Business Analyst, ISSN 0973 - 211X, 41(2), 25-47, ©SRCC

SOVEREIGN WEALTH FUNDS: A CRITICAL ANALYSIS

Roshni Garg[*] and Abha Shukla[**]

ABSTRACT

Sovereign wealth funds (SWFs) refer to government owned investment vehicles that mostly invest abroad to meet some pre-determined macroeconomic objectives. Over the past few years, the number of SWFs and their assets have multiplied. In India too, SWFs have taken several big stakes during the Covid-19 pandemic and become the fourth largest category of foreign portfolio investors (FPIs) among 32 categories of FPIs investing in India. They have also expanded their footprint into debt and real estate markets. Despite this, not much is known about their investment activities, primarily owing to lack of data. By analysing multiple resources and databases, this paper seeks to give an overview of SWFs, their evolution, investment activities and associated challenges. We find that commodity exporting nations have been the pioneer of these funds and almost all SWFs have a strong preference for investing in real estate and finance, especially in high-income developed countries. We also discuss the characteristics of Indian SWF, NIIF and how it is different from conventional SWFs. Our paper concludes with a brief discussion on the presence of foreign SWFs in India and the need to further explore the issue in detail.

Keywords: Sovereign Wealth Funds, Institutional Investors, Government Entities, State Controlled Investors

Sovereign wealth funds (SWFs) are investment vehicles created by governments to meet some pre-defined economic objectives. They have recently come to occupy the centre space of discussion for policymakers all over the world. While developing countries such as India see this rise of SWFs as an opportunity to attract stable foreign investment, the developed countries are taking a cautious stance, monitoring

[*] PhD Research Scholar, Department of Commerce, University of Delhi

[**] Professor, Department of Commerce, University of Delhi

every move and activity of these funds to identify strategic motives. Nevertheless, amidst all the uncertainty, one thing is clear: backed by sovereign governments and with large sums of money invested across a diversified portfolio, SWFs are clearly here to stay.

Despite this, not much research has been undertaken in India to understand SWFs and their activities. Our paper seeks to fill this gap and build a case for undertaking more research on the presence of SWFs in India. In this article, we provide an overview of SWFs (Section 1), their types and evolution (Section 2), investment activities (Section 3) and associated challenges. We follow this with a brief discussion on the Indian SWF, the National Investment and Infrastructure Fund (Section 4) and the extent of sovereign investment in our country (Section 5). We conclude with a summary of main findings.

THE CONCEPT OF SWFs

Definition of SWFs

An SWF is a financial entity created by the government of a country to invest the nation's money. The basic idea behind incorporating an SWF is to defer immediate consumption of national surpluses and invest them in such a way that the pool becomes larger with time and ready funds are available to meet a variety of objectives in the future.

While there is an absolute consensus on this basic idea of an SWF, different institutions define them differently and three prominent definitions have been given by the International Forum of Sovereign Wealth Funds[i] (IFSWF), the Sovereign Investment Lab[ii] (Bocconi University, Italy) and the Sovereign Wealth Fund Institute[iii] (SWFI). The underlying criteria for identifying an entity as an SWF is the same for each of these entities, however, the relative strictness with which they enforce a particular criterion is different. For example, while the Sovereign Investment Lab (SIL) mandates 'direct ownership by sovereign government' as a necessary pre-requisite for an organization to be classified as an SWF, IFSWF and SWFI consider ownership either by central or state government as a sufficient condition for an entity to be classified as an SWF. The number of SWFs is different as per each of these definitions. There are 38 SWFs in the world according to the SIL definition (IFSWF, 2018), 70 as per IFSWF (IFSWF, 2020) and 92 as per SWFI (SWFI, 2021)[iv]. IFSWF's definition is the most widely accepted of the three (IWGSWF, 2008). It defines SWFs as follows:

> 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. (IWGSWF, 2008)

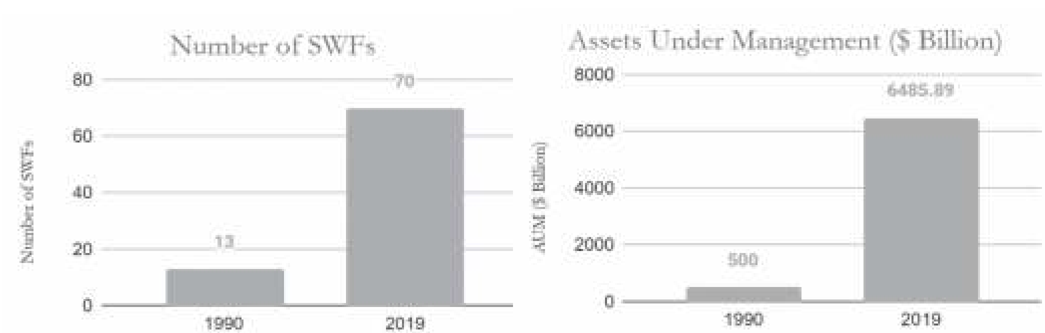
The macroeconomic objectives of SWFs may range from the need to simply earn a higher rate of return on foreign exchange reserves of one's country or insulating one's economy from price shocks and such, especially when the economy is commodity dependent. Additionally, SWFs might invest their funds both domestically and in countries abroad, though the latter is a more common practice. Throughout this paper, we use the IFSWF definition of SWFs.

