Finance, Markets and Valuation

Historical evolution and current state of investment of the Norwegian sovereign wealth fund in the stock market

Evolución histórica y situación actual de la inversión del fondo soberano noruego en el mercado bursátil

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JEL: Q12

Abstract

Over the past three decades, Sovereign Wealth Funds (SWF) have grown to become key players in the global investment landscape. At the top of this list is the Norwegian SWF, with a volume of assets under management surpassing 1 billion US$[1], of which 70% is invested in more than 9,000 listed companies worldwide. This paper offers a global and descriptive vision of the evolution of the distribution of investment in shares, taking into account criteria such as the economic sector to which it belongs, the region where the investment is made or the number of companies that attract this investment. It is concluded that the fund has chosen to consolidate a highly diversified investment strategy both geographically and by industry.

Keywords: Sovereign Wealth Funds; Norwegian Sovereign Wealth Fund; Investment in equity

Resumen

En las últimas tres décadas los fondos soberanos se han consolidado como actores clave en el panorama global de inversión. En la primera posición de esta lista se encuentra el fondo soberano noruego, con un volumen de activos bajo gestión que supera el billón de dólares, de los cuales destina un 70 % a la inversión en más de 9.000 empresas cotizadas de todo el mundo. El presente artículo ofrece una visión global y descriptiva de la evolución de la distribución de la inversión en acciones, atendiendo a criterios como el sector económico de pertenencia, la región donde se realiza la inversión o el número de empresas que captan esta inversión. Se concluye que el fondo ha optado por la consolidación de una estrategia de inversión altamente diversificadora tanto a nivel geográfico como sectorial.

Keywords: Fondos soberanos de inversión; Fondo soberano noruego; Inversión en acciones

1 Long scale is used in this paper (10^{12}=1 billion)

DOI: 10.46503/UHDY4364

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Received: 22 Jan 2021
Revised: 14 Mar 2021
Accepted: 16 Mar 2021

Finance, Markets and Valuation
ISSN 2530-3163.

How to cite: Gómez-Pavón Durán, L. (2021) Historical evolution and current state of investment of the Norwegian sovereign wealth fund in the stockmarket. *Finance, Markets and Valuation* 7(1), pp. 23–40.

1 Introduction

According to the broad definition provided by the International Monetary Fund (2008), Sovereign Wealth Funds (SWFs) are "government owned investments funds, set up for a variety of macroeconomic purposes". Among the main roles played by these funds, the most common are being a key source of wealth for future generations, providing financial stability against the volatility of government revenues and strategically allocating investments (Bernstein, Lerner, & Schoar, 2013). Regarding the origin of capital, a distinction is generally made between those funds that are financed by the export of raw materials (oil, gas, copper, diamonds etc.) and those that obtain their wealth through foreign exchange reserves, both also known as commodity funds and non-commodity funds, respectively (Kimmitt, 2008).

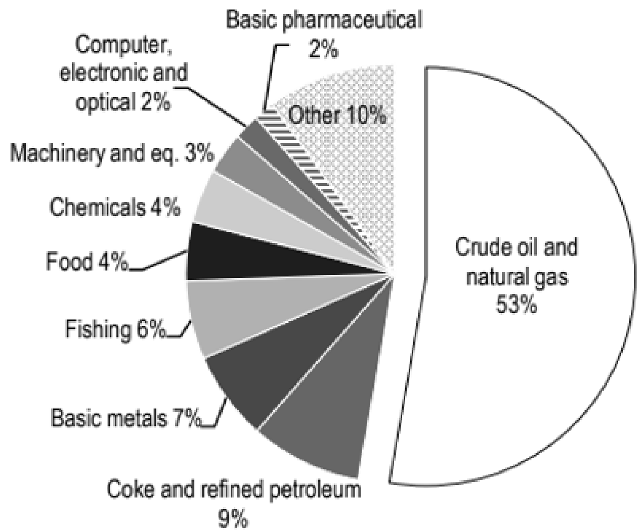
Over the past decades SWFs have proven to be key players in the investment scene, having been defined as "unique investors" (Aguilera, Capapé, & Santiso, 2016) due to their involvement in global finance and their systemic power, among other features. Based on data published by the Sovereign Wealth Fund Institute (2020), the total volume of assets under management has exceeded US$8 billion, which accounts for nearly six times Spain's GDP.

All the aspects that have been previously commented on make the SWFs an undoubtedly interesting object of further research. Nevertheless, SWFs are also known for their heterogeneity in terms of size, origin of the funds, investment strategy or asset allocation, which leads to the convenience of analysing them individually.

For this reason, the analysis in this paper focuses on one of the most relevant SWFs, the Norwegian SWF, officially known as Norway Government Pension Fund Global (GPFG), which is also currently the largest SWF (more than 1 billion $US in assets under management) and among the most transparent (Truman, 2007). It is indeed this last feature that greatly favours a detailed analysis of the nature and functioning of this fund through the regular publication of detailed reports on aspects such as: breakdown of the portfolio, investment strategy, fund management, risk and return etc. In the literature, there are also authors such as Caner and Grennes (2010) who stress the importance of the individual study of a fund of the size and openness of the GPFG, since the results obtained could be used as a guide for subsequent studies of the economic effects caused by other sovereign funds that share enough similarities with this one.

Directly related to the large size of this fund, another element that draws attention to its detailed study is the fact that it belongs to the top shareholders list, among investment giants such as Blackrock or The vanguard Group, of some of the companies with the largest market capitalisation. For illustration purposes, the Norwegian fund ranks tenth, ninth, eighth and seventh among the major shareholders in Microsoft, Apple, Amazon and Google, respectively. The percentage of participation held in each of these companies is around 1% (Thomson Reuters, 2020).

