THE RISE OF SOVEREIGN WEALTH FUNDS: AN OVERVIEW OF THE CHALLENGES AND OPPORTUNITIES AHEAD

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Abstract. *This article reviews the latest research on Sovereign Wealth Funds (SWF). SWFs are a relatively new form of investment organizational structure, with over $7.42 trillion assets under management (AUM) by December 2016. Since 2000, SWFs showed impressive growth, both in terms of the size of their AUM and the number of funds established worldwide, rapidly becoming important players in international financial markets. This article analyzes the recent trends of SWFs and highlights openness and transparency as both challenges and opportunities arising from their growing international presence.*

Keywords*: Sovereign Wealth Funds, SWFs, governance.*

JEL Classification*: G15, G18, G23, G38, O16.*

1. Introduction

Sovereign wealth funds (SWFs) have been around for more than sixty years. Their popularity has highly increased over the past two decades, as more and more states decided to establish their own fund. Most of the SWFs capitalize on large natural resource endowments (such as revenues from oil and gas resources). Their purpose ranges from stabilizing the fiscal impact and protecting the economy to spurring domestic investments and ensuring savings for future generations. Despite being present on the international arena for quite a while, the level of openness and transparency remains both a challenge and an opportunity for sovereign wealth funds.

The article is divided in six parts. After the introduction, the second part highlights the popular definitions of SWF and describes a brief history of SWF. The third part provides a snapshot of the current status of sovereign wealth funds and showcases some of the recent development trends observed during the past two decades. The fourth part identifies the

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main typologies of sovereign wealth funds, as described by the International Monetary Fund (IMF) and observed in the academic literature. The fifth part deals with transparency issues; it describes some of the international efforts to guide principles for governing SWFs and showcases the transparency levels of the top ten largest SWFs based on one of the available international transparency indexes, namely the Linaburg-Maduell Transparency Index. The conclusions of this paper are laid down in the last part.

2. Definition and short history of SWF

There is no clear agreement in the academic or practitioner literature on the exact definition of a sovereign wealth fund, despite several attempts during the past decade (Bortolotti B., Fotak V. and Megginson W., 2014). One particular characteristic of sovereign wealth funds is that they are state-owned investment vehicles that usually invest globally in a wide range of assets, acting in the interest of the state (Alhashel, 2015). Blundel-Wignall, Hu and Yermo (2009, p. 4) interpret sovereign wealth funds as "pools of assets owned and managed directly or indirectly by governments to achieve national objectives".

The International Working Group of Sovereign Wealth Funds, created with the support of the International Monetary Fund, define sovereign wealth funds 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" (IWGSW, 2008, p. 27). Balding (2008) suggests a more comprehensive approach could be given to the definition of SWF and include government-led pension funds or state-owned development banks. Truman (2008, p. 1) views sovereign wealth funds "as a descriptive term for a separate pool of government-owned or government-controlled financial assets". A simpler definition states that sovereign wealth funds are "saving funds controlled by sovereign governments that hold and manage foreign assets" (Aizenman and Glick, 2008, p. 1).

The history of sovereign wealth funds dates back to 1953, when the first recognized state owned SWF (Kuwait Investment Authority) was created by the government of Kuwait. Its aim was to invest the surplus oil revenues and to reduce the country's reliance on a finite resource. Kiribati was the second state to develop a SWF, in 1956; the Revenue Equalization Reserve Fund of Kiribati was mostly funded by the phosphate mining revenues. In 1958, the US New Mexico State Investment Council was created, a non-commodity SWF. In 1974 Singapore's Temasek Holdings was established and later on in 1976 Abu Dhabi's Investment Authority was set up, nowadays being the second largest sovereign wealth fund in the world in terms of assets under management. Norway's Government Pension Fund – Global was established in 1990, capitalizing on the country's offshore oil and gas resources. Further on, the past two decades showed an impressive boom of new SWFs, distributed all across the world. Figure 1 showcases a chronology of various sovereign wealth funds that have been established since 1953.