It is also worth discussing the difference between SWFs and other government owned entities here (Kimmitt, 2008). SWFs are different from international reserves because unlike international reserves, neither is liquidity their top priority, nor is correcting balance of payment imbalances their primary objective. SWFs also have a higher risk appetite and generally invest for the long term. Similarly, SWFs are also different from pension funds because there are no pre-determined pension liabilities attached with these funds and they are not funded by employer-employee pension contributions. Likewise, state owned enterprises are simply companies owned by government which also engage in foreign investment. Unlike SWFs investing is not their primary form of business.

Growth of SWFs

As per IFSWF (2020), there were 70 SWFs in the world as at the end of 2019, holding more than $6.4 trillion of the world's financial and real assets. That is double the GDP of India and almost 10% of the world's stock market capitalization. The growth story of SWFs is nothing short of impressive. When we compare this size of SWFs with the oldest available estimates (Johnson, 2007), we find that SWFs today hold more than 13 times the value of assets held by them in 1990 and the number of SWFs has multiplied by a factor of 5, from 14 to 70 (Figure 1). 54 countries, accounting for almost 70% of the world's GDP have at least one SWF today.

Figure 1 SWFs : The Growth Story



Source: Data for 1990 has been taken from Johnson (2007), the latest list of SWFs has been taken from *Investing for Resilience: IFSWF Annual Review* published by IFSWF and the total assets under management have been calculated using the data available on the website of the Sovereign Wealth Fund Institute (SWFI, 2021).

Challenges Associated with SWFs

It is not just the growing size of SWFs that merits discussion, but also the challenges associated with them. Drezner (2008) famously remarked that "SWFs sit at the intersection of high finance and high politics" and this is the absolute reality of these funds. Being owned, managed and funded by sovereign governments, there are three primary challenges associated with these funds. *First*, SWFs share very little or no information about themselves with the public (Caner and Grennes, 2010; Clark and Monk, 2009; Das, 2008; Johnson, 2007; Jory et al, 2010; Kern and Walter, 2007; Seward et al, 2014; Truman, 2007a; 2007b; 2007c). This lack of transparency has created a deep sense of distrust and insecurity among recipient countries who fear that SWFs might be set up to pursue political and strategic objectives which might hurt the interests of the host country (Hemphill, 2009; Hildebrand, 2007; Ram Mohan, 2008; Truman, 2007b). While there are no empirical studies to illustrate the existence of this phenomenon (probably because SWFs do not reveal sufficient data), anecdotal evidence is often quoted. The failed attempt of DP World (a state-owned enterprise of Dubai) to buy 6 major ports in USA (Rose, 2009) and China Investment Corporation's (China's SWF) 9.9% acquisition in the world's largest alternative investment group, Blackstone (Kwok, 2008) are two prominent examples. In fact, China, through its SWF(s) has been at the forefront of controversial SWF investments. In 2012, the China Investment Corporation also acquired a controversial 10% stake in London's iconic Heathrow Airport for a whopping sum of $726 million (BBC, 2012). *Second*, regulators and intermediaries believe that SWFs' covert nature could trigger a phase of financial protectionism, affecting the functioning of free markets (Hildebrand, 2007; Truman 2007b). Several recipient countries, such as USA, UK and Australia have created specialized entities to monitor (and block) SWF investments in their country. *Third*, there is also a very real possibility of mismanagement on part of the governments entrusted with these funds (Truman, 2007b). Malaysian SWF (1MDB), which has been the subject of investigations in six countries for embezzlements worth $3.5 billion from the fund by Malaysia's own prime minister and his associates, is a case in point here (Hope, 2017).

TYPES OF SWFs

SWFs are popularly classified based on two important criteria: their objectives and source of funds (Table 1).

Table 1 : Classification of SWFs

Basis of Classification	Categories	Meaning	Examples of countries which have such SWFs
Objectives	Stabilization Funds	Set up by commodity rich countries to insulate their economy against erratic changes in commodity prices	Chile, Mexico, Russia
	Savings Funds	Set up to save for future generations	Australia, China, Norway
	Strategic Funds	Set up to allocate resources towards particular projects of socio-economic importance	France, India, Indonesia
	Multi-objective Funds	Set up for more than one objective out of stabilization, savings and strategy	Kuwait, Qatar, Saudi Arabia
Source of Funds	Commodity SWFs	Created out of earnings from commodity exports	Kuwait, Norway, Saudi Arabia
	Non-Commodity SWFs	Created out of fiscal surpluses, foreign exchange reserves, privatization proceeds and debt capital	China, India, Singapore
Source: *Investing for Resilience: IFSWF Annual Review 2019*			

Based on their objectives, SWFs are classified into stabilization, savings, strategic and multiple objective funds (IFSWF, 2020). Stabilization funds are set up by commodity rich countries to insulate their economy against erratic changes in commodity prices and mitigate the effects of Dutch disease[v]; savings funds are formulated to spread wealth across generations; strategic funds are meant to allocate resources towards particular projects of socio-economic importance; and multiple-objective SWFs focus on more than one objective. According to Kunzel et al (2011), stabilization funds and saving funds are the most popular form of SWFs, followed by the other forms. Most funds set up by oil rich nations, such as the Abu Dhabi Investment Authority (ADIA), Kuwait Investment Authority, Russia's Reserve Fund, initially established as “oil stabilization funds” have now evolved into “savings funds” (US Department of Treasury, 2008). Recently created

National Investment and Infrastructure Fund of India is a strategic fund and Saudi Arabia's Public Investment Fund is an example of multiple-objective or hybrid fund.

