impose constraints on overseas investments by SWFs. International business scholars argue that multinationals can overcome LoF by creating joint ventures (e.g., Zaheer and Mosakowski, 1997). Joint ventures can minimize uncertainty and risks involved in international operations, especially if those joint ventures are with local partners. This is because domestic firms possess country-specific knowledge and skills as well as the ability to work with the government and political economic system in the host country (Shan, 1991). Moreover, joint venture partners' reputation can provide the endorsement of foreign investors and that helps mitigate the discriminatory treatment by host countries (Bauma and Oliver, 1991; Stuart et al., 1999).

Jointly investing with other investors helps SWFs alleviate discrimination in a variety of ways. Firstly and most importantly, because SWFs face more entry barriers

from host countries, partnering with private firms can diminish the concerns that SWFs are in pursuit of non-financial objectives. In addition, SWFs often are not interested in operating and managing the acquired firms; thus, collaborating with private firms in acquisitions implies that the management of the acquired firms would be left to the private partners. This tying hand strategy sends a credible signal to the host government that SWFs are likely to be constrained and prevented from acting to serve the home government's political agenda or managing the firm contrary to the free market principle.

Secondly, besides choosing private firms as partners, SWFs may undertake foreign investments with SWFs from other countries. As discussed earlier, SWFs are likely to encounter a higher level of discrimination if the home and host countries have hostile political relations. If an SWF invests with other SWFs from countries that have closer diplomatic ties with the host country, this may cause the host government to identify it as a "friend's friend", thereby reducing the security concerns. For example, CIC, China's SWF, formed a joint venture with funds from South Korea and Singapore and invested in a natural-gas project in the United States. The presence of funds from South Korea and Singapore may have made CIC's involvement more palatable (*Economists*, 2010).

One may argue that private firms can also choose to engage in joint ventures. With private firms, though, the choice of ownership mode (joint venture versus wholly owned subsidiary) is a result of weighing costs and benefits. It should be noted that multinational enterprises (MNEs) face relational hazards arising from the monitoring

costs, dispute settlement, and opportunistic behavior of their joint-venture partners (Buckley and Casson, 1998; Henisz and Williamson, 1999; Henisz, 2000). As will be illustrated below, SWFs are more risk tolerant than private investors. Because SWFs face greater discrimination in the host country than private investors, and because SWFs are more tolerant of the relational hazards resulting from joint ventures, the benefits of joint ventures are more likely to outweigh the costs for SWFs. Therefore, I propose that:

***Hypothesis 2:*** Partnering with other investors is positively related to the likelihood of a target firm being acquired by a SWF rather than a private investor.

### **Risk Tolerance and SWF Investment**

Now I turn to another effect of state ownership – risk tolerance. Although all investors prefer to avoid risks in international operations, SWFs are more likely to tolerate risks resulting from the uncertainties of foreign investment for the following reasons.

First, unlike private firms that are typically financed by equity and loans, SWFs are funded by governments, typically transferring from official foreign exchange reserves. These funds have “soft budget constraints” (Kornai, 1980) and expect that the home country will rescue them should they get into trouble. This confidence in the state’s bailout is not unfounded. For example, after suffering large losses during the 2007 global financial crisis, Abu Dhabi Investment Authority (ADIA) received more than \$40 billion of new cash from its home government (Bloomberg, 2008). When “losses do not matter, and the efficient use of the resource is of no consequence” (Jalan, 1990:198), SWFs are likely to be more risk tolerant than private investors.

Second, due to state ownership, SWFs have few explicit liabilities to shareholders. The lack of explicit liabilities increases SWF's risk tolerance for two reasons. First, it enables SWFs to operate over a long-term investment horizon. Thus compared to traditional agencies managing foreign exchange reserves such as central banks and financial ministries, SWFs are designed to be less risk averse (Lu et al., 2009). To seek a higher rate of return for foreign exchange reserves, SWFs are able to shift from bond and index to other types of assets. Second, standard portfolio theory suggests that investors with fixed liabilities are more risk averse (Beck and Fidora, 2008). In other words, if a pension fund has fixed liabilities and is subject to recurring future payments, the fund would be more risk averse on the portfolio and would keep a higher share of fixed income securities. Consequently, the lack of explicit liabilities leads to SWFs' willingness to take greater risks.

Third, there is no clear principal or owner in charge of monitoring the fund performance (Sheshinski and Lopez-Calva, 2003; Le Borgne and Medas, 2008). SWFs are often entangled in conflicts of interest at home. These conflicts of interest occur between the incumbent government and key societal interests, represented by members of the legislature or the ruling elite. For example, many oil producing countries and Asian exporters have accumulated massive reserves—far more than they need for balance of payments purposes. While some organized domestic interests prefer to use those massive reserves immediately, many governments “parked” those revenues in long-term investment vehicles under SWFs (Clark and Knight, 2010).

Another example of conflicts of interests is the common tension between the central bank and the ministry of finance (Clark and Monk 2010). The central bank, which is often charged with maintaining price stability and managing official foreign reserves, tends to be conservative in how they manage foreign reserves. In contrast, the ministry of finance, when facing enormous excess foreign reserves, may be more aggressive in their investment strategies. For example, in Brazil (Wheatley, 2010) and Taiwan (*China Post*, 2008), the central bank and the ministry of finance often have conflicting interests in the management of SWFs.<sup>20</sup> These conflicts of interest make it less likely that SWFs are efficiency and profit driven. They also provide rationales for shirking and facilitate the principal-agent slack.

Finally, the majority of SWFs officially state that they are established to achieve higher economic returns for the home country's foreign exchange revenues. While economic returns are sometimes used as a measure of fund performance, financial underperformance alone may not affect the tenure of managers. Top managers of SWFs ultimately are subject to evaluation not simply by public shareholders, but by political officials who assess them largely on how successfully the funds have served the state's objectives. Therefore, if a home country aims to secure strategic resources in certain countries for example, then the SWF has to invest in those countries even if the investment increases the fund's exposure to a higher degree of risk.

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<sup>20</sup> In Australia, for another example, competition between the Treasurer and the Prime Minister for power within the governing coalition affects the Future Fund (the country's pension fund) (Clark and Knight 2010).

In sum, state-owned entities tend to be more willing to take risks (Meggison and Netter, 2001). Given their greater appetite for risk, SWFs should, therefore, be less sensitive to riskier host conditions than are private investors.

The political economy and international strategy literature has shown that institutional distance generates greater LoF and discourages FDI (Eden and Miller, 2004; Kostova and Zaheer, 1999; Zaheer, 1995). Likewise, MNEs tend to invest in countries with institutions similar to those at home, having developed non-market capabilities (managerial experience and expertise) in navigating environments characterized by high corruption, political risk and instability, and so on (Lecraw, 1977; Cuervo-Cazurra, 2006, 2011; Holburn and Zelner, 2010).

Thus, although both SWFs and private investors prefer to invest in host countries that are more similar to their home countries, SWFs are more risk tolerant compared to private investors when facing a higher level of institutional distance between the home and host countries. Thus, I propose the following hypothesis:

***Hypothesis 3:*** The institutional distance between the home country and the host country is positively related to the likelihood of a target firm being acquired by a SWF rather than a private investor.

## Empirical Strategy

The empirical analysis covers 6,191 cross-border acquisitions from 22 acquirer countries to 86 target countries between 1987 and 2012.<sup>21</sup> Of the total dataset, 481 deals or about 8 percent are acquired by an SWF.<sup>22</sup> The deal is the unit of analysis.<sup>23</sup>

### Key Explanatory Variable 1: Bilateral Political Relations

The quality of bilateral relations is a key concept in my theoretical framework. I constructed four variables to capture the effects of bilateral political relations: *diplomatic risks*, *alliance*, *defense pact*, and *UN voting dissimilarity*. The first of these is a primary indicator of bilateral political relations in this study for reasons that I will detail below.

Notably, most of the empirical studies on the subject of trade and FDI rely on the Militarized Interstate Disputes (MID) dataset—a dataset that records threats and displays of force between states. This dataset is relevant because such threats or displays of force between states indicate hostile political relations. Although studies using the MID dataset have yielded many insights into the relationship between economic linkages and conflict, they often miss low-level disputes that do not result in wars. Moreover, military conflict is a rare event. Indeed, no war occurs between acquirer and target countries in our sample. Besides, an additional drawback of MID data is that the diplomatic relations between states is broader than conflict. By excluding cooperation events, the MID considers only a tiny portion of interstate activities. Thus, as suggested by several

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<sup>21</sup> The unit of analysis is deal-acquirer instead of deal-acquirer-target because an observed deal only involves one target firm yet is probably initiated by multiple acquirers.

<sup>22</sup> The availability of empirical measures of independent variables limits the dataset from 7,142 deals to 6,191. Excluded deals represent about 16 percent of the original dataset.

<sup>23</sup> Technically, a deal with multiple acquirers is treated as multiple observations. For example, if three acquirers co-invested in a target firm, this transaction was coded as three observations with different acquirers.



scholars (Reuveny 2003; Pevehouse 2003), events data may be a better measure of interstate conflict than MID.

Hence, my measure of *diplomatic risks* employs the events data - Global Data on Events, Location and Tone (GDELT). To aggregate daily events recorded in the dataset, one needs to take into account the level of conflict or cooperation embodied in each event case. Therefore, the day by day interactions are separately transformed into two annual flows of cooperation and conflict using the Goldstein (1992) scale. This scale gives weights between 0 and +10 (respectively 0 and -10) to each category of events according to the amount of cooperation (or conflict) embodied in each event case. Both indicators are then combined into a single net indicator of dyadic political relations between country *i* and country *j* at time *t* following the transformation defined by Desbordes (2012):

$$Diplomaticrisks_{ijt} = - \frac{\sum f_{coop} w_{coop} + \sum f_{conf} w_{conf}}{\sum f_{coop} + \sum f_{conf} + f_{neut}} \quad (1)$$

in which *f* and *w* stand respectively for the frequency and the weight of a given event. The numerator describes the sum of adjusted weights of each type of cooperative and conflictual events, in which the adjusted weights are obtained by multiplying the Goldstein scores of each type of event by its observed frequencies. The denominator encompasses the total number of cooperative, conflictive, and neutral events occurred during the year examined. Since the Goldstein scales apply a positive sign for cooperative events whereas negative for conflictive events, the formula has a minus sign attached to capture the diplomatic “risks” so that a higher score means higher interstate

diplomatic risks. For example, the United States' average diplomatic risk with Iraq during 1980-2012 is 0.44, as the two countries were engaged in wars twice in 1990-91 and 2003, respectively. In comparison, the relevant figure with its ally South Korea, is as low as -2.23, indicating a closer interstate relationship.

Notice that previous scholars have employed alternative aggregation strategies of events data. Reuveny and Kang (1998) create a net cooperation variable by summing the Goldstein scores over all the events, i.e.,  $\sum(w_{coop} + w_{conf})$ . Similarly, Goldstein and Pevehouse (1997) and Polachek (1980) use the weighted sum of cooperative and conflictual events, i.e.,  $\sum f_{coop} w_{coop} + \sum f_{conf} w_{conf}$ . As noted in Gasiorowski (1986) and Lowe (2006), simply summing Goldstein scores makes this measure sensitive to the number of events reported, which is subject to the interest of mass media and economic size of the foreign country. This coverage bias can be eliminated by using the average Goldstein score in equation (1), which also makes the *diplomatic risk* measure easier to compare across time and countries (Desbordes 2010).

My second measure of bilateral political relations is twofold: *alliance* and *defense pact*. The variable *alliance* is a dummy variable that equals one if target and acquirer countries are in alliance (including defense, neutrality, nonaggression, or entente), and zero otherwise. The variable *defense pact* is also a dummy variable, with one indicating that the two countries have a defense pact alliance and zero otherwise. Thus, I anticipate that SWF acquisitions are more likely to occur among countries with alliance and/or defense pact. The data come from the Correlates of War (COW) database. Table 12 provides a breakdown of SWFs' and private investors' acquisition

deals between themselves and countries with alliance ties. It exhibits sufficient variation in security alliances so that the empirical results are not driven by a few cases.

My third measure of bilateral relations is voting alignment in the United Nations (UN) General Assembly. We expect that countries with similar voting patterns in the UN are less likely to disagree on each other's foreign policy positions, and thus have more friendly bilateral relationships. Previous research has shown a positive relationship between voting alignment and both bilateral trade (Dixon and Moon, 1993) and less conflict (Gartzke 1998). In contrast to the events data, UN voting alignment is a direct measure of government behavior. The UN voting Affinity measure is based on the dataset constructed by Bailey et al. (2013) and calculated by Gartzke's S-scores (Gartzke 2006):

$$S_{i,j,t} = 1 - 2 * d_{i,j,t} / dmax_{i,j,t} \quad (2)$$

in which  $d$  is the sum of metric distances between votes by dyad members in a given year and  $dmax$  is the maximum possible metric distance for those votes. The distance between votes is calculated by first coding one for approval for an issue and zero for disapproval. Since the S-score is on a [-1,1] scale and highly skewed to the right,<sup>24</sup> the following transformation is used to remove the high skew:

$$UN\_voting\_dissimilarity_{i,j,t} = \ln[|S_{i,j,t} * (-1) + 2|]^{25} \quad (3)$$

As shown in Panel B of Table 14, these three measures of bilateral political relations are not highly correlated. This implies that these three measures may provide

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<sup>24</sup> In other words, a majority of country pairs in my sample have similar UN voting records.

<sup>25</sup> For robustness I also use an untransformed measure of UN voting similarity. Results are similar and therefore omitted for brevity.

information on different aspects of bilateral relations. More specifically, *diplomatic risks* focus on the intensity of interstate cooperation and conflict events on a daily basis. Whereas *alliance* and *defense pact* reveal states' common interests by *explicitly* sharing formal alliance ties, *UN voting* suggests that states may be *implicitly* aligned with or diverged from each other on foreign policy positions. Therefore, I include these three sets of measures in the same model to capture different aspects of bilateral relations.<sup>26</sup> However, it should be noted that different aspects of bilateral relations sometimes overlap, and it is difficult to distinguish them exclusively from one another. For a pair of alliance partners, for example, *alliance* measures different levels of support that one alliance member promises to the other; *diplomatic risks* may contain cooperation events on military, economic, and policy support between the two alliance partners; and *UN voting* may also reveal similar foreign policy positions on particular topics.

Among the three sets of measures of bilateral political relations, I consider *diplomatic risks* as my primary independent variable because it has several advantages compared to the other two. First, while states rarely fight militarily with each other, they do experience episodes of improving and deteriorating relations over time. Similarly, only a tiny fraction of country pairs change their alliances status over my sample period. In contrast, a key advantage of events data is that it has more temporal variation than traditional measures to reflect the instances of cooperation and conflict. Panel A in Figure 2 shows the evolution of diplomatic risks between China, a large SWF

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<sup>26</sup>Multicollinearity is not a problem here as none of the correlations among these predictors exceed 0.25 in any (sub)sample.

sponsoring country, and the United States, Kuwait, and the Philippines. They clearly diverge. For instance, the diplomatic risks between China and the US increased in 1990 because the US imposed a number of economic sanctions on China following the Tian'anmen Incident. In the early 1990s the diplomatic risks between China and the Philippines dramatically increased since China passed a law declaring the South China Sea as its territory in 1992, triggering protests from around the region including the Philippines. In contrast, the Sino-Kuwait diplomatic relations improved when China resolutely opposed Iraq's invasion and occupation of Kuwait during the Gulf Crisis in 1990.

A second desirable property of *diplomatic risks* is that it allows the analyst to view diplomatic relations from a directed dyad perspective. In other words, the events data records both for the China versus Singapore dyad in 2007 and the Singapore versus China dyad in 2007, so that it is possible to measure how the political events are directed. Panel B in Figure 2 reveals that the bilateral political risks between directed dyads are different, albeit closely following one another. This directed dyad feature is particularly important to the present study because the observations on directed dyads coded in both directions make it possible to specifically model the investment decisions from one state to another. The decision by the host country to initiate a conflictive event against the home country is more relevant to international business activity than simply the emergence of a conflictive event between two states, because the former causes foreign investors to have a higher cost and a competitive disadvantage of doing business abroad.

Finally, *diplomatic risks* is my primary measure because it is observable. Since the goal of this analysis is to explore whether SWFs and private investors respond to bilateral political relations differently, it is important to assume that bilateral political relations are equally observable to both SWFs and private investors. Note that the event data come from media reports. While some foreign investors employ experts to analyze political risks of foreign investment, media reports are still a common source of information for foreign investors who interpret the bilateral political relations. Thus, investors are able to observe diplomatic risks and use this information to make inferences about their business ramifications.

### **Key Explanatory Variable 2: Institutional Distance**

In order to test the argument about the influence of institutional distance on the probability that an SWF acquires a target firm, I constructed two *institutional distance* variables. The first variable is based on data from the International Country Risk Guide (ICRG), and I focus on scores of three items in political risk subcomponents that are relevant for an international acquisition deal: law and order, bureaucracy quality, and corruption. The institutional distance is calculated by taking the summation of the absolute difference between country  $i$  and country  $j$  at time  $t$  for each item.

$$\begin{aligned}
& \text{Institutional\_distance}_{i,j,t} && (4) \\
& = |Law_{i,t} - Law_{j,t}| \\
& + |Bureacrarcy\_quality_{i,t} \\
& - Bureacrarcy\_quality_{j,t}| + |Corruption_{i,t} \\
& - Corruption_{j,t}|
\end{aligned}$$

Second, political regime distance should also matter for private investors more than for SWFs. Hence, I include *regime distance* as another broad measure of institutional distance. For each state, I first obtained regime data from the Polity IV dataset (Marshall and Jaggers, 2002) and generated a policy score of -10 to +10 by subtracting AUTOC score from its DEMOC score. Higher scores indicate a more democratic regime. *Regime distance* is the absolute value of the difference between the Polity scores of the two states in the dyad (Lai and Reiter, 2000). Larger values of this measure represent dissimilarity between home and host countries, and thus I expect a positive coefficient for *regime distance*.

Similarly to those measures of bilateral relations, I find these two variables of institutional distance are not highly correlated with each other ( $r=-.03$ ), largely because they capture different aspects of institutional distance. For example, the construction of *institutional distance* does not account for democratic accountability. As a result, I include both variables in the same model.