This paper is divided into seven sections, the first of which is the introduction. Section 2 includes an overview of the origins of the fund and the main milestones that lead to the fund as it is currently known. Section 3 describes the interrelationship and role played by different public institutions in the governance of the fund, as well as the basic regulations that shape the regulatory framework in which the fund operates. Section 4 focuses on a descriptive analysis of the fund's investment in listed companies: how it has evolved over the past two decades and what the current situation is. Section 5 consists of an oversight of the main characteristics of the fund's ESG policy. Section 6 provides an insight into what the overall impact of the coronavirus crisis has been on the Norwegian SWF's equity investment. Finally, Section 7 closes the paper



Source: OECD

Figure 1. Good exports, mainland and offshore (as for 2019)

with a set of conclusions drawn from the analysis.

2 History of the fund

When analysing the equity investment made by the Norwegian SWF, an insight into its beginnings becomes particularly useful, not without first briefly analysing some current aspects of the Norwegian economy that serve as a starting point for this.

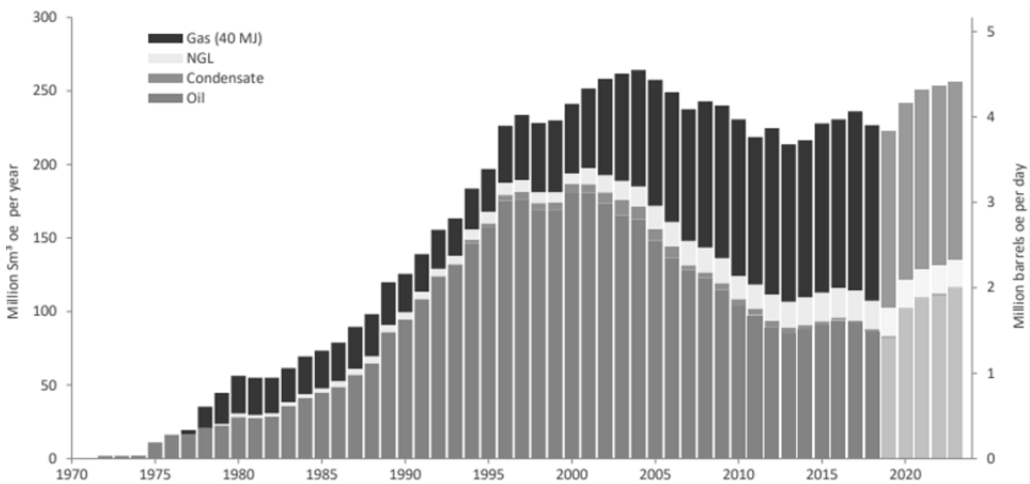
The revenue obtained from the production and sale of oil extracted from Norwegian offshore fields is currently a key source of income for the country. As evidence of this, oil and gas exports made up about 53 per cent of Norway's total exports in 2019 (See Figure 1) and since the early 1990s, oil production has been averaging three to four million barrels a day (Figure 2).

However, the Norwegian economy has not always benefited from this great source of wealth, as the first oil discoveries did not take place until approximately half a century ago. Until this date, Norway had already been consolidating itself as a resource-based economy, depending on other natural resources such as fisheries, timber, mining, wood processing, electricity, metals, fertilisers, and marine resources (Ville & Wicken, 2012).

The subsequent sudden discovery of a new and abundant source of wealth initially put the country's economic stability at risk from the possibility of falling into the so-called Dutch Disease. This term was initially coined by The Economist in 1977, latterly developed and discussed by several authors like Bresser-Pereira (2008), who defines this phenomenon as it follows:

> "The Dutch disease is a major market failure originated in the existence of cheap and abundant natural or human resources that keep overvalued the currency of a country for an undetermined period of time, thus turning non profitable the production of tradable goods using technology in the state-of-the-art." (p. 47)

Despite the threat of this failure, the Norwegian economy emerged victorious and has until now been able to manage its oil resources profitably without harming itself, thus escaping the resource curse. Gylfason (1984) argues that this success is partly due to timing, as Norway, in



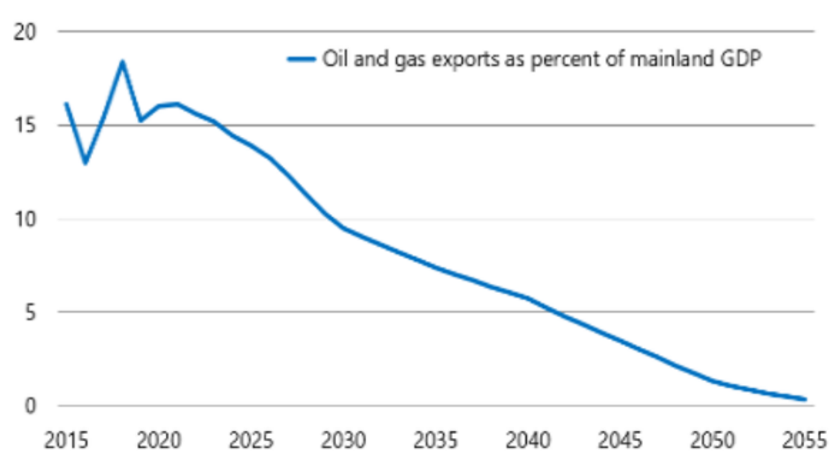
Source: Norwegian Petroleum Directorate

Figure 2. Petroleum production since first extraction (Number of barrels)

contrast to the OPEC countries, already had sufficiently mature social institutions and developed financial systems prior to the first oil discoveries. Additionally, Larsen (2006) states that another key factor in avoiding this economic disease was the development of policy schemes focusing on aspects such as limiting wage increases, fiscal discipline, accumulating know-how in the industry and channelling resources into education, research, and development. Closely related to the above, certainly one of the decisive elements of this success was the creation of a kind of mutual fund managed by the Norwegian government to handle and defer this abundant source of wealth into the future in a sustainable manner, that is, Norway's SWF.