Depending on the source of their funds, SWFs are classified into 'Commodity Funds' and 'Non-Commodity Funds'. Commodity funds are created out of earnings from commodity exports, while non-commodity funds are created by transferring funds from a nation's official foreign exchange reserves. Other sources of funding non-commodity SWFs include fiscal surpluses, revenue from privatizations and debt capital. The source-based classification of SWFs is important for several reasons. As of Dec-2019, More than 60% (43 out of 70) of the SWFs that qualify the IFSWF definition of SWFs are commodity funds accounting for a similar proportion (55.80%) of the total assets under management of SWFs (IFSWF, 2020; SWFI, 2021). 34 out of these 43 commodity funds come from countries which export oil and related products and make up a major proportion (99%) of the assets under management of commodity SWFs, leaving only a minuscule proportion of 1% to other commodity-exporting countries. This is because oil exporting nations (mostly located in the middle east) are practically pioneers of these funds. The first SWF was incorporated by Kuwait in the year 1953, to invest its oil surpluses. Soon other nations such as Abu Dhabi, Qatar and Saudi Arabia followed. It is also for this reason only that the oil-rich middle east region of the world, with 13 SWFs, accounts for the largest share (41.46%) of the total assets under management of SWFs among all regions (Table 1). Following closely behind middle east, are the relatively new, Asian SWFs, which in a short span of time have come to account for about 36% of total SWF assets. The growth spurt in the assets of the Asian SWFs is largely attributable to the accumulation of foreign exchange reserves in the aftermath of the Asian financial crisis (Aslund, 2007) and the resultant need to invest these reserves in a more profitable manner. Singapore was the first Asian country to incorporate its own SWF. Though Europe is the third biggest contributor to the collective assets of SWFs funds, almost all of it is made up of Norway (97%) which is the biggest SWF of the world ($1.122 trillion). Other countries in Europe are not significant players in the SWF arena. African SWFs, even with the third highest number of SWFs, make up less than 1% of SWFs' funds' assets. Similarly, the relative share of the Americas is also negligible (2.74%). Interestingly, the collective assets under management of the 39 SWFs from the Middle East, Asia and Europe account for more than 95% of the total assets under management of all SWFs. Clearly, the assets of SWFs are very concentrated.

Table 2 Distribution of SWFs based on region of home country

SWF	Number of SWFs	AUM of SWFs* ($ Billion)
Middle east	13	2669.20 (41.46%)
Asia	16	2294.14 (35.63%)
Europe	10	1161.53 (18.04%)
North America	10	159.60 (2.48%)
Australia and New Zealand	3	111.39 (1.73%)
Africa	12	25.98 (0.40%)
Latin America and Caribbean	5	16.64 (0.26%)
Grand Total	**69**	**6438.48** (100.0%)**
*AUM as reported on SWFI website in Jan-2021 **AUM of 1 SWF has not been included here because of unavailability of data.		

Source: *Investing for Resilience: IFSWF Annual Review 2019* and SWFI (2021)

The concentration of SWF assets in the hands of few is also highlighted by the fact that the top 10 SWFs by assets under management alone make up for about 83% of the total assets of SWFs. In fact, a study of the top 10 funds reveals 2 very interesting insights (Table 2). *First*, commodity funds have a clear majority presence among the top 10 SWFs. The largest SWF (Norway's Government Pension Fund Global-GPFG) is a commodity SWF, and so are 4 other funds from the middle east featuring in the list of top 10 SWFs. In fact, commodity funds make up 54% of the total assets held by the top 10 SWFs in the world. The *second* important trend that emerges from this analysis is that all the funds featured in the top 10 come from high income countries, except that of China and Turkey which are upper middle-income nations (based on World Bank's classification of countries according to GNI per capita for fiscal year 2021).

Table 3 Top 10 SWFs by assets under management

Country	SWF	Year of Origin	Origin	Objectives	AUM* ($ Billion)
Norway	Government Pension Fund – Global	1990	Commodity	Savings	1122.11
China	China Investment Corporation	2007	Non-Commodity	Savings	1045.72
UAE	Abu Dhabi Investment Authority	1976	Commodity	Savings	579.62
Kuwait	Kuwait Investment Authority	1953	Commodity	Hybrid	533.65
Singapore	Government of Singapore Investment Corporation	1981	Non-Commodity	Savings	453.20
Singapore	Temasek Holdings	1974	Non-Commodity	Strategic	417.35
Saudi Arabia	Public Investment Fund	2008	Commodity	Hybrid	347
UAE	Investment Corporation of Dubai	2006	Non-Commodity	Strategic	301.53
Qatar	Qatar Investment Authority	2005	Commodity	Hybrid	295.20
Turkey	Turkey Wealth Fund	2017	Non-Commodity	Strategic	240
*AUM as reported on SWFI website in Jan-2021					

Source: *Investing for Resilience: IFSWF Annual Review 2019* and SWFI (2021)

