**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.

**JEL classification**: F21 G15 G18

**Key words**: Sovereign Wealth Fund; Bilateral Political Relationship; Outbound Investments

## Introduction

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. In fact, 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 paper, 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.

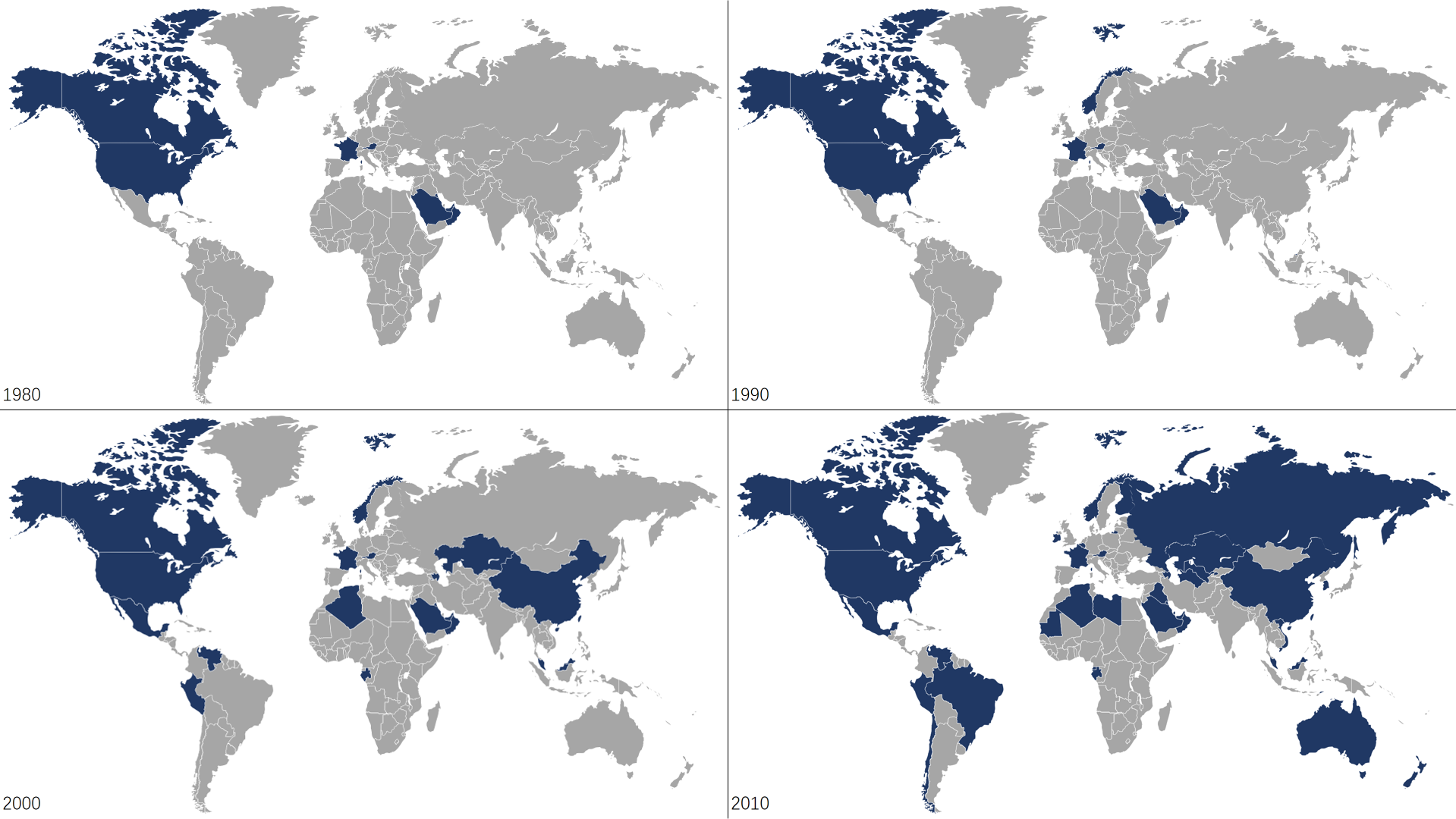


Figure 1 SWF’s extension

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. 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.

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[[2]](#footnote-2). Norway Global Pension Fund (NGPF), was the largest SWF, with more than one trillion assets. 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.

Table 1 Top 15 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 |
| Data source：SWF Institute; by the end of September 2018 | | | | |

Considering the rapid development of SWFs and their huge assets, it is very necessary to analyze their outbound investments behavior. In fact, the news of outbound investments of SWFs seems 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. In fact, in the early days, cross-border SWF investments were viewed as a threat by the recipient-country governments, especially by developed countries. 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. Farrell and Lund (2008) even called SWF the "new power brokers" directly.

Recently produced SWF-related works 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, & Megginson, 2017), (Megginson & Fotak, 2015)]. However, there are few researches explaining the political motivation behind the outbound investments of SWFs. Based on the unique data from 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 literature on SWFs.

## Literature View

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 & Yu, 2007) and (Li & Vashchilko, 2010) find that investors would consider changes in political relations when making outward FDI.

## Methodology and Data

### 3.1 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:



is the natural logarithm of the investment amount of SWFs from country j to country i in the t year. is the bilateral political relationship between the country j and i.  are control variables. Considering the distribution ofis 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.

### 3.2 Outbound Investments of SWFs

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 nearly one trillion dollars. The directions of SWFs’ investments are mainly into developed countries: the USA and UK are major investment destinations. Finance, real estate, and energy are in the top three areas for SWFs’ investments[[3]](#footnote-3).

Table 2 Outbound Investmens of SWFs from Top Countries

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SWF Country | N | Mean | Std.Dev | Min | Max | Sum |
| Norway | 3912 | 81.98 | 232.06 | 10.01 | 3986.48 | 320700.21 |
| Singapore | 1227 | 196.74 | 542.63 | 10.01 | 9760.00 | 241404.58 |
| Qatar | 114 | 982.33 | 1652.10 | 20.00 | 9983.40 | 111985.23 |
| UAE | 336 | 307.93 | 689.26 | 10.02 | 7500.00 | 103464.72 |
| China | 166 | 537.90 | 1249.75 | 10.46 | 13820.00 | 89291.21 |
| Kuwait | 288 | 157.88 | 447.77 | 10.02 | 3937.73 | 45469.14 |
| South Korea | 764 | 25.80 | 83.55 | 10.01 | 2000.00 | 19707.59 |
| Saudi Arab | 25 | 464.84 | 809.19 | 10.68 | 3500.00 | 11620.97 |
| Azerbaijan | 23 | 400.74 | 890.36 | 18.94 | 4000.00 | 9217.07 |
| Canada | 203 | 43.88 | 111.62 | 10.03 | 735.65 | 8908.49 |
| Malaysia | 30 | 237.85 | 482.29 | 15.00 | 2600.00 | 7135.50 |
| Liberia | 16 | 251.79 | 384.85 | 10.01 | 1521.16 | 4028.71 |
| Russia | 2 | 1700.00 | 1838.48 | 400.00 | 3000.00 | 3400.00 |
| Ireland | 11 | 222.84 | 660.44 | 12.34 | 2213.67 | 2451.27 |
| Australia | 13 | 147.30 | 213.84 | 12.22 | 785.00 | 1914.94 |
| USA | 14 | 109.76 | 104.85 | 11.70 | 340.00 | 1536.58 |
| New Zealand | 11 | 72.79 | 47.44 | 25.00 | 174.36 | 800.67 |
| Bunia | 3 | 73.88 | 70.58 | 28.54 | 155.20 | 221.64 |
| Total | 7158 | 137.36 | 468.10 | 10.01 | 13820.00 | 983258.53 |

### 3.2 Bilateral Political Relationship

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



“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 3 is the bilateral political relation matrix of the top ten acquirer countries (horizontal axis) and the top ten 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 3 Bilateral Political Realtions

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Norway | Singapore | Qatar | UAE | China | Kuwait | Korea | Saudi Arabia | Azerbaijan | Canada |
| USA | -0.25 | -0.69 | -0.73 | -0.72 | -0.75 | -0.73 | -0.30 | -0.70 | -0.73 | 0.28 |
| UK | 0.57 | -0.08 | -0.16 | -0.13 | -0.18 | -0.16 | 0.41 | -0.17 | -0.13 | 0.16 |
| Switzerland | 0.79 | 0.24 | 0.15 | 0.18 | 0.09 | 0.15 | 0.56 | 0.13 | 0.17 | 0.27 |
| China | 0.03 | 0.67 | 0.67 | 0.66 | 1.00 | 0.67 | 0.01 | 0.62 | 0.56 | -0.35 |
| Germany | 0.86 | 0.12 | 0.04 | 0.07 | -0.01 | 0.03 | 0.62 | 0.02 | 0.07 | 0.40 |
| France | 0.63 | -0.07 | -0.15 | -0.11 | -0.15 | -0.15 | 0.45 | -0.16 | -0.11 | 0.15 |
| Australia | 0.53 | -0.06 | -0.14 | -0.10 | -0.17 | -0.15 | 0.36 | -0.16 | -0.10 | 0.59 |
| Japan | 0.73 | 0.21 | 0.14 | 0.15 | 0.11 | 0.13 | 0.68 | 0.13 | 0.18 | 0.22 |
| Spain | 0.87 | 0.13 | 0.05 | 0.09 | 0.03 | 0.05 | 0.65 | 0.04 | 0.08 | 0.36 |
| India | -0.07 | 0.61 | 0.59 | 0.55 | 0.60 | 0.59 | -0.04 | 0.58 | 0.50 | -0.42 |

Table 4 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 table4 that only about 5.9% of the observations of "SWF Acquirer 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 4 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 |

### 3.4 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.

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 5 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 |

From the correlation matrix, it can be found that there is a negative relationship between SWFINA 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 6 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 |

## Empirical Analysis

### 4.1 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 methods[[4]](#footnote-4).

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 & Laeven, 2009); namely, SWF tends to invest in countries similar to its own culture.

Table 7 Tobit Model Main Results

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| PR | | -1.686\*\*\* | -1.225\* | -1.710\*\*\* | -1.656\*\*\* | -1.657\*\* | -1.333\*\* | -3.411\*\*\* | -1.483\*\* | -1.610\*\* | -3.050\*\*\* |
|  | | (-2.63) | (-1.88) | (-2.66) | (-2.58) | (-2.56) | (-2.07) | (-5.06) | (-2.33) | (-2.49) | (-4.43) |
| GDPPCD | |  | 2.703\*\*\* |  |  |  |  |  |  |  | 3.467\*\*\* |
|  | |  | (6.57) |  |  |  |  |  |  |  | (4.25) |
| GDPGD | |  |  | -0.060\*\* |  |  |  |  |  |  | -0.043\* |
|  | |  |  | (-2.55) |  |  |  |  |  |  | (-1.74) |
| ForExD | |  |  |  | 0.077\*\* |  |  |  |  |  | 0.009 |
|  | |  |  |  | (2.36) |  |  |  |  |  | (0.26) |
| ReturnD |  | |  |  |  | 0.006 |  |  |  |  | 0.016 |
|  |  | |  |  |  | (0.52) |  |  |  |  | (1.32) |
| Corr |  | |  |  |  |  | 14.026\*\*\* |  |  |  | 11.509\*\*\* |
|  |  | |  |  |  |  | (9.39) |  |  |  | (7.41) |
| Close |  | |  |  |  |  |  | -7.137\*\*\* |  |  | -6.255\*\*\* |
|  |  | |  |  |  |  |  | (-8.65) |  |  | (-7.57) |
| Culture |  | |  |  |  |  |  |  | 3.155\*\*\* |  | 1.995\*\*\* |
|  |  | |  |  |  |  |  |  | (4.71) |  | (2.92) |
| WGID |  | |  |  |  |  |  |  |  | 0.381\* | -2.408\*\*\* |
|  |  | |  |  |  |  |  |  |  | (1.79) | (-5.95) |
| \_cons | -26.274\*\*\* | | -25.321\*\*\* | -26.279\*\*\* | -26.173\*\*\* | -23.654\*\*\* | -30.296\*\*\* | 1.209 | -26.925\*\*\* | -26.211\*\*\* | -4.536 |
|  | (-28.04) | | (-27.62) | (-28.04) | (-28.01) | (-27.06) | (-23.63) | (0.40) | (-27.83) | (-28.01) | (-1.37) |
| sigma\_cons | 17.285\*\*\* | | 17.179\*\*\* | 17.271\*\*\* | 17.273\*\*\* | 16.640\*\*\* | 16.410\*\*\* | 17.107\*\*\* | 17.235\*\*\* | 17.276\*\*\* | 16.157\*\*\* |
|  | (32.17) | | (32.19) | (32.17) | (32.17) | (31.83) | (31.88) | (32.20) | (32.18) | (32.17) | (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 & Lel, 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 Lel (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 8 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\*\*\* | -3.054\*\*\* | -3.726\*\*\* | -3.638\*\*\* | -2.475\*\*\* | -1.432\*\* | -2.909\*\*\* | -1.189\* |
|  | (-4.30) | (-4.44) | (-5.23) | (-5.12) | (-3.67) | (-2.12) | (-4.24) | (-1.78) |
| GDPPCD | 2.363\*\*\* | 3.470\*\*\* | 1.988\*\* | 0.896 | -3.748\*\*\* | 2.557\*\*\* | 3.438\*\*\* | -3.252\*\*\* |
|  | (2.75) | (4.25) | (2.25) | (0.97) | (-4.21) | (3.20) | (4.21) | (-3.74) |
| GDPGD | -0.045\* | -0.045\* | -0.033 | -0.038 | -0.056\*\* | -0.045\* | -0.036 | -0.052\*\* |
|  | (-1.80) | (-1.78) | (-1.30) | (-1.47) | (-2.11) | (-1.86) | (-1.43) | (-2.00) |
| ForExD | 0.004 | 0.009 | 0.017 | 0.011 | -0.022 | -0.007 | 0.011 | -0.031 |
|  | (0.11) | (0.25) | (0.49) | (0.34) | (-0.65) | (-0.22) | (0.33) | (-0.91) |
| ReturnD | 0.017 | 0.014 | 0.015 | 0.013 | 0.011 | 0.005 | -0.010 | -0.018 |
|  | (1.39) | (1.13) | (1.27) | (1.04) | (0.91) | (0.42) | (-0.76) | (-1.42) |
| Corr | 8.481\*\*\* | 11.630\*\*\* | 12.176\*\*\* | 9.273\*\*\* | 4.928\*\*\* | 9.550\*\*\* | 10.427\*\*\* | 3.537\*\* |
|  | (4.96) | (7.42) | (7.78) | (5.38) | (3.24) | (6.32) | (6.72) | (2.35) |
| Close | -6.899\*\*\* | -6.223\*\*\* | -7.014\*\*\* | -7.636\*\*\* | -6.486\*\*\* | -3.196\*\*\* | -6.389\*\*\* | -4.238\*\*\* |
|  | (-8.12) | (-7.52) | (-8.23) | (-8.70) | (-8.07) | (-3.93) | (-7.74) | (-5.30) |
| Culture | 1.984\*\*\* | 1.994\*\*\* | 1.548\*\* | 1.538\*\* | 0.679 | 1.534\*\* | 1.999\*\*\* | 0.501 |
|  | (2.91) | (2.92) | (2.24) | (2.23) | (1.03) | (2.29) | (2.93) | (0.77) |
| WGID | -1.392\*\*\* | -2.426\*\*\* | -1.717\*\*\* | -0.728 | -2.515\*\*\* | -1.987\*\*\* | -2.484\*\*\* | -2.256\*\*\* |
|  | (-2.92) | (-5.98) | (-3.95) | (-1.45) | (-6.29) | (-5.02) | (-6.14) | (-5.72) |
| LM | 3.073\*\*\* |  |  | 3.143\*\*\* |  |  |  |  |
|  | (3.91) |  |  | (3.99) |  |  |  |  |
| SWFDis |  | 0.383 |  | 0.668 |  |  |  |  |
|  |  | (0.60) |  | (1.04) |  |  |  |  |
| Comm |  |  | -2.816\*\*\* | -2.777\*\*\* |  |  |  |  |
|  |  |  | (-4.19) | (-4.14) |  |  |  |  |
| Grade |  |  |  |  | 4.900\*\*\* |  |  | 4.136\*\*\* |
|  |  |  |  |  | (16.09) |  |  | (14.14) |
| Partner |  |  |  |  |  | 11.305\*\*\* |  | 8.314\*\*\* |
|  |  |  |  |  |  | (14.45) |  | (11.15) |
| TarDis |  |  |  |  |  |  | -3.688\*\*\* | -3.078\*\*\* |
|  |  |  |  |  |  |  | (-5.45) | (-4.76) |
| \_cons | -2.489 | -4.830 | -0.157 | 1.490 | -11.538\*\*\* | -16.385\*\*\* | -2.305 | -17.435\*\*\* |
|  | (-0.74) | (-1.44) | (-0.05) | (0.42) | (-3.52) | (-4.83) | (-0.69) | (-5.20) |
| sigma\_cons | 16.117\*\*\* | 16.156\*\*\* | 16.106\*\*\* | 16.062\*\*\* | 15.265\*\*\* | 15.518\*\*\* | 16.081\*\*\* | 14.822\*\*\* |
|  | (31.94) | (31.93) | (31.94) | (31.95) | (32.11) | (32.05) | (31.95) | (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. The result is robust when we drop them[[5]](#footnote-5).

### 4.2 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 9 Cragg Model Results

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

## Conclusion

By directly examining 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.

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 the future research will focus on. In addition, although this study is based on unique micro-data, it still takes an aggregation in the study. In the future research, SWFs can be further analyzed in the field of foreign investment. Further, in the future research, we can analyze the data in micro-level to deep analyze the behavior of SWFs.

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2. data source: SWF Institute [↑](#footnote-ref-2)
3. Detailed data sheets are not displayed because of the limited characters and are available upon request [↑](#footnote-ref-3)
4. The authors have tried to add random effects and use clustering standard errors. The results are similar. [↑](#footnote-ref-4)
5. Results are not reported but are available upon request. [↑](#footnote-ref-5)