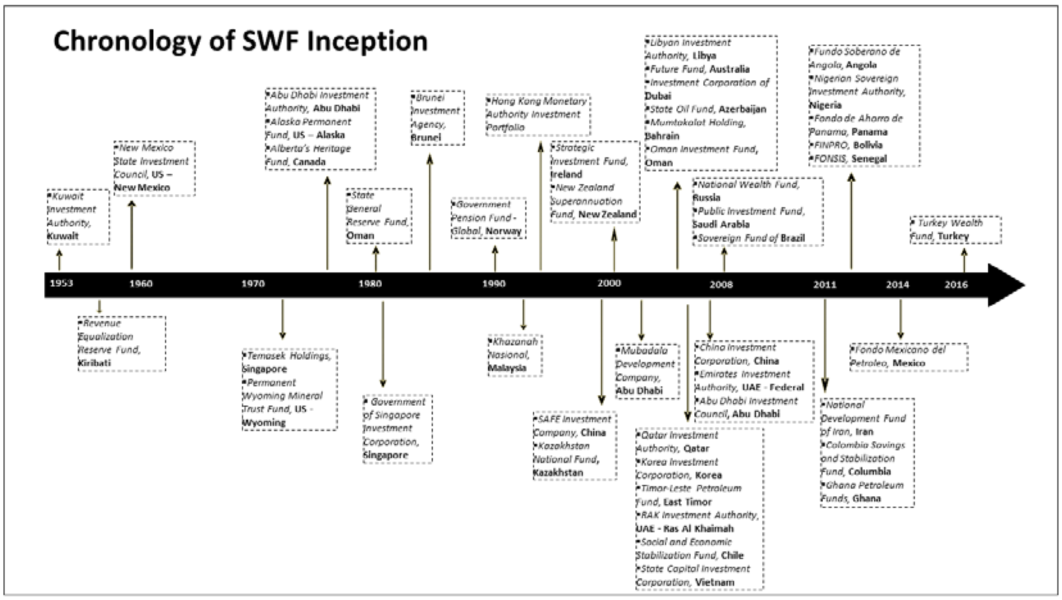

Figure 1. Chronology of Inception of Sovereign Wealth Funds.

Source: Authors' own representation based on SWFI data.

3. Status-Quo of SWFs and recent growth trends

Over the past twenty years, sovereign wealth funds have experienced a sharp increase in both the total number of funds and the total number of assets under management (AUM). As of April 2017, there are 79 sovereign wealth funds managing assets estimated at US$7.31 trillion (Sovereign

Wealth Fund Institute Rankings, 2017). The ten largest SWFs manage assets of approximately US$5.54 trillion representing around 75 percent of the total SWFs AUM. Table 1 showcases a list of the twenty largest SWFs, which amount for a total of US$6.75 trillion assets under management, representing a total of 92 percent of the total estimated AUM of SWFs. Table 1 also reveals the funds' inception years, origins of assets and the Linaburg-Maduell Transparency Index.

Table 1.

Largest Sovereign Wealth Funds by Assets Under Management.

No.	Country	SWF Name	Assets (USD) in billions	Inception Year	Origin	Linaburg-Maduell Index
1	Norway	Government Pension Fund - Global	922.11	1990	Oil	10
2	UAE – Abu Dhabi	Abu Dhabi Investment Authority	828	1976	Oil	6
3	China	China Investment Corporation	813.8	2007	Non-commodity	8
4	Kuwait	Kuwait Investment Authority	592	1953	Oil	6
5	Saudi Arabia	SAMA Foreign Holdings	514	1952	Oil	4
6	China – Hong Kong	Hong Kong Monetary Authority Investment Portfolio	456.6	1993	Non-commodity	8
7	China	SAFE Investment Company	441	1997	Non-commodity	4
8	Singapore	Government of Singapore Investment Corporation	350	1981	Non-commodity	6
9	Qatar	Qatar Investment Authority	335	2005	Oil and Gas	5
10	China	National Social Security Fund	295	2000	Non-commodity	5
11	UAE – Dubai	Investment Corporation of Dubai	200.5	2006	Non-commodity	5
12	Singapore	Temasek Holdings	180	1974	Non-commodity	10
13	Saudi Arabia	Public Investment Fund	183	2008	Oil	4
14	UAE – Abu Dhabi	Mubadala Investment Company	125	2002	Oil	10
15	UAE – Abu Dhabi	Abu Dhabi Investment Council	110	2007	Oil	n/a
16	South Korea	Korea Investment Corporation	108	2005	Non-commodity	9
17	Australia	Australia Future Fund	99.4	2006	Non-commodity	10
18	Russia	National Welfare Fund	72.2	2008	Oil	5
19	Libya	Libyian Investment Authority	66	2006	Oil	1
20	Kazakhstan	Kazakhstan National Fund	64.7	2000	Oil	2

Source: Sovereign Wealth Fund Institute (SWFIa), April 2017 data and the authors' compilation.