### **Key Explanatory Variable 3: Multiple Acquirers**

I argued earlier that SWFs may engage in joint ventures to mitigate discriminatory treatment. To test whether this strategy works, I constructed a dummy

variable *multiple acquirers*. It was coded one if the deal was acquired by more than one investor, zero otherwise. In my sample, about 17% of the SWF deals involved multiple acquirers, which is almost three times that for private investments (6%). In all cases, SWFs jointly invested with private firms and/or other SWFs.<sup>27</sup>

### **Control Variables**

To account for potential confounding variables, I include a number of control variables. First, I include several traditional gravity model variables that have been used in the international trade literature, such as home country's Gross Domestic Product (GDP), host country's GDP, and geographical distance. GDP data in constant 2005 U.S. dollars are taken from the WDI. On the one hand, when the home country has a larger economic size, private investors are more likely to make cross-border acquisitions relative to SWFs. Unlike SWFs that are readily funded by sizeable foreign exchange reserves, private investors must accumulate capital before undertaking investment projects. Since such capital stock is directly influenced by the economic size of a country, the home country's GDP should be positively associated with private investment relative to SWF investment.

On the other hand, SWFs are more likely to pursue targets in host countries with large asset markets than are private investors. Countries with large GDP volume create more business opportunities for high-profile acquisitions, which can be an important consideration for SWF investments. Moreover, arguably SWFs serve a strategic role in

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<sup>27</sup> The *multiple acquirers* variable in original data sources is constructed as follows. In SDC, deals with 'investor group' as acquirers were coded as multiple-acquirer deal. In Zephyr and Capital IQ, deals with more than one firm as acquirer (separated by semicolons) were coded as multiple-acquirer deal. Hence the information on the partner's identity (whether private firms or other SWFs) is incomplete as it is limited to only Zephyr and Capital IQ data sources.



improving the sponsoring country's sovereign status on the world stage by engaging in the financial market with powerful states (Dixon and Monk 2012). Yet such political and diplomatic motivations are not a primary concern for private investors. Accordingly, SWFs should have a higher exposure to the large market of powerful states than private investors do. As a result, I expect that the coefficient of home country's GDP is negative, and that of host country's GDP positive.

I include a *geographical distance* variable, which was obtained from the French Research Center in International Economics. This variable is defined as the great circle distance in kilometers between two countries' capitals. Previous studies find that geographical distance increases information costs in international M&A transactions. Countries that are geographically proximate can be expected to involve lower information costs (Böckerman and Lehto 2006, Grote and Ueber 2006). As discussed above, SWFs may be more risk tolerant than private firms. Therefore, I expect that SWFs are more likely than private firms to invest in countries with greater geographical distance.

While the geographical proximity between the home and host countries addresses mainly the cultural aspect of information costs, the legal aspects are also important. Most studies in M&A literature include a dummy variable indicating whether the home and host countries share the same legal system and show that the presence of a common legal system has a positive effect on cross-border M&As. However, in the present study we do not have any theoretical reasoning to predict whether SWF or private investors are more sensitive to countries having the same legal system; I therefore exclude this variable in

the model. However, one expectation could be that British Common law origins are more likely to attract cross-border acquisitions by private investors relative to SWFs. This is because the Common law acts as a powerful counterbalance that has promoted private property rights instead of a tool of the State (Beck, Demirgüç-Kunt et al. 2003). Therefore, I include *UK legal origin* in host country, which is a dummy variable that equals one if the origin of the company law is the English common law, and zero if the origin is French Civil, German Civil, or Scandinavian Civil. According to legal theories, the English common law evolved to protect private property owners against the crown, whereas the civil codes were constructed to solidify the power of the state (Beck et al. 2003). Due to such better protection of private property rights, *UK legal origin* is expected to have a negative effect on cross-border acquisitions initiated by SWFs relative to private firms.

Some recent anecdotal studies find that SWFs have acquired a significant amount of assets in the financial service sector. For example, five large international banking corporations<sup>28</sup> alone received more than US\$45 billion from SWFs since 2007 (Beck and Fidora 2008). Such good appetite in finance service sector is probably driven by either the opportunistic investment motive or an incentive to signal cooperation with more powerful states during the global financial crisis in 2007-2008. Therefore, I include a deal-level variable *finance*, a dummy variable that equals to one if the target is in financial service sector and zero otherwise. I expect that *finance* is positively associated with SWF acquisitions relative to private ones.

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<sup>28</sup> These international banking companies are UBS, Citigroup, Morgan Stanley, Merrill Lynch, and Barclays.

Additionally, some fear that SWFs have strategic interests in the energy industry of foreign countries, which trigger a number of national security questions. To test whether SWFs are more likely to invest in energy industry, I include a dummy variable *energy*. It was coded as one if the target firm is in the energy industry, otherwise zero. I expect a positive relationship between *energy* and the likelihood of SWF acquisitions relative to private acquisitions.

Table 13 provides the detailed definitions of these variables. Table 14 displays the summary statistics and correlations of the variables from equation (1). It does not reveal any multicollinearity problems. All correlations are well below the commonly used cut-off threshold of 0.7, and a maximum variance inflation factor (VIF) is 2.26. While tests reveal the presence of heteroskedasticity in these models, I perform all estimations using robust standard errors.

### **Model Specification**

To assess the claims about the effects of bilateral political relations, institutional distance, and joint ventures on SWF acquisitions, I specify and estimate the following logit model:

$$\begin{aligned}
P(SWF\_acquisition_{i,j,t} = 1) &= \Phi\{\beta_0 + \beta_1 diplomaticrisks_{i,j,t-1} + \beta_2 alliance_{i,j,t-1} \\
&+ \beta_3 UNvotingdissimilarity_{i,j,t-1} + \beta_4 institutionaldistance_{i,j,t-1} \\
&+ \beta_5 regimedistance_{i,j,t-1} + \beta_6 multiple\_acquirers \\
&+ \beta_7 geographicaldistance_{i,j} + \beta_8 fueexports_{j,t-1} \\
&+ \beta_9 UKlegalorigin_j + \beta_{10} GDP_{i,t-1} + \beta_{11} GDP_{j,t-1} + \beta_{12} Finance \\
&+ \beta_{13} Energy\}
\end{aligned}
\tag{5}$$

in which  $i$  refers to the home country,  $j$  refers to the host country, and  $t$  refers to the year when the deal was announced. In the model, the dependent variable *SWF acquisition* was coded one if the target firm was acquired by an SWF and zero if it by a private investor. I estimate how these factors affect the SWF and private investors from the same home country. Intuitively, such a design presumes that acquisitions initiated by private investors offer a reasonable benchmark through which we can understand the nature of SWFs. If both SWFs and private investors are able to observe those political factors, and if they are affected similarly by those factors, then the concern that SWFs make investment decisions for political reasons is not warranted.

Because *SWF acquisition* is a dichotomous dependent variable, I employ a binary logistic regression model. It is worth noting that the coding of my dependent variable shares some similarities with existing studies. To explore motives for cross-border acquisitions led by government-controlled acquirers, Karolyi and Liao (2009) offer the most comparable results to my study. By using a dependent variable that equals one if

the acquisition was initiated by a government-controlled acquirer, and zero if it was by a private acquirer, Karolyi and Liao estimate a logit model to predict whether the influence of firm-level and deal-specific factors are different for those deals involving government-controlled acquirers versus private acquirers. The advantage of this approach is that it allows us to compare SWFs with other institutional investors.

The *UN voting dissimilarity*, *geographical distance* and *GDP* variables are logged to reduce skewness. The *diplomatic risks*, *defense pact*, *UN voting dissimilarity*, *GDP*, *regime distance* and *fuel exports* variables are all lagged one year to reduce potential reverse causality, as well as to account for real time lags. All models have clustered standard errors at the dyad level.

Before discussing my results, I should note that my estimations are likely to be affected by selection bias. My data consists of only the investments involving target firms that were available to foreign acquirers. If poor bilateral relations between the home and host countries increase the discriminatory treatment against SWFs rather than private investors, some target firms may be available only to private investors but not to SWFs. Consequently, my sample is not randomly selected, which probably leads to sample selection bias. Nevertheless, this bias may not be too problematic because my estimates do not capture the effect of bilateral relations on these investments that were never undertaken. My results therefore *underestimate* the overall effect of bilateral relations. Future studies can eliminate this selection bias, yet doing so should only strengthen my results.

## Empirical Results

Table 15 reports the estimation results from two logit models. The main results are also presented graphically in Figure 3, where the marginal effects of the key independent variable in Model 1 are plotted.<sup>29</sup> According to the hypotheses developed above, I expect that better bilateral relations are correlated with a higher likelihood of SWF acquisition. The results in Model 1 provide evidence supporting my argument. The coefficient estimate of *diplomatic risks* is negative and statistically significant at the 0.05 level. This finding is consistent with the theory. At lower levels of diplomatic risk, a target firm is more likely to be acquired by an SWF because the political relations between the home and host countries are better. To illustrate the substantive effects, I simulated the marginal effects.<sup>30</sup> It suggests that if diplomatic risks between the home and host countries rise from the lowest level to the highest level (meaning worse bilateral relations), the probability of SWF investments decreases by 7.6 percentage points, which represents an 84% decrease.<sup>31</sup>

The other proxy for bilateral political relations is *alliance*. As expected, the coefficient estimate is positive and strongly significant, indicating that countries within security alliances are more likely to have SWF acquisitions. Substantively, if the host country has an alliance partnership with the home country with other factors remaining constant, the probability of SWF acquisition increases from 4.5% to 19.4%, an increase of 14.9 percentage points. This finding also holds in Model 2, which replicates the

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<sup>29</sup> The software Coefplot (Jann 2014) was used to produce the plot.

<sup>30</sup> The marginal effects are computed where all continuous variables are set to their mean, and dummies are set to zero if not otherwise specified.

<sup>31</sup> The software Clarify (King, Tomz & Wittenberg, 2000) was used to compute the probabilities.

specification structure of Model 1 and uses *defense* variable. The substantive effect is slightly less than *alliance* (from 4.7% to 17.3%).

In contrast, *UN voting dissimilarity* is negative and statistically insignificant. This indicates that we do not find any evidence that UN voting pattern has an effect on the likelihood of an SWF versus private acquisition. This result implies that foreign investors more likely to look elsewhere such as media reports (the primary source of events data) and alliance ties between states than to UN voting patterns to assess whether they will be welcome in a host country. This is probably because UN voting is a poor proxy for the bilateral political relations as discussed above.

I then turn to the measure of institutional distance. As predicted by the theory, the coefficient estimate for *institutional distance* is positive and significant. Substantively, when institutional distance between the home and host countries increases from the lowest level to the highest level, the probability of SWF acquisitions increases by 7.2 percentage points (from 2.9% to 10.1%). This effect is large compared to that of other independent variables. It suggests that a higher institutional distance between the home and host countries increases the likelihood of being acquired by an SWF and that private investors are more sensitive than SWFs are to institutional distance. Thus, there is considerable evidence to support hypothesis 3.

In line with my expectations, *regime distance* is positive and statistically significant, even after controlling for the host country's political regime in all these models. In other words, the greater dissimilarity in regime type between the home and host countries, the more likely we are to observe an SWF acquisition between these two

countries. Therefore, SWFs are less sensitive to regime distance than private investors are. Note that this positive relationship between regime distance and SWF acquisitions remains significant even when controlling for the host country's regime.

Note also that the estimate of *multiple acquirers* has the expected positive sign and is statistically significant. It suggests that partnering with other investors can help SWFs mitigate discriminatory treatment and increase their likelihood of acquisition success when competing with private investors. The results provide strong support for hypothesis 2: SWFs are more likely to engage in joint ventures than private investors are in order to mitigate discriminatory treatment.

The control variables also produce some interesting results. The coefficient estimate for the host country's *fuel exports* is positive but not significant. This means that the resource endowment of the host country does not have a significant impact on SWF investment.

As expected, the coefficient estimate of *geographical distance* has a positive effect and is statistically significant. Since greater geographical distance often involves more information costs and risks for foreign investors, this supports the claim that SWFs are more willing to take risk due to the absence of explicit liabilities than are private firms (Beck and Fidora 2008).

The coefficient estimate of a *home country's GDP* has a statistically significant and negative effect on the likelihood of SWF acquisitions, as I anticipated. Large economic size of a home country often means there are large pools of capital and more private investors. Therefore, it is not surprising that large economic size of home



countries encourages more private acquisitions than SWF acquisitions. Note that I expect that in order to pursue high-profile investment opportunities and/or to improve sovereign status in the global system, SWFs are more likely to invest in countries with large economic size than are private firms. As the estimation results indicate, however, we find no evidence for this conjecture. The coefficient estimate of *host country's GDP* is positive albeit not statistically significant. Furthermore, the coefficient estimate of *British legal origins* is not correlated with a propensity for SWF acquisitions in both models. Finally, target firms in *finance* and *energy* industries are more likely to be acquired by an SWF than by a private investor.<sup>32</sup>

In sum, my results offer consistent evidence that positive bilateral political relations, less institutional distance, and joint investment increase the likelihood of SWF versus private investments.

### Robustness

Robustness checks further improve my confidence in the findings. To address potential omitted variable bias, the following additional control variables were included in the analysis in Table 16. First, an alternative operationalization of my primary independent variable *diplomatic risks* gives further insights into the effects of bilateral political relations on SWF acquisitions. Following Hinz (2014), the *diplomatic cooperation* from country *i* towards country *j* is defined as

$$Diplomatic\_cooperation_{ijt} = \frac{M_{ijt}^{coop} + \frac{1}{3}V_{ijt}^{coop} - \frac{1}{3}V_{ijt}^{conf} - M_{ijt}^{conf}}{M_{ijt}^{coop} + V_{ijt}^{coop} + V_{ijt}^{conf} + M_{ijt}^{conf}} \quad (6)$$

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<sup>32</sup> *Energy* variable is excluded in Model 1 because otherwise the model does not reach convergence.

in which  $M_{ijt}^{coop}$  is the count of “material cooperation” events in a year  $t$  initiated in country  $i$  towards country  $j$ . Hence,  $V_{ijt}^{coop}$ ,  $V_{ijt}^{conf}$ ,  $M_{ijt}^{conf}$  are the counts of “verbal cooperation”, “verbal conflict” and “material conflict” respectively. The former two were given positive weights, and the latter two were given negative weights. Assuming verbal exchanges, with a weight of one-third, have less consequence, the index describes the mood of political relations on the  $[-1,1]$  interval. In interpreting these results, it is important to recognize that higher value of this measure indicates better political relations, whereas lower value indicates more hostile bilateral relations. As such, I expect the sign of the coefficient estimates in my model to be reversed when using *diplomatic cooperation* instead of *diplomatic risks*.<sup>33</sup> Indeed, as shown in Model 3 of Table 16, the effect of bilateral political relations on the likelihood of SWF acquisitions relative to private ones does not depend in any significant way on which measure is used.

The second way in which I address potential variable bias is that I consider some alternative explanations for my findings. One may argue that discriminatory treatment is determined not only by entry barriers targeting investors from a specific home country, but also by the host country’s overall restrictions on foreign investments (Pandya 2014). To address this concern, I include host country’s *FDI restriction* in Model 4. The data on 90 countries for the period 1970-2000 was obtained from Pandya (2014). The results show that the effects of key explanatory variables (*diplomatic risks*, *institutional distance*, *regime distance* and *multiple acquirers*) do not change, even though there is a

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<sup>33</sup> The correlation between *diplomatic cooperation* and *diplomatic risks* is -0.79.

substantial reduction in the sample size (from 6,191 to 4,028) when the variable *FDI restriction* is included. The coefficient of *FDI restriction* is negative but not statistically significant.

Another possible explanation of my findings is that cross-border acquisitions by SWFs are generally not welcomed by host countries compared to those by private investors, unless there is strong reciprocity in economic exchange activities between the home and host countries. As noted by Crystal (2003), producers often have an incentive to use domestic barriers as a bargaining tool in order to expand foreign market access. To show that my findings hold even when controlling for economic reciprocity, I re-analyze the models with the natural logarithm of trade between the home and host countries in Model 5, an indicator of economic interdependence. This alternative analysis yields no substantive changes in the main results of theoretical interest, and the coefficient of *trade* is not statistically significant.

Finally, SWFs might employ other investment strategies to deal with discrimination. For example, SWFs may choose different levels of ownership stake. On the one hand they may choose to acquire a lower level of ownership shares in order to overcome discrimination by host countries. Previous scholars argue that an MNE chooses the lower levels of control when it is difficult to obtain legitimacy in the host country (Xu and Shenkar, 2002; Eden and Miller, 2004). In the context of SWF investment, host countries fear that the home country would use their economic clout to pursue strategic goals. A higher level of ownership shares increases the management control of the target firm, thus posing more potential national security threats to the host

country. This would lead to more concern and scrutiny by the host government, thus making the SWF investment more difficult. On the other hand, a higher level of ownership shares enhances resource commitment and risks (Delios and Beamish, 1999). As noted earlier, since SWFs are more risk tolerant than private investors are, SWFs are more likely to pursue higher ownership stakes. These arguments suggest that the net effect of ownership stake on SWF investment is ambiguous. To empirically test the effect of the level of ownership stake, I include a variable called *ownership stake* in Model 6. The result indicates that the coefficient of the variable is negative and statistically significant. It suggests that although SWFs can tolerate risks and are willing to pursue high ownership stakes, they are unlikely to do so because of restrictions by the host country. Thus, lowering the ownership stake shares increases the likelihood of SWF's acquisition success when competing with private investors.

### **Conclusions**

This chapter provides a first step in the unveiling of the political determinants of SWF foreign investment. In particular, I present the ways in which SWFs behave differently from private investors. I also argue that state ownership affects SWF investment in two important ways. Firstly, due to state ownership, SWFs face greater discriminatory treatment by the host country than do private investors. Secondly, because the state backs them, SWFs are more tolerant to the risks associated with foreign investment. By using bilateral relations and institutional distance between the home and host countries as the proxies for discriminatory treatment and risks associated with foreign investment, respectively, I hypothesize that the likelihood of SWF investment

relative to private investment would increase when the quality of bilateral relations is better and the level of institutional distance is higher. In order to mitigate the discriminatory treatment by host countries, SWFs are more likely to team up with other investors than their private counterparts are. The empirical analysis covering 6,191 cross-border acquisitions from 1987 to 2012 offers strong support for these claims.