The story of the origin of SWFs is also very interesting. Table 3 gives a brief overview of how various countries have incorporated SWFs over time. The countries of origin of various funds have been broadly divided into two categories based on whether the fund incorporated by them is a commodity fund or a non-commodity fund and then further sub-divided according to their income level to understand the relationship between nature of fund and economic well-being of a country. The income-based classification has been sourced from World Bank's classification of countries according to GNI per capita for fiscal year 2021. Three important observations are worth noting from the table: (1) the first decade of the 21st century has been a defining period for SWFs. During the period, the number of SWFs doubled viz a viz the previous decade (22 to 44) and several new countries entered the SWF space; (2) a large proportion of SWFs (77%) derive their wealth from high and upper middle income countries, indicating that massive wealth is clearly an important characteristic of the nations that incorporate a SWF; and (3) up to the year 2000, commodity SWFs dominated the scene, with almost 70% of total SWFs being commodity funds. However, in the recent past, several non-commodity funds have also joined the ranks and now 58% of the SWFs are commodity-based funds and 42% are non-commodity SWFs.

Table 4 Evolution of SWFs: By source of funds and income level of home country

	COMMODITY				No. of Commodity Funds Added	NON-COMMODITY				No. of Non-Commodity Funds Added	Total Number of Funds Added
Year	Low Income	Lower Middle Income	Upper Middle Income	High Income		Low Income	Lower Middle Income	Upper Middle Income	High Income		
1951-1960		Kiribati		Kuwait, USA	3					0	3
1961-1970					0					0	0
1971-1980				USA (2), UAE, Canada, Oman, Saudi Arabia	6				Singapore	1	7
1981-1990				Norway, Brunei, USA	3				Singapore	1	4

1991-2000			Azerbaijan, Mexico, Kazakhstan	Trinidad and Tobago	4			Malaysia, Botswana, Peru	Spain	4	8
2001-2010		Timor-Leste	Libya, Russia (2)	Qatar, Chile (2), Oman, UAE(2)	10		Palestine, Vietnam	China, Kazakhstan, Turkmenistan, Indonesia	UAE, Ireland, New Zealand, South Korea, Australia, Bahrain	12	22
2011-18	Uganda	Ghana, Angola, Nigeria, Mongolia (2)	Colombia, Mexico, Iran, Gabon, Guyana	USA, Australia, Nauru, Cyprus	15	Rwanda	Morocco, Bolivia, Senegal, India, Egypt	Turkey, Russia	Italy, Panama, France	11	26
Total Number of Funds in 2019	1	7	11	22	41	1	7	9	12	29	**70**

Source: *Investing for Resilience: IFSWF Annual Review 2019,* SWFI (2021) and World Bank (2021)

INVESTMENT FLOWS: WHERE ARE SWFs INVESTING?

According to the data reported by the IFSWF in the 2019 SWF Annual Review, SWFs undertook deals amounting to $35 billion in 2019. Almost 70% of these deals were related to unlisted corporations, which are often hard to track owing to lack of publicly available data. It is also worth noting that the share of unlisted corporations in the deals made by SWFs has been steadily rising over the past few years: from about 50% in 2015 to 70% in 2019- indicating SWFs' increased preference to operate as private entities.

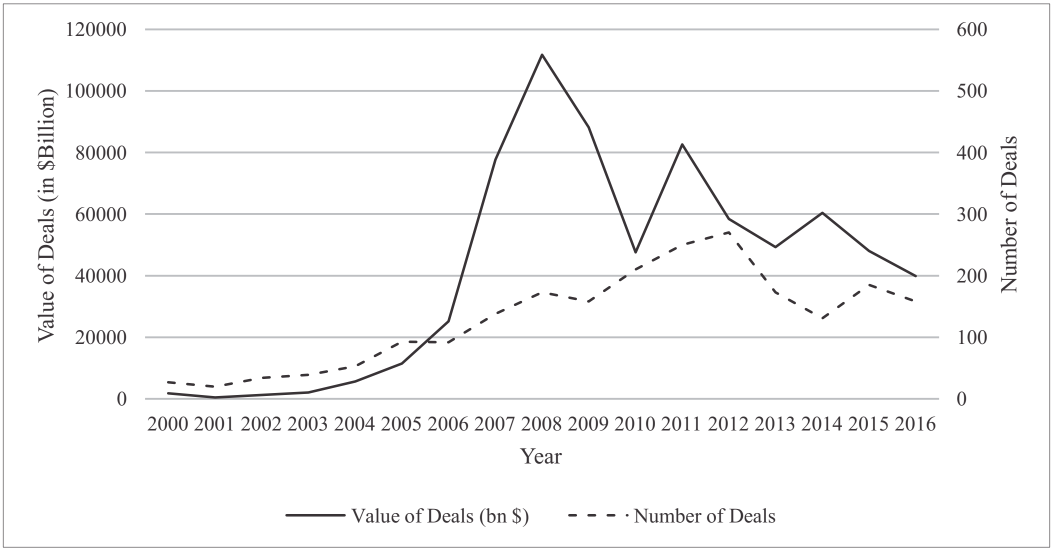
In the following sub-sections, we have studied the investment patterns of SWFs with respect to their geographical preferences and sectoral preferences.