The majority of countries that have founded a sovereign wealth fund are rich in natural resources, such as oil, natural gas, copper, diamonds or coal. 44 Out of the total 79 SWFs are financed primarily from oil and gas revenues and manage 58.7 percent of the total AUM (roughly US$4.29 trillion). Other countries that rely on natural resources revenues for funding their sovereign wealth fund are Chile (their Social and Economic Stabilization Fund relies on copper revenues), Botswana (relying mostly on diamond and minerals revenues) and Kiribati (the Revenue Equalization Reserve Fund relies on phosphates revenues).

However, the source of capital for many other significantly large SWFs is not related to commodities. Many countries have created SWFs to "transfer assets directly from official foreign exchange reserves and in some cases, government budget surpluses and pension surpluses" (Butt S., Shivdasani A., Stendevad C., and Wyman A., 2008). For instance, China has three distinct non-commodities funds (China Investment Corporation, SAFE Investment Company and the National Social Security Fund), all being among the top ten largest SWFs, managing a cumulated total of US$1.55 trillion.

Irrespective of the definition given to a SWF, these funds have shown a consistent growth over the past decade and have outpaced the growth rate of hedge funds or large private institutional investors. Figure 2 highlights the semestrial expansion of the total assets under management of SWFs, from December 2007 up to December 2016. As it can be observed, the total AUM of SWFs more than doubled over this time period, from US$3.26 trillion to US$7.3 trillion.

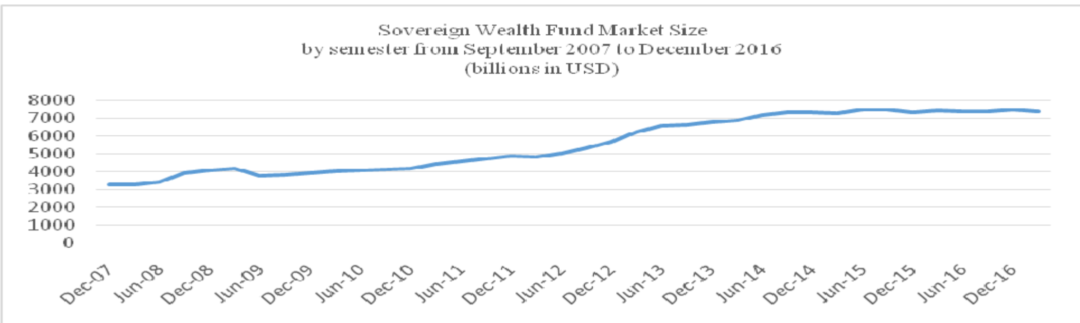

Figure 2. Sovereign Wealth Fund Market Size.

Source: Authors' own representation based on SWFI data.

This consistent growth in total assets under management also correlates with the rapid development of new SWFs during this period. Figure 3 shows that 23 new sovereign wealth funds were developed during

2000 and 2006; this rapid rise was followed by the creation of 30 new SWFs during 2007 and 2016. Several SWFs have also been established during the 1970-1980s, as a consequence of the two major oil and energy shocks of 1973 and respectively 1979 that led to sky-rocketing oil prices and revenues.

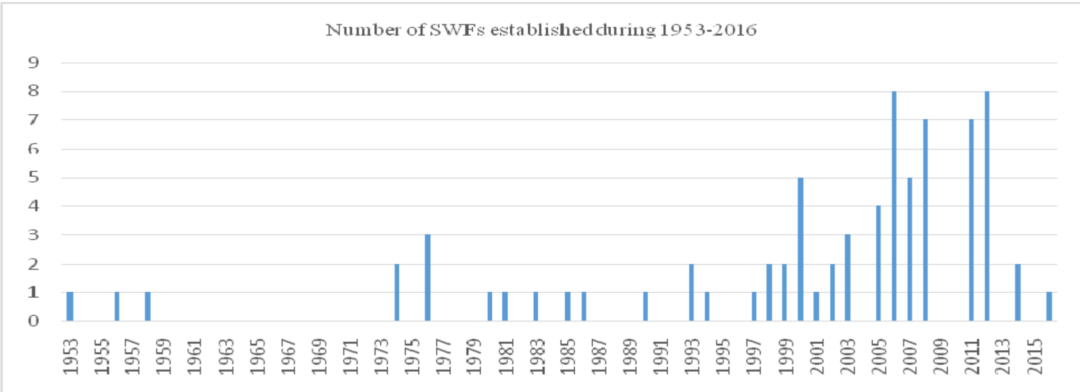

Figure 3. Number of SWFs established during 1953-2016.

Source: Authors' own representation based on SWFI data.

In 2016, the total assets under management of SWFs are almost three times more than that of the global private equity industry and more than double than that of hedge funds. In June 2016, private equity assets under management reached an all-time high of US$2.49 trillion (Preqin Global Private Equity and Venture Capital Report, 2017), while the total assets under management in the hedge fund industry surpassed for the first time the US$3 trillion threshold (Hedge Fund Research, 2016).

Sovereign wealth funds vary considerably in terms of size. The largest sovereign wealth fund in the world is Norway's Government Pension Fund – Global with an estimated US$922 billion in AUM. China's three distinct non-commodities funds total US$1.55 trillion in AUM, while UAE's sovereign wealth funds amounted to US$1.3 trillion in AUM. In early 2017, eleven distinct countries (China, UAE, Norway, Kuwait, Hong Kong, Saudi Arabia, Singapore, Qatar, Russia, Kazakhstan and South Korea) managed total SWF assets of over US$6.45 trillion, representing approximately 93 percent of the total SWF AUM worldwide. These countries could be further grouped in: four oil exporters of the Arab world (UAE, Saudi Arabia, Qatar, and Kuwait); three non-Arab oil exporters (Russia, Kazakhstan and Norway); and export-led economies of Eastern Asia (China, Hong Kong, Singapore and South Korea). A regional breakdown of sovereign wealth funds is showcased in Figure 4: in 2015, Asia accounted for 44 percent in the proportion of total assets under management of SWFs; the Middle East and North Africa (MENA) region withheld 34 percent of the total AUM; and the European region came third, with 16 percent of the total AUM.

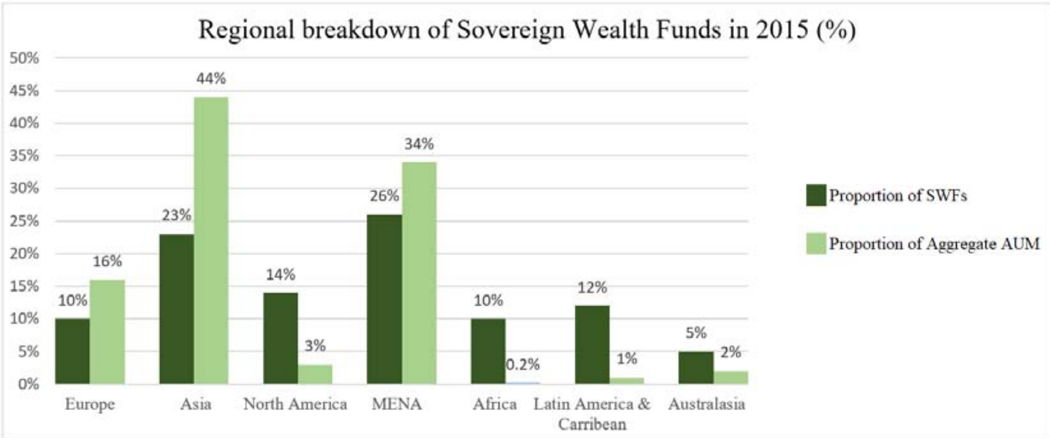

Figure 4. Regional Breakdown of Sovereign Wealth Funds in 2015.

Source: Authors' own representation based on Preqin (2015) data.

4. Taxonomy of SWFs

The International Monetary Fund has identified five different typologies of sovereign wealth funds (IMF, 2007), namely: i) stabilization funds; ii) savings funds; iii) reserve investment funds; iv) development funds; and v) contingent pension reserve funds.

Stabilization funds are usually developed by countries with large natural resource endowments, in order to stabilize the fiscal impact and protect the economy and national budget from volatile commodity prices or production levels. Ziemba (2007) observed that stabilization funds are usually more conservative with investments and asset allocation, focusing preponderantly on fixed incomes and less on equities or alternative investments. Most savings funds, similar to other stabilization funds, are used as long-term instruments to accrue savings for future generations and to mitigate the risk of the natural resources being depleted (Davis, Ossowksi, Daniel and Barnett, 2001). Reserve investment funds are usually non-commodity based SWFs "financed out of the accumulated foreign currency reserves that result from large trade surpluses and privatization procedures" (Anthopoulos, Pitelis and Liakou, 2016). Reserve investment funds adopt riskier investment strategies and target the acquisition of highyield equity stakes (Weiss, 2008). Development funds preponderantly focus on developing domestic infrastructure investments and local socio-economic projects or promote industrial policies that may contribute to a national potential output growth. A sovereign wealth fund that was initially coined as a stabilization fund may change in time its overall investment strategy due to the excessive increase of total assets and either focus on more domestic investments or fund a separate development fund to serve this purpose. Such was the case of UAE, which created the Mubadala Development Fund in 2002 (Anthopoulos, Pitelis and Liakou, 2016; Weiss, 2008). Lastly, contingent pension reserve funds provide for "contingent pension liabilities on the government's balance sheet" (IMF, 2007), such examples being Australia's Future Fund or New Zealand's Super Fund.

5. Transparency of SWFs

SWFs degree of transparency and openness can vary significantly, providing both challenges and opportunities. Transparency provides confidence and trust in markets, while limited sharing of information may lead to market abuse and undermine market confidence. Many funds provide publicly their information and annual reports in details, while some share limited amounts of information. Demands for improved regulation of SWFs in receiving countries and for higher levels of transparency and accountability of SWFs have constantly risen over the past decade (Alhashel, 2015). The empirical evidence in the reviewed academic literature supports the increased transparency of sovereign wealth funds. Gieve (2009) states that for the benefits of SWFs to accrue, SWFs need to embrace a higher level of transparency, or else be faced with increased financial protectionism. Similarly, Devlin and Brummitt (2007) highlighted the need for accountability and transparency and pointed out that having additional transparency diminishes the level of financial protectionism from host countries. Overall, the recent literature on SWF corporate governance shows that sovereign wealth funds need strong corporate governance structures, doubled by professional staffing and transparent reporting mechanisms.

The IMF created in 2008 the International Working Group of SWFs, aiming to develop a new framework for SWFs and create international guiding principles for governing a SWF (IWGSWFa, 2017). In the same year, the Santiago Principles were crafted, consisting of 24 Generally Accepted Principles and Practices, voluntarily endorsed by the members of the International Working Group of SWFs. The Santiago Principles pave the way towards more transparency within the governance of sovereign wealth funds. The Santiago Principles "promote transparency, good governance, accountability and prudent investment practices whilst encouraging a more open dialogue and deeper understanding of SWF activities" (IWGSWFa, 2017). By 2017, 30 SWFs, representing approximately 80 percent of the total AUM of sovereign funds globally, have adhered to the Santiago Principles and became members of the International Working Group of SWFs (IWGSWFa, 2017). However, the level of disclosure and compliance of Santiago Principles' signatories differs, from partially to fully complaint. For many members, the disclosure on the overall progress of implementing the Santiago Principles relies solely on self-assessments. Behrendt (2016) suggests that a number of steps are necessary to improve the effectiveness of the Santiago Principles, namely: (i) improving disclosure practices; (ii) improving the quality of compliance self-assessments; (iii) relying on third-party verifications of compliance with the Santiago Principles; (iv) exploring the possibility for the regulators of inward investment receiving countries to formally recognize and endorsing as reliable investors the SWFs that follow the Santiago Principles.

Given the rising concerns of potential unethical agendas of sovereign wealth funds, especially from large non-transparent funds, calls have been made to try and determine the level of transparency of SWFs. Thus, in 2008, the Linaburg-Maduell Transparency Index was developed at the Sovereign Wealth Fund Institute by Carl Linaburg and Michael Maduell and has been increasingly used by SWFs in annual reports, as a global benchmark (SWFIb, 2017). The index is based on ten principles that refer to various transparency levels of the SWFs to the public. The minimum rating that an SWF may receive is 1 and the maximum is 10. Transparency ratings change as funds release additional information (SWFIb, 2017). The Sovereign Wealth Fund Institute considers a minimum rating of 8 as an adequate transparency level for a SWF. Figure 5 showcases the historical evolution of index ratings of transparency for the top ten largest SWFs, based on the Linaburg-Maduell Transparency Index. As it may be observed, by 2017, only three out of the ten largest SWFs in the world achieved at least eight points in the rankings, namely Norway's Government Pension Fund – Global (10 points), China's Investment Corporation (8 points) and Hong Kong's Monetary Authority Investment Portfolio (8 points). The rest of the top ten largest SWFs scored between four and six points, highlighting inferior standards of transparency, despite a small increase in ratings for some of the funds. Norway's Government

Pension Fund – Global is perceived as the most transparent SWF, with extensive and complete disclosure of information, including internal ethical guidelines and new policies for divestment from companies that do not comply with environmental and sustainable practices.

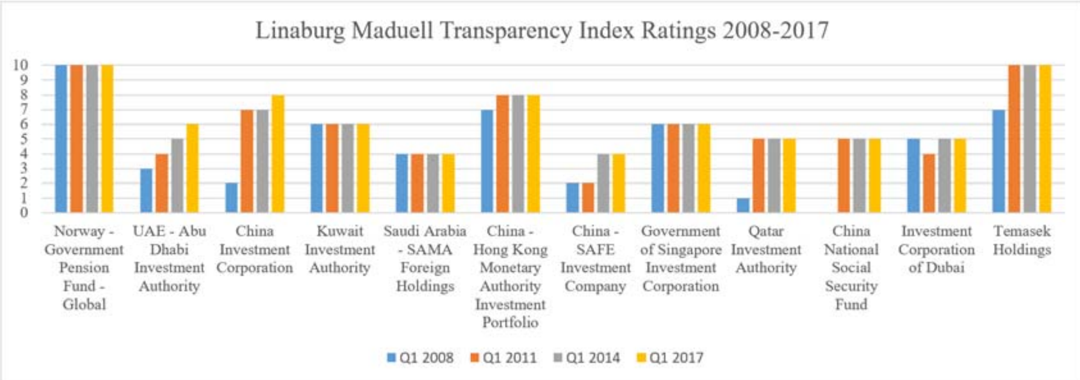

Figure 5. Linaburg-Maduell Transparency Index Ratings 2008-2017.

Source: Authors' own representation based on SWFI data.

In the first quarter of 2017, a total number of 50 sovereign wealth funds were included in the Linaburg-Maduell Transparency Index (SWFIb, 2017). 24 percent of the total 50 sovereign wealth funds received the maximum 10 points; 26 percent received scores of 8 or 9 points; while 48 percent of the total 50 ranked SWFs achieved less than 8 points, corresponding to an inadequate level of transparency. Since the inauguration of the Linaburg-Maduell Transparency Index, a limited number of SWFs showcased constant or even substantial increases in their scores, such as the Nigerian Sovereign Investment Fund that improved from a score of 1 in the first quarter of 2008, to a score of 4 in 2014 and respectively 9, in 2017. This indicates that despite an ongoing international progress of increasing transparency and openness of SWFs, additional efforts are needed.

6. Conclusions

Sovereign wealth funds differ considerably in terms of size and asset allocation, sources of financing and corporate governance structures, as well as degree of transparency. Historically, SWFs have been perceived as potential threats due to low levels of disclosure and opaque practices, both for sponsor and host countries. However, the increased popularity of such investment vehicles at the international level over the past two decades, combined with increased international pressures for more transparency, provides ample opportunities for the road ahead. Transparency has become an important element of the overall performance assessment of SWFs and plays a central role in gaining legitimacy at both national and international level. Higher levels of transparency mitigate the risk of investment protectionism both for domestic and recipient countries, gain the trust of markets, and positively impact public awareness on the benefits of SWFs, such as provision of liquidity, infrastructure development and economic growth. Established SWFs and newcomers on this market should develop their corporate governance frameworks to adequately respond to the increasingly important elements of openness, transparency and accountability.

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