

Leviathan is in Action? The Political Motivation behind the Outbound Investments of SWFs

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Abstract

This paper studies the role of bilateral political relationship in the decision-making of sovereign wealth funds (SWFs). Based on the detailed data of SWFs' outbound investments in 2007-2017, this paper finds that SWFs tend to invest in countries with distant bilateral political relations. Furthermore, bilateral political relationship plays an important role in the choice of investment area and the determination of investment amount. The results of this study show that, unlike rational private investors who seek to maximize benefits and minimize risks, SWF's outbound investments have strong political motives.

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1. Introduction

One remarkable feature of the recent years regarding international cross-border capital flows has been the emergence of a novel actor, Sovereign Wealth Fund (SWF), which has rapidly become a major force in financial markets worldwide. SWFs are state-owned investment vehicles which derive their wealth from revenues related to commodity or from balance of payments or fiscal surpluses. They were assigned their vivid moniker by Andrew Rozanov (Rozanov 2005) and they surged to the headlines during financial crisis in 2008. Several SWFs (mostly Persian Gulf-based or coming from Eastern Asia) effectively rescued the western banking system by purchasing newly issued stocks, almost \$90 billion worth in total, in top

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American and European banks during that crisis period (Megginson and Fotak 2015). By the end of September 2018, the assets under the management of 79 SWFs all over the world (involving 66 countries) had reached 7.7 trillion US dollars¹.

Giving the huge assets, it is indeed critical to understand the investment behavior of SWFs. Some scholars [like Avendaño and Santiso (2009)] believe that SWFs invest similarly to other international investment vehicles, such as pension funds, buy-out funds et.al. SWFs are also stand-alone, managed by investment experts, and often take large stakes in listed companies: just alike hedge funds in investment style. Megginson, You, and Han (2013) think that SWFs can increase the liquidity of financial markets and they believe that there is no compelling reason to establish regulatory barriers to SWFs' inward investments.

But SWFs face more criticism and doubts in early days. In fact, cross-border SWF investments were often viewed as a threat by the recipient-country governments, especially by developed countries. In June 2007, German Chancellor Angela Merkel publicly warned about Russian SWFs buying pipelines and energy infrastructure in Europe. Farrell and Lund (2008) even called SWF the "new power brokers" directly. Mattoo and Subramanian (2009) attributed the distrust of SWFs to two aspects: first, the recipient countries were alert to the background of SWFs' government ownership; second, the motivation of SWFs' investments was likely to be political rather than economic.

So, it is valuable to examine the motivation of SWFs' outbound investments from the country perspective. Recent published SWFs-related works always focused on the motivation of foundation, operations, allocation strategies, investment decision-making process and the effect on the target firms et.al [Alhashel (2015), Fotak, Gao, and Megginson (2017), Megginson and Fotak (2015)]. And there are several literature focusing on the macroeconomic factors behind SWFs' investments [Debarsy, Gnabo, and Kerkour (2017), (Ciarlone and Miceli 2016)]. But the news regarding to outbound investments of SWFs recently seem to be often associated with some political headlines. For example, when Saudi Arabia faced enormous political pressure in 2018 due to the "Khashoggi Incident", its sovereign wealth fund PIF invested US\$500 million into the Russia-China Investment Fund (RCIF). Similar cases seem to imply that there may be some political considerations behind the behavior of SWFs.

However, there are few researches explaining the political motivation behind the outbound investments of SWFs. This phenomenon partly due to large information gaps. In fact, most SWFs publish only very few information about their investment activity and overall portfolio structure. Without sufficient data, it is difficult to study SWFs' behavior at the macro level.

Based on the unique database provided by China Investment Company(CIC), this paper attempts to analyze the role of bilateral international political relations in SWFs' cross-border investments, which is a useful supplement to the existing

¹ data source: SWF Institute database

literature on SWFs.

The remainder of this paper is as follows. In section 2, we present the background information on SWFs including their history and investment portfolios. Section 3 summarizes the literature. Section 4 describes the dataset and the econometric approach. Section 5 presents the main results. Section 6 draws the conclusions.

2. Background information on SWFs

Sovereign wealth fund is not a new phenomenon. Hildebrand (2007) thinks that SWF's history can be traced back to 1816 when Deposits and Consignments Fund was founded in France. Dewenter, Han, and Malatesta (2010) put up that the first SWF is the Permanent School Fund established by the Texas State Government in 1854. The first recognized modern SWF is the Kuwait Investment Authority (KIA), established in 1953. However, it is not until 2005 that the concept of sovereign wealth fund was formally proposed by Andrew Rozanov (a Goldman Sachs analyst) in a business report (Rozanov 2005) and there is no consensus in academic or practitioner literature, on the definition of SWF up to now. Miracky and Bortolotti (2009) argue that SWF should have the following characteristics: directly owned by the government, independent operation management from other government departments, no explicit pension obligations, diversification of investment in the pursuit of profitability, mainly in the international market. After surveying more than 30 papers, Capapé and Guerrero Blanco (2013) summarize that the definition of SWF mainly involves 13 elements. The biggest consensus is that SWF is a governed-owned investment vehicle.

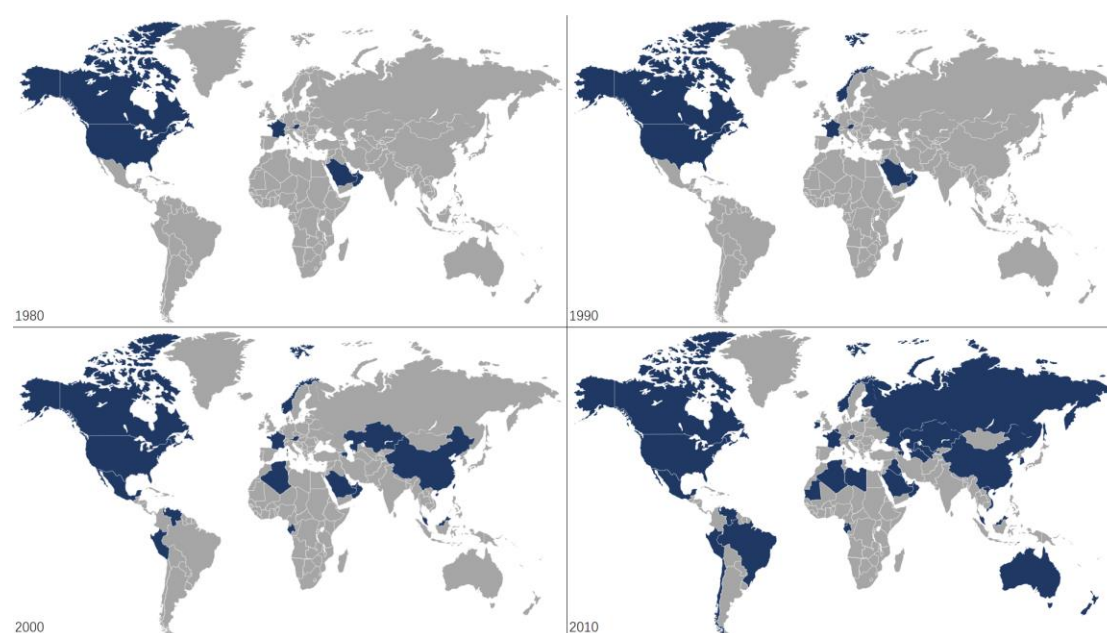


Figure 1: SWF's extension

With the bull market of commodity (especially oil, gas and minerals) in the early 21st century, SWF entered a period of rapid development, and the scale of assets expanded rapidly. During the financial crisis, SWFs, represented by China Investment Corporation (CIC), Singapore Government Investment Corporation (GIC) and Abu Dhabi Investment Agency (ADIA), attracted worldwide attention. By the end of September 2018, the assets under the management of 79 SWFs all over the world (involving 66 countries) had reached 7.7 trillion US dollars. Huge assets under management, providing financing flexibility and liquidity, sovereign background, and lack of transparency. These labels highlight SWF's very important and unique position in the international financial market.

Table 1 presents the names, assets under management (by the end of September 2018) and inception for the top 30 SWFs. Norway Global Pension Fund (NGPF), was the largest SWF, with more than one trillion assets. We can find that more than half of them are funded after 2000 and the AUM of the top 30 account for more than 97% of the total SWFs.

Table 1: Top 30 SWFs

No.	Name	Country	AUM (\$Bil)	Inception
1	Norway Government Pension Fund Global	Norway	1074.60	1990
2	China Investment Corporation	China	941.42	2007
3	Abu Dhabi Investment Authority	UAE	683.00	1976
4	Kuwait Investment Authority	Kuwait	592.00	1953
5	Hong Kong Monetary Authority Investment Portfolio	China	522.57	1993
6	SAFE Investment Company	China	439.84	1997
7	Government Investment Corporation	Singapore	390.00	1981
8	Temasek Holdings	Singapore	374.90	1974
9	National Social Security Fund	China	341.35	2000
10	Qatar Investment Authority	Qatar	320.00	2005
11	Public Investment Fund	Saudi Arabia	290.00	2008
12	Investment Corporation of Dubai	UAE	229.82	2006
13	Mubadala Investment Company	UAE	226.48	2002
14	Korea Investment Corporation	South Korea	134.10	2005
15	Australian Future Fund	Australia	107.42	2006
16	National Development Fund of Iran	Iran	91.00	2011
17	Alberta Investment Management Corporation	Canada	83.00	1976
18	National Welfare Fund	Russia	77.16	2008
19	Samruk-Kazyna	Kazakhstan	71.34	2008
20	Alaska Permanent Fund	United States	65.78	1976
21	Brunei Investment Agency	Brunei	60.00	1983
22	Libyan Investment Authority	Libya	60.00	2006
23	Kazakhstan National Fund	Kazakhstan	56.78	2000

No.	Name	Country	AUM (\$Bil)	Inception
24	Emirates Investment Authority	UAE	45.00	2007
25	Texas Permanent School Fund	United States	44.52	1854
26	Turkey Wealth Fund	Turkey	40.00	2016
27	State Oil Fund of Azerbaijan	Azerbaijan	38.99	1999
28	Khazanah Nasional	Malaysia	38.70	1993
29	New Zealand Superannuation Fund	New Zealand	26.63	2003
30	Ireland Strategic Investment Fund	Ireland	24.52	2001

Data source: SWF Institute; by the end of September 2018

China (including Hong Kong) possessed the most SWF assets (\$1.7 trillion), followed by the United Arab Emirates (nearly \$1.2 trillion) and Norway (nearly \$1.07 trillion). Singapore and Kuwait (about \$760 billion and \$600 billion, respectively) ranked fourth and fifth. It is worth noting that although the United States has been very vigilant about foreign government-backed investments and has imposed many restrictions, its several state-level SWFs managed more than \$150 billion assets then.

The investments data of the SWFs are provided by China Investment Company (CIC). Data are defined in 2007-2017 when SWFs outbound investments flourish. Considering the research value, this paper selects the data of the top 30 SWF funds (all of which were established in or before 2007) and each investment is over US\$10 million. There are 7,158 investments data from 18 SWFs countries, involving 75 recipient countries and the amount is \$983.26 billion. Table2-Table4 detail characteristics of SWF investment in our sample.

Table 2 describes the characteristics of SWF home countries. The Norway SWF have the largest number of investments and the largest investment value. Singapore ranks the both second. Russia only make 2 outbound investments, but the \$1.7 billion average value of these deals is more than 20 times larger than Norway's average investment.

Table 2: Outbound Investmens of SWFs from Acquirer Country (\$mil)

SWF Country	Abb.	Number of investments	Average size	% of total number	% of total value
Norway	NOR	3912	81.98	54.65%	32.62%
Singapore	SGP	1227	196.74	17.14%	24.55%
Qatar	QAT	114	982.33	1.59%	11.39%
UAE	UAE	336	307.93	4.69%	10.52%
China	CHN	166	537.90	2.32%	9.08%
Kuwait	KWT	288	157.88	4.02%	4.62%
South Korea	KOR	764	25.80	10.67%	2.00%
Saudi Arab	SAU	25	464.84	0.35%	1.18%
Azerbaijan	AZE	23	400.74	0.32%	0.94%

Canada	CAN	203	43.88	2.84%	0.91%
Malaysia	MYS	30	237.85	0.42%	0.73%
Libya	LBY	16	251.79	0.22%	0.41%
Russia	RUS	2	1700.00	0.03%	0.35%
Ireland	IRL	11	222.84	0.15%	0.25%
Australia	AUS	13	147.30	0.18%	0.19%
USA	USA	14	109.76	0.20%	0.16%
New Zealand	NZL	11	72.79	0.15%	0.08%
Bunia	BRN	3	73.88	0.04%	0.02%

Table 3 details the top 30 target countries attracting the most SWF investments. The directions of SWFs' investments are mainly into developed countries: the USA and UK are major investment destinations. It shows that USA and UK almost attract more than half of the total investment number and more than 40% of the total value. Switzerland, China and Germany are the next most popular target countries for SWFs, receiving 6.94%, 6.28% and 5.97% of total value respectively.

Table 3: Investments of SWFs in Top 30 Target Country

Target Country	Abb.	Number of investments	Average size	% of total number	% of total value
United States	USA	2527	98.46	35.30%	25.31%
UK	GBR	1592	120.83	22.24%	19.56%
Switzerland	CHE	122	559.03	1.70%	6.94%
China	CHN	363	170.00	5.07%	6.28%
Germany	DEU	172	341.55	2.40%	5.97%
France	FRA	137	339.28	1.91%	4.73%
Australia	AUS	128	259.90	1.79%	3.38%
Japan	JPN	288	87.25	4.02%	2.56%
Spain	ESP	69	349.81	0.96%	2.45%
India	IND	304	76.23	4.25%	2.36%
Italy	ITA	123	185.07	1.72%	2.32%
Brazil	BRA	115	162.81	1.61%	1.90%
Netherlands	NLD	122	139.49	1.70%	1.73%
Canada	CAN	151	106.17	2.11%	1.63%
Russia	RUS	30	498.68	0.42%	1.52%
Singapore	SGP	28	498.56	0.39%	1.42%
Sweden	SWE	154	69.20	2.15%	1.08%
Malaysia	MYS	56	139.23	0.78%	0.79%
South Korea	KOR	84	92.20	1.17%	0.79%
Turkey	TUR	14	537.86	0.20%	0.77%
Ireland	IRL	61	112.38	0.85%	0.70%
Denmark	DNK	18	222.04	0.25%	0.41%

UAE	UAE	26	150.20	0.36%	0.40%
Indonesia	IDN	23	169.19	0.32%	0.40%
Egypt	EGY	6	566.01	0.08%	0.35%
Ukraine	UKR	1	3000.00	0.01%	0.31%
Czech	CZE	1	2672.45	0.01%	0.27%
South Africa	ZAF	44	60.03	0.61%	0.27%
Thailand	THA	86	29.81	1.20%	0.26%
Luxembourg	LUX	22	114.81	0.31%	0.26%

Table 4 details the industrial distribution of the \$983.26 billion investments in our sample. It shows that finance, real estate, and energy are in the top three areas for SWFs' outbound investments. These three industries account for almost 60% of the total value of SWFs' outbound investments.

Table 4: Industrial Distribution of outbound investments by SWFs

Sector	Number of investments	average size	% of total number	% of total value
Finance	1141	210.22	15.94%	24.39%
Real Estate	692	281.79	9.67%	19.83%
Energy	498	214.87	6.96%	10.88%
Consumer Discretionary	894	83.90	12.49%	7.63%
Industrials	930	78.90	12.99%	7.46%
Healthcare	635	97.77	8.87%	6.31%
Materials	600	98.63	8.38%	6.02%
Information Technology	753	69.45	10.52%	5.32%
Consumer Staples	505	70.16	7.06%	3.60%
Infrastructure	69	509.29	0.96%	3.57%
Utilities	235	100.50	3.28%	2.40%
Telecommunication	195	111.09	2.72%	2.20%
Sovereign Bond	2	1565.00	0.03%	0.32%
Agriculture	9	51.63	0.13%	0.05%

3. Literature Review

Do political and macroeconomic factors influence SWFs' outbound investments? Chhaochharia and Laeven (2009) test whether SWFs show systematic investment biases by 27 SWFs' stock investments from 1996 to 2008. They find that SWFs tend to invest in countries that share a common culture, particularly religion. However, they argue that the cultural bias disappears with repeated investments. Moreover, SWFs prefer to invest in oil company stocks, especially when SWFs are less transparent, and come from less democratic countries. Dyck and Morse (2011) find that SWF asset allocations are substantially home-region biased and SWFs are

more likely to invest in the financial, transportation, energy, and telecommunications industries—particularly finance.

Candelon, Kerkour, and Lecourt (2011) find macroeconomic factors play an important role in SWFs' investing decisions and that SWFs largely invest in countries with economic and institutional stability. Moreover, they claim that SWFs use different criteria when deciding on investments in OECD vs non-OECD countries, and they tend to re-invest in a country once an initial investment has been made. Ciarlone and Miceli (2014) also study how macroeconomic factors affect SWF asset allocation. They note that SWFs tend to invest in the countries with more developed financial markets, more stable macroeconomic environments, and better protection for investors. Especially, they conclude that SWFs show a "contrarian" behavior by increasing their acquisitions in the crisis trapped countries, which means that SWFs play a role to stabilize the target country financial markets during the period of crisis. Murtinu and Scalera (2016) claim that low transparency SWFs have a greater incentive to use investment vehicles to avoid potential hostility from the target country government. Debarsy, Gnabo, and Kerkour (2017) also investigate the impact of the national macroeconomic and political factors on cross-border SWF investments. They find that countries with higher GDP per capita, more developed financial systems, lower stock market volatility, and better political stability attract more capital inflows from foreign SWFs.

Besides, there is a major debate about whether SWFs behave like other classes of international investors with profit maximization goals. Avendano (2010) finds SWFs prefer to invest in larger and internationally active firms, but OECD-based and non-OECD-based funds differ in their preferences about target-firm leverage, degree of internationalization, and profitability. Boubakri, Cosset, and Grira (2016) compare the target selection criteria between SWFs and another group of institutional investors, pension funds. Their results show that SWFs are more likely to be attracted by firms with higher profitability, operating in strategic industries, and operating in countries with weaker legal and institutional environments and greater economic growth. However, they also find that SWFs are less concerned about a firm's size, liquidity, and dividend payout than are pension funds.

SWFs' outbound investments have many similarities with foreign direct investments (FDI) in many aspects (such as long-term investment, cross-border capital flow, etc.) except for not seeking control over the invested enterprises. Therefore, the researches on FDI are also of great reference value. There are much literature analyzing what can attract foreign investments from the perspective of inflow countries. Nunes, Oscátegui Arteta, and Peschiera (2006) study the considerations when foreign capital invest in Latin American countries. They find that market size, infrastructure, economic openness, macroeconomic stability, accumulation of human capital have much positive influence, while inflation and wage levels would play a negative role. Vijayakumar, Sridharan, and Rao (2010) have similar research purposes and methods. By analyzing the data of BRICS

(Brazil, Russia, India, China, South Africa) from 1975 to 2007, they find that market size, labor costs, infrastructure, monetary value and total capital formation are the determinants of attracting foreign capital inflows. Economic stability (measured by inflation rate), growth prospects (measured by industrial production), and trade openness (the ratio of total trade to GDP) seem irrelevant.

Some documents have begun to research the political factors behind FDI. Addison and Heshmati (2003) analyze the data of FDI to developing countries from 1970 to 1999. They believe that democratization and informatization play a positive role. Based on a questionnaire survey of CEOs of major transnational corporations in the United States, Biglaiser and Staats (2010) argue that transnational corporations pay most attention to the operation mechanism of democratic systems, such as property rights protection, the effectiveness of the judicial system, rather than the democratic system itself, when investing in Latin America. Both (Gupta and Yu 2007) and (Li and Vashchilko 2010) find that investors would consider changes in political relations when making outward FDI.

4. Methodology and Data

4.1 Models

Based on the existing literature, this paper takes the economic, political, cultural and natural factors between the two countries as control variables to explore the influence of bilateral international political relation on SWFs' outward investments decision-making.

The basic regression equation is as follows:

$$SWFINVA_t^{i,j} = \beta_{i,0} + \beta_{i,1}PR_t^{i,j} + \gamma_{i,2}X_{i,t} + e_{i,t}$$

$SWFINVA_t^{i,j}$ is the natural logarithm of the investment amount of SWFs from country j to country i in the t year. $PR_t^{i,j}$ is the bilateral political relationship between the country j and i in the t year. $X_{i,t}$ are control variables. Considering the distribution of $SWFINVA_t^{i,j}$ is a mixture of a discrete point(0 point) and a continuous distribution, this paper adopts Tobit Model.

Considering the SWFs investment decisions may be divided into two steps—where to invest and how much to invest—this paper uses Cragg Model to test after completing Tobit regression. The idea is to divide the decision-making process into two stages: where to invest and how much to invest.

4.2 Bilateral Political Relationship

Giving the continuity and completeness of data, this paper draw on the ideas of Gupta and Yu (2007), using the voting data of UN General Assembly to quantify the

bilateral political relationship¹. The mechanism is that there should be stronger political ties between countries that are more coordination in voting actions. Define PR (Public Relation) as:

$$PR_t = 1 - 2 * \frac{d_t}{d \max_t}$$

“d” is the sum of the bilateral voting distance for a given bilateral pair and year. “dmax” is the maximum possible distance. Firstly, the bilateral voting distance is calculated by classifying “Yes” votes equal to one and “No” votes equal to zero. This distance measure is then cumulated over the year for each bilateral pair. Thus the value range of PR is [-1, 1], and the higher the value, the closer the political relationship between the two countries.

Table 5 is the bilateral political relation matrix of the top 10 acquirer countries (horizontal axis) and the top 20 target countries (vertical axis). The data are the average value from 2007 to 2017. Interestingly, of all the PRs of USA only one is positive, which is the political relation to Canada. And the PR of China and the United States is at a very small level, which is consistent with the intuitive experience gotten from the political news during the past decade.

Table 5: Bilateral Political Realtions

	NOR	SGP	QAT	ARE	CHN	KWT	KOR	SAU	AZE	CAN
USA	-0.25	-0.69	-0.73	-0.72	-0.75	-0.73	-0.30	-0.70	-0.73	0.28
GBR	0.57	-0.08	-0.16	-0.13	-0.18	-0.16	0.41	-0.17	-0.13	0.16
CHE	0.79	0.24	0.15	0.18	0.09	0.15	0.56	0.13	0.17	0.27
CHN	0.03	0.67	0.67	0.66	1.00	0.67	0.01	0.62	0.56	-0.35
DEU	0.86	0.12	0.04	0.07	-0.01	0.03	0.62	0.02	0.07	0.40
FRA	0.63	-0.07	-0.15	-0.11	-0.15	-0.15	0.45	-0.16	-0.11	0.15
AUS	0.53	-0.06	-0.14	-0.10	-0.17	-0.15	0.36	-0.16	-0.10	0.59
JPN	0.73	0.21	0.14	0.15	0.11	0.13	0.68	0.13	0.18	0.22
ESP	0.87	0.13	0.05	0.09	0.03	0.05	0.65	0.04	0.08	0.36
IND	-0.07	0.61	0.59	0.55	0.60	0.59	-0.04	0.58	0.50	-0.42
ITA	0.87	0.13	0.06	0.09	0.02	0.05	0.62	0.04	0.09	0.35
BRA	0.17	0.86	0.76	0.82	0.65	0.78	0.09	0.74	0.69	-0.23
NLD	0.86	0.11	0.04	0.06	-0.01	0.03	0.64	0.02	0.07	0.39
CAN	0.37	-0.25	-0.32	-0.29	-0.35	-0.33	0.17	-0.33	-0.26	1.00
RUS	0.13	0.31	0.32	0.30	0.48	0.32	0.23	0.31	0.33	-0.31
SGP	0.14	1.00	0.80	0.81	0.67	0.81	0.08	0.76	0.69	-0.25
SWE	0.83	0.19	0.12	0.15	0.04	0.11	0.65	0.10	0.15	0.32
MYS	0.12	0.87	0.87	0.87	0.69	0.88	0.05	0.82	0.71	-0.27
KOR	0.66	0.08	0.00	0.05	0.01	0.00	1.00	0.02	0.05	0.17
TUR	0.55	0.27	0.25	0.27	0.22	0.25	0.45	0.23	0.26	0.18

¹ We can get the raw voting data from Erik Voeten Dataverse (Georgetown University).

Table 6 shows the results of difference in means and difference in medians test for PR. SWFDummy=0 means that the SWF did not invest in a country in that year; SWFDummy=1 refers to country-years in which there is SWF investment. Results show that there are significant statistical differences between the PR of the two sample sets, which indicates that PR may have an impact influence on SWF investment decision-making. However, the PR value of SWFDummy = 0 group is significantly higher, indicating that SWF seems to prefer countries with less political relationship. It can also be calculated from table 6 that only about 5.9% of the observations of "SWF Country - Target Country - Year" have taken place in investment behavior. In other words, 94.1% of the dependent variables were observed to be zero.

Table 6: Difference of PRs Means and Medians

	N	Mean	Median
SWFDummy=0	13814	0.2906	0.2424
SWFDummy=1	871	0.2520	0.1500
Difference		0.0386***	0.0924***
Wilcoxon-Mann-Whitney test	2.949***		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

4.3 Control Variables

The outbound investments of SWF may also be affected by many other factors. The following control variables are proposed by referring to relevant literature on FDI and combining with the research purpose of this paper. The control variables mainly include the relevant factors that may affect SWF's outbound investments at the national level, such as economic, natural and cultural factors and other political factors. And the factors can be divided into three groups: involving both the acquirer countries and the target countries, involving one of the bilateral countries.

Table 7: Variable Definitions

Variable	Definition	Source
SWFINVA	$SWFINVA_t^{i,j}$ is the natural logarithm of the investment amount of SWFs from country j to country i in the t year.	CIC
PR	$PR_t^{i,j}$ is the bilateral political relationship between the country j and i in the t year.	Calculated based on Erik Voeten Dataverse
ReturnD	The annual difference in stock market between the SWF home country and the target country.	Datastream
COR	The correlation between annual market returns for the SWF	Datastream

	home country and target country.	
ForExD	The annual difference in US dollar exchange rate return between the SWF home country and the target country.	Bloomberg
GDPPCD	The difference between SWF home country and target country log GDP per capita.	WDI
GDPGD	The difference between SWF home country and target country GDP growth	WDI
Close	The log geographical distance between the capital of SWF home country and target country.	CEPII
Culture	A dummy variable that indicates whether the country pair share the similar culture.	CEPII
WGID	The difference in government governance ability between the SWF home country and target country.	WGI
LM	LM_t is a dummy variable equal to one if the LM index of the SWF is more than 8 in t year.	SWF Institute
SWFDis	A dummy variable equal to one if the financial market in SWF country faces difficulty	Datastream
Comm	A dummy variable equal to one if the SWF sources its fund with commodity	SWF Institute
Partner	A dummy variable equal to one if the target country is identified as an “important” trade partner of the SWF home country.	CIA World Factbook
TarDis	A dummy variable equal to one if the financial market in target country faces difficulty	Datastream
Grade	GRADE refers to the sovereign credit rating of the target country: AAA-4,AA-3,A-2,BBB-1, others-0.	Standard & Poor

Factors involved both sides are: (1) ReturnD, refers to the annual difference in securities market return between the target and SWF nations; (2) COR, refers to the correlation between the annual financial market returns; (3) ForExD, refers to the annual difference in US dollar exchange rate returns; (4) GDPPCD refers to the difference between the per capita GPD (taking logarithm); (5) GDPGD, refers to the difference between the GDP growth rate; (6) Close, refers to the geographical distance(taking logarithm),; (7) Culture, refers to whether the cultures are similar.; (8) WGID, refers to the difference between the governance ability.

Factors related to SWFs country include: (1) LM, a dummy variable of the transparency of SWF; (2) SWFDis, a dummy variable indicating whether the financial market in SWF country faces difficulty; (3) Comm, a dummy variable describing whether or not a SWF nation sources its revenue with commodity.

Factors related to the target country include: (1) TarDis, an indicator variable equal to one if the target country faces difficulty in financial market; otherwise equal to 0; (2) Grade, refers to the sovereign credit rating of the target country; (3) Partner, an indicator equal to one if the target country is an important trading partner of the

SWF country. Table 8 displays the summary statistics of the variables. The proportion of country-year with SWF investments is around 5.9%, which means the dependent variable is left censored at zero, justifying the use of Tobit Model. The mean of PR is positive, suggesting that the average country pair in the sample set has relatively favorable bilateral political relations.

Table 8: Summary Statistics

Variables	N	Non-zero samples				
		N	Mean	Std.Dev	Min	Max
SWFINVA	14685	871	0.50	2.01	0.00	10.57
PR	14685	871	0.29	0.43	-0.97	1.00
ReturnD	11816	871	0.21	25.62	-140.92	159.32
ForExD	14685	845	-1.45	8.78	-58.59	47.27
GDPPCD	14685	871	-0.40	0.72	-2.34	1.59
GDPGD	14685	871	-0.22	11.60	-130.44	79.37
Close	14685	871	3.78	0.34	2.14	4.29
Culture	14685	871	0.19	0.39	0.00	1.00
WGID	14685	871	-0.21	1.34	-3.52	3.75
LM	14685	871	0.49	0.50	0.00	1.00
SWFDis	14685	871	0.31	0.46	0.00	1.00
Comm	14685	871	0.67	0.47	0.00	1.00
Partner	14685	871	0.08	0.27	0.00	1.00
TarDis	11933	871	0.34	0.47	0.00	1.00
Grade	13497	852	1.73	1.50	0.00	4.00

Table 9 details the correlations of the variables. From the correlation matrix, it can be found that there is a negative relationship between SWFINVA and PR, which indicates that the coefficient of PR in regression equation should also be negative. In other words, SWF may prefer countries with political ties that are somewhat distant from acquirer countries.

Table 9: Correlations

	SWFINVA	PR	ReturnD	ForExD	GDPPCD	GDPGD	Close	Culture	WGID
SWFINVA	1.000								
PR	-0.024***	1.000							
ReturnD	0.005	0.013	1.000						
ForExD	0.019**	-0.030***	-0.156***	1.000					
GDPPCD	0.058***	-0.044***	-0.134***	0.195***	1.000				
GDPGD	-0.020**	-0.028***	0.064***	0.036***	-0.109***	1.000			
Close	-0.067***	-0.209***	0.003	-0.029***	-0.120***	0.030***	1.000		
Culture	0.042***	-0.059***	0.014	-0.017**	-0.161***	0.048***	-0.092***	1.000	
WGID	0.018**	-0.005	-0.047***	0.148***	0.803***	-0.115***	-0.227***	-0.170***	1.000

5. Empirical Analysis

5.1 Tobit Model

The PR coefficient of the regression results is significantly negative (at the significance level of 1%). After adding control variables involving two countries, the SWF countries and the target countries respectively, the coefficients of PR are still significantly negative. This suggests that SWF does tend to invest in countries with relatively weak political ties to their home countries. The data results are still robust under different measurement methods¹.

From the coefficient of the control variable, we can see that the SWF tends to invest in countries with higher per capita GDP which is consistent with our intuition. Generally speaking, countries with higher per capita GDP tend to have more developed financial markets, which can provide more financial products. The coefficient of GDP GD is negative, but it is not 1% significant in (3) and (10). GDPGD's coefficient is close to 0 but negative indicating that the growth rate of GDP in target countries is slightly lower than that in SWF countries. After all, countries with higher per capita GDP tend to have passed the stage of rapid GDP growth, while most SWF countries are emerging market economies, experiencing fast GDP growth nowadays. The coefficient of ForExD is positive but not statistically significant in formula (10). This seems to indicate that although SWFs tend to invest in countries with higher foreign exchange earnings, the fluctuation of foreign exchange is not particularly important in SWF investment decision-making. Coefficients of ReturnD and Corr are positive, but the former is not significantly different from 0 in statistical sense, which reflects that SWF may not be particularly concerned about the volatility of the invested country's stock market. Close's coefficient is significantly negative, which indicates that SWF has a preference for close countries. The coefficient of Culture is significantly positive, which is consistent with the results of (Chhaochharia and Laeven 2009); namely, SWF tends to invest in countries similar to its own culture.

¹ The authors have tried to add random effects and use clustering standard errors. The results are similar.

Table 10: Tobit Model Main Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
PR	-1.686*** (-2.63)	-1.225* (-1.88)	-1.710*** (-2.66)	-1.656*** (-2.58)	-1.657** (-2.56)	-1.333** (-2.07)	-3.411*** (-5.06)	-1.483** (-2.33)	-1.610** (-2.49)	-3.050*** (-4.43)
GDPPCD		2.703*** (6.57)								3.467*** (4.25)
GDPGD			-0.060** (-2.55)							-0.043* (-1.74)
ForExD				0.077** (2.36)						0.009 (0.26)
ReturnD					0.006 (0.52)					0.016 (1.32)
Corr						14.026*** (9.39)				11.509*** (7.41)
Close							-7.137*** (-8.65)			-6.255*** (-7.57)
Culture								3.155*** (4.71)		1.995*** (2.92)
WGID									0.381* (1.79)	-2.408*** (-5.95)
_cons	-26.274*** (-28.04)	-25.321*** (-27.62)	-26.279*** (-28.04)	-26.173*** (-28.01)	-23.654*** (-27.06)	-30.296*** (-23.63)	1.209 (0.40)	-26.925*** (-27.83)	-26.211*** (-28.01)	-4.536 (-1.37)
sigma_cons	17.285*** (32.17)	17.179*** (32.19)	17.271*** (32.17)	17.273*** (32.17)	16.640*** (31.83)	16.410*** (31.88)	17.107*** (32.20)	17.235*** (32.18)	17.276*** (32.17)	16.157*** (31.93)
N	14685	14685	14685	14685	11816	11816	14685	14685	14685	11816

t statistics in parentheses; * p < 0.10, ** p < 0.05, *** p < 0.01

After adding control variables reflecting the characteristics of acquirer countries and target countries, the PR coefficient remains significantly negative, and the results remained robust.

The LM coefficient is significantly positive, indicating that SWF with higher transparency may prefer overseas investments. The coefficient of SWFDis is not statistically significant and the reason may be same with the coefficient of ReturnD. Namely, SWF does not pay special attention to the performance of the securities market when investing. TarDis coefficient is significantly negative, which is inconsistent with the results of (Kotter and Le1 2011). The reason may be that the focus of this paper is to explore the relationship between bilateral political relations and SWFs' investments, so this paper simply sums the amount of the SWFs' investments. However, Kotter and Le1 (2011) subdivided and compared different industries. Partner's coefficient is also significantly positive, which has been consistent with the existing research results, indicating that SWF does pay more attention to the important trading partners. Grade's coefficient is also significantly

positive, indicating that SWF preferred countries with higher sovereign credit rating.

Table 11: SWF and Target Countries Characteristics Results

	Panel A: SWF Countries				Panel B: Target Countries			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
PR	-2.949*** (-4.30)	-3.054*** (-4.44)	-3.726*** (-5.23)	-3.638*** (-5.12)	-2.475*** (-3.67)	-1.432** (-2.12)	-2.909*** (-4.24)	-1.189* (-1.78)
GDPPCD	2.363*** (2.75)	3.470*** (4.25)	1.988** (2.25)	0.896 (0.97)	-3.748*** (-4.21)	2.557*** (3.20)	3.438*** (4.21)	-3.252*** (-3.74)
GDPGD	-0.045* (-1.80)	-0.045* (-1.78)	-0.033 (-1.30)	-0.038 (-1.47)	-0.056** (-2.11)	-0.045* (-1.86)	-0.036 (-1.43)	-0.052** (-2.00)
ForExD	0.004 (0.11)	0.009 (0.25)	0.017 (0.49)	0.011 (0.34)	-0.022 (-0.65)	-0.007 (-0.22)	0.011 (0.33)	-0.031 (-0.91)
ReturnD	0.017 (1.39)	0.014 (1.13)	0.015 (1.27)	0.013 (1.04)	0.011 (0.91)	0.005 (0.42)	-0.010 (-0.76)	-0.018 (-1.42)
Corr	8.481*** (4.96)	11.630*** (7.42)	12.176*** (7.78)	9.273*** (5.38)	4.928*** (3.24)	9.550*** (6.32)	10.427*** (6.72)	3.537** (2.35)
Close	-6.899*** (-8.12)	-6.223*** (-7.52)	-7.014*** (-8.23)	-7.636*** (-8.70)	-6.486*** (-8.07)	-3.196*** (-3.93)	-6.389*** (-7.74)	-4.238*** (-5.30)
Culture	1.984*** (2.91)	1.994*** (2.92)	1.548** (2.24)	1.538** (2.23)	0.679 (1.03)	1.534** (2.29)	1.999*** (2.93)	0.501 (0.77)
WGID	-1.392*** (-2.92)	-2.426*** (-5.98)	-1.717*** (-3.95)	-0.728 (-1.45)	-2.515*** (-6.29)	-1.987*** (-5.02)	-2.484*** (-6.14)	-2.256*** (-5.72)
LM	3.073*** (3.91)			3.143*** (3.99)				
SWFDis		0.383 (0.60)		0.668 (1.04)				
Comm			-2.816*** (-4.19)	-2.777*** (-4.14)				
Grade					4.900*** (16.09)			4.136*** (14.14)
Partner						11.305*** (14.45)		8.314*** (11.15)
TarDis							-3.688*** (-5.45)	-3.078*** (-4.76)
_cons	-2.489 (-0.74)	-4.830 (-1.44)	-0.157 (-0.05)	1.490 (0.42)	-11.538*** (-3.52)	-16.385*** (-4.83)	-2.305 (-0.69)	-17.435*** (-5.20)
sigma_cons	16.117*** (31.94)	16.156*** (31.93)	16.106*** (31.94)	16.062*** (31.95)	15.265*** (32.11)	15.518*** (32.05)	16.081*** (31.95)	14.822*** (32.20)
N	11816	11816	11816	11816	11637	11816	11816	11637

t statistics in parentheses; * p < 0.10, ** p < 0.05, *** p < 0.01

Figure 2 reflects the changes of PR after SWFs' investments. In the first year, PR improves significantly, but there has been a downward trend since then. This seems to indicate that SWF's outward investments can be used as a means to enhance relations with other countries in the short term, but the long-term effect is not very good.

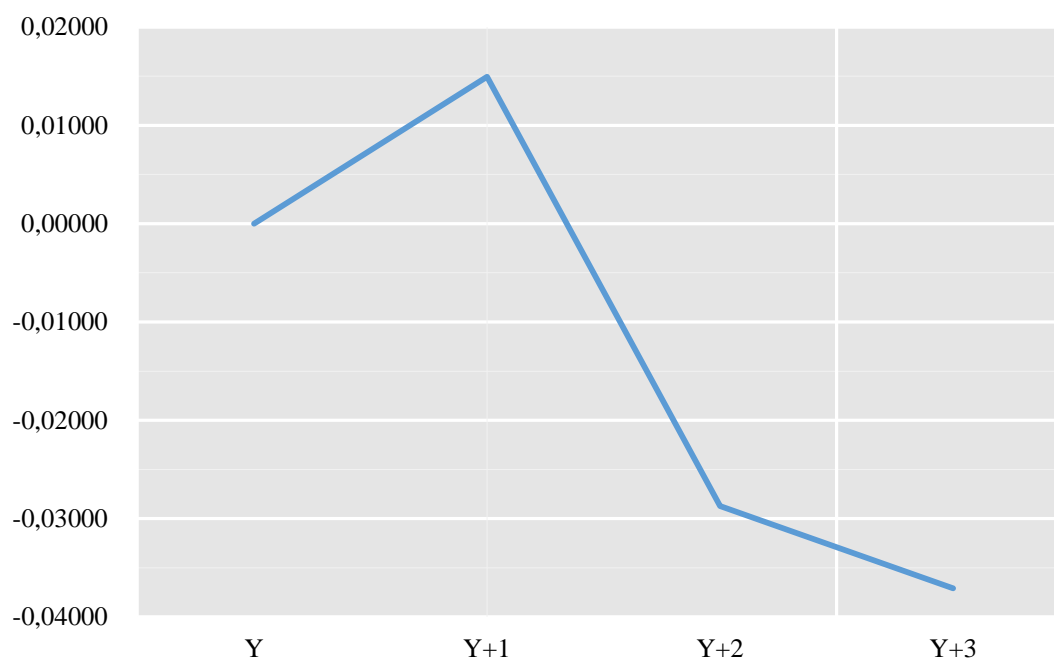


Figure 2: PR's changes after SWFs' investments

It can be seen from the descriptive statistic that both Norway and Singapore occupy a large proportion of SWFs in terms of both investment quantity and amount. Table 12 and 13 tell us that the results are robust when we drop them.

Table 12: Robust: Tobit Model without Norway

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
PR	-5.068*** (-6.76)	-4.387*** (-5.77)	-5.122*** (-6.82)	-5.074*** (-6.77)	-5.117*** (-6.73)	-4.777*** (-6.26)	-5.652*** (-7.30)	-4.667*** (-6.38)	-4.816*** (-6.37)	-4.506*** (-5.73)
GDPPCD		3.504*** (7.28)								4.241*** (4.55)
GDPGD			-0.091*** (-3.63)							-0.067** (-2.54)
ForExD				-0.009 (-0.26)						-0.073* (-1.89)
ReturnD					0.020 (1.55)					0.029** (2.15)
Corr						6.829***				2.596

						(4.12)				(1.49)
Close							-3.298***			-1.471
							(-3.35)			(-1.48)
Culture								5.798***		6.506***
								(7.86)		(8.20)
WGID									1.081***	-1.099**
									(4.39)	(-2.40)
_cons	-28.507***	-27.376***	-28.520***	-28.520***	-25.838***	-29.095***	-15.852***	-29.751***	-28.399***	-22.013***
	(-24.84)	(-24.56)	(-24.84)	(-24.82)	(-24.09)	(-20.35)	(-4.17)	(-24.74)	(-24.82)	(-5.36)
sigma_cons	17.937***	17.762***	17.901***	17.937***	17.287***	17.248***	17.910***	17.753***	17.871***	16.920***
	(27.88)	(27.91)	(27.88)	(27.88)	(27.57)	(27.58)	(27.88)	(27.91)	(27.89)	(27.63)
N	13871	13871	13871	13871	11155	11155	13871	13871	13871	11155

t statistics in parentheses; * p < 0.10, ** p < 0.05, *** p < 0.01

Table 13: Robust: Tobit Model without Singapore

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
PR	-1.765**	-1.394*	-1.791**	-1.745**	-1.819**	-1.702**	-3.913***	-1.771**	-1.656**	-3.825***
	(-2.42)	(-1.89)	(-2.46)	(-2.40)	(-2.46)	(-2.30)	(-5.11)	(-2.43)	(-2.26)	(-4.81)
GDPPCD		3.258***								3.338***
		(6.95)								(3.65)
GDPGD			-0.054**							-0.024
			(-2.05)							(-0.83)
ForExD				0.080**						0.009
				(2.22)						(0.23)
ReturnD					0.003					0.015
					(0.27)					(1.10)
Corr						7.258***				3.751**
						(4.45)				(2.18)
Close							-8.758***			-8.377***
							(-9.24)			(-8.58)
Culture								-0.094		-0.840
								(-0.11)		(-1.00)
WGID									1.005***	-1.733***
									(4.14)	(-3.84)
_cons	-28.960***	-27.800***	-28.958***	-28.859***	-26.427***	-29.811***	4.717	-28.941***	-28.819***	5.027
	(-25.16)	(-24.84)	(-25.16)	(-25.14)	(-24.31)	(-20.88)	(1.38)	(-24.90)	(-25.13)	(1.32)
sigma_cons	17.893***	17.738***	17.880***	17.880***	17.302***	17.244***	17.623***	17.893***	17.835***	16.963***
	(28.23)	(28.26)	(28.23)	(28.23)	(27.80)	(27.81)	(28.28)	(28.23)	(28.24)	(27.86)

t statistics in parentheses; * p < 0.10, ** p < 0.05, *** p < 0.01

5.2 Cragg Model

In this part, SWFs' decision process is divided into two stages: first, to decide whether to invest; then, to determine the amount of investment.

The empirical results of the first stage (Panel A) show that the coefficient of PR is still significantly negative, and keep significant negative after adding control variables. This is consistent with the results of Tobit model, which shows that bilateral international relations are important factors in SWFs' investment decision-making, and they prefer to invest in countries with distant bilateral international relations. From equation (5), we can get the coefficient of PR is -0.185 and the marginal effect of PR is -2.45% by simple calculation. Considering that only 5.9% of the whole samples are non-zero, bilateral political relations play an important role in SWFs' investments decision indeed.

In the second stage, the coefficient of PR is still significantly negative, and the significance remains robust after adding control variables. This shows that bilateral international relations play a certain role both in where to invest and how much to invest.

Table 14: Cragg Model Results

	Panel A: First Stage					Panel B: Second Stage				
	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)
PR	-0.097** (-2.56)	-0.074* (-1.91)	-0.078* (-1.92)	-0.182*** (-4.53)	-0.185*** (-4.27)	-0.203*** (-3.70)	-0.123** (-2.02)	-0.200*** (-3.56)	-0.210*** (-2.87)	-0.219*** (-3.03)
GDPPCD		0.154*** (6.37)			0.217*** (4.23)		0.080* (1.80)			-0.101 (-1.23)
GDPGD		-0.002 (-1.64)			-0.003* (-1.68)		-0.019*** (-3.73)			-0.023*** (-4.17)
ForExD			0.001 (0.50)		0.001 (0.32)			-0.000 (-0.15)		0.000 (0.06)
ReturnD			0.001 (0.71)		0.001 (1.27)			0.002 (1.28)		0.002 (1.55)
Corr			0.878*** (9.68)		0.748*** (7.70)			0.014 (0.11)		0.011 (0.08)
Close				-0.396*** (-8.03)	-0.398*** (-7.73)				-0.219*** (-2.90)	-0.228*** (-2.93)
Culture				0.160*** (3.93)	0.127*** (2.93)				0.051 (0.88)	0.051 (0.83)
WGID				0.009 (0.71)	-0.154*** (-6.11)				0.095*** (3.87)	0.095** (2.02)
_cons	-1.534*** (-79.19)	-1.490*** (-72.48)	-1.874*** (-36.76)	-0.060 (-0.32)	-0.277 (-1.31)	8.530*** (289.91)	8.508*** (277.75)	8.531*** (120.94)	9.341*** (32.02)	9.330*** (29.34)
N	14685	14685	11816	14685	11816	871	871	845	871	845

t statistics in parentheses; * p < 0.10, ** p < 0.05, *** p < 0.01

6. Conclusion

Recent SWFs-related studies find evidence implying that SWF home countries will consider macroeconomic factors when invest outbound. Based on the unique database provided by CIC, this paper directly examines the relationship between bilateral political relations and SWF's outbound investment decisions. This paper confirms that there are indeed political considerations in SWF's outbound investment decisions: bilateral political relations are an important factor in why SWFs invest and they matter much in determining how much to invest. This paper believes that SWFs will invest more in countries with far-reaching political relations and SWF's outbound investments may be used as a tool to promote bilateral political relations. The conclusion provides valuable reference for the analysis of SWFs' investments from the perspective of international relations. And the results of this paper may attract the interest of policymakers considering whether or not to limit SWFs' investments.

However, there are some drawbacks that will to be further research in future. Although this paper confirms that the international relations between the two countries have a real impact on SWF's decision-making on foreign investments, it does not further characterize the dynamic impact between the two countries, which we will focus on in the next stage.

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