Geographical Flows

Despite SWFs having been in existence for almost half a century now, there is a lack of publicly available data on their activities. This is primarily because SWFs fear that if they make their investments public, they will lose their competitive advantage to other players in the market (Lenihan, 2014). For our purposes, we rely on the limited data available in SWF Annual reports published by Monitor-FEEM (2009, 2010), Monitor (2011), SIL (2012, 2013, 2014, 2015, 2016, 2017) and IFSWF (2018, 2019, 2020). While these reports include detailed data on sovereign investments until 2016, no relevant data is available beyond this period. As a result, we must restrict our analysis to the years 2000 to 2016. Nevertheless, considering that the available data spans across a long period of 16 years and covers funds accounting for about 90% of the total assets under management of SWFs, the findings continue to be relevant for general understanding of SWFs' investment behaviour.

The reports indicate that between 2000 and 2016, there was a surge in the SWF investment activity. The number of deals undertaken registered a 6-fold increase during this period (from 27 in 2000 to 158 in 2016), the total value of investments made in 2016 became 20 times of the figure reported in 2000 (from $1.8 billion in 2000 to $39.9 billion in 2016) and the average deal size more than tripled. A large part of this boom is attributable the USA financial crisis of 2007-10 when, in sharp contrast with other financial institutions in existence at the time, SWFs stepped in to rescue several ailing USA's banks and financial service providers. Temasek (SWF of Singapore) rescued Merill Lynch by investing $5.9 million for a 14% stake, GIC (SWF of Singapore) spent $6.9 million for a 9% stake in Citibank and CIC (SWF of China) bought a 9.9% stake in Morgan Stanley and a similar stake in Blackstone for a whopping sum of approximately $9 billion (Borst, 2015). The extent of these investments was so large, that 2008 became the only year in the history of SWFs when their investments exceeded $100 billion (Figure 2).

Figure 2 Growth of SWF investments: 2000 to 2016



Source: Based on the data available in the SWF Annual Reports 2008 to 2016 (published by the Sovereign Investment Lab, Bocconi University, Italy)

Owing to a lack of complete data on SWFs' investment activities, the pattern of SWF investment can be prominently studied for two categories: commodity funds belonging to Middle eastern countries and non-commodity funds hailing from Asia-Pacific nations. Careful scrutiny of the available data (from 2008 to 2016) reveals two important findings: *first*, SWFs, irrespective of their source of funds or country of origin prefer to invest in (a) developed countries in Europe and North America (almost 55% investments of Middle-Eastern SWFs and 40% investments of Asian SWFs go here) and (b) neighbouring countries which are geographically closer and culturally similar to their own (almost 66% investments of Middle-Eastern SWFs and 56% investment of Asian SWFs investments go to neighbouring countries). *Second*, and quite interestingly, we find that the flow of money between Middle Eastern and Asia-Pacific SWFs is quite unilateral. While Middle Eastern SWFs invest about 21% of their total investment between 2008-16 in Asian countries, the same is not true of Asian SWFs, that invest only a minuscule 0.16% of their total investment in the Middle East. Funds hailing from both the regions do not show much enthusiasm for investing in Latin America and A frica (Table 4).

Table 5 Brief snapshot of investment flows from Middle Eastern and Asia-Pacific SWFs (2008 to 2016)

	To Middle East and North Africa	To Asia	To Europe	To North America	To Latin America	To Africa	
From Middle East	19.41%	20.52%	46.44%	9.17%	4.00%	0.46%	100.00%
From Asia-Pacific	0.14%	56.02%	16.11%	23.76%	2.93%	1.04%	100.00%

Source: Based on the data available in the SWF Annual Reports 2008 to 2016 (published by Sovereign Investment Lab [SIL], University of Bocconi)

Sectoral Preferences

As far as sectoral preferences are concerned, as per the IFSWF Annual Review 2017[vi], SWFs displayed a strong preference for real estate and infrastructure which together accounted for about 45% of the total SWF investment in that year. Finance and energy came at #3 and #4 respectively. 90% of the investment in real estate was in unlisted entities, a striking revelation considering the questionable nature of real estate deals worldwide. Out of eight sectors under consideration, the only three industries for which investment in listed corporations exceeded that of unlisted corporations were industrial goods, basic materials and energy and technology/telecom sector.

The Billion Dollar Club: Largest Deals of 2011-16

Considering that SWFs are big ticket investors, an interesting way to understand their investment activities is by looking into their large investments. We define a large investment as any investment over $1 billion. Analysing the data from the reports again, we find that between 2011 and 2016, SWFs made 80 deals valuing over $1 billion, roughly equivalent to 7% of the total number of deals undertaken during this period, but accounting for more than 50% of the total money invested. High and upper-middle income group countries such as USA, UK, China, France, etc. were the biggest recipients of these billion-dollar investments with more than 95% of the total billion-dollar deals happening in this group of countries only.

As far as the origin of these deals is concerned, Singapore and Qatar made the greatest number of billion $ investments (23 each), followed by UAE and China. In fact, these four countries together accounted for more than 80% of all billion-dollar investments, both in terms of number and value of deals.

Domestic investment was another important theme which we discovered while analysing SWFs' billion-dollar investments. 14 out of the 80 billion-dollar investments undertaken by SWFs were in their own country. However, China's SWF was the only major SWF (in the top 10 by assets under management) that undertook more than 42% ($10.31 billion out of $24.31 billion) of all its billion-dollar investments in China itself.

In terms of sectors, real estate, finance and energy together accounted for almost 70% of all billion $ deals. The highest proportion of billion-dollar deals were made in the real estate sector (29%), followed by finance (20%) and energy (18%).