The origin of Norway's Sovereign Wealth Fund dates to the 1960s, when the Norwegian government declared sovereignty over its continental shelf in the North Sea, once it had laid the foundations for responsible management of the oil that might be found in future extractions. From this time on, licenses were granted to several foreign extraction companies to start projects to search for and extract offshore oil and gas. After four years of unproductive exploration, the first of many oil discoveries to date took place. The first twenty years of successful extraction generated capital that was mainly reinvested in the oil industry and in the development of the country. However, at the end of this period, the need for a fund to serve as an instrument to efficiently manage this abundant capital became increasingly evident. In particular, the original purpose of the fund was to insulate the country's economy from the potential adverse effects of oil price fluctuations (Norges Bank Investment Management, 2020). In 1990, the law (Government Pension Fund Act ,1990) that gave the green light to the creation of the fund was passed. This norm formalises key aspects concerning the purpose of the fund, the management of petroleum revenues by the Ministry of Finance and the breakdown of the net cash flow of petroleum activities (differentiating between those items constituting gross revenues and those constituting expenses), among others. Six years later the Ministry of Finance made the first capital transfer to the fund. It was initially decided that the entire capital would be invested in foreign government bonds. Nonetheless, in subsequent years this situation was gradually transformed, allowing the investment to be diversified into other asset categories such as equities and real estate (NBIM, Norges Bank Investment Management (2020)).

The challenge facing the Norwegian economy today is how to manage these capital flows



Source: IMF

Figure 3. Evolution of oil and gas exports (as percent of mainland GDP)

through the fund in a sustainable and responsible manner over the coming decades so that it can continue to benefit from this income in the long term. According to the forecasts made by the NBIM itself, oil resources are estimated to last only fifty more years if extraction continues at the same rate as at present, which is in conformity with the forecasts made by the Norwegian Petroleum Directorate, which claims that, as for 2019, 47% of the resources had already been extracted. In this line, the International Monetary Fund stated that Norway's oil and gas revenues were peaking in 2019 and would soon decline (See Figure 3).

At present, a major step in achieving this efficient management of the funds until now was the adoption in 2001 of the so-called "fiscal rule" (see Figure 2), with the intention of controlling the consumption of oil revenues by determining how much of these earnings should be transferred annually to the central budget. By this,"(...) the transfers back from the fund to the central government budget shall over time equal the expected real return on the fund, estimated at 3 per cent".

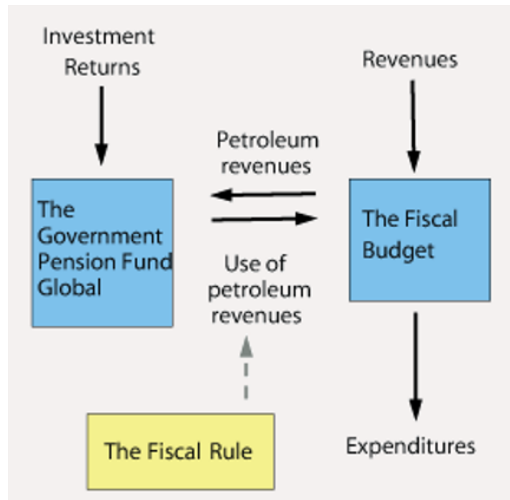
3 Governance and regulation of the fund

The sequence of events described in the previous section contributes to defining what exactly the Norwegian SWF is today. There are several other aspects that need to be addressed to arrive at a complete definition of the GPFG, concerning the legislative framework that regulates it, the main operators in charge of managing its capital and the institutions that take ultimate responsibility of the fund operations.

As commented at the beginning of this paper, SWFs are instruments belonging to governments. In the Norwegian case, there are three key actors responsible for making decisions, regulating, and managing the capital of the Norwegian SWF: the Stortinget (Norwegian Parliament), the Ministry of Finance, Norges Bank (Central Bank of Norway) and NBIM, the latter being a division of the former (See Figure 5).

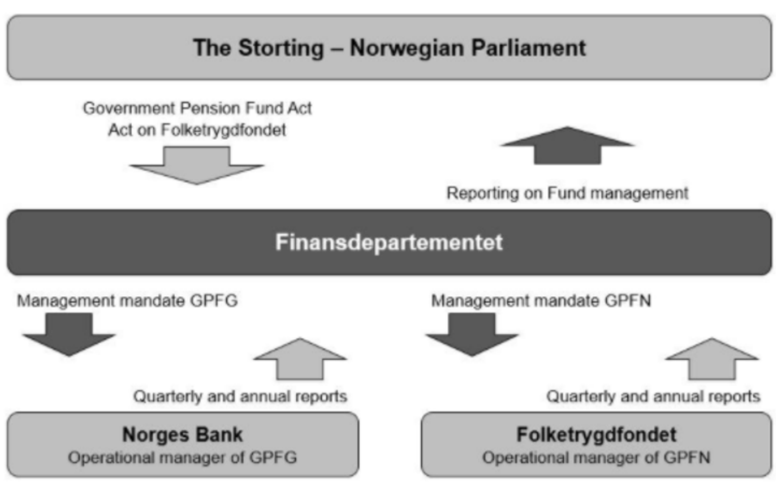
3.1 The Parliament

The parliament of Norway is the institution that assumes the function of providing the regulatory framework within which the fund can legally operate. The precept which constitutes the core



Source: Ministry of Finance of Norway

Figure 4. The relationship between the Government Pension Fund Global and the Fiscal Budget



Source: Government of Norway

Figure 5. Governance structure of the Global Pension Fund Global

(a)Gross revenues= (a.1) + (a.2) + (a.3) + (a.4) + (a.5) + (a.6) + (a.7)
(a.1) Total tax revenues from subsea petroleum deposits and petroleum activities
(a.2) Tax collected on CO2 emissions in petroleum activities on the continental shelf
(a.3) Tax revenues on NOX emissions in petroleum activities on the continental shelf
(a.4) Operating income and other revenues from net profit agreements under certain production licenses
(a.5) Dividends from Equinor ASA
(a.6) Central government revenues from the removal or alternative use of installations on the continental shelf
(a.7) Revenues from the sale of stakes representing the State's Direct Financial Interest in petroleum activities
(b)Expenditures= (a.8) + (a.9) + (a.10) + (a.11)
(a.8) Direct investments in the State's Direct Financial Interest in petroleum activities
(a.9) Operating expenses and other direct expenditure in the State's Direct Financial Interest in petroleum activities
(a.10) Central government expenditure relating to the removal or alternative use of installations on the continental shelf
(a.11) Purchases of stakes representing the State's Direct Financial Interest in petroleum activities
(1) NET CASH FLOW FROM PETROLEUM ACTIVITIES = (a) - (b)
(2)NET FINANCIAL TRANSACTIONS RELATING TO PETROLEUM ACTIVITIES
(3)RETURN ON THE FUND'S INVESTMENTS
TOTAL INCOME= (1) + (2) + (3)

Source: Government Pension Fund Act

Table 1. Breakdown of the total income of GPFG

of this framework is the Government Pension Fund Act, which has been already mentioned in the previous section.

The content of this regulation is organised into 12 sections, which set out key elements, such as the fact that the assets that make up the GPFG are owned by the state and that the purpose of the fund must be to ensure that the wealth generated by oil benefits both current and future generations (Section 1). The investment objective of the fund is also defined, as obtaining the highest possible return at an acceptable level of risk (Section 2). Other important aspects of this Act are that it assigns the task of managing the fund to the Ministry of Finance and NBIM (Section 3) the latter under guidelines issued by the former, which is also empowered by Parliament to develop additional provisions to facilitate the implementation of the act (Section 10) and evaluate NBIM's management, reporting back to the Parliament on the outcome.

Additionally, Section 4 provides a breakdown of the income out of which the fund is financed, which basically consists of the aggregate of three different flows of funds: the net cash flow from petroleum activities transferred from the central government Budget, net financial transactions relating to petroleum activities and the return on the Fund's investments (for further details see Table 1).

Lastly, Section 6 addresses the restriction imposed on the fund which states that the fund must in any event invest outside Norway and do so in foreign currency.

3.2 The Ministry of Finance

The Norwegian Ministry of Finance assumes two main functions in connection with the GPFG: the overall responsibility of the management of the fund and the issuance of rules that enable a more efficient implementation of the Act and provide guidance under which Norges Bank must perform. It is also responsible for regularly reporting on the fund management to the Parliament.

Two relevant provisions which have been implemented by the Ministry are: the Management mandate for the GPFG and the Guidelines for observation and exclusion from the GPFG. Other rules have also been issued concerning risk management and internal control at Norges Bank and financial reporting of Norges Bank.

Regarding fund management, the Ministry of Finance assumes this function in the first place through the Asset Management Department, although it does delegate operational management functions to Norges Bank through the Central Bank Act. In this way, the Ministry's role in managing the fund includes investment strategy, ethical guidelines, and follow-up of the operational management (Norway's Ministry of Finance).

3.3 Norges Bank and Norges Bank Investment Management

Norges Bank is Norway's central bank, which performs the fund's management tasks previously delegated by the Ministry of Finance (operational management), as well as other functions such as promoting economic stability in Norway and managing the bank's own reserves (Norges Bank). The delegation of the fund's management competence takes place materially through the deposit of the fund by the Ministry of Finance in a Norwegian krone deposit at Norges Bank, which, in turn, operates through a separate unit within itself, that is, the Norges Bank Investment Management (Section 1 of the Management Mandate for the GPFG and Section 3 of the Act).

Norges Bank operates through three decision-making bodies: the Supervisory Council, the Monetary Policy and Financial Stability Committee and the Executive Board. It is the latter entity that takes responsibility for Norges Bank's management of GPFG, which also appoints the general manager of this institution for a fixed term of 5 years (Section 2.4 y section 2.13 of the Central Bank Act).

As far as the operational management of the fund is concerned, the bank must comply with all those provisions dictated by the ministry of finance as already mentioned. Of interest here is the Management Mandate for the GPFG. This set of rules sets general management principles, establishes both limitations and prohibitions on investment and defines and describes the composition and calculation of the strategic benchmark of the investment portfolio. All these mentioned aspects will be addressed in the following section.

4 Descriptive analysis of the investment

As stated in the Government Pension Fund Act, the main investment objective of the Norwegian SWF is to obtain the highest possible return at an acceptable level of risk. To achieve this, the fund must follow an investment strategy that is within the rules prescribed by Parliament and the Ministry of Finance.

4.1 Investment universe

GPFG includes the term "Global" in its name as it invests worldwide and is also legally constrained to exclusively invest outside the domestic economy and in a foreign currency. The pool of assets in which the fund invests is made up of financial instruments (equity and bonds), real estate, renewable energy infrastructure and cash deposits. The fund may also hold investments in financial derivatives and fund units as long as they are directly related to the investments in the equity or fixed-income portfolio or one of the unlisted portfolios (Section 2.1 of the Management Mandate).

There is also a set of restrictions and prohibitions that delimit the pool of assets in which the fund can effectively invest. In the case of equity investment, it is limited exclusively to investment in companies listed on regulated and publicly recognised markets, although this criterion has been eased in recent years as investment in potentially listed companies, i.e.

"unlisted companies whose board of directors has expressed an intention to seek a listing on a regulated and recognised marketplace", is also permitted. With respect to prohibitions, as already mentioned at the beginning of this section, the GPFG is restricted from investing in Norwegian assets and/or Norwegian Kroner. A further prohibition on investment by the fund is that of not investing in companies which are classified as 'Oil Producers' in accordance with the Industry Classification Benchmark (Section 2.1 of the Management Mandate).

4.2 Benchmark index and portfolio composition

Initially, the idea was to create a benchmark index through which the investment decisions made by the Ministry of Finance, i.e. the fund's investment strategy, would materialise. The importance of the decision to establish this index has been summarised by the Norges Bank Investment Management (2020) as follows:

> "The benchmark index has played a crucial role since the concept was first introduced in the early days of the fund. It has been used to decide which asset classes to invest in, how much to invest in each class[2], and the composition of the investments within that class." (p. 33)

In 1997, a year before the fund officially began investing in equity, the Ministry of Finance adopted the Management Mandate to establish an index to serve as the cornerstone of the fund's management. The definition of this index was based on another externally provided index, which was subsequently adapted by selecting specific markets that would make up this index and by defining the regional composition of it (see formula below). Another adjustment made to the index is that it does not include those companies whose exclusion is expressly addressed in the fund's guidelines (Norges Bank Investment Management, 2020).

The current equity portfolio's benchmark index is based on the FTSE Global All Cap Index, which comprises around 8,000 stocks without using capitalisation volume as a selection parameter (thus including large, medium and small cap equities). The stocks in this index, as its name suggests, have a global presence, belonging to developed and emerging markets in over 40 countries.

Bearing this in mind and as explained in the Management Mandate for the GPFG, the benchmark is created by adjusting the FTSE Global All Cap by a series of factors based on assigning a specific score to the stocks in the index, according to the country of affiliation. Thus 2.5 points are allocated to developed European markets (excluding Norway), 1 point to the US and Canada and 1.5 points to both other developed and emerging markets. Markets included in the FTSE Global All Cap Index from January 2019 are assigned a score of 0.

The following formula indicates how the weight of the countries to be included in the index should be calculated:

$$\frac{\text{Market Capitalisation}_i \times \text{Factor}_j}{\sum_j \text{Market Capitalisation}_j \times \text{Factor}_i} \tag{1}$$

with i representing the countries associated with the adjustment factor.

All of the above refers to the "ideal" index, also known as the strategic index. In practice, there are usually deviations between this strategic index and the actual index. As set out in

2 Currently about 70% of the fund's total capital is invested in equity, the initial limit being 40% in 1998 (Norges Bank Investment Management, 2020)

Source: Norges Bank Investment Management (2020)

Figure 6. Total return on the fund and the benchmark index (percent)

Section 1.6 of the Mandate, rebalancing must take place when "the current benchmark index deviates by more than two percentage points from the equity share of the strategic benchmark index on the last trading day of the month". Figure 6 displays the parallel evolution of both indices, showing how the actual index outperforms the strategic index in terms of returns over the past decade.

In the literature, authors such as Papaioannou and Rentsendorj (2015) highlight the role that rebalancing strategies have played for the Norwegian fund in overcoming financial crises such as that of 2008. In the same line, Andersson, Haugerud, Ithurbide, and Orr (2012) underlines that rebalancing also contributes to the increase of the fund's return.

4.3 Historical evolution of the investment allocation

The Norwegian SWF focuses its entire strategy on achieving a clear objective: obtaining the highest possible return by assuming an acceptable level of risk that allows for an accumulation of wealth capable of benefiting both current and future generations (Norges Bank Investment Management, 2020). The assets in the investment portfolio consist mainly of equities, bonds, and real estate; however, the weight of each is subject to restrictions. The shares in the portfolio may not exceed 70% of the total, while the investment in bonds must be less than or equal to 30%, with real estate assets ultimately representing a maximum of 7% of the portfolio. The analysis below focuses exclusively on investment in listed companies through the acquisition of shares, since this is the type of asset in which the fund allocates the largest volume of investment.