Note that the theoretical argument and empirical tests have only identified the overall pattern of SWF investment. However, it is important to avoid over-generalizing the findings from this model, as the strategic goals may vary from country to country. Hence, in pursuit of strategic goals for the home government, SWFs from different countries may have different investment preferences even in industries that are globally considered to be strategic. As I will show in the next chapter, even though the energy industry is widely considered to be strategically sensitive, not all SWFs have the same interest in investing in this industry.

## CHAPTER V

### SWF INVESTMENTS IN ENERGY INDUSTRY

*“I don’t care about how many tons of oil to ship home; I care about whether stocks are worth more money.”*

Lou Jiwei, Chairman of China Investment Corp.<sup>34</sup>

*“Our targets are not just financial – we want to add value to the local economy, local enterprises, employment and exports.”*

Suppiah Dhanabalan, Chairman of Temasek (Financial Times, 2002)

In the previous chapter, I argue that the nature of state ownership implies that SWFs may advance strategic interests on behalf of the home government. This is particularly true when SWFs invest in strategic industries. However, strategic interests vary from country to country. Hence, SWFs’ investment preferences resulting from these strategic interests can be quite different from each other, even in commonly considered strategic industries. In order to study the heterogeneity within SWF groups, this chapter investigates the role of state ownership in SWF investment in strategic industries, paying particular attention to the energy industry.

My focus on the energy industry stems from several considerations. First, SWFs have been actively participating in energy investments since the early 1990s. More than \$76 billion has been invested in energy assets and companies in the past five years by SWFs across the world, and more investments will be required to meet the expected energy demand growth (Finley 2012). Observers have predicted that the rising

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<sup>34</sup> Bloomberg, October 28, 2009. “CIC Seeks Commodities, Property as Hedge, Lou Says (Update 1)”. Available at <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aw8rv5tEHI28>

investment trend will continue, in particular in China, Japan, and the EU (Clark 2011). Therefore, the strategic value of the energy industry is generally agreed upon, even though what constitutes a strategic industry depends on a nation's level of economic development, political institutions and other factors.

Second, investments in the energy industry generate significant implications for political leaders, both economically and politically. In economic terms, energy is the most basic power source of economic activities. Particularly for resource-scarce countries, energy security is often viewed as a bottleneck for economic development. In order to secure energy supplies, overseas investments in the energy industry from these resource-poor countries have been increasing. For resource abundant countries, natural resource ownership exposes them to economic volatility, which could have an adverse impact on economic growth.

In political terms, international cooperation and conflicts in the world today are rooted in resource politics. This is illustrated by Daniel Yergin's famous quote, "oil consists of 10% economy and 90% politics" in his observation of the energy industry in the 1930s.<sup>35</sup> For example, previous scholars have long recognized the close relationship between natural resources and violent activities. On the one hand, armed conflict is a means to gain access to valuable resources (Keen, 1998; Berdal and Malone, 2000). On the other hand, natural resources give rise to armed conflict not only by financing belligerents (Collier and Hoeffler, 2002; Fearon, 2004), but also by weakening the ability of political institutions to peacefully resolve conflicts. Contrary to the

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<sup>35</sup> Daniel Yergin, chairman of the Cambridge Energy Research Associates (CERA) and a celebrity of the international oil industry, offered this statement to describe the European oil market at that time.

conventional wisdom that abundant resources bolster economic growth and thus promote political stability, the *resource curse* literature provides evidence that countries with abundant natural resources are associated with a higher risk of political instability and armed conflict (Collier, 2000; Ross, 1999).

Meanwhile, energy is also of great importance to energy-poor countries, which influences these countries' SWF investment behaviors. For example, China's hunt for oil has shaped its foreign policy toward its neighbors such as Russia, as well as toward regions as far as sub-Saharan Africa and Latin America. Consequently, when the SWF becomes a foreign policy tool in the energy field, the strategic importance of energy makes the foreign investments in this industry more complicated and politically sensitive.

In sum, the energy industry is one of the most strategic sectors. However, I argue that SWFs engage in energy investment in various manners, depending on the level of energy resources in their home countries. Countries with SWFs generally fall into two categories: energy-rich and energy-poor. From the home country's perspective, SWFs from the energy-poor countries are more likely to invest in the energy industry than SWFs from the energy-rich countries due to the concern over energy security. Moreover, SWFs from energy-poor countries should be more likely to invest in the energy industry than private investors from the same energy-poor countries. Turning to the host country's perspective, due to the strategic importance of the energy industry, foreign investment in this industry is likely to face more resistance by the host country government. The resistance would be even higher with the deterioration of bilateral



relations between the home and host countries. Moreover, because energy-poor countries have incentives to invest in the energy industry not based solely on financial motivation, SWFs from energy-poor countries are likely to encounter closer scrutiny by the host governments and thus are more sensitive to the bilateral relations between the home and host countries than other investors.

To subject these arguments to empirical tests, I evaluate quantitatively the determinants of SWFs' likelihood in investing in the energy industry by using data of 6,382 cross-border acquisitions (with 713 deals in energy industry) from 1992 to 2012. The statistical findings largely support my theoretical expectations.

The remainder of this chapter is organized as follows. The next section discusses the key motivations of SWF investments in strategic industries and elaborates my argument on SWF investments in the energy industry. Then I detail the research design and report the empirical results. Finally I conclude with a discussion of implications of my findings.

### **Theoretical Framework of SWF Investments in Energy Industry**

Scholars in both IPE and international business have recognized that firms in strategic industries require specific theoretical consideration and empirical analysis (Mahon and Murray, 1981; Reger, Duhaime, and Stimpert, 1992), especially when it comes to studying their impact on conflict initiation (Dorussen, 2006; Geonner, 2010; Li and Reuveny, 2011), patterns of international expansion and their exposure to regulatory risk in different countries (Bonardi, 2004; Delios and Henisz, 2003). In what follows, I

first summarize the motivation of SWF investments in strategic industries. I then contextualize my argument in the case of the energy industry.

### **The Motivations of SWF Investments in Strategic Industries**

Before I outline the motivations of SWF investments in the strategic sector, it is important to specify the definition of *strategic industry*. Earlier studies use this concept to describe industries of military significance—in other words, the extent to which goods can, directly or indirectly, contribute to the adversary’s military power. They typically include financial, mining, steel, telecommunications, transportation, utilities, oil, and military-related production (Manzetti, 1994; Megginson et al., 1994, 2004). However, some scholars claim that it is difficult to identify *a priori* if an industry is strategic, because any industry is strategic if it is needed to pursue a given strategy and has no substitutes (e.g. Baldwin, 1985; Forland, 1991). In the context of SWF investment, strategic sectors generally include natural resources, defense or other politically sensitive industries. I will use this last one as the working definition in my dissertation.

In this dissertation, I argue that SWFs may undertake foreign investments in strategic industries to facilitate national economic development or enhance political influence abroad. First, governments may make extensive use of strategic SWF investment to promote the national economic development. One prominent example is China’s use of one of its SWFs – the CIC –as an instrument to pursue national raw materials policy. The CIC seeks access to raw materials and energy to ensure it satisfies rapidly growing domestic energy demands in manufacturing and infrastructure industries (Miracky et. al, 2009). In addition, governments are also interested in gaining access to

intangible resources in order to promote their national economies. For example, partnering with foreign companies may provide opportunities for gaining knowledge and developing expertise in a particular industry. We observe that SWFs' investments by Abu Dhabi, Dubai, and Qatar are considered strategic tools to promote the development of their respective aerospace sectors (Haberly, 2011).

The second and perhaps more prominent concern about SWF investments to host countries is that SWFs may acquire strategic assets as a foreign policy tool. That is, SWF investments with non-financial motivation could affect national security, especially when investments are in the defense industry, public and private infrastructure, high technology, financial markets, or natural resources. In one instance, by investing in the Myanmar Fund in 1995, Singapore used its SWFs as a diplomatic tool to open channels to Burma (Balding, 2012). In a more recent instance, the Qatar Investment Authority and the Olayan Group of Saudi Arabia cooperated with IDB Holdings of Israel to invest in an emerging markets fund in 2010 (*Financial Times*, 2010). Although the investment giants of Qatar and Saudi Arabia do not need IDB's capital to launch the fund, their decision to involve an Israeli company may signal their readiness to cooperate with Israel (Globes, 2010).<sup>36</sup>

### **The Classification of SWFs**

As noted earlier, the energy industry provides a useful context for SWF investment research. This is because energy security has become central to international relations due to the increasing demand and competition for geographically concentrated

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<sup>36</sup>“An economic-diplomatic declaration”. *Globes*. August 12, 2010. <http://www.globes.co.il/en/article-1000581594>

resources, the concerns with resource scarcity, the fear of depletion in the near future, as well as the potential social and political effects of climate change (Vivoda 2010). Due to the strategic importance of energy, SWF investment in this industry raises a number of geopolitical concerns. For example, a host country may be worried if a foreign country's SWF takes a controlling stake in a large oil company, thereby giving it the power to redirect natural resources to the SWF's home country or sell these resources at a discounted price. A more urgent concern is that giving a potential belligerent access to scarce and strategically important energy resources helps to strengthen the military capabilities of the home country, which may be used against the host country in the event of a militarized conflict.

Moreover, the energy industry allows us to analyze the objectives of SWFs by comparing different investment behaviors among SWFs and within the same home country. To do so, we need to first differentiate between two types of SWFs according to their countries' energy resource endowment: countries that are rich in energy resources and countries that are not. To measure the energy resource endowment, I use the average net energy imports as a percentage of energy use. Energy use refers to consumption of primary energy before transformation to other end-use fuels, which is equal to indigenous production plus imports and stock changes, minus exports and fuels supplied to ships and aircraft engaged in international transport. A negative value of the average net energy imports as a percentage of energy use indicates that the country is a net exporter and thus is energy-rich, whereas a positive value indicates that a country is an importer and energy-poor. Table 17 provides a breakdown of SWF countries in my

sample. The energy-rich countries are Kazakhstan, Kuwait, Libya, Oman, Qatar, and UAE, whereas the energy-poor countries include China, Singapore, Malaysia, and South Korea.<sup>37</sup>

From the home country's perspective, the difference in energy resource endowment makes SWFs from energy-rich and energy-poor countries fundamentally different in their concern over energy security. As a result, the energy endowment of the countries induces SWFs to have different investment preferences in the energy industry, as elaborated in the next section.

### **Comparing SWFs from Two Types of Countries**

The literature of international business research suggests that firms engage in FDI not only to exploit their existing assets in host countries through FDI, but also to learn or gain access to strategic assets (such as technology, marketing, and management expertise) available in the host country (e.g., Lecraw, 1993; Dunning, 1995; Kumar, 1998). The former form of FDI is called asset-exploiting FDI, whereas the latter is strategic asset-seeking FDI. With this background, I argue that SWFs from energy-poor countries invest in the energy industry for asset seeking. This is because SWFs are funded by large current account surpluses. These exports mainly come from the manufacturing industry, or from transportation, information or communication

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<sup>37</sup> In Column (7), I report another classification obtained from the SWFI website. This website classifies countries that established SWFs into two groups according to the source of the foreign exchange assets: SWFs from commodity countries, which are funded by commodity exports that are either owned or taxed by the government, and SWFs from non-commodity countries, which are usually established through transfers from the official foreign exchange reserves. It shows that all the energy-rich countries are commodity countries except for Malaysia. While Malaysia is a net energy exporter, its Khazanah Nasional is classified as a non-commodity SWF because it is partly financed by government debt (Lyons 2008) instead of commodity revenues. Since I focus only on energy, the classification according to their energy resource endowment fits my theory better, and will be employed in this study.

technology sectors, which all require substantial amounts of energy or electricity as inputs.

As a consequence, concern for energy security is explicitly placed at the top level of the government agenda in these countries. As stressed in the Chinese government's *Twelfth Five-Year Plan*<sup>38</sup> and the *Twelfth Five-Year Plan of Energy*,<sup>39</sup> the government should actively participate in overseas exploitation of energy resources, expand energy trade and technical cooperation and improve transportation, finance and other abilities in order to jointly safeguard global energy security. Therefore, from the perspective of the Chinese government, the SWFs' overseas investments in the energy industry will accelerate the realization of the "going global" and energy-related strategy of the *Twelfth Five-Year Plan* (Sun, Li et al. 2014).

In order to meet the increasing demand for energy in energy-poor countries, these countries invest in energy for the purpose of gaining access to energy resources. For example, Singapore's SWF, Temasek, set up an investment unit focused on liquefied natural gas (LNG) in 2013, reflecting the SWF's growing portfolio of energy assets and underscoring the increasing importance of LNG as a relatively clean-burning energy source (*Wall Street Journal*, 2013).<sup>40</sup> LNG is an area where Singapore sees an opportunity, because although Singapore does not have any gas fields of its own, it wants to be a center for storage and shipment of the fuel. Thus, the energy investments

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<sup>38</sup> The Twelfth Five-Year Plan is the abbreviation of the Twelfth Five-Year Plan for National Economic and Social Development of the People's Republic of China. Available at [http://news.xinhuanet.com/politics/2011-03/16/c\\_121193916.htm](http://news.xinhuanet.com/politics/2011-03/16/c_121193916.htm) (in Chinese).

<sup>39</sup> Available at [http://www.gov.cn/zwggk/2013-01/23/content\\_2318554.htm](http://www.gov.cn/zwggk/2013-01/23/content_2318554.htm) (in Chinese).

<sup>40</sup> "Singapore's Temasek Sets Up LNG Investment Firm Pavilion Energy". <http://blogs.wsj.com/deals/2013/04/05/singapores-temasek-sets-up-lng-investment-firm-pavilion-energy/>

by SWFs helps effectively enhance energy security and functions as a hedge against the risk of global energy prices rising.

Moreover, SWFs from energy-poor countries may also aim to gain access to technology and expertise to develop energy production at home. Because industrialized economies such as the United States have effective regulations governing the export of dual-use and other strategically sensitive items, the transfer of the technology and expertise is particularly important when investing in the Middle East and Africa. For instance, China and Saudi Arabia signed an oil cooperation agreement that inaugurated a “strategic oil partnership” between the two countries in 1999. Some researchers and officials who are familiar with upstream oil and gas production in China suggest that Saudi Aramco, a Saudi national oil company, may have been a source of advanced technology and expertise that has enabled Chinese energy companies to improve their production from and management of existing fields at home (Leverett and Bader 2005).

In contrast, SWFs from energy-rich countries may have different investment preferences. The energy-rich countries do not face challenges to security of oil supplies as their energy-poor counterparts do. Instead, these countries face two challenges: first, natural resources are exhaustible, and their consumption and export leads to their depletion. Second, the international market for commodities is characterized by a high level of price volatility. Accordingly, energy-rich countries may wish to diversify their economies from natural resources.

Given these challenges, SWFs from energy-rich countries can help them diversify their economies. Since a surge in resource exports leads to a real appreciation

of the country's exchange rate and this hurts other exporters and producers in import-competing sectors, The UAE, for example, is using its funds for rapid diversification of its economy away from oil toward tourism, aerospace and finance. Such a diversification motive is as legitimate as the desire to raise the efficiency of its economy through acquiring stakes in leading global companies (Reisen 2008). Given their lack of concern about energy security and the intention to diversify, SWFs investing on behalf of an energy-rich home country may not invest in the energy industry as much as SWFs from energy-poor countries do.

In sum, I argue that SWFs from energy-poor countries have different incentives than do SWFs from energy-rich countries for their investment in the energy industry.

Thus, my theoretical framework generates the following hypothesis:

*Hypothesis 1: SWFs from energy-poor countries are more likely to invest in the energy industry than SWFs from energy-rich countries.*

### **Comparing SWFs and Private Investors**

As discussed earlier, SWFs from energy-poor countries are likely to invest in the energy industry in order to mitigate energy security concerns at home; such investments are not just economically but also politically motivated. Whereas for SWFs, political objectives sometimes dominate economic objectives in foreign investments, that is less so for private investors. Given SWFs' political objectives, I further argue that investment behaviors of SWFs and private investors are different even within the same energy-poor countries.



To begin, SWFs can be required to serve the political mandates of the home government. The logic is similar to that of government ownership in some domestic enterprises. First, governments may be involved in strategic industries such as oil and gas, telecommunications, and banking because those industries are too important to be left in the hands of the private sector. Second, governments may step in to correct market failures. For instance, SOEs may be created in order to provide public goods or support research and development (R&D) activities. Third, state ownership can be a response to social welfare and stability issues. Furthermore, governments may establish SOEs to safeguard employment because large layoffs could significantly affect the stability of the national economy. As a consequence, firms with dominant state ownership are generally operated for government objectives instead of profit maximization (He, 2010). In the same way, SWFs from energy-poor countries are likely to invest in foreign energy firms in order to pursue energy security on behalf of the home country.

In contrast, private investors are less willing to sacrifice their profit for the sake of the national interests of the home country than are SWFs. Unlike SWFs, which are part of the home government, private firms are structurally separate from the government (Cui and Jiang, 2012). As a result, the profit-seeking firms may not always align with government interests (DiMaggio, 1988; Oliver, 1991; Scott, 2005). Moreover, private investors receive fewer economic benefits from the government in practice, thus they have fewer incentives to pursue government objectives and bear the associated risks and costs by themselves. Hence, the investments by private investors are more likely to

be determined by the market process. Given the different objectives of private investors and SWFs, I generate the following hypothesis:

*Hypothesis 2:* SWFs from energy-poor countries are more likely to invest in the energy industry than private investors from the same energy-poor countries.

### **The Effect of Bilateral Relations on Energy Investment**

While energy-poor countries have an interest in investing in energy industry, we have to also consider the perspective of the host country, because a cross-border acquisition in the energy industry is likely to face resistance from the host countries. For acquisitions engaged in by SWFs from energy-poor countries, such political or public resistance could be strong, due to the host country's fear that the investments are being used as the means to pursue energy security.

As discussed in Chapter 4, bilateral relations between the home and host countries are positively associated with SWF investment. Foreign investments in politically sensitive industries are more closely watched by host governments than investments in other industries (Zhang and He, 2009). In particular, if the operation of a target firm involves military production, infrastructure, or natural resources, the acquisition of this firm may be blocked by political forces. For instance, the US government requires that transactions involving regulated industries should prepare to submit for extra layers of approvals after review by the Committee on Foreign Investment in the United States (CFIUS) (Wachtell et al., 2008). These regulated industries include energy, public utilities, gaming, insurance, telecommunications, financial institutions, defense, etc.

Due to the strategic importance of the energy industry, foreign investment in this industry would be closely watched by the host government. As discussed in Chapter 4, friendly states pose less of a security threat to each other. Therefore, better bilateral relations would reduce barriers to foreign entry in the energy industry and increase the likelihood of acquisition success. Chinese investment in Canada provides an excellent example. For most of the previous decades, diplomatic ties between the two countries remained limited, and China did not actively invest in the Canadian energy industry. With the strengthening of bilateral relations since 2009, China's SWF and state-owned oil companies rapidly increased their investment in the Canadian energy and mining sectors (Castelli and Scacciavillani, 2012: 143-44). As a result, I have the following hypothesis concerning the role of bilateral relations on SWF investment in the energy industry:

***Hypothesis 3:*** Foreign investors from countries that have better bilateral relations with the host country are more likely to invest in the host country's energy industry.

I argue that SWFs from energy-poor countries are more sensitive to the quality of bilateral relations between the home and host countries when investing in a foreign energy firm. When they invest in the energy industry overseas, SWFs from energy-poor countries can be perceived by the host countries not simply as business entities being driven by profit maximization, but as political actors pursuing energy security for the home country. This concern by the host country is the most prominent when the home and host countries have hostile political relations. If SWFs from energy-poor countries seek to enter a hostile host country, the latter would worry that giving a potential

belligerent access to scarce and strategically important energy resources could lead to a dangerous increase in military capabilities of the home country, in turn giving the home country a military advantage against the host country if the two states go to war. Driven by this national security concern, hostile host countries are more inclined to adopt policies to discriminate against SWFs from energy-poor countries. As a result, SWFs from energy-poor countries prefer to invest in the energy industry of the host countries with which they have better bilateral relations. This observation generates the following testable hypothesis:

***Hypothesis 4.*** Better bilateral relations have a stronger positive effect on the likelihood of energy investments by SWFs from energy-poor countries than on the likelihood of those by other types of investors.

### **Empirical Strategy**

This section first describes the data used in the empirical analysis that was performed to test my four hypotheses, specifically the measures of dependent and independent variables. I then outline the specification of the empirical model.

#### **Dependent Variable**

The dependent variable is a dummy variable *energy firm*. It was coded as one if the target firm is in the energy industry, and zero otherwise. The pie chart in Figure 5 shows the distribution of industries that received cross-border acquisitions by SWFs from ten countries between 1981 and 2012. The industries that received the most SWF investments were finance (208 deals), services (81), and manufacturing industries (78). As shown in Column (5) of Table 17, 62 acquisitions were allocated to energy

industries, with 30 from Singapore, 13 deals from UAE, and 10 from China. Figure 5 also presents a pie chart based on the total values in the industry. The total transaction value in energy industry is 19,552 million US dollars, the second highest ranking only after the finance industry (US\$53,781 millions). Hence, we can argue that energy is an attractive industry for cross-border investments by SWFs.

Although Abu Dhabi undertook the first SWF investment in the energy industry in 1987,<sup>41</sup> I restrict my sample period to 1992-2012 because the majority of SWFs only actively participated in energy industry since 1992.

As noted earlier, I classify SWF sponsoring countries into two groups: energy-rich and energy-poor countries. The countries in the former group in my dataset are Kazakhstan, Kuwait, Libya, Oman, Qatar, and UAE, whereas the latter include China, Singapore, Malaysia, and South Korea. Table 18 reports the summary statistics on the energy investments by the four types of investors separately, i.e., SWFs from energy-poor countries, private investors from energy-poor countries, SWFs from energy-rich countries, and private investors from energy-rich countries. Several results stand out. First, it is clear that in energy-poor countries, the proportion of energy investments to the total number of deals by SWFs (12.84%) is larger than that by private counterparts (10.22%). In energy-rich countries, this proportion by SWFs (12.32%) is slightly lower than that by private investors (13.62%).

As shown in Column (5) of Table 17, the Singapore SWFs are the most heavily represented in my sample of energy investments. Temasek and Government of

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<sup>41</sup> The Abu Dhabi Investment Authority (ADIA) bought a 5% stake in the French oil company Total

Singapore Investment Corporation (GIC) together account for half of the SWF investments in the energy industry. This is not surprising because Singapore is almost completely reliant on energy imports (98%, see Column (2) of Table 17), especially from neighboring Indonesia and Malaysia. Accordingly, this is consistent with my earlier argument that SWFs from energy-poor countries tend to invest in energy industries in order to ensure long-term energy security.

Second, perhaps the most noteworthy differences are that the cumulative deal values by private investments in energy industries as a proportion of total deals is about twice as much as that by SWFs. Nonetheless, this result should be interpreted with caution. As shown in Table 19, about 31% of energy deals by SWFs have missing deal values, resulting in an understatement of the value of all investments.<sup>42</sup> Consequently, I do not use deal value as a dependent variable in the main models.<sup>43</sup>

Since the dependent variable is dichotomies, I employ logit regression and robust standard errors. I also include year fixed effects to control for some unobservable factors driving energy investments in a particular year, as we observe greater numbers of energy investments in certain years.

### **Independent Variables**

The main independent variables of interest in Model 1 are three dummy variables indicating three types of investors, i.e., *SWFs from energy-rich countries*, *private*

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<sup>42</sup> The percentage of transactions with missing deal values in energy industries is the highest for private investors in energy-rich countries (50.93%) and the lowest for SWFs from energy-poor countries (20.93%). This suggests that SWFs tend to disclose more information compared to private investors in both types of countries.

<sup>43</sup> As shown below, a robustness check shows that the results remain the same using deal value as a dependent variable.

*investors from energy-rich countries, and private investors from energy-poor countries.* *SWFs from energy-rich countries* was coded one if the acquirer was an SWF from an energy-rich country, zero otherwise. The other two variables were coded in a similar manner. According to hypothesis 1 and 2, I expect that SWFs from energy-poor countries are more likely to invest in the energy industry than are the other three types of investors. Hence, I omitted the dummy variable *SWFs from energy-poor countries* because I use it as the reference category. As a result, the coefficient estimates of the other investors dummies should be interpreted as their likelihood to invest in the energy industry relative to *SWFs from energy-poor countries*, I expect negative coefficient estimates of these three types of investors based on my theoretical arguments above.

In order to assess the impact of bilateral relations on energy investment, I include *diplomatic risks* used in Chapter 5. As suggested by hypothesis 3, I expect that the coefficient of *diplomatic risks* is negative and statistically significant. Furthermore, to test hypothesis 4, I generate an interaction term of *SWFs from energy-poor countries* and *diplomatic risks*.

Control variables include macroeconomic (home country's energy use per capita, host country's GDP and fuel exports, as well as crude oil price), political (host country's political regime) and deal-level variables. First, to test whether energy investments are driven by the energy needs of the home country, I construct a variable capturing the energy security of the home country. There are several indicators to capture energy

security,<sup>44</sup> and I use *energy use per capita* to capture energy security because energy intensity of the economy is the most relevant for the size of impacts of energy shortages.

I also include the *host country's GDP* because it is robustly associated with FDI in a number of studies and is a common indicator of market size in host economies. The expectation is that its coefficient will be positive.

For another macroeconomic control, I examine whether the abundance of natural resources in the host country influences the likelihood of energy investments. To that end, I use a measure of fuel exports as a percentage of merchandise exports that is taken from the World Bank's World Development Indicators. Some recent work suggests that instead of export shares, studies of natural resources should use indices of resource endowments, that is, how much is under the ground (Brunnschweiler and Bulte 2008). However, as noted by Kolstad and Wiig (2008), natural resource rents are more attractive to investors than are the resources in the ground. Therefore, export shares are a better proxy than resource endowment. I expect that the presence of natural resources in the host country increases the likelihood of investments in energy industries.

*Crude oil price* represents an important factor in energy investments. Prices give an indication of the supply in relation to demand, reflecting scarcity and thus depletion of energy resources. Due to oil being a dominant energy carrier in most parts of the world, oil price is seen as a crucial indicator in the energy market (Kruyt et al., 2009). The data is obtained from *BP Statistical Review of World Energy 2014*.

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<sup>44</sup> See Kruyt et al. (2009) for an extensive review on indicators for energy security.



Political institutions in host countries have long been believed to be conducive to FDI (Busse 2003, Jensen 2003). This is more important to energy investments because host governments control either the actual energy supply or the conditions under which investors develop the energy fields. Accordingly, energy investments may be related to political regimes in host countries. More specifically, democratic countries offer better property rights protection than authoritarian regimes (Li and Resnick 2003), thereby reducing risks and uncertainty – this is particularly important for energy investments. Thus, I include a variable host country's *Political regime* that measures the degree of the democratic regime. The index is taken from the Polity IV project and ranges from -10 (fully autocratic) to +10 (fully democratic).

Finally, I include a dummy variable *multiple acquirers* to control for the possible effects of joint ventures. The variable was coded one if the firm is acquired by a joint venture, and zero if the firm was unilaterally acquired by an investor. Since investment in energy industries usually takes a great deal of capital and a “matching appetite for risk” (*The Economist*, 1998), I expect that multiple acquirers are more likely to invest in energy firms. Table 19 presents the summary statistics and Table 20 reports the correlation matrix of variables.

### **Empirical Results**

I report the results of logit models in Table 21. In Model 1, the coefficient estimates of *SWFs from energy-rich countries*, *private investors from energy-rich countries*, and *private investors from energy-poor countries* are negative and statistically significant. Substantively, the estimates of these dummy variables indicate that energy

investments are less likely to be acquired by energy-rich SWFs, energy-rich private investors and energy-poor private investors, compared to energy-poor SWFs (the reference category). This finding provides supporting evidence to Hypotheses 1 and 2. Figure 6 plots the marginal effects of each type of acquirer. It shows that the probability of energy investment is highest for SWFs from energy-poor countries. Compared to SWFs from energy-poor countries, SWFs from energy-rich countries and private investors from energy-poor countries are less likely to invest in the energy industry by 7% and 5%, respectively.

With respect to the impact of bilateral relations between the home and host countries, the various specifications in Table 21 all suggest that a lower level of diplomatic risk (i.e., better bilateral relations) is more likely to be associated with energy investment. Substantively, the move from the lowest to the highest levels of diplomatic risks (i.e., worse bilateral relations) in the sample lowers the probability of energy investment by 8.9 percentage points (from 11.4% to 2.5%), which is a 78% decrease in probability. Thus, hypothesis 3 is strongly supported.

To assess the moderating effect of bilateral relations, I include only the dummy variable for *SWFs from energy-poor countries* and its interaction with bilateral relations in Model 2. This model specification allows me to test Hypothesis 4 regarding the relative importance of bilateral relations for SWFs from energy-poor countries. The interaction term is positive and statistically significant. Figure 7 plots the predictive margins of energy-poor SWFs with 95 percent confidence intervals. It shows that the negative effect of diplomatic risks on energy investment is stronger when the target firm

is acquired by an SWF from energy-poor countries than by other types of investors, although the two confidence intervals overlap a bit. These results suggest that bilateral relations do help SWFs from energy-poor countries in cross-border acquisitions, which is consistent with my hypothesis.

The results of most of the control variables are consistent with my expectation. Across all models, *multiple acquirers* increase the likelihood of energy investments. The effect of *oil price* is positive and statistically significant, showing that a rise in the real price of crude oil seems to make foreign investors more interested in the energy industry.

Countries with more democratic regimes tend to attract more investments in the energy industry across all models. This result confirms that when investing in the energy industry, secure property rights protection in host countries play a fundamental role to foreign investors because the investments in extractive industries cannot be easily disinvested in response to political change.

The coefficient estimate of a host country's *GDP* is negative and statistically significant. This result suggests that energy investments are not motivated by market seeking. Moreover, a country with a large market size provides more investment opportunities other than energy resources. While host country's *GDP* and political regime are highly correlated (0.618) in the estimation sample, their variance inflation factor (VIF) scores are 1.92 and 2.42, respectively, and do not exceed the threshold of 10 for serious multicollinearity.

In addition, the coefficient estimate of *energy use per capita* of the home country is negative and statistically significant, thereby indicating that the low level of energy

use in the home country increases the likelihood of energy investments. One issue with the energy use variable is that it captures the amount of resources each person consumes. For example, while energy security is crucial for China, this variable is underweighted by the large size of the population. Therefore, exploring an alternative measure of energy security in future research would help us to understand the impact of the home country's energy security concerns on energy investment.

As a robustness check, I test the results with respect to an alternative classification of SWFs. I use commodity and non-commodity SWFs obtained from the SWF Institute as an alternative classification methodology of SWFs. As noted earlier, Malaysia as a resource-rich country now belongs to the group of non-commodity countries, and the rest of countries remain in the same group. The results are shown in the first column of Table 22. As seen from Model 3, the key explanatory variables have stable results regardless of the classification of SWFs used.

Finally, I extend my model to deal value data, despite the problem of missing data in deal values in many observations. I use the natural logarithm of real transaction value as a dependent variable. I employ OLS regression models with a sample of all the foreign acquisitions in the energy industry. As shown in Model 4 in Table 22, the key results remain the same. Compared to SWFs from energy-poor countries, other investors are involved in energy deals with smaller transaction values. Moreover, diplomatic risks are negatively associated with deal value in the energy industry.

## **Conclusions**

In this chapter, I investigate the heterogeneous preferences of SWF investments in strategic industries, paying particular attention to the energy industry. I begin by reviewing two types of SWF countries, i.e., energy-rich and energy-poor countries. The energy resource endowment of SWFs has different implications for the investment strategies in the energy industry. In particular, in pursuit of energy security for the home country, SWFs from energy-poor countries are more likely to invest in the energy industry compared to either SWFs from energy-rich countries or private investors from both type of countries. Given the strategic importance of energy, investments in this industry are likely to face institutional pressures from host countries. The institutional pressures are more pronounced with the deterioration of bilateral relations between the home and host countries, especially for SWFs from the energy-poor countries.

## CHAPTER VI

### CONCLUSIONS AND IMPLICATIONS

SWF investments have increased dramatically across the globe in recent years. The fundamental research question in the small but growing body of SWF literature is whether SWFs are politically motivated. Although this is an important question, I argue that we should shift our attention to an alternative question to enhance our understanding of SWF investment--namely, how state ownership affects SWF investment abroad. This is because SWFs are, by definition, assets of the home government, which means they inevitably have to help achieve political objectives of the home country. Furthermore, we should view SWF investment as a result of the interaction between the investment strategies of SWFs and the responses from the host countries. To answer this alternative research question, my dissertation offers a theoretical framework and systematic empirical evidence based on a new dataset at the deal-level. The results generate several important implications for the policymakers in both the home and host countries. In what follows, I first highlight the key arguments and empirical evidence of my dissertation. I then discuss the implications of my findings for policymakers. Finally, I suggest several possible future research directions.

#### **Summary of Argument and Findings**

The central question of this dissertation is how state ownership affects SWFs in terms of both their investments abroad and their responses to discriminatory treatment from the host countries. To answer this question, I offer a general theoretical framework

to understand the ways in which two political and institutional factors influence SWF investments relative to private investments. The first political factor is bilateral relations between the home and host countries. I argue that SWF investments raise more national security concerns and thus face additional discrimination from the host countries compared to private investments. This discrimination is more pronounced when the home and host countries have hostile bilateral relations. Consequently, compared to private investors, SWFs are more likely to be associated with acquisition deals in host countries that have better bilateral relations with home governments. It should be noted that SWFs are strategic actors. Facing these potential obstacles to foreign investments, SWFs may seek to collaborate with other firms. By investing in partnership with private investors, SWFs send a credible signal to the host government that they are likely to be constrained to serve the home government's political agenda versus managing the firm against the free market principle. By investing with SWFs from countries that have closer political relations with the host country, an SWF may be identified as a "friend's friend" by the host government. Thus, partnering with other investors may help alleviate discriminatory treatment faced by SWFs.

The second important factor for understanding how state ownership affects SWF investments is the institutional distance between the home and host countries. Greater institutional distance often implies higher risks to investments. While both SWFs and private investors may wish to avoid risks, there are a number of reasons to believe that SWFs are more tolerant to risk than are private investors. The "soft budget constraints", lack of explicit liabilities, domestic conflicts of interest, and the ways through which

SWF managers are evaluated make SWFs relatively more willing to take risks. Hence, although a high level of institutional distance increases investor's unfamiliarity with the host environment and creates risks and uncertainty, SWFs are less likely to be discouraged by institutional distance than private investors are.

To test these claims, I collected a new dataset on SWF investments from several sources. This dataset contains 7142 acquisitions (both SWF and private investments) in 145 target countries from 10 SWF acquirer countries and 26 non-SWF countries between 1981 and 2012. The statistical analysis of this dataset provides consistent evidence that bilateral relations, joint investment, and institutional distance are important factors behind SWF investments abroad.

Due to state ownership, SWFs can be required to serve strategic interests on behalf of their home governments. However, it is important to avoid over-generalizing the investment behavior and impact of SWFs. Precisely because strategic interests are heterogeneous among home governments, SWFs' investment preferences also vary, even in a strategic sector such as energy. In order to explore the heterogeneity of SWFs from different types of countries, I investigate how state ownership affects SWF investment in the energy industry. Energy industry is an intriguing case to study for two reasons. First, the energy industry is commonly considered to be a highly strategic sector. Energy is not only the most basic power source of social development and economic growth, but also is involved in many instances of international cooperation and conflicts in today's world politics. Second, studying the energy industry allows us to identify the diversity of



SWFs' motivations because SWFs from energy-poor countries have concerns over energy security for the home country while SWFs from energy-rich countries do not.

Specifically, I argue that SWFs from energy-poor countries are more likely to invest in the energy industry than are SWFs from energy-rich countries and private investors from both types of countries, largely due to concerns over energy security. At the same time, given the strategic importance of the energy industry, investors are more likely to raise national security concerns in the host countries, especially when they seek to invest in hostile host countries. This is particularly true for SWFs from energy-poor countries.

To subject these arguments to empirical tests, I analyze the likelihood of SWF investment in the energy industry by using data from 6,382 cross-border acquisitions (with 713 deals in the energy industry) from 1992 to 2012. I find consistent empirical evidence to support my arguments. When all else is equal, the probability of energy investments is highest for SWFs from energy-poor countries. Moreover, better bilateral relations are correlated with energy investment. Substantively, my analysis suggests that the move from the best to the worst bilateral relations reduces the probability of energy investment by 8.9 percentage points, which amounts to a 78% decrease in probability.

### **Policy Implications of Understanding SWFs Investments**

These findings are of particular interest to policymakers. From the perspective of the host country, the rise of SWFs has generated concerns over national. Due to these political and security concerns, policymakers in the host countries have called for more comprehensive regulations on SWF activities. For example, some analysts suggest that

SWFs should not be allowed to have voting rights in the companies in which they invest (*Economist*, 2008). These regulations, however, have at least two problems.

The first problem is that it is difficult to design a “one-size-fits-all” regulation of SWFs due to their heterogeneity. Not all SWF investments are politically driven at all times and thus, may not generate detrimental effects for the host countries. As shown in Chapter 5, SWFs from energy-poor countries are driven by energy security concerns when investing in the energy industry, whereas SWFs from energy-rich countries do not share the same concern. SWF investments driven purely by commercial motives can bring benefits to target firms and host countries without generating negative security externalities. As long-term investors, SWFs are unlikely to withdraw their investment due to short-term fluctuations in stock values, thus contributing to the stability of the firms in which they invest (Makhlouf, 2010). Moreover, they can enhance the survival of financially constrained firms, as seen in the wake of the 2007 global financial crisis. Therefore, host countries face a dilemma. Namely, they seek to gain access to foreign capital, but at the same time, have to minimize the potential national security threat from such state-owned funds.

The second problem with regulating SWF investments is that the host country may not be able to distinguish those SWFs that might have political agendas incongruent with the national interest of the host country from other SWFs that might have political interests in line with the host country. Even if the host country has the ability to identify these two different types of SWFs, it is legally and diplomatically difficult to regulate SWFs selectively. One solution to this problem is the pre-selection of SWF investments

as a result of the bilateral relations between the home and host countries. The results in Chapter 4 indicate that host countries probably have distinguished hostile SWF investments from benign ones. The quality of political relations serves a useful function for the host country to distinguish between these two different types of SWFs, enabling it to increase its capital stock without producing negative security externalities.

The findings of my study imply that host country concerns about SWFs are based on attitudes towards the sponsoring country rather than on the ways in which the SWF affect the firms in which they invest. For example, U.S. regulators prefer an investment by a Singaporean SWF over one by a Chinese SWF. This is not because the Singaporean SWF operates more transparently than the Chinese SWF does, but because Singapore is not perceived as a potential economic and political rival by the United States. Therefore, contrary to the conventional wisdom that the lack of transparency of SWFs creates more suspicions from host countries, I argue that enhancing financial transparency alone would not significantly alleviate the host country's resistance to some SWFs. The United States would still place Chinese SWFs under close scrutiny even if the latter became more transparent.

However, SWFs are not completely constrained by home and host country bilateral relations. My research suggests that when confronting suspicious host governments, an SWF might be able to address the concerns of the host country by collaborating with other investors. This finding may be particularly useful for SWFs from China and some Middle Eastern countries, which often are linked with controversies surrounding their home governments in international politics.

## **Implications for Future Research**

Going beyond this dissertation, I will explore several promising research directions in the future. First, although my dissertation is a useful first step in identifying political and institutional factors that influence SWF investment, much work remains to be done. One issue is the variation in host countries' attitudes towards SWF investments. In this era of globalization, most countries are open to foreign investments, but many are sensitive to foreign state investments. The question must be asked: why do some countries such as the UK and Australia seem to welcome SWF investments, whereas others like the US and Germany are more concerned about these funds?

Another question concerns how SWFs choose their partners when investing with other acquirers. Most studies investigate the target selection of SWFs, but little attention has been paid to the selection of their joint venture partners. In my dataset, 17% of cross-border acquisitions by SWFs involved multiple acquirers. For example, the Temasek subsidiaries Singapore Airlines and Dahlia Investment created a joint venture with China Great Wall Industries in order to form an air cargo company, Great Wall Airlines. Observers suggest that the choice of business partner in this joint venture by Temasek seems puzzling if it was driven purely by economic logic (Balding, 2012: 168), because Great Wall Industries had no experience or known subsidiary in the transportation or logistics sector, while Temasek had numerous subsidiaries or holdings in this field that would seem better suited to manage an air cargo operation. Hence, exploring the selection of the joint venture partners would further advance our understanding of the motivations behind SWF investments.

Third, I propose that future SWF studies should consider withdrawn deals more seriously. This is because all the announced deals, whether completed or not, reveal the motivations SWF investment. Excluding abandoned deals could introduce sample selection bias in our understanding of the political determinants of SWF investment.

Besides these potentially productive questions regarding SWFs, this dissertation also suggests future research directions for FDI studies in general. Most of the existing studies explore the impact of political risks on foreign investment. This dissertation suggests that state ownership causes SWFs to be more sensitive to discriminatory treatment but more willing to take risks associated with foreign investment. It implies that various types of risks associated with foreign investment, for example, political risks and market risks, may have varying effects on SWF investment behavior. Hence, future research should further investigate the heterogeneity of risks faced by foreign investors and the ways in which investors formulate strategies to cope with these risks.

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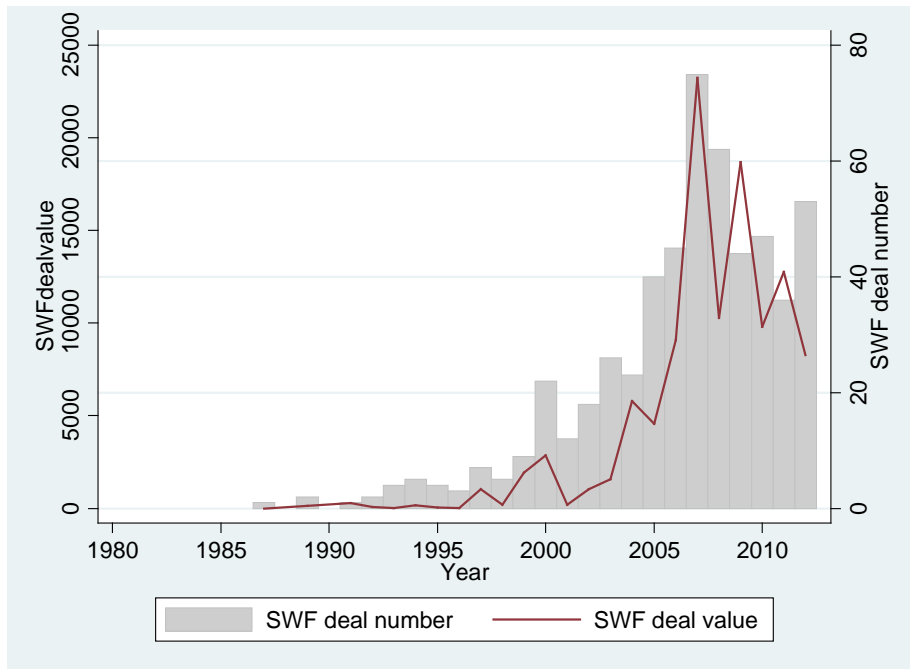
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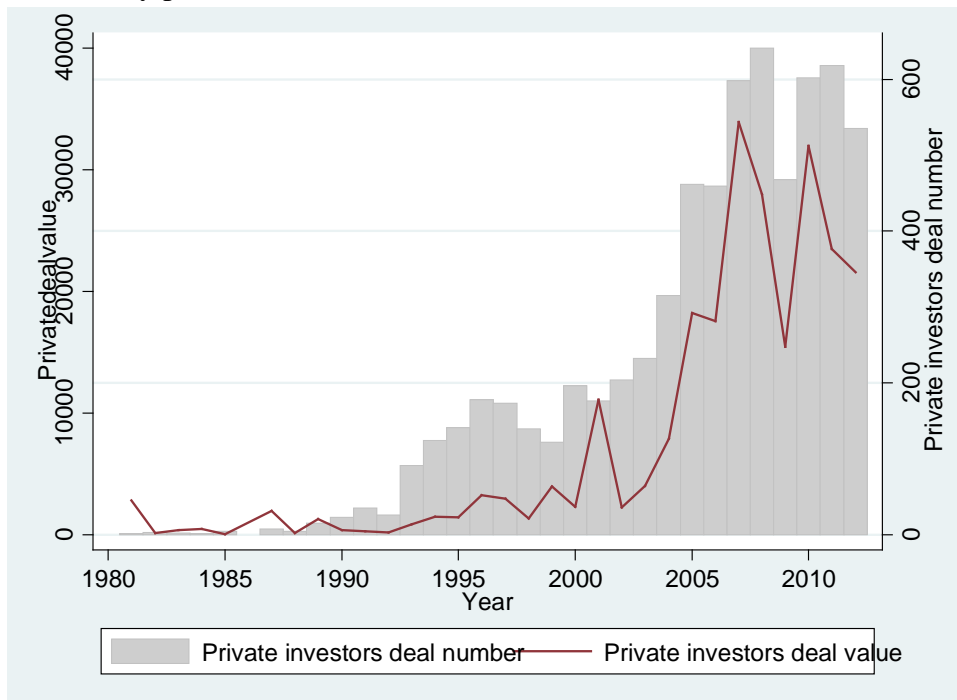
## APPENDIX

**Figure 1. Time Distribution Histogram**

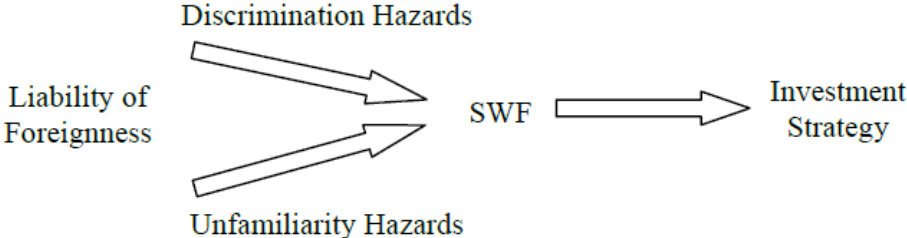
Panel A: By SWFs



Panel B: By private investors



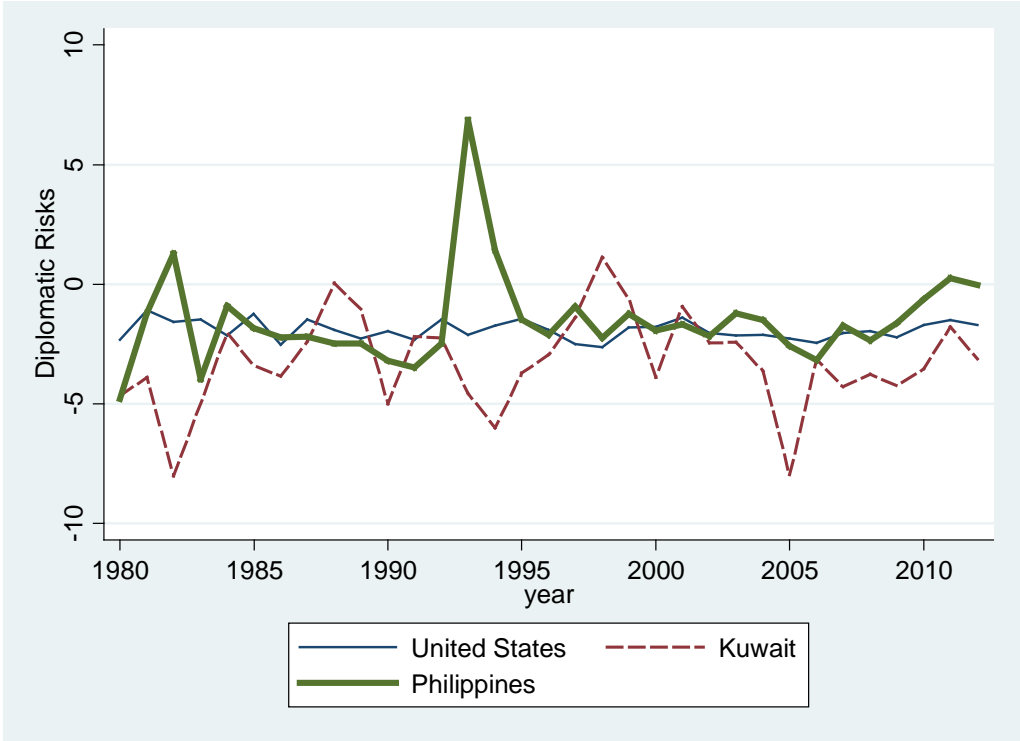
**Figure 2. Theoretical Framework**





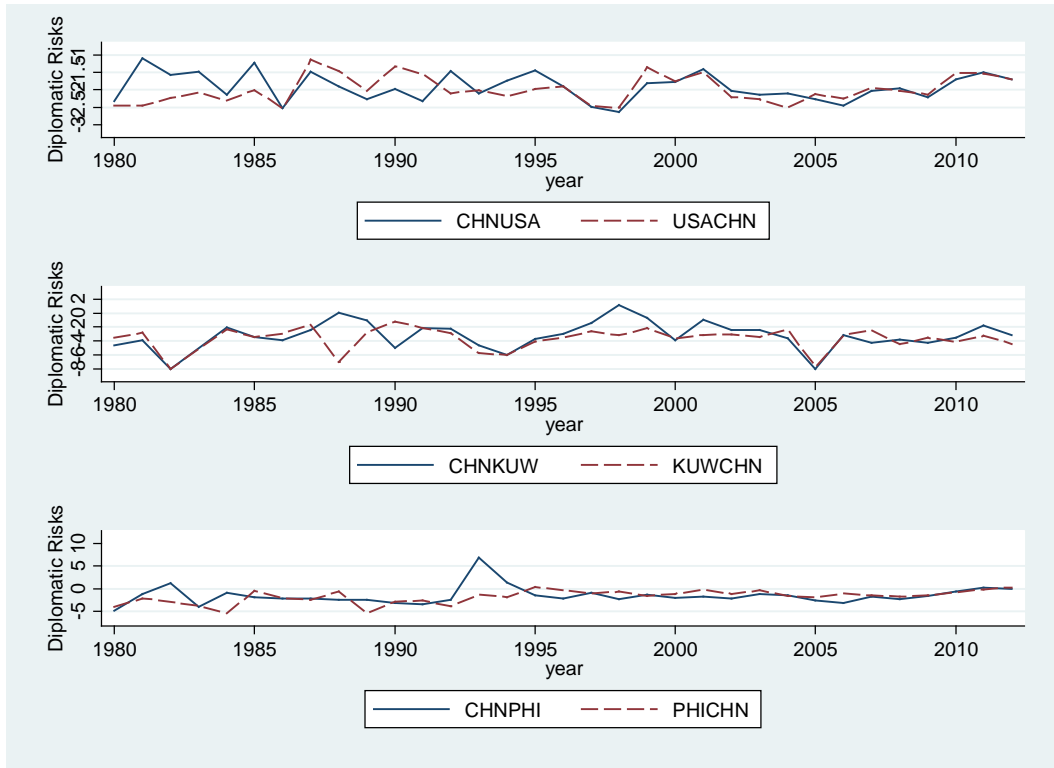
**Figure 3. Diplomatic Risks with China**

Panel A. Temporal Evolution

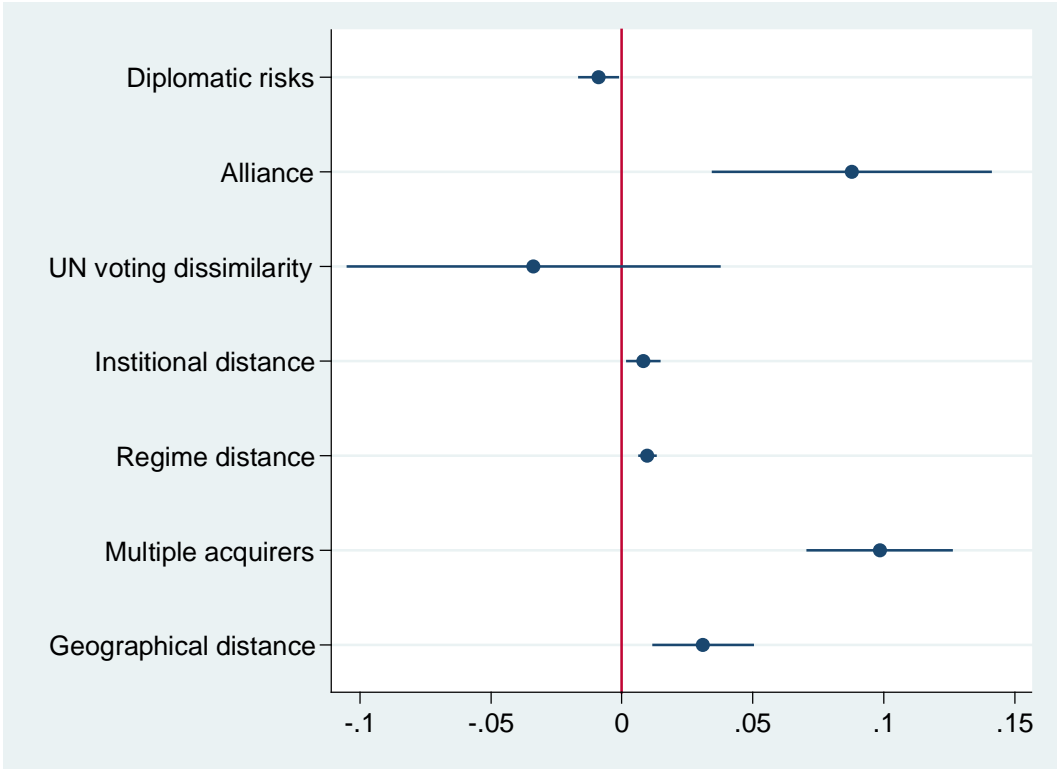


**Figure 4. Diplomatic Risks with China (Continued)**

Panel B. Directed Dyad Specificity

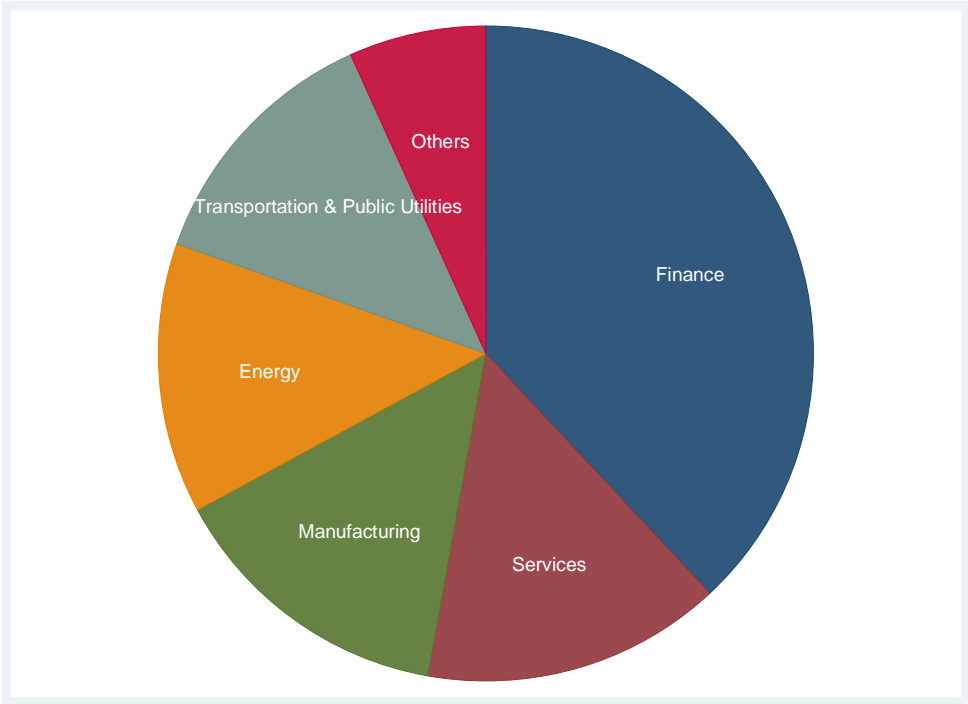


**Figure 5 Average Marginal Effects with 90% Confidence Intervals (Calculated From the Results In Model 1)**

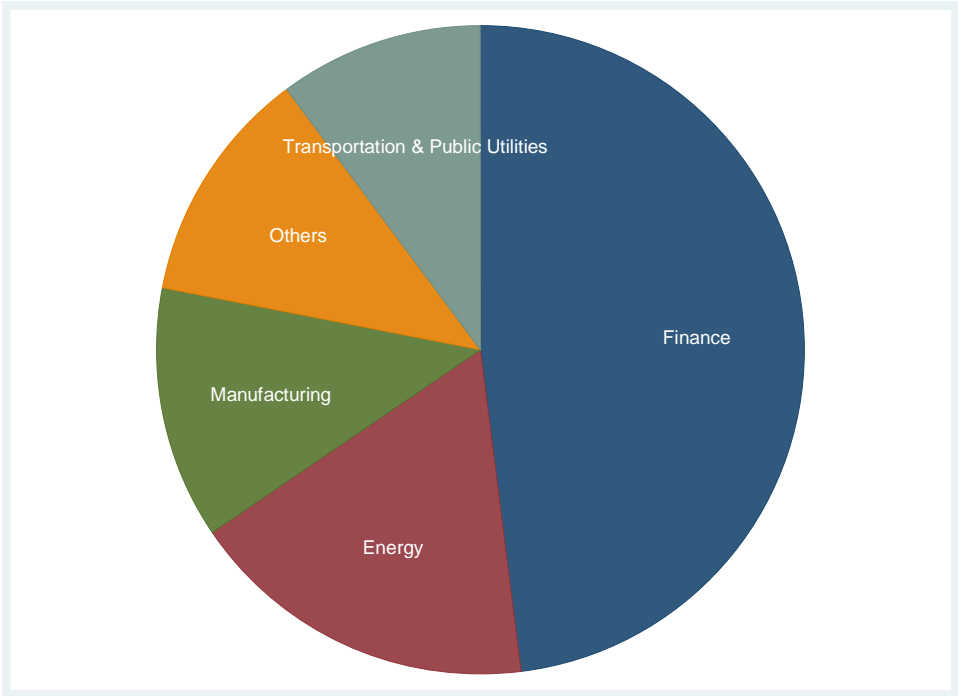


**Figure 6. Industry Distribution of SWF Investments**

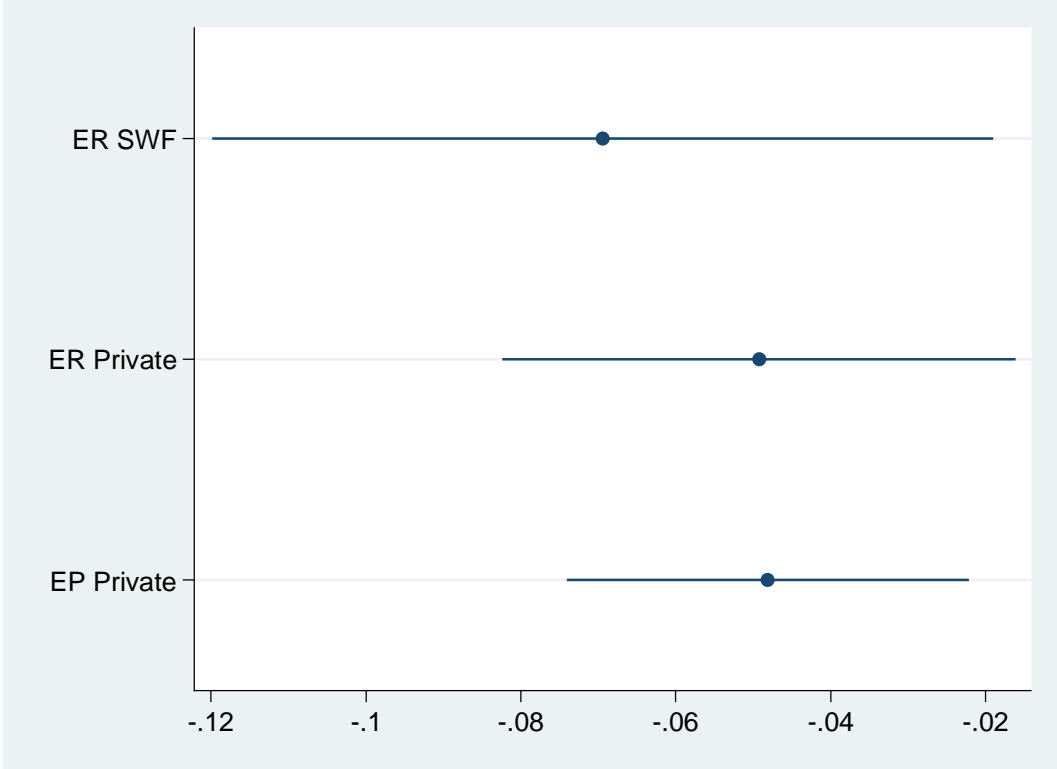
Panel A. By number of deals



Panel B. By deal value

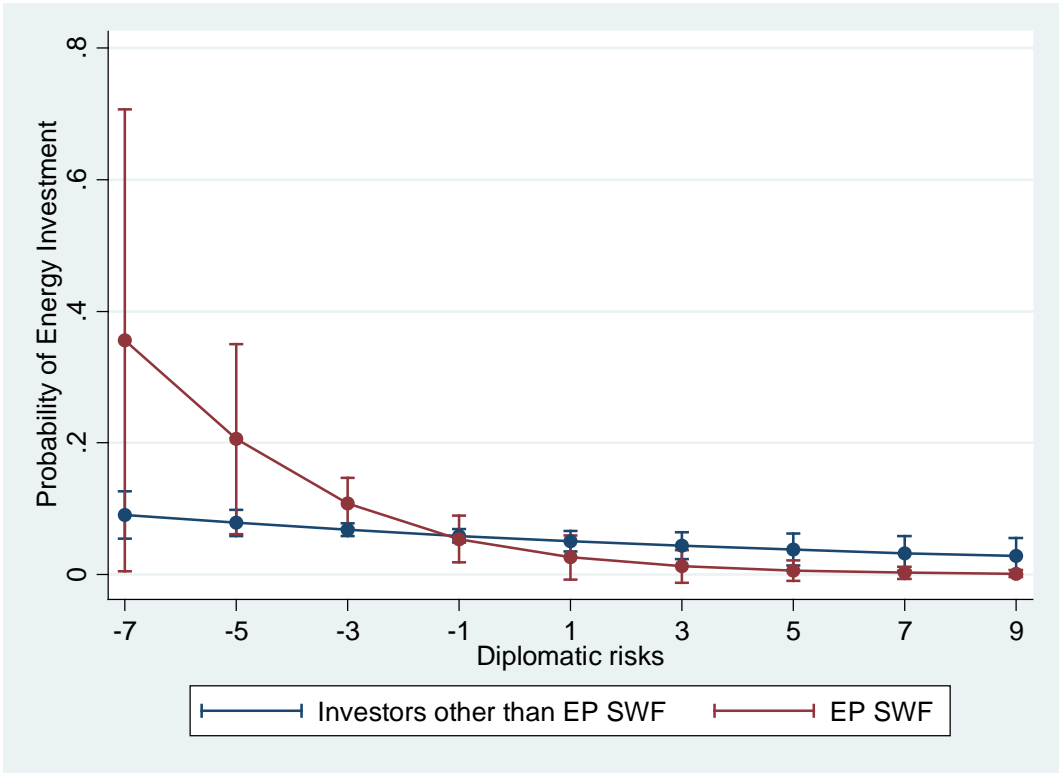


**Figure 7. Marginal Effects of Each Type of Acquirers Relative to EP SWF Based on Model 1**



Note: “EP SWFs” denotes SWFs from energy poor countries; EP Private” denotes private investors from energy poor countries; “EP SWFs” denotes SWFs from energy poor countries; “ER Private” denotes private investors from energy rich countries; and “ER SWFs” denotes SWFs from energy rich countries.

Figure 8. Predictive Margins of EP SWFs with 95% Confidence Intervals



Note: “EP SWF” denotes SWFs from energy poor countries.

**Table 1. Types of SWF Investment Examined in Finance Literature**

	Portfolio investment	Direct investment
Avendano and Santiso (2009)	√	
Bernstein et al.(2013)	√	
Boubakri et al.(2011)		√
Chhaochahario and Laeven (2009)	√	
Dewenter et al.(2009)	√	
Dyck and Morse (2011)	√	
Fernanades (2009)	√	
Fotak et al.(2008)	√	
Knill et al.(2012)		√
Miceli (2013)		√

**Table 2. Number of Deals Acquired by SWFs during 1981-2012**

<b>ID</b>	<b>SWF country</b>	<b>Number of deals acquired by SWFs</b>	<b>Cumulative percentage of all SWF deals</b>	<b>Included in the sample SWF country</b>
1	Singapore	528	50.43%	√
2	United Arab Emirates	173	16.52%	√
3	Malaysia	102	9.74%	√
4	Qatar	78	7.45%	√
5	China	63	6.02%	√
6	Kuwait	18	1.72%	√
7	Oman	15	1.43%	√
8	Libya	14	1.34%	√
9	Kazakhstan	13	1.24%	√
10	South Korea	10	0.96%	√
11	Australia	7	0.67%	
12	Brunei	7	0.67%	
13	Canada	4	0.38%	
14	Papua New Guinea	3	0.29%	
15	United States	3	0.29%	
16	Russian Fed	1	0.10%	
17	Ireland-Rep	2	0.19%	
18	New Zealand	2	0.19%	
19	Norway	2	0.19%	
20	Hong Kong	1	0.10%	
21	Sri Lanka	1	0.10%	
	<b>Total</b>	<b>1047</b>	<b>100%</b>	

Source: data obtained from SDC database



**Table 3. Data Source Composition of the Combined Dataset**

<b>Acquirers</b>	<b>Data source</b>	<b>Number of Deals</b>	<b>Percent</b>
SWFs	SDC	350	56.27%
	Zephyr	208	33.44%
	Capital IQ	64	10.29%
	Total	622	100%
Private investors	SDC	6520	100%
Total		7142	

**Table 4. Checking Whether One Can Rely on SDC for Non-SWF Deals in Singapore's Case**

Data source	SDC	Zephyr	Capital IQ	Total
Year	1986-2012	1986-2012	1995-2012	
Duplicate deals	3,152 <sup>a</sup>	3,040 <sup>b</sup>	519 <sup>b</sup>	6,711
Unique deals	4,840	796	199	5,835
Total	7,992	3,836	718	12,546

Note:

a. Deals duplicate with Zephyr and/or Capital IQ.

b. Deals covered by SDC.

**Table 5. Number of Deals Acquired by 36 acquirer countries in 145 Target Countries**

<b>Target Nation</b>	<b>By SWFs</b>	<b>By Private Investors</b>	<b>Total</b>	<b>Target Nation</b>	<b>By SWFs</b>	<b>By Private Investors</b>	<b>Total</b>
India	217	415	632	Algeria	1	2	3
United States	206	766	972	Tunisia	1	10	11
United Kingdom	180	356	536	Libya	1	3	4
China	144	941	1,085	Syria	1	2	3
Australia	64	869	933	Lebanon	1	14	15
Indonesia	60	838	898	Mongolia	1	35	36
Italy	59	62	121	Sri Lanka	1	47	48
Brazil	43	50	93	Cambodia	1	39	40
France	43	92	135	Brunei	1	21	22
Canada	41	217	258	Jamaica	0	5	5
Switzerland	38	46	84	Barbados	0	6	6
Thailand	34	415	449	Antigua and Barbuda	0	1	1
Germany	32	157	189	Guatemala	0	1	1
South Korea	30	93	123	Honduras	0	1	1
Malaysia	29	672	701	El Salvador	0	1	1
Singapore	29	545	574	Nicaragua	0	1	1
Russia	25	79	104	Panama	0	7	7
Spain	22	60	82	Venezuela	0	1	1
Japan	22	232	254	Suriname	0	2	2

Netherlands	20	76	96	Ecuador	0	2	2
Taiwan	17	137	154	Peru	0	10	10
Ukraine	16	15	31	Bolivia	0	4	4
Turkey	11	53	64	Chile	0	17	17
Egypt	10	74	84	Argentina	0	10	10
United Arab Emirates	10	80	90	Slovak Republic	0	7	7
New Zealand	10	106	116	Croatia	0	3	3
Georgia	9	7	16	Slovenia	0	1	1
Austria	7	17	24	Cyprus	0	10	10
Israel	7	15	22	Romania	0	8	8
Mexico	6	14	20	Estonia	0	4	4
Denmark	6	24	30	Lithuania	0	2	2
South Africa	6	73	79	Azerbaijan	0	2	2
Portugal	5	8	13	Iceland	0	1	1
Hungary	5	22	27	Mauritania	0	3	3
Czechoslovakia	5	10	15	Niger	0	2	2
Sweden	5	31	36	Cote d'Ivoire	0	7	7
Guinea	5	2	7	Liberia	0	2	2
Oman	5	30	35	Sierra Leone	0	3	3
Philippines	5	237	242	Ghana	0	7	7
Jordan	4	48	52	Togo	0	1	1
Kyrgyz Republic	4	11	15	Cameroon	0	3	3
Ireland	3	18	21	Nigeria	0	9	9
Belgium	3	23	26	Gabon	0	7	7

Luxembourg	3	12	15	Chad	0	1	1
Yugoslavia	3	4	7	Uganda	0	7	7
Norway	3	45	48	Kenya	0	5	5
Maldives	3	3	6	Burundi	0	1	1
Bahamas	2	3	5	Rwanda	0	3	3
Colombia	2	6	8	Djibouti	0	1	1
Greece	2	10	12	Eritrea	0	1	1
Bulgaria	2	2	4	Angola	0	2	2
Belarus	2	2	4	Mozambique	0	3	3
Armenia	2	1	3	Zambia	0	4	4
Finland	2	12	14	Zimbabwe	0	5	5
Mauritius	2	28	30	Malawi	0	5	5
Iraq	2	17	19	Namibia	0	2	2
Saudi Arabia	2	57	59	Madagascar	0	3	3
Bahrain	2	42	44	Sudan	0	14	14
Kazakhstan	2	22	24	Iran	0	3	3
Bangladesh	2	12	14	Yemen	0	3	3
Papua New Guinea	2	13	15	Kuwait	0	18	18
Trinidad and Tobago	1	0	1	Qatar	0	12	12
Monaco	1	1	2	Tajikistan	0	3	3
Poland	1	8	9	Uzbekistan	0	17	17
Malta	1	4	5	Bhutan	0	1	1
Latvia	1	4	5	Pakistan	0	59	59

Congo	1	2	3	Myanmar	0	13	13
Democratic Republic of Congo	1	4	5	Nepal	0	2	2
Tanzania	1	5	6	Laos	0	5	5
Ethiopia	1	0	1	Vanuatu	0	1	1
Seychelles	1	4	5	Solomon Islands	0	2	2
Morocco	1	10	11	Fiji	0	9	9
				Marshall Islands	0	2	2

**Table 6. SWFs in the Sample**

<b>Country</b>	<b>Sovereign Fund Name</b>	<b>Assets \$ Billion</b>	<b>Inception</b>	<b>Origin</b>
Dhabi	Abu Dhabi Investment Authority	627	1976	Oil
China	SAFE Investment Company	567.9	1997	Non-commodity
China	China Investment Corporation	439.6	2007	Non-commodity
Kuwait	Kuwait Investment Authority	296	1953	Oil
China - Hong Kong	Hong Kong Monetary Authority Investment Portfolio	293.3	1993	Non-commodity
Singapore	Government of Singapore Investment Corporation	247.5	1981	Non-commodity
Singapore	Temasek Holdings	157.2	1974	Non-commodity
China	National Social Security Fund	134.5	2000	Non-commodity
Qatar	Qatar Investment Authority	100	2005	Oil
UAE - Dubai	Investment Corporation of Dubai	70	2006	Oil
Libya	Libyan Investment Authority	65	2006	Oil
Kazakhstan	Kazakhstan National Fund	58.2	2000	Oil
UAE - Abu Dhabi	International Petroleum Investment Company	58	1984	Oil
UAE - Abu Dhabi	Mubadala Development Company	48.2	2002	Oil
South Korea	Korea Investment Corporation	43	2005	Non-commodity
Malaysia	Khazanah Nasional	36.8	1993	Non-commodity
Oman	State General Reserve Fund	8.2	1980	Oil & Gas

Source: SWF Institute.

**Table 7. Summary Statistics by Year**

Panel A: By SWF Acquirers

Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Total Number of Deals	Number of Deals with Values Disclosed	Average Deal Value (Constant 1982 US\$ millions)	Cumulative Deal Value (Constant 1982 US\$ millions)	Number of Acquisitions where percentage of share acquired less than 10	Number of Acquisitions where percentage of share acquired more than 50 and less than 100	Number of Acquisitions where percentage of share acquired 100
1987	1	0	0	0	1	0	0
1989	2	1	146.29	146.29	1	0	0
1991	1	1	285.49	285.49	0	0	0
1992	2	1	81.73	81.73	2	0	0
1993	4	2	6.17	12.34	3	0	0
1994	5	2	80.52	161.03	1	0	1
1995	4	2	19.13	38.25	0	0	1
1996	3	1	8.96	8.96	0	0	0
1997	7	6	171.00	1026.02	1	0	0
1998	5	4	48.43	193.72	1	0	0
1999	9	8	240.01	1920.10	0	0	1
2000	22	17	168.30	2861.17	3	0	11
2001	12	7	27.40	191.80	0	3	4
2002	18	8	129.45	1035.59	1	1	4
2003	26	18	86.80	1562.44	9	6	5
2004	23	14	413.65	5791.15	8	3	7



2005	40	26	175.95	4574.74	5	3	15
2006	46	31	293.38	9094.71	2	3	15
2007	75	56	414.95	23237.45	22	8	15
2008	62	44	233.44	10271.37	7	6	11
2009	44	28	667.27	18683.67	8	4	10
2010	47	32	306.50	9807.90	7	4	5
2011	36	19	671.60	12760.38	8	7	7
2012	52	32	240.14	7684.52	15	4	6
Total	546	360	4916.567	111430.8	105	52	118

**Table 8. Summary Statistics by Year (Continued)**

Panel B: By Private Acquirers

Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Total Number of Deals	Number of Deals with Values Disclosed	Average Deal Value (Constant 1982 US\$ millions)	Cumulative Deal Value (Constant 1982 US\$ millions)	Number of Acquisitions where percentage of share acquired less than 10	Number of Acquisitions where percentage of share acquired more than 50 and less than 100	Number of Acquisitions where percentage of share acquired 100
1981	1	1	2806.93	2806.93	0	0	1
1982	3	2	53.63	107.25	0	0	1
1983	2	2	175.70	351.41	0	0	2
1984	1	1	481.23	481.23	0	0	1
1985	4	3	11.21	33.64	1	0	1
1987	7	4	489.80	1959.19	1	0	1
1988	4	2	55.41	110.81	0	0	1
1989	15	11	116.09	1277.02	2	0	8
1990	23	22	15.84	348.58	3	5	7
1991	35	21	13.00	273.09	1	8	11
1992	26	13	11.71	152.24	3	5	9
1993	91	70	12.16	851.41	8	16	38
1994	124	92	15.90	1463.15	7	19	46
1995	141	88	15.91	1399.72	4	31	51
1996	178	116	27.91	3237.75	9	32	53
1997	172	119	21.03	2502.33	7	44	49

1998	139	75	17.84	1338.06	12	15	59
1999	122	87	45.34	3944.78	6	25	36
2000	196	119	19.03	2264.75	8	33	65
2001	176	96	115.50	11087.77	11	29	45
2002	204	130	17.23	2240.05	17	35	68
2003	227	132	25.29	3338.49	21	36	72
2004	309	193	19.51	3764.83	17	50	100
2005	462	245	74.48	18247.15	33	71	182
2006	453	289	45.41	13123.57	21	82	163
2007	590	378	87.36	33022.53	43	88	176
2008	639	385	72.42	27881.17	50	78	201
2009	461	280	54.26	15192.06	44	79	150
2010	594	393	68.01	26726.16	54	94	212
2011	612	398	58.93	23452.51	38	86	235
2012	522	340	52.69	17913.79	33	76	209
Total	6533	4107	5096.76	220893.44	454	1037	2253

**Table 9. Intensity of Cross-Border Acquisition Activity by Top Ten SWF countries**

Panel A: by acquirer countries

Acquirer nation			Number of deals			Deal value (Constant 1982 US\$ millions)		
	By SWFs	By private investors	Fraction	SWF fraction by column	By SWFs	By private investors	Fraction	SWF fraction by column
Qatar	50	69	42.02%	9.16%	14128.2	6562.17	68.28%	12.68%
Kazakhstan	28	49	36.36%	5.13%	1207.65	6902.97	14.89%	1.08%
Libya	3	9	25.00%	0.55%	516.451	556.157	48.15%	0.46%
UAE	117	461	20.24%	21.43%	29676	39327.7	43.01%	26.63%
Oman	8	53	13.11%	1.47%	383.547	687.631	35.81%	0.34%
Singapore	291	3063	8.68%	53.30%	50563.1	58027.8	46.56%	45.38%
China	26	608	4.10%	4.76%	11306	47931.2	19.09%	10.15%
Kuwait	5	223	2.19%	0.92%	1476.65	14297.5	9.36%	1.33%
Malaysia	16	1477	1.07%	2.93%	1932.24	24100.3	7.42%	1.73%
South Korea	2	521	0.38%	0.37%	241.036	22499.9	1.06%	0.22%
Total	546	6533		100.00%	111430.8	220893.4		100.00%

**Table 10. Intensity of Cross-Border Acquisition Activity by Top Ten SWF countries (Continued)**

Panel B: By Target countries

Target nation	Number of deals				Deal value (Constant 1982 US\$ millions)			
	By SWFs	By private investors	Fraction	SWF fraction by column	By SWFs	By private investors	Fraction	SWF fraction by column
United States	64	509	11.17%	11.72%	195.74	1929.83	9.21%	0.18%
China	58	1150	4.80%	10.62%	507.09	61.60	89.17%	0.46%
United Kingdom	56	247	18.48%	10.26%	250.79	32.80	88.43%	0.23%
India	35	273	11.36%	6.41%	7962.82	1356.55	85.44%	7.15%
Indonesia	29	510	5.38%	5.31%	61.06	635.39	8.77%	0.05%
Australia	29	596	4.64%	5.31%	4025.19	1334.31	75.10%	3.61%
Malaysia	18	443	3.90%	3.30%	144.30	51.04	73.87%	0.13%
Canada	18	136	11.69%	3.30%	2290.29	1298.00	63.83%	2.06%
Switzerland	16	39	29.09%	2.93%	264.86	3613.70	6.83%	0.24%
France	15	65	18.75%	2.75%	5829.75	4033.29	59.11%	5.23%
South Korea	14	64	17.95%	2.56%	171.55	129.04	57.07%	0.15%
Russia	13	38	25.49%	2.38%	1259.98	1060.89	54.29%	1.13%
Thailand	13	287	4.33%	2.38%	1647.77	1489.15	52.53%	1.48%
Singapore	12	360	3.23%	2.20%	2862.05	3274.02	46.64%	2.57%
Brazil	12	30	28.57%	2.20%	117.59	139.00	45.83%	0.11%
Germany	11	110	9.09%	2.01%	82.06	101.64	44.67%	0.07%
Japan	10	156	6.02%	1.83%	613.35	767.59	44.42%	0.55%
Egypt	7	51	12.07%	1.28%	16609.46	20921.79	44.26%	14.91%
Netherlands	7	51	12.07%	1.28%	2105.10	2779.75	43.09%	1.89%

Georgia	6	6	50.00%	1.10%	4767.85	6436.33	42.55%	4.28%
Spain	6	38	13.64%	1.10%	2269.45	3215.64	41.37%	2.04%
Ukraine	6	9	40.00%	1.10%	17968.16	26094.20	40.78%	16.12%
Turkey	6	44	12.00%	1.10%	84.67	1784.16	4.53%	0.08%
Italy	5	37	11.90%	0.92%	60.42	92.05	39.63%	0.05%
United Arab Emirates	5	57	8.06%	0.92%	715.06	1160.07	38.13%	0.64%
Mexico	5	11	31.25%	0.92%	14363.42	24025.75	37.42%	12.89%
Guinea	4	1	80.00%	0.73%	1899.53	3400.29	35.84%	1.70%
Sweden	4	24	14.29%	0.73%	538.20	980.11	35.45%	0.48%
Jordan	4	40	9.09%	0.73%	349.63	654.32	34.83%	0.31%
South Africa	4	44	8.33%	0.73%	4599.51	8815.06	34.29%	4.13%
Vietnam	4	109	3.54%	0.73%	381.93	796.11	32.42%	0.34%
Taiwan	4	94	4.08%	0.73%	177.51	4428.90	3.85%	0.16%
New Zealand	3	79	3.66%	0.55%	19.65	528.69	3.58%	0.02%
Belgium	3	15	16.67%	0.55%	2221.37	5409.26	29.11%	1.99%
Denmark	3	19	13.64%	0.55%	1794.43	5805.60	23.61%	1.61%
Maldives	3	2	60.00%	0.55%	2532.23	8228.54	23.53%	2.27%
Finland	2	10	16.67%	0.37%	2.72	10.61	20.39%	0.00%
Hungary	2	16	11.11%	0.37%	5144.52	21896.88	19.02%	4.62%
Austria	2	13	13.33%	0.37%	52.11	227.11	18.66%	0.05%
Kyrgyz Republic	2	6	25.00%	0.37%	437.69	2103.61	17.22%	0.39%
Saudi Arabia	2	47	4.08%	0.37%	85.78	420.56	16.94%	0.08%
Armenia	2	1	66.67%	0.37%	2997.12	16033.89	15.75%	2.69%
Philippines	2	143	1.38%	0.37%	70.52	545.38	11.45%	0.06%
Oman	2	19	9.52%	0.37%	367.92	2976.85	11.00%	0.33%
Portugal	2	3	40.00%	0.37%	93.42	0	100.00%	0.08%

Papua New Guinea	1	8	11.11%	0.18%	377.92	0	100.00%	0.34%
Malta	1	2	33.33%	0.18%	56.41	5146.51	1.08%	0.05%
Bangladesh	1	9	10.00%	0.18%	0.16	31.97	0.48%	0.00%
Sri Lanka	1	32	3.03%	0.18%	0.01	7.78	0.10%	0.00%
Kazakhstan	1	13	7.14%	0.18%	0.69	1485.15	0.05%	0.00%
Democratic Republic of Congo	1	2	33.33%	0.18%	0	7.55	0.00%	0.00%
Poland	1	6	14.29%	0.18%	0	10.03	0.00%	0.00%
Brunei	1	19	5.00%	0.18%	0	32.04	0.00%	0.00%
Tunisia	1	9	10.00%	0.18%	0	120.54	0.00%	0.00%
Iraq	1	14	6.67%	0.18%	0	8.75	0.00%	0.00%
Ireland	1	10	9.09%	0.18%	0	807.02	0.00%	0.00%
Mauritius	1	22	4.35%	0.18%	0	113.28	0.00%	0.00%
Cambodia	1	23	4.17%	0.18%	0	8.62	0.00%	0.00%
Algeria	1	2	33.33%	0.18%	0	2.21	0.00%	0.00%
Belarus	1	1	50.00%	0.18%	0	616.68	0.00%	0.00%
Libya	1	2	33.33%	0.18%	0	1824.79	0.00%	0.00%
Tanzania	0	3	0.00%	0.00%	0	80.34	0.00%	0.00%
Slovak Republic	0	7	0.00%	0.00%	0	1.46	0.00%	0.00%
Ecuador	0	1	0.00%	0.00%	0	1773.15	0.00%	0.00%
Zambia	0	4	0.00%	0.00%	0	6.22	0.00%	0.00%
Colombia	0	4	0.00%	0.00%	0	13.68	0.00%	0.00%
Greece	0	7	0.00%	0.00%	0	160.08	0.00%	0.00%
Cote d'Ivoire	0	6	0.00%	0.00%	0	1.96	0.00%	0.00%
Niger	0	1	0.00%	0.00%	0	260.61	0.00%	0.00%
Nepal	0	2	0.00%	0.00%	0	1.86	0.00%	0.00%

Barbados	0	5	0.00%	0.00%	0	558.42	0.00%	0.00%
Mongolia	0	21	0.00%	0.00%	0	35.57	0.00%	0.00%
Malawi	0	4	0.00%	0.00%	0	0.05	0.00%	0.00%
Bolivia	0	2	0.00%	0.00%	0	132.21	0.00%	0.00%
Bulgaria	0	2	0.00%	0.00%	0	61.73	0.00%	0.00%
Yemen	0	3	0.00%	0.00%	0	1.16	0.00%	0.00%
Lithuania	0	2	0.00%	0.00%	0	2840.41	0.00%	0.00%
Chile	0	7	0.00%	0.00%	0	2745.55	0.00%	0.00%
El Salvador	0	1	0.00%	0.00%	0	37.13	0.00%	0.00%
Eritrea	0	1	0.00%	0.00%	0	229.30	0.00%	0.00%
Madagascar	0	1	0.00%	0.00%	0	0.16	0.00%	0.00%
Jamaica	0	3	0.00%	0.00%	0	319.73	0.00%	0.00%
Mauritania	0	2	0.00%	0.00%	0	8.38	0.00%	0.00%
Latvia	0	4	0.00%	0.00%	0	0.06	0.00%	0.00%
Argentina	0	6	0.00%	0.00%	0	446.21	0.00%	0.00%
Kuwait	0	14	0.00%	0.00%	0	202.07	0.00%	0.00%
Liberia	0	2	0.00%	0.00%	0	3092.87	0.00%	0.00%
Sierra Leone	0	1	0.00%	0.00%	0	48.23	0.00%	0.00%
Croatia	0	1	0.00%	0.00%	0	16.25	0.00%	0.00%
Czechoslovakia	0	8	0.00%	0.00%	0	74.09	0.00%	0.00%
Solomon Islands	0	1	0.00%	0.00%	0	299.96	0.00%	0.00%
Slovenia	0	1	0.00%	0.00%	0	7.40	0.00%	0.00%
Morocco	0	7	0.00%	0.00%	0	485.10	0.00%	0.00%
Congo	0	2	0.00%	0.00%	0	2.18	0.00%	0.00%
Pakistan	0	35	0.00%	0.00%	0	752.10	0.00%	0.00%
Romania	0	4	0.00%	0.00%	0	0.06	0.00%	0.00%



Qatar	0	9	0.00%	0.00%	0	246.16	0.00%	0.00%
Iran	0	3	0.00%	0.00%	0	151.07	0.00%	0.00%
Peru	0	6	0.00%	0.00%	0	20.08	0.00%	0.00%
Yugoslavia	0	2	0.00%	0.00%	0	11.01	0.00%	0.00%
Israel	0	10	0.00%	0.00%	0	2475.69	0.00%	0.00%
Cameroon	0	3	0.00%	0.00%	0	2.46	0.00%	0.00%
Myanmar	0	10	0.00%	0.00%	0	21.61	0.00%	0.00%
Nigeria	0	5	0.00%	0.00%	0	22.29	0.00%	0.00%
Uzbekistan	0	10	0.00%	0.00%	0	42.94	0.00%	0.00%
Namibia	0	1	0.00%	0.00%	0	16.63	0.00%	0.00%
Norway	0	29	0.00%	0.00%	0	6.85	0.00%	0.00%
Kenya	0	3	0.00%	0.00%	0	758.20	0.00%	0.00%
Laos	0	3	0.00%	0.00%	0	756.41	0.00%	0.00%
Gabon	0	4	0.00%	0.00%	0	0.24	0.00%	0.00%
Uganda	0	4	0.00%	0.00%	0	114.09	0.00%	0.00%
Bahrain	0	35	0.00%	0.00%	0	3.05	0.00%	0.00%
Sudan	0	13	0.00%	0.00%	0	24.22	0.00%	0.00%
Fiji	0	1	0.00%	0.00%	0	222.40	0.00%	0.00%
Antigua and Barbuda	0	1	0.00%	0.00%	0	0	0.00%	0.00%
Ghana	0	3	0.00%	0.00%	0	0	0.00%	0.00%
Lebanon	0	13	0.00%	0.00%	0	0	0.00%	0.00%
Burundi	0	1	0.00%	0.00%	0	0	0.00%	0.00%
Djibouti	0	1	0.00%	0.00%	0	0	0.00%	0.00%
Togo	0	1	0.00%	0.00%	0	0	0.00%	0.00%
Iceland	0	1	0.00%	0.00%	0	0	0.00%	0.00%
Bhutan	0	1	0.00%	0.00%	0	0	0.00%	0.00%

Estonia	0	1	0.00%	0.00%	0	0	.%	0.00%
Syria	0	1	0.00%	0.00%	0	0	.%	0.00%
Honduras	0	1	0.00%	0.00%	0	0	.%	0.00%
Mozambique	0	1	0.00%	0.00%	0	0	.%	0.00%
Suriname	0	2	0.00%	0.00%	0	0	.%	0.00%
Zimbabwe	0	2	0.00%	0.00%	0	0	.%	0.00%
Angola	0	1	0.00%	0.00%	0	0	.%	0.00%
Total	546	6533	10.7416	1	111430.8	220893.4	18.2562	1

**Table 11. Distribution of Multiple Acquirers by Acquirer Country**

Acquirer nation	Number of Deals By SWFs			Number of Deals By Private investors		
	Single acquirer	Multiple acquirers	Multiple acquirer deal fraction	Single acquirer	Multiple acquirers	Multiple acquirer deal fraction
South Korea	1	1	50.00%	480	41	7.87%
Kuwait	3	2	40.00%	200	23	10.31%
Libya	2	1	33.33%	7	2	22.22%
Singapore	229	62	21.31%	2929	134	4.37%
China	21	5	19.23%	571	37	6.09%
UAE	97	20	17.09%	440	21	4.56%
Kazakhstan	26	2	7.14%	46	3	6.12%
Qatar	49	1	2.00%	67	2	2.90%
Oman	8	0	0.00%	51	2	3.77%
Malaysia	16	0	0.00%	1418	59	3.99%

**Table 8. Distribution of Multiple Acquirers by Acquirer Country (Continued)**

Acquirer nation	Deal value By SWFs (Constant 1982 US\$ millions)			Deal value By Private Investors (Constant 1982 US\$ millions)		
	Single acquirer	Multiple acquirers	Multiple acquirer deal fraction	Single acquirer	Multiple acquirers	Multiple acquirer deal fraction
South Korea	45.3833	195.652	81.17%	17853.7	4646.26	20.65%
Libya	287.26	229.191	44.38%	303.17	252.988	45.49%
Kuwait	928.924	547.728	37.09%	12660.5	1637	11.45%
Singapore	37787.6	12775.5	25.27%	56355.3	1672.53	2.88%
UAE	24630.7	5045.32	17.00%	36159.4	3168.32	8.06%
China	9584.5	1721.52	15.23%	44309	3622.18	7.56%
Qatar	13449.4	678.748	4.80%	6556.24	5.93223	0.09%
Kazakhstan	1173.41	34.2365	2.83%	5869.62	1033.35	14.97%
Oman	383.547	0	0.00%	591.041	96.5899	14.05%
Malaysia	1932.24	0	0.00%	23077.3	1022.98	4.24%

**Table 12. Identity of SWF's Co-investors**

<b>Acquirer nation</b>	<b>With private investors</b>	<b>With other SWFs</b>	<b>Number of SWF joint investments</b>
Singapore	44	9	53
United Arab Emirates	13	13	26
China	13	4	17
Qatar	5	4	9
Malaysia	5	1	6
South Korea	2	1	3
Kazakhstan	2	0	2
Libya	2	0	2

**Table 13. A Summary of Cross-Border Acquisitions by SWFs and Private Investors**

	SWFs	Private Investors
Proportion of deals disclosing deal value information	66%	62%
Proportion of deals acquiring over 50% stake	61%	81%
Proportion of joint investment	19.1%	7.22%

**Table 14. Number of Acquisition Deals by SWFs and Private Investors between Alliances**

<b>Acquirer nation</b>	<b>Target nation</b>	<b>No. of SWF deals</b>	<b>No. of private deals</b>	<b>Acquirer nation</b>	<b>Target nation</b>	<b>No. of SWF deals</b>	<b>No. of private deals</b>
Kazakhstan	Russia	9	13	Japan	United States	0	2
Kazakhstan	Ukraine	6	2	Kuwait	Oman	0	1
Qatar	Jordan	4	1	Kuwait	Saudi Arabia	0	10
UAE	Egypt	4	29	Kuwait	Jordan	0	19
China	Russia	3	3	Kuwait	Egypt	0	12
Qatar	United Arab Emirates	2	1	Oman	Jordan	0	1
UAE	Oman	2	14	Qatar	Kuwait	0	3
Kazakhstan	Armenia	1	1	China	Pakistan	0	2
UAE	Algeria	1	1	Kuwait	Lebanon	0	2
Qatar	Tunisia	1	0	Kuwait	Sudan	0	5
China	Kazakhstan	1	4	Russian Federation	Ukraine	0	2
Kazakhstan	Belarus	1	0	United States	United Kingdom	0	4
Canada	Hungary	0	1	UAE	Kuwait	0	4
UAE	Jordan	0	15	Kuwait	Tunisia	0	6
United States	Netherlands	0	1	UAE	Lebanon	0	2
Qatar	Oman	0	1	UAE	Sudan	0	2
France	United States	0	5	Kuwait	Morocco	0	3

Canada	Brazil	0	1	Qatar	Saudi Arabia	0	3
UAE	Bahrain	0	7	Qatar	Lebanon	0	3
United Kingdom	United States	0	1	Kuwait	Algeria	0	1
UAE	Qatar	0	3	Panama	Brazil	0	1
Oman	Kuwait	0	1	United States	Japan	0	2
South Korea	United States	0	105	Libya	France	0	1
Colombia	Brazil	0	1	Qatar	Bahrain	0	1
UAE	Morocco	0	3	United States	Brazil	0	1
UAE	Tunisia	0	3	UAE	Libya	0	1
Kuwait	Qatar	0	3	Kuwait	United Arab Emirates	0	8
Oman	United Arab Emirates	0	3	Kuwait	Bahrain	0	10
Kuwait	Yemen	0	2	UAE	Saudi Arabia	0	25
Oman	Bahrain	0	4	Oman	Saudi Arabia	0	1



**Table 15. Description of Variables**

<b>Variable</b>	<b>Description</b>	<b>Source</b>
<i>A. Dyad-level variables</i>		
Diplomatic risks	Following the transformation defined by Desbordes (2012): $Diplomaticrisks_{ijt} = \frac{\sum f_{coop} w_{coop} + f_{conf} w_{conf}}{\sum f_{coop} + \sum f_{conf} + f_{neut}}$ where f and w stand respectively for the frequency of and the weight assigned to a given event.	GDELТ
Alliance		
Defense pact	Dummy variable equals 1 if target and acquirer countries are defense pact alliance.	COW
UN voting dissimilarity	The natural log of rescaled UN voting similarity, i.e., $=\log[s2un*(-1)+2]$ , because “s2un” ranges from -1 (dissimilar) to 1 (similar). The results also hold if not rescaled and logged.	Strezhnev and Voeten (2013)
Institutional distance	The summation of absolute difference of each item: Corruption, Law and Order, and Bureaucratic Quality. Details on these subcomponents can be found in Bekaert, Harvey, and Lundblad (2005), Table 1.	International Country Risk Guide (ICRG)
Distance	Distance between national capitals in miles (=ln(distance))	CEPII’s distances measures (GeoDist)
<i>B. Country-level variables</i>		
UK legal origin	Dummy variable equals 1 if the origin of the commercial law of a country is English Common Law, and zero otherwise.	La Porta et al. (1999)
GDP	logarithm of annual GDP (in constant 2005 U.S. dollars)	World Development Indicators
Fuel exports	Fuel exports (% of merchandise exports)	World Development Indicators
<i>C. Deal-level variables</i>		

SWF investment	Dummy variable equals 1 if the target is acquired by an SWF, zero if a private investor	SDC, Zephyr, Capital IQ
Finance	Dummy variable equals 1 if the target is in finance industry, and zero otherwise	SDC, Zephyr, Capital IQ
Energy	Dummy variable equals 1 if the target is in energy industry, and zero otherwise	SDC, Zephyr, Capital IQ
Multiple acquirers	Dummy variable equals 1 if the deal is acquired by multiple investors, and zero otherwise	SDC, Zephyr, Capital IQ

**Table 16. Descriptive Statistics****Panel A: Summary statistics**

Variable	Observation	Mean	Std. Dev.	Min	Max
SWF investment	6192	0.08	0.27	0	1
Diplomatic risks	6192	-2.23	1.15	-8	10
Alliance	6192	0.06	0.23	0	1
Defense pact	6192	0.06	0.23	0	1
UN voting dissimilarity	6192	0.22	0.31	0	1.07
Institutional distance	6192	3.46	2.15	0	9.5
Regime distance	6192	8.87	4.86	0	20
Multiple acquirers	6192	0.07	0.25	0	1
Geographical distance	6192	8.06	1.17	4.93	9.87
Fuel exports(j)	6192	0.54	0.50	0	1
UK legal origin(j)	6192	25.96	1.12	23.67	30.26
GDP(i)	6192	27.23	1.58	21.48	30.26
GDP(j)	6192	0.24	0.43	0	1
Finance	6192	0.07	0.25	0	1
Energy	6192	0.08	0.27	0	1

**Table 17. Descriptive Statistics (Continued)**

**Panel B: Correlation of Variables (N=6,192)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Diplomatic risks(1)	1												
Alliance (2)	-0.06	1											
Defense pact(3)	-0.06	0.97	1										
UN voting dissimilarity(4)	0.13	0.05	0.06	1									
Institutional distance(5)	0.09	-0.25	-0.25	-0.15	1								
Regime distance(6)	0.04	-0.28	-0.28	0.48	-0.05	1							
Multiple acquirers(7)	0.00	0.06	0.05	0.05	0.02	-0.02	1						
Distance(8)	0.06	-0.04	-0.04	0.61	-0.18	0.35	0.03	1					
UK legal origin(j) (9)	0.07	0.01	0.02	0.37	-0.07	0.10	-0.01	-0.02	1				
GDP(i) (10)	0.03	0.08	0.06	0.36	0.09	0.23	0.08	0.24	0.05	1			
GDP(j) (11)	0.14	-0.07	-0.06	0.60	-0.10	0.27	0.02	0.59	-0.06	0.23	1		
Finance(12)	-0.01	0.05	0.06	-0.15	0.00	-0.08	0.04	-0.11	-0.10	-0.14	-0.08	1	
Energy (13)	-0.03	0.03	0.01	0.03	0.03	0.01	0.04	0.07	-0.01	0.10	-0.02	-0.15	1

**Table 18. Logit Analysis of SWF Investment**

	Model 1	Model 2
Diplomatic risks	-0.151** (0.0637)	-0.152** (0.0638)
Alliance	1.188*** (0.408)	
Defense pact		0.982** (0.413)
UN voting dissimilarity	-0.376 (0.586)	-0.322 (0.589)
Institutional distance	0.132** (0.0543)	0.118** (0.0555)
Regime distance	0.153*** (0.0233)	0.149*** (0.0233)
Multiple acquirers	1.509*** (0.218)	1.491*** (0.218)
Geographical distance	0.527*** (0.164)	0.501*** (0.160)
Fuel exports(j)	0.00220 (0.00493)	0.00133 (0.00550)
UK legal origin(j)	0.0846 (0.192)	0.0823 (0.196)
GDP(i)	-0.693*** (0.100)	-0.687*** (0.101)
GDP(j)	0.0801 (0.0810)	0.0777 (0.0826)
Finance target	0.850*** (0.153)	0.946*** (0.161)
Energy target		0.696** (0.274)
Year Fixed Effects	Yes	Yes
Constant	-7.497* (3.985)	-7.838** (3.996)
Observation	6,192	6,192

Note: Robust z-statistics are in parenthesis. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level, respectively.

**Table 19. Robustness Check: Alternative Explanations**

	Model 3	Model 4	Model 5	Model 6
Diplomatic risks		-0.142** (0.0628)	-0.146** (0.0677)	-0.123* (0.0657)
Diplomatic cooperation	0.959** (0.435)			
Alliance	1.207*** (0.408)	0.936 (0.654)	1.305*** (0.411)	1.102*** (0.426)
UN voting dissimilarity	-0.459 (0.585)	-1.519** (0.622)	-0.275 (0.626)	-0.104 (0.628)
FDI restrictiveness		-2.686* (1.617)		
Trade			0.0555 (0.0914)	
Institution distance	0.118** (0.0549)	0.134** (0.0617)	0.141** (0.0580)	0.0947* (0.0556)
Regime distance	0.154*** (0.0234)	0.154*** (0.0335)	0.160*** (0.0249)	0.149*** (0.0256)
Multiple acquirers	1.498*** (0.216)	1.373*** (0.211)	1.556*** (0.230)	1.301*** (0.213)
Geographical distance	0.520*** (0.163)	0.812*** (0.238)	0.533*** (0.193)	0.457** (0.184)
Fuel exports(j)	0.000865 (0.00510)	0.00572 (0.00975)	0.00310 (0.00543)	0.000400 (0.00574)
UK legal origin(j)	0.116 (0.197)	0.0841 (0.303)	0.151 (0.247)	0.0230 (0.210)
GDP(i)	-0.691*** (0.101)	-0.677*** (0.0942)	-0.796*** (0.131)	-0.676*** (0.109)
GDP(j)	0.0775 (0.0839)	0.162 (0.101)	0.0172 (0.140)	0.115 (0.0851)
Finance target	0.939*** (0.161)	1.019*** (0.172)	0.932*** (0.172)	0.951*** (0.162)
Energy target	0.701** (0.273)	0.598** (0.301)	0.737** (0.318)	0.799*** (0.275)
Ownership shares acquired				-0.0148*** (0.00275)
Year Fixed Effects	Yes	Yes	Yes	Yes
Constant	-8.617** (4.294)	-12.62** (4.900)	-3.627 (5.389)	-6.877 (4.280)
Observations	6,192	4,029	5,122	5,566

Note: Robust z-statistics are in parenthesis. \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level, respectively.

**Table 20. Categorization of SWF Countries**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
SWF country	Net energy imports (% of energy use)	Fuel exports (% of merchandise exports)	SWF investments	Total energy investments	SWF energy investments	Classification in this study	Classification obtained from SWFI
Singapore	98.45	11.98	275	201	30	Energy poor countries	Non-commodity
South Korea	80.90	7.02	2	97	1	Energy poor countries	Non-commodity
China	8.30	1.78	25	190	10	Energy poor countries	Non-commodity
Malaysia	-47.56	11.95	14	107	0	Energy rich countries	Non-commodity
Kazakhstan	-117.42	67.16	27	21	5	Energy rich countries	Commodity
UAE	-252.78	65.99	91	61	13	Energy rich countries	Commodity
Oman	-365.45	82.89	5	9	0	Energy rich countries	Commodity
Qatar	-451.26	82.82	43	3	0	Energy rich countries	Commodity
Libya	-452.59	97.19	3	4	2	Energy rich countries	Commodity
Kuwait	-454.35	94.36	5	20	1	Energy rich countries	Commodity
Total			490	713	62		

**Table 21. Summary Statistics of Energy Investments**

	EP SWFs	EP private	ER SWFs	ER private
<b>Number of deals</b>				
Energy deals	43	570	26	108
Total deals	335	5576	211	793
Proportion	12.84%	10.22%	12.32%	13.62%
<b>Number of deals with a missing deal value</b>				
Energy deals with a missing deal value	9	130	8	55
Total energy deals	43	570	26	108
Proportion	20.93%	22.81%	30.77%	50.93%
<b>Cumulative deal value</b>				
Energy deals	11468.62	56747.1	7657.472	13257.77
Total deals	64042.34	148681	47388.47	54025.75
Proportion	17.91%	38.17%	16.16%	24.54%

Note: “EP Private” denotes private investors from energy poor countries; “EP SWFs” denotes SWFs from energy poor countries; “ER Private” denotes private investors from energy rich countries; and “ER SWFs” denotes SWFs from energy rich countries.



**Table 22. Summary Statistics of Variables Based on Samples in Table 21**

Variable	Observation	Mean	Std. Dev.	Min	Max
Target energy	6382	0.11	0.32	0	1
SWFs from energy rich countries	6382	0.03	0.16	0	1
Private investors from energy rich countries	6382	0.10	0.31	0	1
Private investors from energy poor countries	6382	0.80	0.40	0	1
SWFs from energy poor countries	6382	0.05	0.22	0	1
Diplomatic risks	6382	-2.24	1.17	-8	10
Multiple acquirers	6382	0.06	0.23	0	1
Oil price	6382	71.64	31.06	18.17	115.22
Energy per capita(i)	6382	2.12	0.29	1.30	2.66
Fuel exports (j)	6382	1.94	1.20	-2.30	4.59
GDP (j)	6382	27.21	1.62	20.14	30.26
Political regime (j)	6382	4.10	6.95	-10	10

**Table 23. Correlation Matrix of Variables Based on Samples in Table 21**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
SWFs from energy rich countries (1)	1										
Private investors from energy rich countries (2)	-0.06	1									
Private investors from energy poor countries (3)	-0.34	-0.68	1								
SWFs from energy poor countries (4)	-0.04	-0.08	-0.46	1							
Diplomatic risks (5)	-0.01	-0.05	0.06	-0.03	1						
Multiple acquirers (6)	0.04	0.01	-0.09	0.14	-0.02	1					
Oil price (7)	0.08	0.15	-0.13	-0.02	-0.02	0.02	1				
Energy per capita(i) (8)	-0.06	-0.01	-0.01	0.12	-0.07	-0.01	-0.09	1			
Fuel exports (j) (9)	0.02	0.10	-0.09	0.00	-0.02	0.04	0.19	-0.06	1		
GDP (j) (10)	0.04	-0.14	0.07	0.06	0.14	0.01	0.17	-0.06	-0.21	1	
Political regime (j) (11)	0.06	-0.03	-0.04	0.04	0.06	0.02	0.13	-0.14	0.18	0.09	1

**Table 24. The Logit Estimates of the Likelihood of Energy Investments**

Variables	Model (1)	Model (2)
SWFs from energy rich countries	-0.801*** (0.296)	
Private investors from energy rich countries	-0.568*** (0.194)	
Private investors from energy poor countries	-0.556*** (0.151)	
SWFs from energy poor countries		-0.393 (0.516)
Diplomatic risks	-0.0907** (0.0446)	-0.0775* (0.0450)
Diplomatic risks*SWFs from energy poor countries		-0.301* (0.181)
Multiple acquirers	0.449*** (0.156)	0.449*** (0.157)
Real oil price	0.257*** (0.0887)	0.252*** (0.0882)
Energy use per capita (i)	-1.541*** (0.137)	-1.552*** (0.137)
Fuel exports (j)	0.577*** (0.0535)	0.580*** (0.0536)
GDP(j)	-0.107*** (0.0377)	-0.107*** (0.0378)
Political regime(j)	0.0698*** (0.0106)	0.0698*** (0.0104)
Year fixed effects	Yes	Yes
Constant	-26.59*** (10.32)	-26.54*** (10.27)
Observations	6,382	6,382

Note: \*\*\*p<0.01; \*\*p<0.05, \*p<0.1.

Robust standard errors below coefficient estimates.

**Table 25. Robustness Checks**

Variables	Model (3) Target energy	Model (4) Deal value
SWFs from energy rich countries	-0.955*** (0.294)	-0.309** (0.146)
Private investors from energy rich countries	-0.699*** (0.171)	-0.388*** (0.0914)
Private investors from energy poor countries	-0.584*** (0.155)	-0.377*** (0.0781)
Diplomatic risks	-0.0839* (0.0453)	-0.0259*** (0.00992)
Multiple acquirers	0.438*** (0.156)	0.242*** (0.0792)
Real oil price	0.256*** (0.0889)	0.00275*** (0.000755)
Energy use per capita (i)	-1.545*** (0.135)	-0.593*** (0.0651)
Fuel exports (j)	0.579*** (0.0535)	0.0835*** (0.0107)
GDP(j)	-0.110*** (0.0376)	0.00826 (0.00742)
Political regime(j)	0.0669*** (0.0107)	0.00647*** (0.00149)
Year fixed effects	Yes	Yes
Constant	-26.32** (10.34)	0.957*** (0.268)
Observations	6,382	6,228
R-squared		0.072

Note: \*\*\*p<0.01; \*\*p<0.05, \*p<0.1.

Robust standard errors below coefficient estimates.