THE INDIAN SWF: NATIONAL INVESTMENT AND INFRASTRUCTURE FUND

Recently, India also established its own SWF- the National Investment and Infrastructure Fund (NIIF). NIIF is a non-commodity, strategic SWF. It is different from conventional SWFs in two keyways. First, it is not 100% owned by government, but is 49% funded by big domestic or foreign financial institutions. Second, unlike other SWFs which invest both domestically and abroad, NIIF exclusively invests in India in sectors of strategic importance for the economy.

As per the data available on the NIIF website in Jan-2021, NIIF manages a corpus of $4.4 billion across three sub-funds: the master fund which primarily invests in core infrastructure sectors such as transportation, the fund of funds which mainly invests through third-party fund managers in the social infrastructure sector (e.g. affordable housing, healthcare and education) and finally, the strategic opportunities fund which is a private equity fund. Since its inception, NIIF has also secured the participation of other SWFs to invest in the Indian infrastructure sector collaboratively. Few well-known names that have come forward to invest via NIIF include: the Abu Dhabi Investment Authority (SWF of UAE), Temasek (SWF of Singapore), the Asian Development Bank, SBI and HDFC Bank (NIIF, 2020).

Some other funds which like NIIF, exclusively focus on domestic corporations include SWFs of Ireland, Italy, Palestine, Russia, Rwanda, Senegal, Spain and Turkey (IFSWF, 2020).

SWF PRESENCE IN INDIA

Besides collaborating with NIIF, several foreign SWFs also invest in India directly. Data from NSDL tells us that as on 31st December 2020, foreign SWFs held assets worth Rs. 2,56,991 crores in Indian capital markets, almost five times of what they held in Dec-2012 (NSDL, 2020). The pandemic has also led SWFs to further expand their foothold in India. According to Global SWF (a popular database tracking investments of SWFs and pension funds), India was the second most popular investment destination for state owned entities in 2020, next only to the United States (Global SWF, 2021). Some of the key investments made by SWFs in 2020 have been summarized in Table 5.

Besides capital markets, the presence of SWFs has also been noted in real estate, venture financing and IPO markets. These investments and their impacts are yet to be explored. Future researchers need to address this research gap.

Table 6 Prominent SWF investments in India 2020

Company	SWF	Stake	Amount Invested ($ million)
Reliance Retail Ventures Limited	ADIA*, GIC*, Mubadala*, PIF*	5.8%	3655
Reliance Jio	ADIA, Mubadala, PIF	5.4%	3450
Digital Fibre InvIT	ADIA, PIF	52%	1012
JV to invest in logistics sector	GIC	80%	600
Freshtohome	ICD*	-	121
Razorpay**	GIC	-	100
Zomato	Temasek	-	62

*ADIA=Abu Dhabi Investment Authority (SWF of UAE), GIC= Government of Singapore Investment Corporation (SWF of Singapore), PIF= Public Investment Fund (SWF of Saudi Arabia), ICD= Investment Corporation of Dubai (SWF of UAE); Mubadala is also an SWF of UAE

**Joint investment by GIC and Sequoia Capital

Source: 202*1 Annual Report: State Owned Investors Post Pandemic Age* published by Global SWF (2021)

CONCLUSION

SWFs have been in existence for the past 67 years now and yet, there is so little that we know about them. SWFs mainly gained importance in the aftermath of the USA financial crisis when they rescued several systemically important USA financial institutions. Since then, there has been no stopping them. Our research tells us that there are 70 SWFs in the world, holding more than $6.4 trillion worth of assets, a little more than the GDP of Japan, the third largest economy of the world (as per gross domestic product from the World Bank database). These funds mostly come from the oil-rich countries of the middle east and the forex rich nations of Asia pacific, that are on the lookout for better investment opportunities for their respective national surpluses. Commodity funds, being the pioneers of SWFs, are dominant both in terms of the number of such funds that exist and the assets held by them, however, Asian non-commodity funds have been catching up with them recently, at a very fast pace.

As far as SWFs' investment preferences are concerned, more than 70% of the total SWF investment was in unlisted corporations in 2019. Over the past few years, they have been quietly pumping in large sums of money in the real estate and financial sectors of high-income countries such as the USA and the UK and making prominent investments in their neighboring countries and domestic companies on the side. However, recently, SWFs have also vastly expanded their footprint in emerging economies such as India too.

While SWFs are capable of exerting a stabilizing influence during times of crisis, they are also laden with problems: be it their very structure which formally brings together politics and finance in ways never seen before, the controversial nature of their investments in the strategic areas of a country, their sheer lack of transparency or the absence of a regulatory framework to monitor their activities. At a time when SWFs have become one of the largest FPIs in India, and are actively participating in almost every important sector of our economy (primary and secondary equity markets, debt markets, real estate sector), it is important that we acknowledge their presence and start asking questions about their motives, intentions and the likely implications of the same on the Indian economy. For researchers and policymakers, SWFs are like a new world, awaiting exploration.