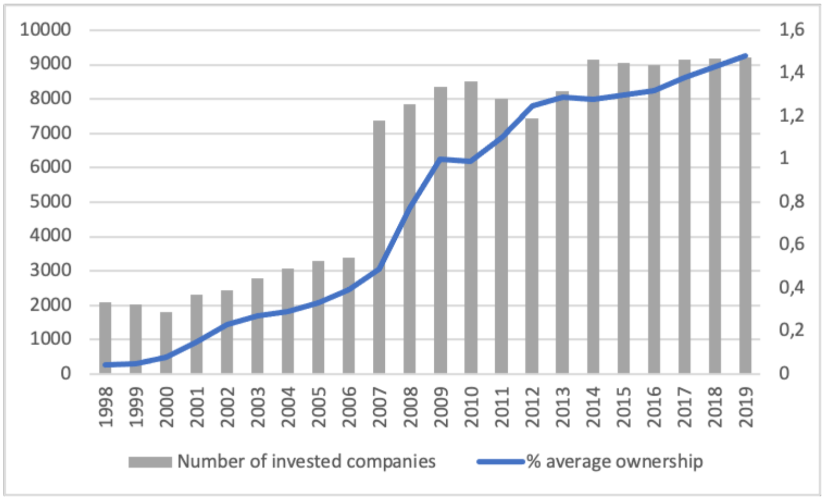
A major feature of the GPFG's investment style, and one that sets it apart from other SWFs, is its high degree of diversification: geographically, by industries and in terms of number of invested companies. Regarding the regional or geographical distribution, the Norwegian fund has from the beginning (1998) invested in four main regions: Asia, Europe, North America, and Oceania. Three years later, in 2001, it made its first investments in the Latin American market and, finally, it was in 2004 that it decided to invest in the only remaining areas, that is, the Middle East and Africa. Since the first investment was made in each of these areas, the company has continued to invest in them every year until the present day. In this same context, focusing on the number of countries in which GPFG invests, it initially began by doing so in nearly 20 countries, a figure that has quadrupled to arrive at the more than 80 countries in which the fund invests up to date. On the other hand, it is noticeable that this trend towards diversification is even more pronounced when considering the sectors in which investments are made, as investment has been allocated to each and every one of them (basic materials, consumer goods, consumer services, financials, healthcare, industrials, oil and gas, technology. telecommunications and utilities) since 1998 until today. Another interesting aspect to consider when analysing the overall investment of this fund is the number of companies in which the fund invests from the beginning. In general, there is a growth trend in the total number of companies in the fund's investment portfolio, with sharp increase in the number of investees between 2006 and 2007, such that this number doubles from one year to the next. This shift is due to a change in investment policy, as until then the limit for investment in shares in relation to the total portfolio was 40%, and the limit was raised to 60% in 2007.

At the same time, there has been a trend towards an increase in the average share of total investment since the beginning, with a very significant growth between 2007 and 2008, as in the latter year the share was 60% higher than in the previous year, with the maximum limit for participation in a company being raised to 10% during this period (Norges Bank Investment Management, 2020).

It is particularly interesting to compare both magnitudes, since, although it is true that, overall, both have followed a similar pattern of growth (See Figure 7), looking closer at what has happened in the last five years, it can be seen that, just as the number of companies in which investment has been made has remained relatively stable at around 9000 companies (and the average growth rate is barely 0.15%), the average share has increased significantly during this period, by an annual average of approximately 3%. From this it can be concluded that in recent years the fund is aiming to increase the value of the investment by gaining control over it while keeping the number of invested companies in the portfolio relatively constant (which does not mean that the fund keeps investing in the same companies since, as a matter of fact, of the more than 9000 companies in which the fund currently invests, only about 500 of them have been in the portfolio each year since 1998).

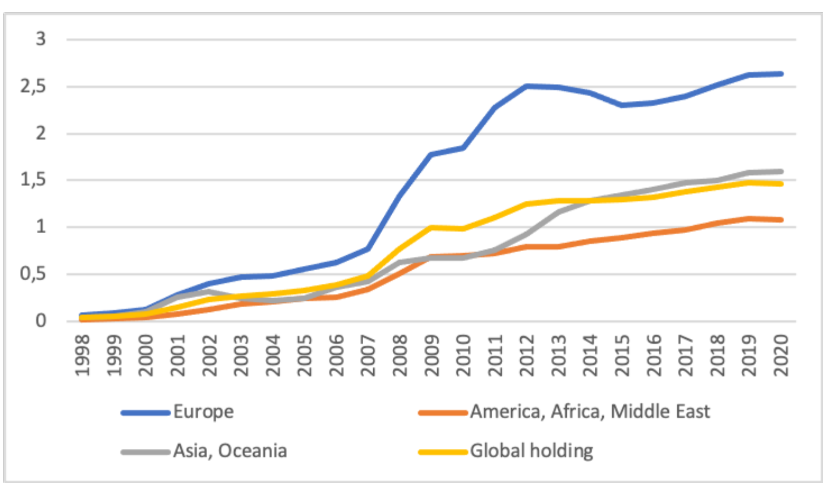
It is also worth considering that the average participation percentage differs between the regions receiving investment, since Europe from the beginning has been consolidated as the area in which the highest percentage of control of investment is held (more than one percentage point above the global average in the last five years), followed by Asia and Oceania, which present values very close to the global average; finally America, Africa and the Middle East, whose average participation is between 0.3 and 0.4 percentage points away from the global average participation (See Figure 8).

Similarly, the number of investees is unevenly spread across the different geographic areas and economic sectors that make up the investment portfolio. On the one hand, based on the data represented in Figure 9, Asia is the area to which the greatest number of investee companies belong, which also gains more weight each year, a trend which has been observed since 2013. The areas of the other geographical zones represented in Figure 9 (except North America in the period from 2007 to 2012), on the other hand, do not show significant variations



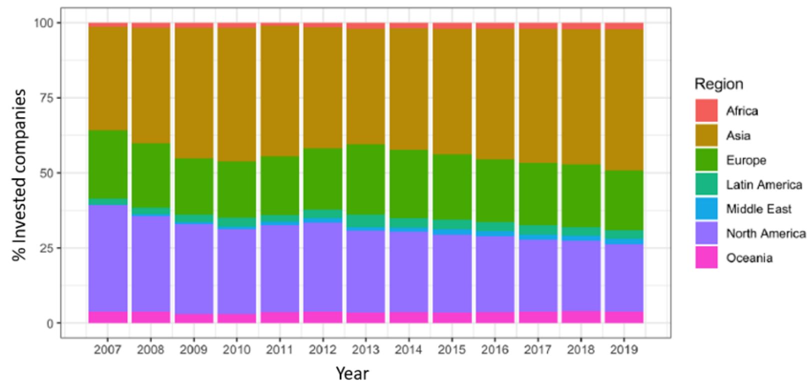
Source: Norges Bank Investment Management (2020)

Figure 7. Evolution of equity investment by number of investees and average percentage of ownership



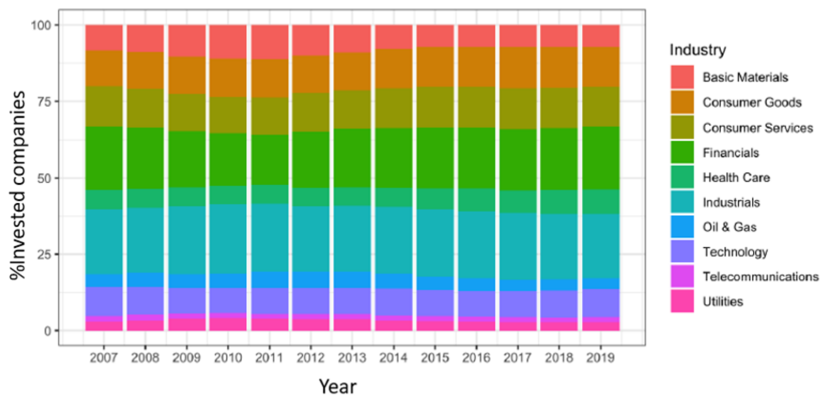
Source: Norges Bank Investment Management (2020)

Figure 8. Average ownership in equity markets



Source: Norges Bank Investment Management (2020)

Figure 9. Distribution of investees by region per year



Source: Norges Bank Investment Management (2020)

Figure 10. Distribution of investees by industry per year

over the years, which means that the fund has a tendency not to increase or decrease noticeably the number of companies in which it invests for each of these zones. It should also be noted that, after Asia, North America and Europe are respectively the regions to which the largest number of investee companies belong, with Latin America, Oceania, the Middle East and Africa being by far the last.

In addition, Figure 10 reflects the high degree of historical industry diversification of the portfolio that was previously highlighted. There is a clear predominance of the industrial and financial sectors, as together they represent around 50% of the companies in which they have holdings during the selected years. The remaining sectors are represented by areas ranging from 5% to 10%, i.e. the sectors of activity shown (with the exception of the financial and industrial sectors) each represent between 5% and 10% of the total companies in which the fund invests.

Region	Total investment ($MM)	% portfolio	Number of investees	% total investees	Average investment per investee ($MM)
North America	339.717,90	42,30%	2.140	23,55%	158,75
Europe	266.271,47	33,16%	1.908	21,00%	139,56
Asia/Pacific	178.479,02	22,22%	4.472	49,21%	39,91
Latin America	9.426,88	1,17%	199	2,19%	47,37
Africa	5.036,32	0,63%	158	1,74%	31,88
Middle East	4.151,41	0,52%	210	2,31%	19,77
Total	803.083,00	100%	9087	100%	437,23

Source: Thomson Reuters (2020)

Table 2. Investment allocation as of December 2020 (per region)

Industry	Total investment ($MM)	% portfolio	Number of investees	% total investees	Average investment per investee ($MM)
Financials	169.082,11	21,05%	1.825	20,19%	92,65
Technology	153.834,59	19,16%	1.126	12,45%	136,62
Consumer cyclical	100.415,49	12,50%	1.505	16,65%	66,72
Industrials	95.770,70	11,93%	1.574	17,41%	60,85
Healthcare	92.049,29	11,46%	779	8,62%	118,16
Consumer non-cyclical	57.722,86	7,19%	696	7,70%	82,94
Basic materials	45.059,32	5,61%	786	8,69%	57,33
Energy	37.611,35	4,68%	339	3,75%	110,95
Telecommunications services	26.553,54	3,31%	158	1,75%	168,06
Utilities	22.021,82	2,74%	253	2,80%	87,04
Total	800.121,07	99,63%	9.041	100%	

Source: Thomson Reuters (2020)

Table 3. Investment allocation as of December 2020 (per industry)

4.4 Current allocation of the investment

Tables 2 and 3 show the geographical and industry distribution of the fund's investment at the end of 2020 (December), which provides a static picture in contrast to the historical data previously analysed. A new element is also added: the value of the investment made, which makes it possible to know the degree of concentration of the investment. In line with the previous analysis, it is visible that Asia and North America are indeed the regions with the greatest number of companies in which the fund has holdings, closely followed by Europe. The latter contrasts sharply with the remaining regions, where the number of investees in each region barely exceeds 200 on average. However, when compared with the value of the investment made, North America maintains the first position, but Asia is vastly surpassed by Europe, an area whose companies attract on average approximately four times more investment than those in Asia (147 million euros compared with 37 million euros per invested company), and by Latin America.

Again, contrasting the value of the investment made at industry level by the fund in the last year, there is a clear difference between the sectors that have the highest investment in total terms (as mentioned above, the financial sector and industry) and those in which the investment is more concentrated by company. Hence, interestingly, it is the communications, technology and health sectors (in that order) whose investees have the highest individual investment volume (over $110 million each), far exceeding the individual investment in financial firms (around $90 million) and double that of industrial firms (around $60 million). A detail that is also worth noting is that the aforementioned leading sectors in terms of individual investment attraction are precisely sectors closely linked to innovation, which could be due to a strategic response to increase the value of investment in those companies that can bring meaningful economic and social transformations in turbulent periods such as the current one.

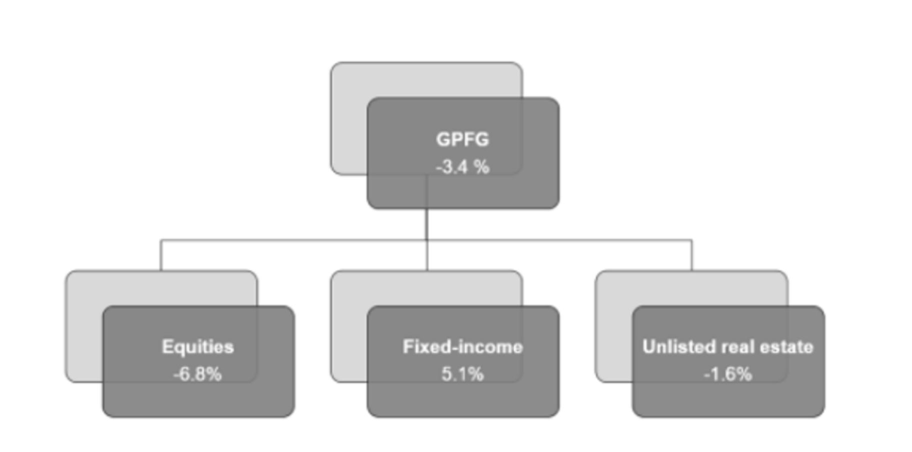
5 Responsible investment

Once concluded the investment analysis, one of the core elements to be mentioned about the investment style of the Norwegian sovereign wealth fund is that of responsible investment. In this sense and in line with the aforementioned high level of transparency that characterizes the fund, it explicitly shows what its ethical investment strategies are through periodic publications on its website, which focuses on areas such as: children's rights, climate change, water management, human rights, tax and transparency and anti-corruption Norges Bank Investment Management (2020).

This is a twofold practice: positive and negative. On the positive side, it means that the fund actively participates in the selection of those companies that are in line with its ethical mandate, exercising, as described by Liang and Renneboog (2020), its ownership rights to encourage the investees to implement actions that align them with its ESG policies.

On the other hand, as a complementary element above, we find the exclusion of companies that clash with the ethical and responsibility policies followed by the fund, also known as negative screening. According to the data provided by NBIM, as for March 2021, since 2005 a total of 143 companies have been excluded from the fund's portfolio and 24 are currently "under observation" for producing goods or services or engaging in conducts contemplated in section 3 of the Guidelines for observation and exclusion of companies from the government pension fund global, which are as follows:

- Serious or systematic human rights violations, such as murder, torture, deprivation of liberty, forced labour and the worst forms of child labour.



Source: Norges Bank and Ministry of Finance (2020)

Figure 11. Fund performance in the first half of 2020

- Serious violations of the rights of individuals in situations of war or conflict.
- Severe environmental damage.
- Acts or omissions that on an aggregate company level lead to unacceptable greenhouse gas emissions.
- Gross corruption.
- Other particularly serious violations of fundamental ethical norms.

6 A brief review of the impact of "Corona crash" on equity investment

Finally, this analysis should not be completed without a brief reference to those effects that have been seen so far in the fund's stock market investment caused by the outbreak of the crisis caused by the coronavirus pandemic. Taking the information published by NBIM in its "Half Year Report" (Norges Bank Investment Management, 2020), investment in shares has been the hardest hit by the arrival of the new crisis, showing a negative return of -6.8% compared to -1.6% and 5.1% for investment in real estate and fixed income assets, respectively. The same publication mentions how the performance of this component of the portfolio has been affected by the sudden shortage of liquidity caused by a considerable demand for capital due to global economic uncertainty. Finally, European stocks are identified as those with the lowest returns (-11.7%), oil sector stocks as the least profitable (-33.1%) and the technology and health sectors as the most profitable, again in terms of returns, with values of 14.2% and 4.8%. In this line, Figure 11 displays how has the Norwegian fund performed within the last six months.

7 Conclusions

Once this paper has reviewed the history of the Norwegian sovereign wealth fund, how it is managed, what are the main lines guiding its investment strategy and how the investment has been distributed historically and over the last year, a set of conclusions can be drawn from it.

1.- The fund's historical investment trend has consistently been one of diversification (sectorial, geographical and in terms of number of companies) and a gradual increase in investment. There has, however, been a certain flattening in the number of companies invested in over the last five years (which has not deviated significantly from the 9,000 companies). This in turn is paralleled by an overall rising average shareholding, suggesting that the fund's strategy is shifting towards increasing the value of the investment through greater control over the investment.

2.- The high degree of diversification of the fund's investment does not imply that it is evenly allocated. There are regions that historically and currently have been leaders in fundraising, such as Europe and North America, not only in terms of overall fundraising but also in terms of individual companies.

3.- This is also the case when examining the distribution of investment according to the economic sector that attracts it. In this case, historically, the financial and industrial sectors are those that attract the greatest volume of investment in general terms. However, the individual allocation of investment in companies belonging to these sectors is much more dispersed than in companies belonging to other sectors such as telecommunications, technology, or health, which currently lead the way in terms of investment per company.

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