# Sovereign Wealth Funds: major actors in the global economy

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July 2016

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# Executive Summary

The goal of this paper is to give an overview of the Sovereign Wealth Funds topic. These investors who manage part of States' wealth have grown sharply since the beginning of the 2000s. Because of their financial power and their lack of transparency, Sovereign Wealth Funds raise concerns in developed countries. This paper gives some insights into these investors: how many are they? How much assets do they manage? What are their investment strategies?

This paper may be summarized as follows:

1. Sovereign Wealth Funds (SWFs) form a heterogeneous group of investors, which implies that there is no consensus on the number of SWFs around the world. According to the broadest definition of a SWF, which is an investment vehicle that manages part of the State's wealth, there are 92 SWFs worldwide.
2. Despite the large number of SWFs, the 15 largest SWFs account for more than 80% of the assets managed by SWFs. They are mainly located in the Gulf countries, East Asia and Southeast Asia.
3. The increasing financial power of SWFs is mainly due to the rise in oil prices for commodity funds and trade surplus in Asia. Today they manage more than USD 7 trillion invested all around the world in all types of assets.
4. This increasing financial power of SWFs and the concerns they raise have encouraged the development of an extensive literature structured around two issues:
   - Some researchers have studied the impact of SWFs' investments on targeted firms. They found that the short-term reaction to an announced SWF equity investment in a listed company yields positive excess returns. But in the long run, authors have observed significantly negative excess returns.
   - Other researchers have studied SWFs' investment strategies. Some findings suggest that SWFs' investment decisions are not only led by financial motives.
5. In a forthcoming paper entitled: *"Are Sovereign Wealth Fund Investment Decisions Based on Country Factors?"* (Amar, Candelon and Lecourt, 2016), we show that country-level factors are drivers of SWFs' foreign investments and that there is a strong inertia in SWFs' investment decisions (once a fund invests in a country, it is likely to reinvest in this country in the following years).

## Summary

# I. Introduction

Do governments manage their wealth as private investors? Sovereign Wealth Funds (SWFs), which are public investment vehicles that manage part of States' wealth, have grown both in number and in size since the beginning of the 2000s. SWFs' assets have jumped from \$500 billion in 1995 to \$7 400 billion in 2016[2] and 42 new SWFs have been created since 2005. This increasing financial power of SWFs is mainly due to the accumulation of exchange reserves by central banks, which is linked with growing trade surplus and the constant rise of oil prices. These public funds invest internationally like other private investors in equity, bonds and real estate. If some SWFs are transparent about their objectives and their investment strategies, others are criticized for their lack of transparency and are suspected to follow more political objectives. *"The management of these assets [SWFs' assets] has become a major focus of national and international economic and financial policy because of their size, their lack of transparency (…) and the risk that political objectives might influence their management"* (Truman, 2007). SWFs have become a major concern for governments since the subprimes crisis as they took participations in major financial institutions.

This growing financial power of SWFs led to the emergence of a new literature. Part of researchers has analyzed the impact of SWFs' investments on targeted firms. The other part of this literature has been devoted to analyzing SWFs' investment strategies.

This paper aims to give an overview of the Sovereign Wealth Funds topic. In Section II, I define SWFs and give some statistics about their evolution and their investment strategies. In Section III, I explain why SWFs have become a topic of interest and expose the main results of the literature. In Section IV I detail one of my upcoming research projects.

[2] Author's analysis

# II. Sovereign Wealth Funds Overview

## A. What are sovereign wealth funds?

Sovereign Wealth Funds are investment vehicles that manage part of government wealth. They form a heterogeneous group of investors, which implies that there is no consensus, in either the academic or practitioner literature, on exactly what constitutes a Sovereign Wealth Fund.

Depending on the definition, a fund may or may not be considered as a SWF and that is why the number of SWFs varies depending on the source. Table 1 details some definitions of SWFs that can be found in the literature and the number of SWFs based on each definition.

**Table 1: Definitions of Sovereign Wealth Funds**

| Source | Definition | Number of funds |
|---|---|---|
| **SWF Institute** | A SWF is a state-owned investment fund or entity that is commonly established from balance of payments surpluses, official foreign currency operations, the proceeds of privatizations, governmental transfer payments, fiscal surpluses, and/or receipts resulting from resource exports. The definition of SWF excludes, among other things, foreign currency reserve assets held by monetary authorities for the traditional balance of payments or monetary policy purposes, state-owned enterprises in the traditional sense, government-employee pension funds, or assets managed for the benefit of individuals. | 79 |
| **SWF Investment Lab** | A "Sovereign Wealth Fund" is an investment vehicle that is:<br>1. Owned directly by a sovereign government<br>2. Managed independently of other state financial and political institutions<br>3. Does not have predominant explicit current pension obligations<br>4. Invests in a diverse set of financial asset classes in pursuit of commercial returns<br>5. Has made a significant proportion of its publicly reported investments internationally | 35 |
| **International Working Group on SWFs** | SWFs are defined as special purpose investment funds or arrangements, owned by the general government. Created by the general government for macroeconomic purposes, SWFs hold, manage, or administer assets to achieve financial objectives, and employ a set of investment strategies, which include investing in foreign financial assets. The SWFs are commonly established out of balance of payments surpluses, official foreign currency operations, the proceeds of privatizations, fiscal surpluses, and/or receipts resulting from commodity exports. | 36[3] |

[3] In 2008. For more details see https://www.imf.org/external/pubs/ft/wp/2013/wp13231.pdf

Using the broadest definition of SWFs, which is an investment vehicle that manages part of government wealth, we established a database of 92 SWFs from 56 different countries.

Nevertheless, SWFs form a heterogeneous group of investors and may be classified according to their objectives. We identify four main purposes for a SWF:

### *1. Macrostabilisation*

These funds aim to offset cyclical shocks. Most of them are commodity funds that mitigate fluctuations in commodity price. If commodity prices drop below a reference price, the fund transfers the revenues to the treasury to substitute the revenues it would otherwise have received if oil prices had been stable. But there are also some macrostabilisation funds that aim to stabilize the value of the currency. This is the case for example of the *Hong Kong Monetary Authority Exchange Fund* whose primary objective is *"to affect the exchange value of the currency of HK".* These funds generally invest in the medium term in liquid assets. Among them we can quote the *Chilean Economic and Social Stabilization Fund* or the *Revenue Equalization Reserve Fund* of Kiribati.

### *2. Saving Funds*

These funds intend to transform non-renewable resources into financial assets. They have generally two purposes: saving for future generations and financing pensions. The Norwegian *Government Pension Fund - Global* is an example of a savings fund.

### *3. Reserve investment funds*

These funds pursue a strategy geared towards the acquisition of interests in various entities, mainly abroad. The *Investment Corporation of Dubai* or the Singaporean funds *GIC* and *Temasek Holding* are examples of reserve investment funds.

### *4. Development funds*

These funds are established to support the domestic economy. They may invest in infrastructure projects, support local companies or provide financial support to education. The *Public Investment Fund* of Saudi Arabia is a development fund.

Table 2 gives the characteristics of major SWFs. For a more detailed list of SWFs see Appendix 1.

**Table 2: Characteristics of the largest SWFs**[4]

| Country | Name of the fund | Inception | AUM in bn$ | Origin | Main objective(s) |
|---|---|---|---|---|---|
| **Norway** | Government Pension Fund - Global | 1990 | 847,6 | Oil | Saving |
| **United Arab Emirates** | Abu Dhabi Investment Authority | 1976 | 773 | Oil | Reserve investment |
| **China (Mainland)** | China Investment Corporation | 2007 | 746,7 | Non-Commodity | Reserve investment |
| **Saudi Arabia** | SAMA Foreign Holding | 1952 | 632,3 | Oil | Reserve investment |
| **Kuwait** | Kuwait Investment Authority | 1953 | 592 | Oil | Reserve investment |
| **China (Mainland)** | SAFE Investment Company | 1997 | 474 | Non-Commodity | Macrostabilisation |
| **China (Hong Kong)** | Honk Kong Monetary Authority - Exchange Fund | 1993 | 442,4 | Non-Commodity | Macrostabilisation |
| **Singapore** | Government of Singapore Investment Corporation | 1981 | 344 | Non-Commodity | Reserve investment |
| **Qatar** | Qatar Investment Authority | 2005 | 256 | Oil & Gas | Reserve investment |
| **China (Mainland)** | National Social Security Fund | 2000 | 236 | Non-Commodity | Saving |
| **Singapore** | Temasek Holdings | 1974 | 193,6 | Non-Commodity | Reserve investment |
| **United Arab Emirates** | Investment Corporation of Dubai | 2006 | 183 | Non-Commodity | Reserve investment |
| **Saudi Arabia** | Public Investment Fund | 2008 | 160 | Oil | Development |
| **United Arab Emirates** | Abu Dhabi Investment Council | 2007 | 110 | Oil | Reserve investment Development |
| **Korea** | Korea Investment Corporation | 2005 | 95,8 | Non-Commodity | Reserve investment |

[4] Author's analysis

## B. Sovereign Wealth Funds' recent development

SWFs have been highlighted by the subprimes crisis but they are not born with it. Some funds among the most powerful have been created in the 1970s. This is the case of *Abu Dhabi Investment Authority,* created in 1976 and of the Singaporean fund, *Temasek Holdings*, created in 1974.

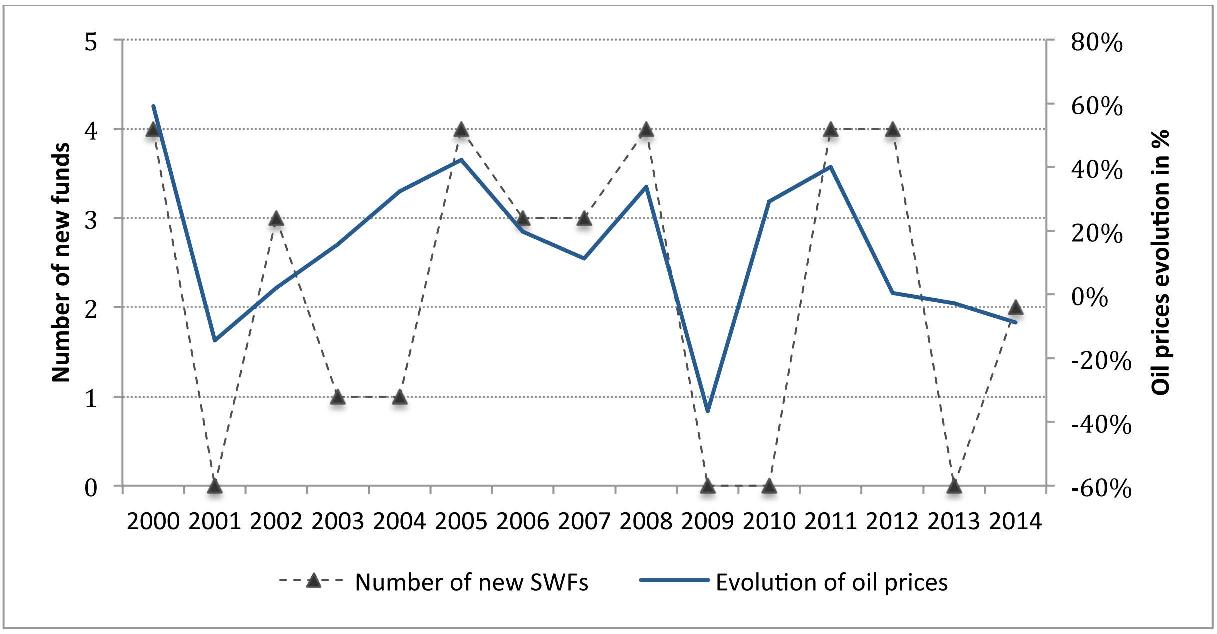
SWFs' assets may have three origins:

- Commodity origin
- Trade surplus
- Fiscal origin

These investors have become major economic actors since the beginning of the 2000s. Many new funds have been created (62 funds have been created between 2000 and 2016). Their assets under management are increasing sharply (SWFs managed USD 3.3 trillion in 2008, USD 5.2 trillion in 2010, to reach USD 7.4 trillion in 2016).

This recent development of SWFs may be explained by excess reserves accumulated by Asian countries and Gulf countries. Gulf countries and Norway have indeed benefited from the rise in oil prices. Many new oil funds have been created (33) between 2000 and 2015, following the evolutions of oil prices (see Graph 1).

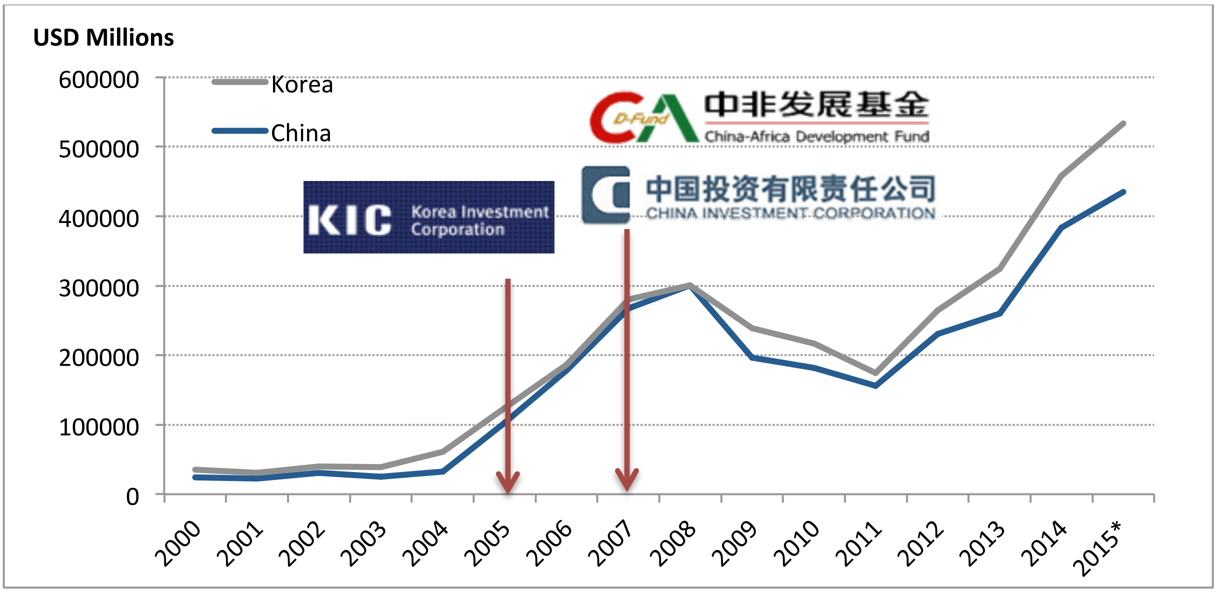
**Graph 1: Evolution of the number of new SWFs and oil prices**




*Source: Crude Oil Prices: West Texas Intermediate (WTI) - Cushing, Oklahoma (DCOILWTICO) and author's analysis*

In Asia, the strong external demand has led to a rise of trade surplus since the beginning of the 2000s as in China and Korea for example (see on Graph 2). Since 2004, these countries have seen their trade surplus increasing sharply. In 2005 Korea created his SWF and in 2007 China created two new SWFs. The Korean fund and China Investment Corporation are among the largest funds in the world.

**Graph 2: Korea and China Trade Surplus evolution**




*Source: Perspective Monde, Sherbrooke University*

The role played by SWFs during the financial crisis has brought to light their increasing financial power as they took participations in major financial institutions.

Furthermore, these countries have higher reserves compared to their needs. That is why they have decided to settle institutions in charge of managing this wealth or to modify the objectives of existing SWFs.

## C. Sovereign Wealth Funds around the world

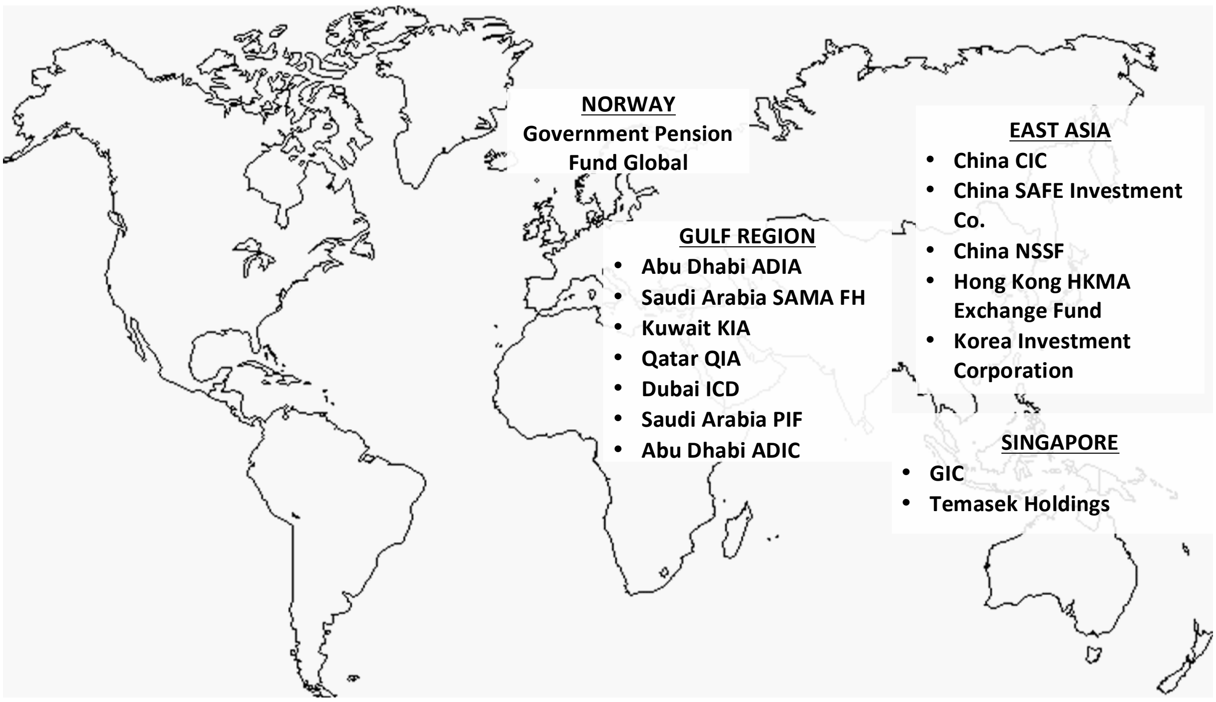
Sovereign Wealth Funds are spread all around the world but they are much stronger in the Middle East, East Asia and Southeast Asia as these funds account for more than 75% of the assets managed by SWFs. Furthermore, among the 92 funds worldwide, 51 are located in Africa, the Middle East or East and Southeast Asia. Despite their large number (17 SWFs), African funds manage only 1.8 % of SWFs assets.

## Map 1: Geographic repartition of SWFs


*Source: Author's analysis*

There is a small number of SWFs managing most of the assets held by these investors. The fifteen largest funds manage more than 80% of the assets of SWFs. They are mainly located in the Gulf Region and Asia except for the Norwegian Government Pension Fund – Global.

## Map 2: Geographic repartition of the 15 largest SWFs




*Source: Author's analysis*

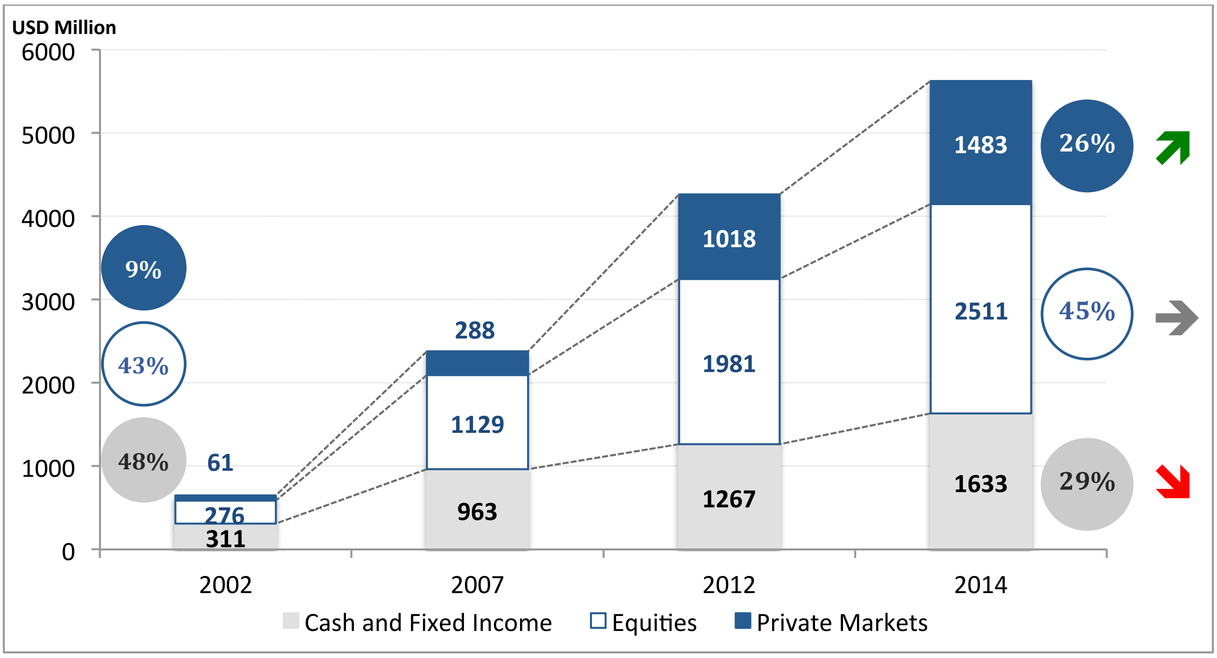
### D. SWFs asset allocation

#### *1. Overview*

As SWFs form a heterogeneous group of investors, they do not have a homogeneous asset allocation strategy. Some specific characteristics of the funds impact their investment strategies, such as the maturity of the fund, its level of sophistication, its size and its objectives.

Sovereign Wealth Funds used to invest mainly in cash and fixed income and equity which represented in 2002, 91% of SWFs assets. But since the financial crisis, SWFs have modified the way they invest. If they still invest a large part of their assets under management (AUM) in equity (more than 40%), they have increased their investments in private markets, reducing at the same time the part invested in cash and fixed income assets which represents today less than 30% (see Graph 3). This trend may be explained by three factors (Hentov, 2015). First, the zero interest rate policy in most of the industrialized countries has decreased the profitability of fixed income instruments. Second, most of the funds that have been created after 2002 are more specifically oriented towards high returns strategies. And third, SWFs have developed their expertise, so that, they are able to invest in more unconventional asset classes.

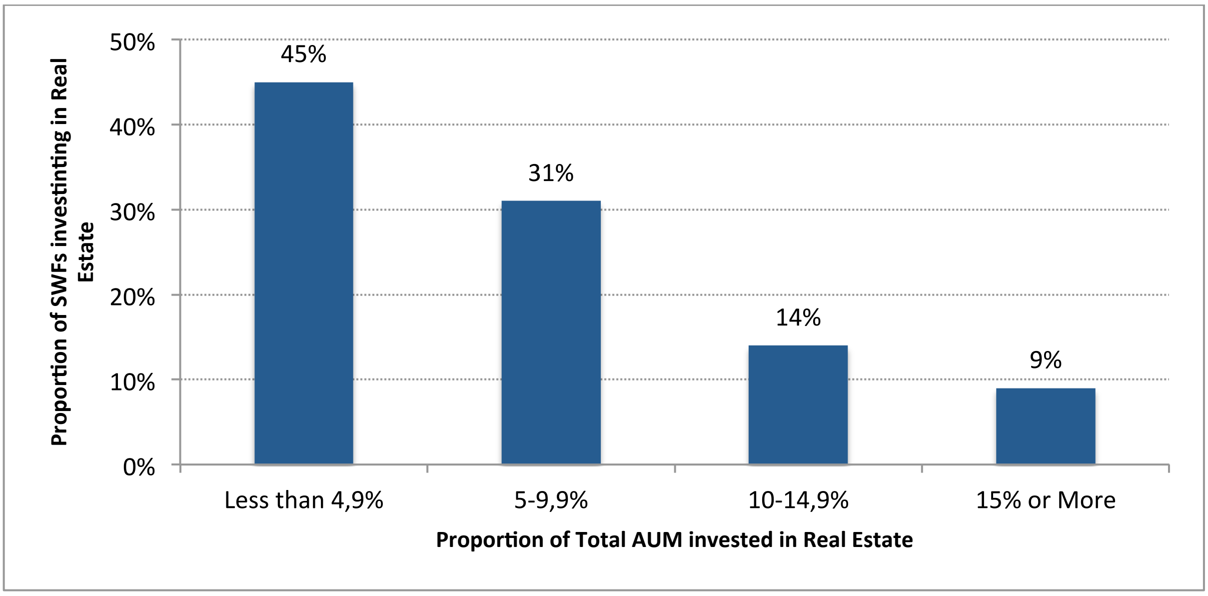
**Graph 3: Evolution of SWFs Asset Allocation**




*Source: Author's analysis based on Hentov (2015)*

Investments in real assets have been the most common route into alternative investment by SWFs in 2015. There is, indeed, a growing part of SWFs investing in real estate. In 2015 59% of SWFs invested in these assets. This growing appetite for real estate may be explained by the improving fundraising environment and increases in real estate asset valuations. These investments in real estate include the largest SWFs. *Abu Dhabi Investment Authority*, *GIC Singapore* and *Kuwait Investment Authority* all have over USD 18 billions allocated to real estate.

**Graph 4: Proportion of SWFs investing in real estate**



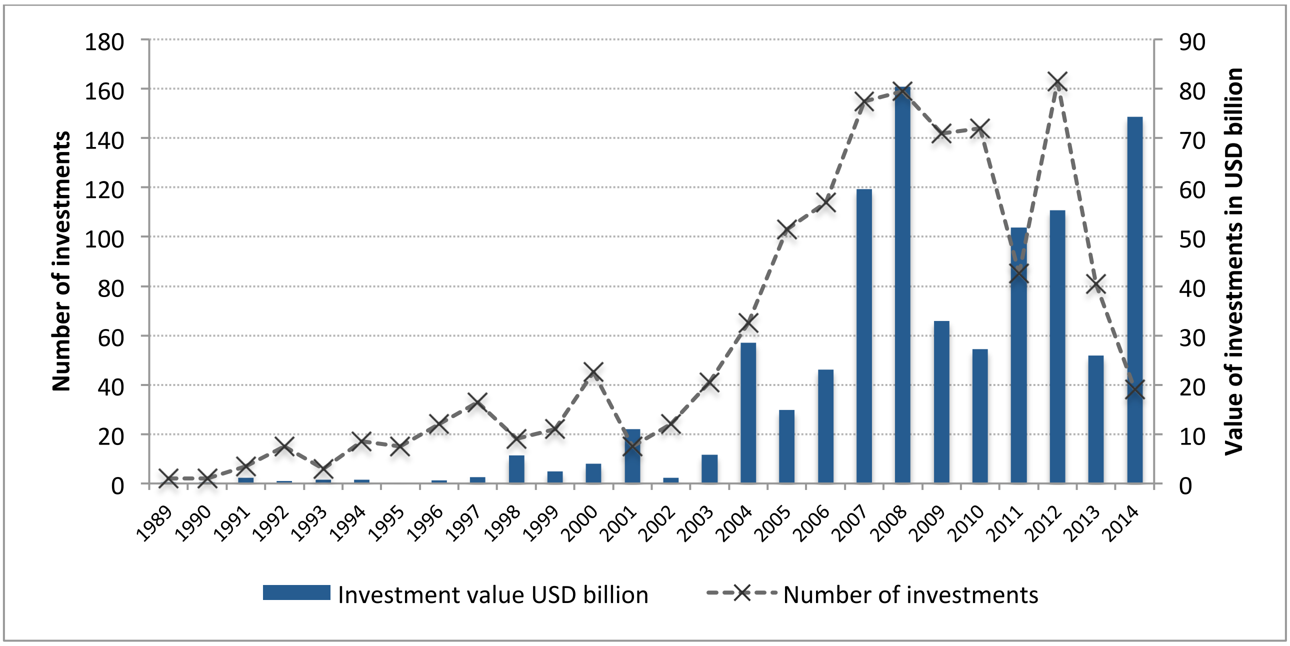

*Source: Preqin (2015b)*

As we can see in Graph 4, SWFs appetite for these assets depends on their size: the larger the fund is, the more likely it is to invest in real estate. Only 13% of very small funds (AUM < USD 1 billion) invest in real estate, whereas all large funds (AUM > USD 100 billion) invest in these assets (Preqin, 2015b)

Moreover, we can see that nearly a fourth of SWFs invest more than 10% of their AUM in real estate.

## 2. *SWFs' asset allocation in equity*

**Graph 5: Evolution of SWFs' investments in equity**

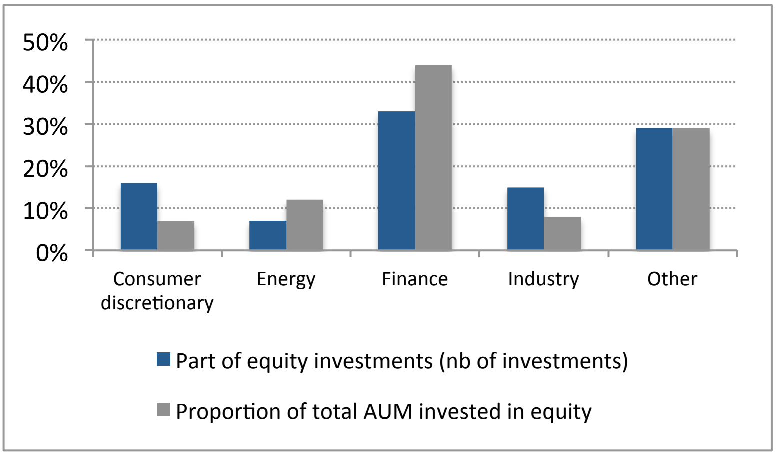



*Source: Author's analysis based on Amar, Candelon and Lecourt (2016)*

Most of SWFs' assets under management are invested in equity. That is why this section provides more details concerning these investments.

We can see the exponential development of SWFs activity since the beginning of the 2000s. The number of investments in equity as well as the amount invested in these assets have increased sharply over the last 10 years.

**Graph 6: Sectorial repartition of SWFs' investments in equity**




*Source: Author's analysis based on Amar, Candelon and Lecourt (2016)*

The favorite sectors of SWFs for equity investments are Finance, Industry, Energy and Consumer Discretionary. The high part of the financial sector is due to the role SWFs have played during the crisis. They indeed took large stakes in major financial institutions, contributing thereby to the stability of the system.

**Table 3: The 10 favorite countries for SWFs' foreign investments (1989-2014)**

| | Number of SWFs foreign investments | Part of SWFs foreign investments |
|---|---|---|
| USA | 190 | 17% |
| China | 111 | 10% |
| India | 104 | 9% |
| UK | 104 | 9% |
| Australia | 55 | 5% |
| Switzerland | 54 | 5% |
| France | 36 | 3% |
| Hong Kong | 30 | 3% |
| Italy | 28 | 2% |
| South Korea | 26 | 2% |

*Source: Author's analysis based on Amar, Candelon and Lecourt (2016)*

Favorite target countries are, on the one hand, Anglo-Saxon countries (more than 40%), and on the other hand, China and India where the Singaporean funds are particularly active. The United States and United Kingdom concentrate one quarter of SWFs equity foreign investments.

Among European countries, Switzerland, France and Italy are very attractive with 10% of foreign equity investments in these countries.

# III. SWFs raise concerns that have encouraged the development of an extensive literature

## A. This recent development of SWFs raises concerns especially in developed countries

The subprimes crisis has highlighted the increasing financial power of SWFs. They have indeed invested USD 92 billion between mid-2007 and mid-2008 in the financial sector. The Chinese fund, CIC, has acquired 9.9% of Morgan Stanley; the Singaporean fund *GIC* and *ADIA* (Abu Dhabi) have invested USD 15.4 billion in Citigroup; *Temasek Holdings*, *QIA* (Qatar) and *CIC* (China) acquired 15% of Barclays Bank (Deutsche Bank, 2008).

In a difficult economic environment, the financial power of SWFs, despite its positive impact on the financial sector, has given rise to concerns in most developed countries. Some have expressed their fears about the capacity of SWFs to acquire powerful companies: *"ADIA, the sovereign wealth fund of Abu Dhabi, could afford to buy: Total, AXA, BNPP, Bouygues, L'Oréal, Michelin, Danone, LVMH and some other firms of the CAC 40"* (J-P. Betbeze, chief economist, Crédit Agricole S.A.).

Other countries have expressed their concern about the objectives of these investors: In an IMF publication we can read that in some cases, *"assets may be shifted for political-strategic reasons rather than economic and financial reasons"* (Tassel et Chung, 2007); and the US Congress has used the term *"State Capitalism"* to describe the fact that SWFs may ensure strategic positions in the world.

Fears concerning the development of SWFs can be summarized as follows:

- What is the impact of these investors' financial power on financial markets? Are Sovereign Wealth Funds a destabilizing force for financial markets (speculative bubbles, massive shares sales…) or as long term investors, do they on the contrary stabilize financial markets?
- Are Sovereign Wealth Funds investments a new form of protectionism? SWF may indeed support local economy by making domestic investments, which would be an obstacle to free competition.
- What is the impact of SWFs on the performance of the firms they invest in? The acquisition of a firm by a SWF may be considered as a disguised nationalization, which

could, under some conditions have a negative impact on the firm performance. There is indeed an extensive literature highlighting the negative impact of public ownership on corporate financial performance (Boubakri and Kosset, 1998; Lin and Bo, 2012)

- Finally, the main fear is related to the investment strategies of SWFs. Because these investors are responsible for managing the wealth of states, we can wonder if there is a political bias in their investment strategy: do SWFs serve the strategic interests of their countries?

These concerns are emphasized by the opaqueness of many SWFs as it is underlined by Truman (2007): *"The management of these assets has become a major focus of national and international economic and financial policy because of their size, their lack of transparency, their potential to disrupt financial markets, and the risk that political objectives might influence their management"*.

These fears have led to the establishment of a stricter regulation of foreign investments in some developed countries. Germany passed a law in 2009 that allows a control a posteriori of foreign investments if they represent a risk for "public order" or "national safety". In the United States, the *Foreign Investment and National Security Act* (2007) states that: *"if the Committee determines that the covered transaction is a foreign government-controlled transaction, the Committee shall conduct an investigation of the transaction".*

In order to limit these protectionist temptations, 26 SWFs came together to create the International Working Group on Sovereign Wealth Funds. This initiative has led in 2008 to the presentation to the IMF of the *Santiago Principles*, a set of good practices for SWFs. If these principles may appear imperfect, as they are only recommendations, their content seems satisfying. Truman, a researcher who has created a set of tools to evaluate SWFs' level of transparency estimates that a fund that meets all the Santiago Principles would get 74/100 with his own grid. The difference between Truman's grid and the Santiago Principles lies in the level of transparency of SWFs. The Santiago Principles do not recommend to release the amount of the assets under management, nor annual reports and financial statements.

This increasing financial power of SWFs and the concerns it raises have encouraged the development of an extensive literature since the financial crisis of 2008.

## B. Literature review: main findings

The literature on Sovereign Wealth Funds is structured around two main themes, joining the concerns they raise.

A part of the literature studies the impact of SWFs' investments on targeted firms. These analyses focus on two issues:

- How do financial markets value the investments of SWFs in listed companies?
- What is the impact of these investments on the firms' performance?

The second piece of literature focus on SWFs' investment strategies:

- Normative analysis: How should SWFs invest?
- Descriptive analysis: How do SWFs invest?

### *1. The impact of SWFs investments*

Some authors have analyzed the impact of SWFs' investments on targeted firms' stock prices. Using event study methodology they have shown that the short-term reaction to an announced SWF equity investment in a listed company yields significant positive announcement-period excess returns of 1-3% (Bortolotti et al., 2010; Fotak, 2008).

In the long run, authors have observed significantly negative excess return. After one year, Han and Malatesta (2010) find a negative abnormal return of -4.5%. This is what some authors (Bortolotti, Fotak and Megginson, 2015) have called the *"SWF discount".*

Nevertheless, some authors (Dewenter, Han and Malatesta, 2010) have found a positive abnormal return after three years (3-years abnormal return: +7.3%; 5-years abnormal return: +31.2%).

Some authors have studied the impact of SWFs' shareholding on operational performance of the targeted firm. There is no consensus in the literature concerning this issue. Fernandes (2009) found that there is a positive impact of SWFs' investments on both the value and the performance of the targeted firms. On the other side, Knill, Lee and Mauck (2012) find that SWFs' investments negatively impact operational performance.

## 2. SWFs investment strategies

Some authors have presented normative and theoretical studies prescribing how SWFs should allocate their assets across asset classes. If these prescriptions depend on the objectives of the funds and the origin of their resources, there is a consensus on the optimal structure of SWFs' portfolios. An optimal SWF' portfolio should include at least a performance-seeking portfolio and a hedging portfolio.

But most of this part of the literature has studied the determinants of SWFs' investments. Dyck and Morse (2011) analysis suggests a double purpose of SWFs' investments: profit maximization and development of the country. Then, SWFs portfolios are composed of foreign and domestic assets.

Some authors (Fernandes, 2014; Karolyi and Liao, 2010; Avendano, 2012) have shown that SWFs tend to invest in large companies with high growth options.

On country level determinants of SWFs investments, Chaoccharia and Laeven (2009) have shown that there is a "familiarity bias" in SWFs' investment decisions. They are more likely to invest in countries with which they share the same cultural (language, religion) and institutional patterns. Knill, Lee and Mauck (2012) have also shown the importance of political bilateral relationships in the investment decision of SWFs. Finally, Karolyi and Liao (2010) show that macroeconomic factors (economic development, financial risk,…) influence the number of investments made by SWFs.

## IV. This literature opens up the way for new research projects

These conclusions and the statistics above open up the way to new research projects. What are the determinants of the creation of Sovereign Wealth Funds? If investments strategies of SWFs are not only led by profit maximization, what are the determinants of these investments? If these investments are led by non-financial purposes, could it explain the growing number of majority acquisitions made by SWFs?

These questions have motivated research projects including a forthcoming paper entitled: "Are Sovereign Wealth Fund Investment Decisions based on Country Factors?" (Amar, Candelon and Lecourt, 2016). Using a novel database we created from scratch, we assess whether macroeconomic factors significantly influence observed SWFs' foreign investment decisions. In this paper we analyze both the decision to invest abroad and the amount invested.

We find that cross-border SWFs investment decisions are driven by country level factors and not only affected by financial factors. Indeed, our results suggest that the inflation rate, the exchange rate, the level of authority of a regime, the level of stability of the government, and the degree of financial openness impact the decision to invest abroad.

More precisely, SWFs are more likely to invest in countries that are different from them in terms of inflation and stability of the government. On the contrary, they prefer to invest in countries that are close to them in terms of level of authority of the regime.

Furthermore, they are more likely to make large investments in countries that have level of authority of the regime and financial openness close to theirs. On the contrary, they tend to invest larger amounts in countries that are different in terms of exchange rate.

These results also show that country factors do not have the same impact on the investment decision and the amount to invest.

It is also interesting to observe that there is a strong inertia in SWFs' investment strategies. Once a SWF invests in a country, it will tend to reinvest in this country in the following years.

# V. Conclusion

As mentioned in the introduction, Sovereign Wealth Funds have become a topic of common concern for nearly ten years. If there is today an extensive literature studying this topic, there are issues that still need to be investigated: Why would a country create a SWF? What are the drivers of SWFs' divestments? Why do SWFs take more and more majority stakes abroad?

In order to investigate these issues, researchers have to deal with the opaqueness of many SWFs. Indeed, as long as they do not publish their financial statements, it will be difficult for researchers to analyze these investors, and for the developed countries to drop their fears.

## APPENDIX 1. List of the Sovereign Wealth Funds

| Country Name | Name of the fund | Inception year | AUM > 100 M$ | Origin | Objectives |
|---|---|---|---|---|---|
| **Algeria** | Revenue Regulation Fund | 2000 | | Oil & Gas | Macrostabilisation |
| **Angola** | Reserve Fund for Oil | 2007 | nc | Oil | Macrostabilisation |
| **Angola** | Fondo Soberano de Angola | 2012 | | Oil | Reserve Investment |
| **Australia** | Australia Future Fund | 2006 | | Non-Commodity | Saving |
| **Australia** | Queensland Investment corporation | 1991 | | Fiscal | Development |
| **Australia** | Victorian Future Management Corporation | 1994 | | Fiscal | Saving<br>Development |
| **Australia** | Western Australian Future Fund | 2012 | | Minerals | Saving |
| **Azerbaijan** | State Oil Fund | 1999 | | Oil | Macrostabilisation<br>Saving |
| **Bolivia** | FINPRO | 2012 | | Non-Commodity | Development |
| **Botswana** | Pula Fund | 1991 | | Diamonds & Minerals | Reserve Investment |
| **Brazil** | Sovereign Fund of Brazil | 2008 | | Non-Commodity | Macrostabilisation<br>Saving<br>Development |
| **Brunei Darussalam** | Brunei Investment Agency | 1983 | | Oil | Reserve Investment |
| **Canada** | Alberta's Heritage | 1976 | | Oil | Saving<br>Reserve Investment |
| **Chile** | Economic and Social Stabilization Fund | 2007 | | Copper | Macrostabilisation |
| **Chile** | Pension Reserve Fund | 2006 | | Copper | Macrostabilisation<br>Saving |
| **Colombia** | Fondo Soberano de Colombia | 2012 | | Oil | Macrostabilisation<br>Saving |
| **Equatorial Guinea** | Fund for Future Generation | 2002 | | Oil | Saving |
| **France** | Strategic Investment Fund | 2008 | | Non-Commodity | Development |
| **Gabon** | Gabon Sovereign Wealth Fund | 1998 | | Oil | Development |
| **Ghana** | Minerals Development Fund | 2016 | nc | Mining | Development |

| | | | | | |
|---|---|---|---|---|---|
| **Ghana** | Ghana Petroleum Funds | 2011 | | Oil | Macrostabilisation<br>Saving |
| **Indonesia** | Government Investment Unit | 2006 | | Non-Commodity | Development |
| **Iraq** | Develpment fund of Irak | 2003 | | Oil | Development |
| **Ireland** | Ireland Strategic Fund | 2001 | | Non-Commodity | Development |
| **Islamic Republic of Iran** | National Development Fund of Iran (ex Oil Stabilization Fund) | 2011 | | Oil & Gas | Saving |
| **Italy** | Italian Strategic Fund | 2011 | | Non-Commodity | Development |
| **Kazakhstan** | Samruk-Kazyna JSC | 2008 | | Non-Commodity | Macrostabilisation<br>Development |
| **Kazakhstan** | Kazakhstan National Fund | 2000 | | Oil & Gas | Macrostabilisation |
| **Kazakhstan** | National Investment Corporation of the National Bank of Kazakhstan | 2012 | | Oil | Saving |
| **Kingdom of Bahrain** | Bahrain Mumtalakat Holding | 2006 | | Non-Commodity | Reserve Investment |
| **Kiribati** | Revenu Equalization Reserve Fund | 1956 | | Phosphates | Macrostabilisation |
| **Korea** | Korea Investment Corporation | 2005 | | Non-Commodity | Reserve Investment |
| **Kuwait** | Kuwait Investment Authority | 1953 | ✓ | Oil | Reserve Investment |
| **Libya** | Libyan Investment Authority | 2006 | | Oil | Macrostabilisation<br>Saving<br>Development |
| **Malaysia** | 1Malaysia Development Berhad | 2009 | nc | Non-Commodity | Development |
| **Malaysia** | Khazanah Nasional | 1993 | | Non-Commodity | Reserve Investment<br>Development |
| **Mauritania** | National Fund for Hydrocarbon Reserves | 2006 | | Oil & Gas | Macrostabilisation<br>Saving |
| **Mexico** | Fondo Mexicano del Petroleo | 2014 | nc | Oil & Gas | Macrostabilisation<br>Development |
| **Mexico** | Oil Revenues Stabilization Fund of Mexico | 2000 | | Oil | Macrostabilisation |
| **Mongolia** | Fiscal Stability Fund | 2011 | | Minerals | Macrostabilisation |
| **Namibia** | Minerals Development Fund | 1996 | nc | Minerals | Development |
| **New Zealand** | New Zealand Superannuation Fund | 2003 | | Non-Commodity | Saving |

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| **Nigeria** | Bayelsa Development and Investment Corporation | 2012 | | Non-Commodity | Development |
| **Nigeria** | Nigeria Sovereign Investment Authority | 2011 | | Oil & Gas | Reserve Investment<br>Development |
| **Norway** | Government Pension Fund - Global | 1990 | ✓ | Oil | Saving |
| **Oman** | State General Reserve Fund | 1980 | | Oil & Gas | Saving<br>Reserve Investment<br>Development |
| **Oman** | Oman Investment Fund | 2006 | | Oil | Reserve Investment |
| **Palestine** | Palestine Investment Fund | 2003 | | Non-Commodity | Development |
| **Panama** | Fondo de Ahorro de Panama | 2012 | | Non-Commodity | Macrostabilisation<br>Saving |
| **Papua New Guinea** | Papua New Guinea Sovereign Wealth Fund | 2011 | nc | Gas | Macrostabilisation<br>Saving<br>Development |
| **China** | Honk Kong Monetary Authority - Exchange Fund | 1993 | ✓ | Non-Commodity | Macrostabilisation |
| **China** | China Investment Corporation | 2007 | ✓ | Non-Commodity | Reserve Investment |
| **People's Republic of China.: Mainland** | SAFE Investment Company | 1997 | ✓ | Non-Commodity | Macrostabilisation |
| **People's Republic of China.: Mainland** | National Social Security Fund | 2000 | ✓ | Non-Commodity | Saving |
| **People's Republic of China.: Mainland** | China Africa Development Fund | 2007 | | Non-Commodity | Reserve Investment |
| **Peru** | Fiscal Stabilization Fund | 1999 | | Non-Commodity | Macrostabilisation |
| **Qatar** | Qatar Investment Authority | 2005 | ✓ | Oil & Gas | Reserve Investment |
| **Russia** | National Welfare Fund | 2008 | | Oil | Macrostabilisation |
| **Russia** | Reserve Fund | 2008 | | Oil | Macrostabilisation |

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| **Russia** | Russia Direct Investment Fund | 2011 | | Non-Commodity | Development |
| **Rwanda** | Agaciro Development Fund | 2012 | | Volountary Contributions | Macrostabilisation Development |
| **Sao Tomé and Principe** | National Oil Account | 2004 | | Oil & Gas | Development |
| **Saudi Arabia** | Kingdom Holding Company | 1980 | ✓ | Oil | Development |
| **Saudi Arabia** | SAMA Foreign Holding | 1952 | ✓ | Oil | Reserve Investment |
| **Saudi Arabia** | Public Investment Fund | 2008 | ✓ | Oil | Development |
| **Senegal** | Senegal FONSIS | 2012 | | Non-Commodity | Development |
| **Singapore** | Government of Singapore Investment Corporation | 1981 | ✓ | Non-Commodity | Reserve Investment |
| **Singapore** | Temasek Holdings | 1974 | ✓ | Non-Commodity | Reserve Investment |
| **Sudan** | Oil Revenues Stabilization Fund | 2002 | nc | Oil & Gas | Reserve Investment |
| **Taiwan** | National Stabilization Fund | 2000 | nc | Fiscal | Macrostabilisation |
| **Timor Leste** | Petroleum Fund of Timor-Leste | 2005 | | Oil & Gas | Macrostabilisation |
| **Trinidad and Tobago** | Heritage and Stabilization Fund | 2000 | | Oil | Macrostabilisation Saving |
| **Turkmenistan** | Turkmenistan Stabilization Fund | 2008 | ✓ | Oil & Gas | Macrostabilisation |
| **United Arab Emirates** | Abu Dhabi Investment Authority | 1976 | ✓ | Oil | Reserve Investment |
| **United Arab Emirates** | Investment Corporation of Dubai | 2006 | ✓ | Non-Commodity | Reserve Investment |
| **United Arab Emirates** | Abu Dhabi Investment Council | 2007 | ✓ | Oil | Reserve Investment Development |
| **United Arab Emirates** | International Petroleum Investment Company | 1984 | | Oil | Reserve Investment |
| **United Arab Emirates** | Mubadala Developement Company | 2002 | | Oil | Development |
| **United Arab Emirates** | Emirates Investment Authority | 2007 | | Oil | Reserve Investment |

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| **United Arab Emirates** | RAK Investment Authority | 2005 | | Oil | Development |
| **United States** | West Virginia Future Fund | 2014 | ✓ | Oil & Gas | Saving<br>Development |
| **United States** | Alaska Permanent Fund Corporation | 1976 | | Oil | Saving |
| **United States** | Texas Permanent School Fund | 1854 | | Oil and Other | Saving |
| **United States** | New Mexico State Investment Council | 1958 | | Oil & Gas | Reserve Investment |
| **United States** | Permanent University Fund | 1876 | | Oil & Gas | Development |
| **United States** | Permanent Wyoming Mineral Trust Fund | 1975 | | Minerals | Macrostabilisation<br>Saving |
| **United States** | North Dakota Legacy Fund | 2011 | | Oil & Gas | Saving |
| **United States** | Alabama Trust Fund | 1985 | | Oil & Gas | Saving |
| **United States** | Louisiana Education Quality Trust Fund | 1986 | | Oil & Gas | Development |
| **Venezuela** | Macroeconomic Stabilization Fund | 1998 | | Oil & Gas | Macrostabilisation |
| **Venezuela** | National Development Fund (FONDEN) | 2005 | nc | Oil | Development |
| **Vietnam** | State Capital Investment Corporation | 2005 | | Non-Commodity | Development |

## APPENDIX 2. List of Tables, Graphs and Maps

### 1. Tables



### 2. Graphs



### 3. Maps

## Bibliography


J. Amar, Candelon B. and C. Lecourt (2016). Are Sovereign Wealth Fund Investment Decisions based on Country Factors? Working Paper.

Avendano, R. (2012). Sovereign Wealth Fund Investments: From Firm-Level Preferences to Natural Endowments. Working Paper. Paris School of Economics.

Bortolotti B., Fotak V., Megginson W.L. (2015), The Sovereign Wealth Fund Discount: Evidence from Public Equity Investments. The Review of Financial Studies.

Bortolotti B., Fotak V., Megginson W.L. and Miracky W. F. (2010). Quiet Leviathans: Sovereign Wealth Fund Investment, Passivity, and the Value of the Firm. Working Paper.

Boubakri, N., and Cosset, J.-C., (1998). The Financial and Operating Performance of Newly Privatized Firms : Evidence from Developing Countries. Journal of Finance 53, 1081–1110.

Chhaochharia, V. and L. Leaven (2008). Sovereign Wealh Funds: Their Investment Strategies and Performance. Discussion paper n°6959, International Monetary Fund.

Dewenter, K., X. Han, and H. Malatesta (2010). Firm Value and Sovereign Wealth Fund Investments. Journal of Financial Economics 98, 256-278.

Dick, A. and A. Morse (2011). Sovereign Wealth Fund Portfolios. Working Paper, 11-15, Chicago Booth.

Fernandes N. (2014). The Impact of Sovereign Wealth Funds on Corporate Value and Performance. Journal of Corporate Finance 26. 76-84.

Fernandes, N. (2009). Sovereign Wealth Fund: Investment Choices and Implications Around the World. Working Paper, IMD International.

Fernandez, D. and B. Eschweiler (2008). Sovereign wealth funds: A bottom-up primer. JP Morgan Research

Hentov, E. (2015). How do Sovereign Wealth Funds Invest? A Glance at SWF Asset Allocation. State Street Global Advisors: 1-5

International Forum on SWFs (formerly International Working Group on SWFs). http://www.ifswf.org

Karolyi, A. and R. Liao (2010). What is Different about Government Controlled Acquirers in Cross-Border Acquisitions? Working paper, Cornell University.

Knill, A., B. Lee, and N. Mauck (2012a). Bilateral Political Relations and the Impact of Sovereign Wealth Fund Investment. Journal of Corporate Finance 18. 108-123.

Lin H. C. M. and Bo H. (2012). State-Ownership and Financial Constraints on Investment of Chinese-Listed Firms : New Evidence. The European Journal of Finance18. 497-513.

Preqin (2015a) *Sovereign Wealth Funds Review*.

Preqin (2015b). *Sovereign Wealth Funds Investing in Real Estate.*

Santiago Principles available at http://www.iwg-swf.org/pubs/eng/santiagoprinciples.pdf

SWF Investment Lab. Università Commerciale Luigi Bocconi. https://www.unibocconi.eu/wps/wcm/connect/Cdr/Baffi_Carefin/Home/Research+Units/Sovereign+Investment+Lab/

SWF Institute. http://www.swfinstitute.org

Tassel T. and Chung J. (2007). How Sovereign Wealth Funds are Muscling in on Global Markets. Financial Times. 24 Mai.

Truman, E. (2007). Sovereign Wealth Funds: The Need for Greater Transparency and Accountability. Peterson Institute for International Economics. Policy Brief PB07-6, Washington DC.