Endnotes

[I] IFSWF defines SWFs 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." (IWGSWF, 2008)

[ii] The Sovereign Investment Lab defines SWFs as "an investment vehicle that is: (i) owned directly by a sovereign government; (ii) managed independently of other state financial and political institutions; (iii) does not have predominant explicit current pension obligations; (iv) invests in a diverse set of financial asset classes in pursuit of commercial returns; and (v) has made a significant proportion of its publicly reported investments internationally." (SIL, 2017)

[iii] The Sovereign Wealth Fund Institute defines SWFs as "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 sovereign wealth fund 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 (SOEs) in the traditional sense, government-employee pension funds (funded by employee/employer contributions), or assets managed for the benefit of individuals." (SWFI, 2021)

[iv] The SIL reports stopped getting published after 2017 and hence an older figure is quoted for the number of SWFs as per the SIL definition. If we compare the number of SWFs in 2017 as per the three definitions, they are still drastically different. For example, according to SIL, there were 38 SWFs in the world in 2017 while according to IFSWF, the number of SWFs was 61 (IFSWF, 2018).

[v] Dutch disease refers to the situation wherein an increase in demand for the dominant commodity of a nation adversely affects the export of other merchandise from that nation. This happens because, when demand for the dominant commodity increases, so does its price and the exchange rate. The increase in exchange rate makes other goods more expensive for the outside world and diminishes their demand. This phenomenon was first observed in Netherlands in the 1960s, when the discovery of natural gas led to appreciation of the real exchange rate, causing heavy losses to the Dutch manufacturing sector (Corden, 1984).

[vi] We do not restrict ourselves till 2016 here as some data on sectoral preferences is available for the year 2017 in *Dealing with Disruption: IFSWF Annual Review 2017* (IFSWF, 2018). Unfortunately, this review does not include data on geographical flows.

REFERENCES

Aslund, A. (2007). Focus on Gazprom, not sovereign wealth funds. *Moscow Times*. https://www.piie.com/commentary/op-eds/focus-gazprom-not-sovereign-wealth-funds

BBC. (2012). *China fund buys 10% stake in London's Heathrow airport - BBC News*. BBC Website. https://www.bbc.com/news/business-20163907

Borst, N. (2015). The rise of Asian Sovereign Wealth Funds. *Asia Focus*. https://www.frbsf.org/banking/files/FRBSF-Asia-Focus-Rise-of-Asian-Sovereign-Wealth-Funds-March-2015.pdf

Caner, M., & Grennes, T. (2010). Sovereign wealth funds: The Norwegian Experience. *World Economy*, *33*(4), 597–614. https://doi.org/10.1111/j.1467-9701.2009.01235.x

Clark, G. L., & Monk, A. H. B. (2009). The Oxford Survey of Sovereign Wealth

Funds Asset Managers. *SSRN Electronic Journal*. https://doi.org/10.1111/j.1475-4967.2008.00352.x

Corden, W. M. (1984). Booming Sector and Dutch Disease Economics: Survey and Consolidation. *Oxford Economic Papers*, *36*(3), 359–380.

Das, D. K. (2008). Sovereign-wealth funds: A new role for the emerging market economies in the world of global finance. *International Journal of Development Issues*, *7*(2), 80–96. https://doi.org/10.1108/14468950810909088

Drezner, D. W. (2008). Sovereign Wealth Funds and the (In)security of Global Finance. *Journal of International Affairs*, *62*(1), 115–130.

Global SWF. (2021). *"State-Owned Investors in a 2021 Annual Report: State Owned Investors in a Post Pandemic Age*. https://drive.google.com/file/d/1-s2mYtzQEVWCNXO78nNciAO4UI2j4nic/view?usp=sharing

Hemphill, T. A. (2009). Sovereign wealth funds: National security risks in a global free trade environment. *Thunderbird International Business Review*, *51*(6), 551–566. https://doi.org/10.1002/tie.20299

Hildebrand, P. M. (2007). *The Challenge of Sovereign Wealth Funds* (Issue December). https://www.bis.org/review/r071219d.pdf

Hope, B. (2017, January 20). 1MDB Scandal: Talks Between Malaysia, Abu Dhabi Over Missing Money Break Down. *The Wall Street Journal*. http://www.wsj.com/articles/1mdb?scandal?talks?between?malaysia?abu?dhabi?over?missing?money?break?down?1484941644 MARKETS

International Forum of Sovereign Wealth Funds [IFSWF]. (2020). *Investing for Resilience: IFSWF Annual Review 2019*. https://ifswfreview.org/

International Forum of Sovereign Wealth Funds [IFSWF]. (2019). *Mapping the Critical Path: IFSWF Annual Review 2018*. https://www.ifswfreview.org/

International Forum of Sovereign Wealth Funds [IFSWF]. (2018). *Dealing with Disruption: IFSWF Annual Review 2017*. http://www.bernardobortolotti.com/wp-content/uploads/2018/07/IFSWF_ANNUAL_REVIEW_2018.pdf

International Working Group of Sovereign Wealth Funds [IWGSWF]. (2008). *Sovereign Wealth Funds Generally Accepted Principles and Practices, "Santiago Principles."* https://doi.org/10.1007/s13398-014-0173-7.2

Johnson, S. (2007). The Rise of Sovereign Wealth Funds. *Finance & Development*, *44*(3), 56–57. https://doi.org/10.1080/14747731.2012.699924

Jory, S. R., Perry, M. J., & Hemphill, T. A. (2010). The Role of Sovereign Wealth Funds in Global Financial Intermediation. *Thunderbird International Business Review*, *52*(6), 589–604. https://doi.org/10.1002/tie

Kern, S., & Walter, N. (2007). Sovereign Wealth Funds- State Investments on the Rise. In *Deutsche Bank Research*. http://faculty.nps.edu/relooney/0_New_2679.pdf

Kimmitt, R. M. (2008). Public Footprints in Private Markets: Sovereign Wealth Funds and the World Economy. *Foreign Affairs*, *87*(1), 119–124.

Kunzel, P., Lu, Y., Petrova, I., & Pihlman, J. (2011). *Investment Objectives of Sovereign Wealth Funds—A Shifting Paradigm* (WP/11/19).

Kwok, V. W. (2008). *China Sovereign Fund Will Get Bigger Piece Of Blackstone*. Forbes. https://www.forbes.com/2008/10/17/cic-blackstone-stakes-markets-equity-cx_vk_1017markets03.html#44ed53a47e6b

Lenihan, A. T. (2014). Sovereign Wealth Funds and the Acquisition of Power. *New Political Economy*, *19*(2), 227–257. https://doi.org/10.1080/13563467.2013.779650

Monitor. (2011). *Braving the New World: Sovereign Wealth Fund Investment in the Uncertain Times of 2010*. https://doi.org/10.1371/journal.ppat.1005417

Monitor-FEEM. (2009). *Weathering the Storm: Sovereign Wealth Fund in the Global Economic Crisis of 2008*. https://doi.org/10.1111/j.1751-486X.2009.01490.x

Monitor-FEEM. (2010). *Back on Course: Sovereign Wealth Fund Activity in 2009*. https://www.feem.it/m/publications_pages/20105171327204Monitor-

FEEM_SWF_AnnualReport2009.pdf

NIIF. (2020). *Who We Are*. https://niifindia.in/who-we-are/

NSDL. (2020, August). FPI/FII AUC category wise data. NSDL FPI Monitor. https://www.fpi.nsdl.co.in/web/Reports/ReportDetail.aspx?RepID=87

Ram Mohan, T. T. (2008). Sovereign wealth funds: Western fears. Economic and Political Weekly, 43(15), 8–12. https://doi.org/10.2307/40277328

Rose, P. (2009). Sovereign Wealth Fund Investment in the Shadow of Regulation and Politics. *Georgetown Journal of International Law*, *40*, 1207–1214.

Seward, J., Ulukan, M., Kim, M. J., Tsubota, H., & Gable, T. (2014). *Policy Note: Sovereign Wealth Funds in East Asia* (Issue September). https://openknowledge.worldbank.org/bitstream/handle/10986/21102/929320WP0P14840sion0100170140final.pdf?sequence=1&isAllowed=y

Sovereign Investment Lab [SIL]. (2012). *Follow the money: Sovereign Wealth Fund Annual Report 2011*. https://www.bafficarefin.unibocconi.eu/wps/wcm/connect/0b69405e-201e-458c-9d57-b2ce0e4ba510/Annual+report+2011.pdf?MOD=AJPERES&CVID=mgxbUzj

Sovereign Investment Lab [SIL]. (2013). *Cautious change Sovereign Wealth Fund Annual Report 2012*. http://www.bernardobortolotti.com/wp-content/uploads/2013/07/SIL_Report_2013.pdf

Sovereign Investment Lab [SIL]. (2014). *The Great Reallocation: Sovereign Wealth Fund Annual Report 2013*. http://www.bernardobortolotti.com/wp-content/uploads/2014/06/SIL_Report2014.pdf

Sovereign Investment Lab [SIL]. (2015). *Towards a New Normal: Sovereign Wealth Fund Annual Report 2014*. http://www.bernardobortolotti.com/wp-content/uploads/2015/07/SIL_Report_2015_.pdf

Sovereign Investment Lab [SIL]. (2016). *The Sky Did Not Fall: Sovereign Wealth Fund Annual Report 2015*. http://www.bernardobortolotti.com/wp-content/uploads/2016/06/SIL_Report_2016.pdf

Sovereign Investment Lab [SIL]. (2017). *Hunting Unicorns: Sovereign Wealth Fund Annual Report 2016*. http://www.bafficarefin.unibocconi.it/wps/wcm/connect/31b91fab-44a8-4ed3-ab54-50693a010140/report_SIL_2017.pdf?MOD=AJPERES&CVID=lQMRw4m&CVID=lQMRw4m&CVID=lQMRw4m

Sovereign Wealth Fund Institute [SWFI]. (2021). *Top 92 Largest Sovereign Wealth Fund Rankings by Total Assets [SWFI]*. https://www.swfinstitute.org/fund-rankings/sovereign-wealth-fund

Truman, E. M. (2007a). Sovereign Wealth Funds: The Need Greater Transparency and Accountability. In *Peterson Institute Policy Brief* (No. 07–6; Issue August 2007). https://www.piie.com/publications/policy-briefs/sovereign-wealth-funds-need-greater-transparency-and-accountability

Truman, E. M. (2007b, September 18). Meeting the Challenge of Sovereign Wealth Funds. *Handelsblatt*. https://www.piie.com/commentary/op-eds/meeting-challenge-sovereign-wealth-funds

Truman, E. M. (2007c). A Scoreboard for Sovereign Wealth Funds. *Conference on China's Exchange Rate Policy*. https://www.piie.com/publications/papers/truman1007swf.pdf

US Department of Treasury. (2008). Appendix 3: Sovereign Wealth Funds. In *Report to Congress on International Economic and Exchange Rate Policies*.

World Bank Group. (2021). *World Bank Country and Lending Groups*. https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups