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Transition of a rentier oil country to a sustainable economy: A case study for Norway

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Abstract

Oil as the main source of economic and political power has played a significant role in oil governments' political and social developments and has been one of the main pillars of power. But historical experiences have shown that having huge oil resources didn't lead the countries to a certain development and welfare stage. The national dependence of oil-rich countries had various multidimensional consequences. The dynamics of political developments in countries where a major share of revenues come from oil or other natural resources have always shown a type of government with unparalleled authority in social and economic policy-making, which extends themselves beyond social classes, parties, and groups. One of the main reasons for this attitude is undoubtedly the reliance on oil revenues. Unlike other oil-rich countries, Norway focuses on human development instead of its natural assets, using oil wealth as support and engine of development. This support engine works by storing oil revenues in a Foreign Exchange Reserve Fund, investing it in different foreign industries within a clear framework, and preventing it from entering directly into the country's budget plan. These frameworks prevent the country and the government from becoming a rentier government or state. Using this indirect revenue stream strategy is a method that helped Norway to advance its economic, political, social, and cultural programs. Hence, in the case of Norway, not only oil does not have negative and anti-developmental consequences in political, social, and cultural aspects, but also the existence of oil as a natural gift that is used efficiently and with capable management like Norway's sovereign fund, can fuel development and enhance countries' economic capabilities and help develop various national industries. This developmental view has saved Norway from falling into the trap of rentierism. This paper aims to study the framework that helped Norway escape the trap of rentierism and become one of the few cases of developed oil-exporting countries.

Keywords: Development, Rentier state, Petroleum, Management, Energy policy
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1. Introduction

One of the most important variables in countries and societies' political, social, and economic developments today is management structure (Taşan-Kok, 2012). This issue is more important in the development process so that emerging economic countries can be considered the result of the formation of this structure and the prevalence of this behavior in these countries' political and managerial structures. The experience of successful developing countries, in particular, has further demonstrated the impact of good management knowledge and governance in various areas of social, human, technology, communications, economics, and politics. An experienced used much earlier by today's developed countries had far-reaching effects on the world's development. In the meantime, the management of economic resources, the goals, and how to use these resources by governments is very important. Countries such as the United States, the Netherlands, Norway, and the United Kingdom, which have oil resources, use their resources to strengthen their economic infrastructure and source of development momentum. Some countries that do not have oil resources, by investing in other countries' oil fields or buying oil resources as a commodity, try to create high added value by converting primary resources into capital and consumer goods and increasing wealth. They nationalize. Japan, South Korea, China, and other industrialized countries are among these countries. Opposite to these two categories are the countries with the largest oil and gas reserves globally, classified as OPEC members and non-OPEC producers (Russia, Mexico). These countries use oil resources mainly in current affairs and consumption. Matters that are often political and, in other words, related to the government's political goals and interests.

These conditions caused the mentioned countries to be caught in a phenomenon called dependence on oil revenues or single-product and vulnerable countries. These conditions have practically disrupted nation-building and, consequently, the development of oil-producing countries and have caused these countries' development process to lag and be weaker than other countries, even in general, in the developing countries. The development process in these countries should be difficult, long, and costly. This is mainly due to the oil-based industrial and economic structure in these countries, which is financially, technically, and managerially backward and dependent, and also because the oil-dependent economic structure has disrupted other economic structures such as industry, agriculture, and services in these countries (Leslie & Kargon, 2006). These conditions have naturally made the social structure and consequently the political structure in these countries underdeveloped and inefficient. Hence, despite having oil wealth, These countries have low social welfare and high poverty levels. They also face low levels of political participation and development (Hammond, 2011).

Some scholars, such as Luciani, have cited oil as a scourge. Luciani considered the theory posits the negative effects of external income and its distribution on political liberalism and economic development (Yamada & Hertog, 2020). They believed that the vast oil resources had increased the government's desire to extract quickly, immediately, and carelessly from this source, and the huge profits from this have plunged them into a lock of joy (Luciani, 2006).

Others, such as Katozian, argue that the government's painless oil wealth makes the governing body needless of society. Lack of government and indifference to society leads to justice and the people to oversight. They become careless. The absence of two important elements, "justice by the rulers" and "dynamic supervision by society," creates transformational movements similar to the revolution (Behzadi Forough et al., 2021). Luciani also points out a strong relationship between economic prosperity and the

government's political orientation. Thus, fixed oil income is the cause of the continuation of dictatorship and tyranny, and the government's financial crisis is the main factor in the increasing need for democracy and political changes. Hence, by reducing oil revenues, the government can expect the government to need the society and, as a result, the birth of democracy. According to Luciani, governments are reluctant to comply with the people's demands by reducing their oil revenues and maintaining political control and obstruction even with lower oil revenues (Correlje & Van der Linde, 2006). Other theorists, such as Wilpert, examine this position from an economic and cultural perspective. From an economic point of view, the oil rule is the outbreak of the "Dutch disease." From a cultural perspective, it can be mentioned in three complications: rentierism, discrimination, and corruption (Vera, 2015). Also, the rule of law and oil as a national property are important parameters widely not considered in the rentier states.

Despite the theoretical framework of rentierism and rentier states, some researchers studied the social relationship which affects or is affected by rentierism.

Moritz (2020) studied the function of civil society in terms of societal entities that act collectively to pursue a political purpose (including both engagements with the state over policy matters and debates on moral and social societal norms) in the rentier states.

Thompson (2020) discussed that the failure of the education system to prepare young nationals for entry into the labor market is considered to be particularly true for private sector employment in a rentier state.

Freer (2020) concluded a trend towards greater centralization of control of the religious sphere and political life in Bahrain, Oman, Saudi Arabia, and the United Arab Emirates (UAE), with a tendency towards co-optation in Kuwait and Qatar, which he believed to be an outcome of the rentier state condition.

Hartog (2020) stated that while some aspects of rentier mentality are indeed prevalent, other attitudinal predictions of rentier state theory do not hold up – potentially because rentier states have adopted since the 1980s and used a range of social engineering tools to instill pro-business and patriotic beliefs on an abstract, ideational level.

And another generation of studies speaks about the ways to control the rentier state side effects.

Yamada (2020) stated that this transition appears to occur when these vested-interest players accept pain-sharing to ensure their protection in the context of the revealed vulnerability of their patron regime and when alternative productive gains are offered to them instead of conventional distribution.

Al-Sulayman (2020) argued that this phenomenon of 'reform dissonance'—contradictory policy outcomes resulting from the lack of coordination between different reform initiatives—is manifested in persisting public sector entitlements, the crowding-out effect by state-owned enterprises, and the persisting mismatch between the pace of human capital development and labor nationalization quotas in the rentier states.

Young (2020) studied late rentierism in terms of ownership and the state's role as guardian or steward of society's wealth. ~~And~~ He also investigated using sovereign wealth funds to examine state-society relations and rentierism across the Gulf, and this article focuses on the Saudi case.

Krane (2020) stated a successful economic diversification strategy as an answer to both physical and economic risks of the climate protection decisions in the rentier states. However, he mentioned that it would require structural changes in rentier governance.
Also, some other researchers discussed resource management and other industrial management, which will lead to a sustainable economy for the oil countries.

Collier (2010) discussed the reason "why we must and how we can manage nature for global prosperity." Grounded in a belief in the power of informed citizens, Collier proposed a series of international standards that would help developing countries rich in

natural assets better manage those resources, policy changes that would raise world food supply, and a clear-headed approach to climate change that acknowledges the benefits of industrialization while addressing the need for alternatives to carbon trading. Revealing how all of these forces interconnect, The Plundered Planet charts a way forward to avoid the mismanagement of the natural world that threatens our future.

Di John (2011) studied the analysis of surveys on the Dutch disease, rentier state, and rent-seeking versions of the resource curse and found they have significant shortcomings in theory and evidence. It also identifies some decisive factors that help determine the risk threshold—below which the risk of a resource curse may be very high—in mineral and fuel-abundant developing countries.

Kakanov et al. (2018) explained a shred of indirect evidence that the impact of an oil price shock is partly offset by fiscal policies, particularly in countries with high oil dependence.

Nguyen et al. (2016) investigated the "Norwegian model" and the future challenges to keep its good performance to save a country from becoming a rentier state.

Unlike most oil-rich countries, Norway has experienced different conditions. The country, which has had access to oil and gas resources since the mid-1970s, has taken a different path in oil resources and revenues and didn't follow the experiences in middle easter countries, which led to rentier states. Norway's economic structure is currently the least dependent on oil revenues, and its economy is on a normal path while the oil is nationalized and state-owned property (Karl, 1997; Karl, 2007). These conditions have made Norway one of the first countries with a high degree of economic and social welfare and excellent social participation and political development. Managing oil revenues and preventing the negative role of oil revenues has made Norway prominent and exemplary in most positive global indicators in the economic, political, and social spheres. The Norwegian experience has shown that with good management and good governance, one can experience a different experience from what is happening in all oil countries and challenge common theories and theories about the impact of oil on the economic, social, and political structures of countries.

1.1 Rentierism and oil revenue management

The theoretical literature on oil revenue management focuses more on negative and unsuccessful experiences than positive and successful experiences. In other words, the performance of oil resources and revenues in countries with oil resources and the unbelievable consequences that this variable has determined for oil countries has practically not provided a basis and excuse for the success and efficiency of oil management systems. Reflection on the current situation of countries with major oil and gas reserves and the process that this variable has gone through has focused economic, political, and development experts on the pathology of these countries and finding reasons for the negative role of oil and gas resources in the country's development. In this regard, specifically, the three theories of the rentier state and the rentier system, the curse of resources, and the Dutch disease are significant. The common denominator of these theories is the attempt to explain the structure of oil revenue management. In fact, from the point of view of these theories, what has provided the ground for the negative role of oil in the developments and destiny of oil countries and has caused excessive backwardness and deviation of these countries from the path of development, is conscious and unconscious mismanagement of oil resources. The effects of mismanagement of oil resources and revenues are far worse than uninformed management because, given the political power hunger in the undemocratic rentier states, political exploits and abuses make the ground for faster and more waste of resources and a greater negative role on these resources in development processes. The rentier

government is mainly both a factor and a result, and more precisely, a symbol of the conscious and incorrect management of oil resources in oil countries, a symbol that normally does not exist in Norway as a different country in managing oil revenues. In fact, in a different experience, Norway could have escaped the curse of resources, the Dutch disease, the vulnerable and underdeveloped rentier government, and become a successful model in exploiting and managing oil revenues. According to these theories, everything that has been experienced in the oil-rich countries based on oil variables and oil revenues is not seen in Norway. The resource curse in Norway can be examined in the form of honoring resources. The Dutch disease could not be spread with the Oil Revenue Fund's creation, and the rentier government, despite the institutionalization of welfare, developmental and democratic government, has not emerged.

In analyzing the conditions and contexts of non-emergency of the rentier government in Norway and the country's political and managerial system's policies differ from rentier governments' experience, a theoretical explanation of the rentier government seems necessary. Also, it can be mentioned that four countries have beaten the oil cures: Canada, Chile, Botswana, and Norway.

From the perspective of a political economy, rent refers to the revenues that a government receives from external sources, or in other words, from the abnormal sources uncommon in the economy. A clear example of these rental revenues is oil revenues generated by oil-exporting countries. According to Hazem Belbavi and Luciani, the government is a government rentier that regularly receives significant foreign rents. According to Balbawi, any government that accounts for 42% or more of its total foreign rental income is considered a rentier government(Beblawi & Luciani, 2015). According to them, rent has nothing to do with production processes in the domestic economy. Also, in a rentier state, only a very small percentage of the labor force is involved in rent generation, and therefore the majority of society is rent-receiving and distributing (Beblawi & Luciani, 2015).

Given the above characteristics, most oil-producing and exporting countries can be called rentier states because foreign rents in these countries flow directly to the state treasury and its share in government revenues is more than 42%(Haji Yousefi, 1997). According to these definitions and characteristics, rentierism refers to the rentier government and its behavior. This style of politics and government has two main characteristics. The first is that the ruling elites control rents, and the second is that the ruling elites use these rents to gain the cooperation and control of society to maintain the government's political stability (Haji Yousefi, 1997). Rent in the political sphere has the consequence of increasing the independence of the government from society. The nature of the rentier government is such that the society is not considered a significant weight because the government, in the shadow of receiving rents from abroad, no longer enters domestic resources (taxes, duties, and exports of industrial goods, etc.) (Derakhshanalavijeh & Teixeira, 2017).

There is no need for the government to create democracy and hinder political development. One of the important consequences of independence makes the government gains monopoly power and does not see the need to involve different groups and classes in power (Bashirieh, 2003). The government's high dependence on rent reduces its financial pressure on society because the government does not receive any taxes from the society, or if it collects taxes, the amount is small. Instead, the likelihood of public demand for government accountability and representation of rulers by the people will decrease (Luciani, 2006).

Also, in a situation where the major sources of power are concentrated in the hands of the government and social groups do not have the necessary capacity to challenge the government, the mechanism of social oversight by the community and

accountability by the government is disrupted. In such an environment, it will not be possible to establish democratic institutions and procedures in governance, and rent-seeking governments will implement policies to distribute the money among the people and their supporters. They will try to distribute more money among the people (Beiser-McGrath & Metternich, 2021).

Weakening the government's extractive and redistributive power: In the political literature, especially in the framework of functionalist theories, the political system as one of the sub-systems of social systems has a special task, including extracting resources from the society and their redistribution. The discussion of extraction considers material resources such as taxes and human resources and social groups' skills and abilities. According to this analysis, one of the main criteria for measuring a political system's efficiency is to examine the extractive power and redistribution of resources within the society (Kotera et al., 2012). Rental governments are weak in accountability to society and proper extraction and redistribution of resources within the country. This weakness in the political arena disrupts democratic procedures. In the social arena, it encourages social inequalities, and in the economic arena, it will lead to the pursuit of inefficient economic policies by the government. The government's position is reversed, and the governments are dependent on themselves instead of needing and being accountable to the people (Spruyt, 1996).

Kamrava sees rentierism as one of the deep-rooted features of Middle Eastern economies. He considers the existence of rentierism in rentier states to weaken the extractive capacity of those states because, under normal circumstances, governments must exert influence to extract and redistribute economic added value. Still, in the state of rentierism, the main function of government is distribution and not extraction. The rentier government's extraction capacity is likely to be lagging or declining (Kamrava, 2002; Cohen & Naor, 2013).

The government becoming a distributor of rents is one of the consequences of other rentier governments. In such a case, the government plays the most fundamental role in distributing wealth among the people. This state is the allocation state, which theorists call them allocation states because of the importance of such states' distributive nature and the contrast with the production states (Katozian, 2005).

In the economic sphere, rentierism disrupts the natural process of economic growth. Accordingly, in the possibility of earning money through rent, the talents of the society are attracted to earning easy income instead of innovation and creativity and productive activities, which cause the allocation of the country's talents from useful activities to activities related to search and rent (Kotera et al., 2012). The government, which enjoys a lot of rent, imports huge amounts of consumer and luxury goods. A prominent feature of this type of economy is the high consumption of goods in return for low production in the society (Richter & Steiner, 2008). The expansion of the economy's public sector is also significant in this regard. The government spends the rent it receives on the domestic economy, and, as a major investment in the domestic economy, it increases government spending by providing free or low-cost services (Christensen et al., 2020).

According to Russia, in the social sphere, when income is obtained from abroad (for example, through oil exports), the government finds the opportunity to pursue national policy without being accountable to the people. This, in turn, affects the nature of society's social classes and their participation. In this situation, a system of domination and rule over-dependent citizens emerges (Ross, 2001). Homayoun Katozian emphasizes that rents weaken developmental social groups and instead promote non-developmental social groups such as government-sponsored groups that receive the greatest rent

benefits. The mass of the urban population, which also benefits greatly from increased government spending on the domestic economy, and the rural population, which has the lowest income from rents, are encouraged (Katozian, 1995).

The growth of bureaucracy is another result of rentier governments. A rentier government's main task is distributing rents among social classes and groups to gain legitimacy and maintain political stability. To perform such a task, a rentier state is forced to expand the state bureaucracy's system.

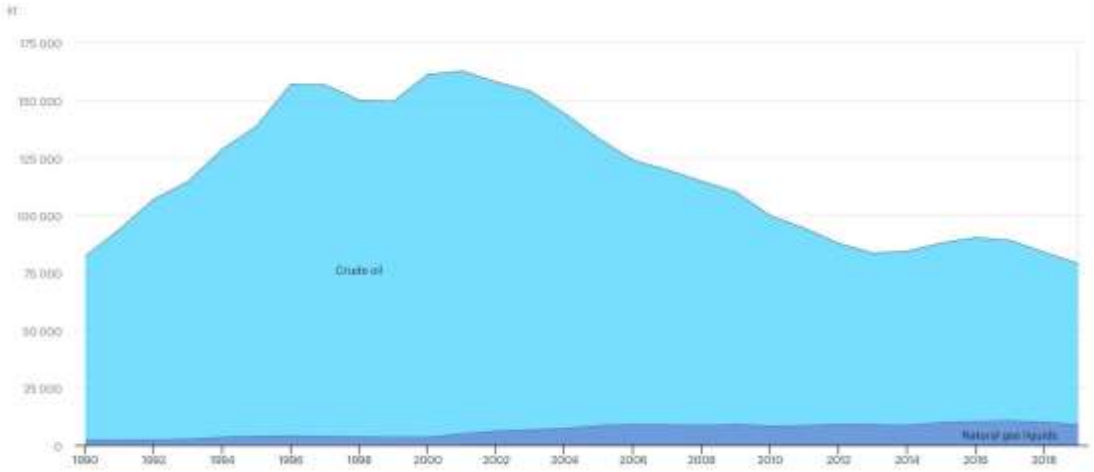
Bjørnland et al. (2021) discussed that in the procyclical regime, however, fiscal policy is systematically more volatile and excessive in the non-OECD (including OPEC) countries than in the OECD countries. This suggests OECD countries can smooth spending and save more than non-OECD countries. This paper's results emphasize that it is both possible and important to separate a procyclical regime from a countercyclical regime when analyzing fiscal policy. By doing so, researchers have encountered new facts about fiscal policy in oil-rich countries.

1.2 On the management of oil revenues in Norway

The Kingdom of Norway is a country located in Northern Europe and has about 5.4 million people. Its capital, Oslo, has just above 1 million residents. Its area is 385,207 square kilometers, making it the 60th largest country globally (Naifar et al., 2020). Norway is an example of a thriving economic system that offers a wide range of amenities. The Norwegian economy is a combination of a market-based economy and a state-owned economy. The government has a significant presence in key sectors such as the oil and gas industry. However, in terms of non-oil resources such as mines, forests, fishing, and energy from water resources, it also has shipbuilding industries. However, revenues from oil and gas exports account for 35% of the country's exports and rank third in oil production and exports, after Saudi Arabia and Russia. DBRS, Inc. certified the Kingdom of Norway's Long-Term Foreign and Local-Currency – Issuer Ratings at AAA. At the same time, DBRS Morningstar also certified the Short-Term Foreign and Local-Currency – Issuer Ratings at R-1 (high). The trend on all ratings is stable (Mah, 2021). By international standards, Norway has high employment, low unemployment (4.62%), and a high education level(with a science score of 500). Also, the country enjoys low Gini indices on Income and wealth inequality(0.25), a very high general governmental wealth (US$1.3 trillion), and also green policies of the country lead to very low GHG emissions (43.4 million tons)(Puerta & Marti, 2021).

Regarding the Legatum prosperity index, Norway is behind Denmark as the most prosperous country, while Arab Middle East countries rank below 42, and Saudi Arabia is ranked 71st(Budsaratragoon & Jitmaneeroj, 2021). Almost 83% of people report having confidence in the national government (Puertas & Marti, 2021). Also, in the rule of law, Norway was ranked 2 with a score of 0.89 in 2020 (Subkhonov, 2021). Norway is among the lowest in OECD countries, with a lower 40% of GDP as the general government debt (Puertas & Marti, 2021). Also, the EPI index suggests that Norway is among the 20 most environmentally friendly countries, and even Robeco ranked Norway's the most environmentally friendly country (EPI, 2020; Cöster et al., 2020). Figure 1 shows the amount of oil and gas production. This figure shows the considerable historical share of Norwegian oil in the global oil market. Presently, 87 fields in production on the Norwegian shelf and 95 discoveries in already licensed areas will make up the foundation for Norwegian oil and gas production for decades to come (Klimaomstillingsutvalget, 2021; Hunter, 2014).

Figure 1: Norwegian oil production - Historical and forecast data.



Source: Norwegian Ministry of Economy (1990-2019; source: IEA, 2021)

This high role of oil in the economy has made policymakers think about the post-oil era. Therefore, this thinking has caused most oil revenues to be stored in a special fund, and these reserves are spent on foreign investment. Separation of tasks and scope of work in three issues: policy, legislation, and trade are known as the Norwegian model of oil sector governance, which many oil-rich countries have used as a suitable implementation method to improve performance and increase transparency in the oil and gas sector. Today, Norway is one of the richest countries globally, owing most of its wealth to discovering abundant oil and gas resources in the North Sea. Discovered in 1969, these vast energy resources have gradually continued with the discovery of numerous other oil and gas fields, bringing incredible wealth to Norway's population of 5.4 million, which until then may have been less than a dream for Norwegians. However, this does not mean that Norway has gained much of its current wealth from selling crude oil or gas or running the country by exporting its natural resources to other countries. Perhaps the first spark that made Norway rich was discovering oil and gas resources, but if one looks at other oil-owned states globally, it can be realized that oil resources do not tell all the facts. Oil and gas exports to Norway account for only 45% of the total volume of the country's exports, while Norway is expected to survive for centuries only by exporting oil and gas. Water is supplied from hydroelectric dams in this country, and this may mean that the cost of electricity consumption in this country should be very cheap, but in practice, this is not the case, and the cost of electricity is not cheaper compared to other neighboring countries such as Sweden (Musavengane & Kloppers, 2020).

2. Oil industry roadmap in Norway

What is certain is that oil and gas play a major role in Norway's economy, but, unlike other oil-rich countries, having foreign revenue earnings from natural resources has decreased the country's economic problems and has led to its economic prosperity and development in the long run. The answer to this question relates to how financial resources are managed. According to 2011 statistics, the Norwegian government's revenues from the country's oil industry was only 28%. This means that other revenues are entirely non-oil and come from other natural resources such as electricity, fisheries, wood and paper, mining, and arms exports. Norway is the second-largest exporter of fish and marine fish after China. However, it is interesting that its industry has not become

dependent on oil revenues since the early 1990s. Until then, Norway's major exports were based on oil and gas. This natural resource trade indicated proper management and a long-term plan for preserving Norway's natural resources and their storage for the future as one of the state's most important tasks.

2.1 Historical background of the oil industry

The Norwegian continental shelf was discovered in the 1960s by the Philips Oil Company. Norwegian authorities claimed ownership of the resources, but the initial explorations were largely funded and carried out by international oil companies. Oil production began in June 1971 at the Ekofisk oil field. Norwegian participation gradually increased during the 1970s, with Norwegian oil companies, the state-owned Statoil, and private companies SagaHydro, playing a more important role. From 1972 onwards, Statoil acquired a 50% stake in all-new fields. However, this was later corrected, and now this share can be more or less than this amount. Part of Statoil was privatized in 2001, but the government still holds 67% of its shares. The government also has a significant share of passive ownership through government direct financial interest (SDFI) in all areas. SDFI was acquired in 1985 with the acquisition of half of Acetate. By 1980, oil revenues were relatively low, and Norway faced a significant current account deficit with financing the investments required. Rising oil prices in the 1970s increased the importance of the oil sector, and in the early 1980s, oil production reached 15 to 20 percent of GDP. A sharp drop in oil prices in 1986 reduced it to less than 10 percent by the end of the decade. The oil sector is now an important part of the Norwegian economy. In 2010, the oil sector accounted for 22% of GDP, 27% of government revenues, 26% of total investment, and 47% of total exports (Gylfason & Zoega, 2006).

2.2 Trust in the government

There is no huge extravagance; in fact, decision-makers are carefully implementing a bill that allows them to spend or invest only 4% of the fund's surplus revenues in public (government) projects. And of course, there are many reasons why Norwegians are content to save their reserves and financial resources and are not tempted to live a life of luxury. Professor Keplin believes that social democracy and equal rights policies have led Norway to a homogeneous society with a high level of public trust in which people trust the government and they believe that the tax that they pay will be spent wisely, and when it is certain that other people will pay their share, a person will be satisfied with their share. But is Norway rich because of its citizens' high level of trust, or is its citizens' trust high because of their country's rich soil? Kaplin also believes that both options are right, as high levels of trust make economic growth easier and smoother.

2.3 Belonging to all generations

In many countries, natural resources have been detrimental to economic development, and the resource scarcity literature indicates a disappointing relationship; a country with abundant natural resources and oil-rich countries generally experience slower growth than other countries. Norway does not fit into this framework, and even its economic growth is higher than most other developed countries. Its GDP per capita in terms of purchasing power parity index from five percent below the average of developed countries in 1970 reached 70 percent higher than the average of these countries in 2012. Besides, most oil revenues are saved in the government pension fund, and only a real expected return (4%) is used to offset the budget deficit excluding oil. Therefore, it seems interesting to understand how this is achieved. The management of oil resources reflects Norwegian decision-makers' attitude that resources belong to people and that society, including future generations, needs to benefit from the development. This was

challenging for several reasons. Oil revenues are temporary due to reliance on natural resources, fluctuations in oil prices, and uncertainty about resource inventory. Extraction of oil from the ground is also technically very difficult, which creates the need for international companies' participation (Lafferty et al., 2007). To achieve this great goal, policies have been implemented in various areas, and the parliamentary oversee system ensured that oil revenues are used safely and profitably, and the government's huge oil revenues are properly invested. Another goal was Norwegians' significant presence in oil activities to reduce their dependency on the oil industry technicians and technologies from other countries, so Norwegian companies started to improve their specialized human resources and oil industry technologies to achieve this goal.

2.4 Creation and Application of seven policies

But how did the Norwegians manage to turn their oil industry into powerful multiple industries at once? The answer to this question is in eight general, smart, and far-sighted policies adopted by this country (Norges Bank, 2021).

2.4.1 Policy of Experience and Clear political will

Rising oil prices in 1973 and 1974 brought a lot of income to the Norwegian economy. Predicting the continuation of rising prices, the Norwegian government launched a series of costly economic programs, but when the conditions set in 1977 did not materialize, Norway faced the highest debt in its history, 50% of GDP. With prices falling in the late 1980s, the Norwegian government decided to limit oil revenues, reducing its dependence on oil price fluctuations. This prompted the Norwegian parliament to approve the formation (the Foreign Exchange Reserve Fund) in 1990. The fund was officially launched in 1996 and has since reformed the Norwegian economy. While most of the world's oil-rich countries spend their crude oil revenues on current expenditures, Norway has made a huge difference by saving it in an independent fund. Considering the facts mentioned above, the oil price may not always be stable, and several oil shocks may happen in the future. These facts illustrate that oil cannot eternally provide stable revenue for oil-exporting countries. Also, oil, gas, and natural resources are the public property of past, present, and future generations. Thus it must be used to improve the infrastructure and spent to support future generations of a country in the long term. This aim needs a very clear and firm strategy to be possible to achieve. Therefore comprehensive planning and policy are necessary, which is well followed in the Norwegian case. The fund's strategy is articulated in the management mandate of the Ministry of Finance as the cornerstone of the strategy is, therefore, a geographic focus on markets outside of Norway. Also, the investments are diversified across equities, bonds, real estate, and renewable energy. Also, according to the dynamism of the market, the fund's investment strategy is not static. Norges Bank regularly revises it.

2.4.2 Policy of Good governance structure

In the Government Pension Fund Act, the Storting has formal responsibility for managing the fund, according to the Ministry of Finance. Norges Bank carries out operational management of the Government Pension Fund Global (GPFG). The ministry has issued provisions on Norges Bank's management of the GPFG in a separate mandate. The mandate describes the general investment framework for the fund and stipulates requirements concerning risk management, reporting, and responsible management (see figure 2).

Figure 2: hierarchy of the GPFG governance

Source: (GPFG, 2021)

The governance structure must ensure that the Storting endorses key risk and return decisions and decisions regarding the responsible investment framework. At the same time, there must be sufficient delegation of authority to ensure that operational management decisions are made close to the markets in which the fund is invested. Norges Bank may deviate somewhat from the benchmark index in their operational management of the GPFG, within risk limits stipulated in the mandate (see figure 3).

Figure 3: Authority level and control level of the funding body

Source: (GPFG, 2021)

The management of the GPFG is based on a governance structure in which the Storting, the Ministry of Finance, Norges Bank's executive board, and Norges Bank Investment Management (NBIM) have different roles and responsibilities. Sound control and supervisory bodies are in place at all management levels of the fund. Regulations and delegation authorizations will necessarily be more detailed further down the pyramid. This structure causes no organization or individual to become too powerful (unlike dictatorial countries with the curse of resources), and the others constantly control all levels.

2.4.3 Policy of Transparency and accountability

By law, this fund is a krone account of the Norwegian currency in the Central Bank of Norway, named State Oil Fund. The Ministry of Finance initially managed the fund, but in October 1997, the Norwegian Ministry of Finance transferred responsibility for the State Oil Fund's operational management to the Central Bank of Norway. According to the Fund Law, foreign bonds, corporate stocks, financial market documents, and securities are invested in foreign financial instruments, and fundamental changes in the fund must be discussed in the country's parliament and notified to the public every three months by the Central Bank of Norway. The fund's quarterly reports are also regularly posted on its website. A regular press conference on the fund's current performance is held parallel with the officials' meetings. Besides, the fund's annual report lists all investments, assets, and income very clearly.

2.4.4 Policy of Risk diversification

All of Norway's oil surplus fund is invested solely in other countries, and in 2005 the country had the largest investments in the oil and gas industry. Many may have heard the name of the Norwegian state-owned Statoil, the main oil and gas company in Norway, mostly in countries other than Norway. And interestingly, one of the main companies that even extract Iranian oil is this company. Another important aspect of this policy is using the foreign exchange reserve fund to motivate investors to develop oil fields. By encouraging such investors, Norway has efforts to use the latest technology globally and develop new methods to increase oil further. In this way, oil recovery in some Norwegian fields has reached about 70%. While this figure is at most 30% for most of our reservoirs in Iran, in other words, the Norwegians have been able to extract from an oil field more than twice as much oil as is extracted in other parts of the world.

2.4.5 Policy of Right of withdrawal is prohibited

The entire income from the sale of oil as a natural resource belonging to all generations of the Norwegian people must remain for the people of all generations, and all enjoy its benefits. "The fund will not go into the public economy because if it is spent on Norway's internal affairs, it will cause the country to become obese and lazy (Rentier state)," said Edsvoharlen, director-general of technology at the Norwegian Ministry of Petroleum and Energy. This causes all civil and current government activities to be financed mainly from tax revenues, and the resources from the sale of the country's wealth are not in the hands of the government. Therefore, due to the government's need for people to cover expenses, the government reciprocates. Hence, it has to be responsible, likewise, because the administration of society is mainly done through taxes. This reliance on taxes means people who make more money pay more taxes, and this revenue will be possible if people be completely satisfied with their relative general well-being. Perhaps more than anything else, what has been said about the Norwegian Foreign Exchange Reserve shows the stark difference between its role in this country and ours. The Norwegians, for example, deposit all their revenues from the sale of oil and gas into the said account and have no right to withdraw from the original fund for internal uses, and withdrawals are only allowed for investment outside of Norway. While in Iran, potential revenues above the ceiling of revenues projected in the annual budget are credited to this account, and whenever government revenues from the sale of oil fall below the budgeted amount, the government has the right to deduct the difference from the fund (Puertas & Marti, 2021). However, the Norwegian government made two exceptions about withdrawing money in 2016, after 20 years of the fund (weak economy) and in 2020 due to Covid (GPFG, 2020).

2.4.6 Policy of Adaptive flexibility and long term profitability

The booming oil industry in Norway has created many direct and indirect job opportunities. Many oil and gas specialists and technicians have been trained in Norway to generate income and capital by working in other countries, even with the completion of oil reservoirs. The fund is valued at about $ 800 billion, and the fund itself holds one percent of the global stock. This fund's resources are so large that they will become millionaires if every Norwegian citizen's share is calculated and paid in Norwegian kroner. But in practice, the fund is a huge investment account, and most Norwegians seem to be satisfied with the situation; according to a 2012 study at Columbia University in New York, Norway is one of the countries with the most satisfied citizens. It seems that people are satisfied to have invested a lot of money to have a sustainable income for their state, said Alexander Keplin, a professor at the Norwegian University of Economics. Also, some changes have been made to the fund's portfolio during the last decades. In 2000, some emerging markets were added to the fund's benchmark equity index. Corporate and securities bonds were added to the fund's benchmark fixed-income index in 2002. A decision was made to increase the share of equity investments from 40% to 60% in 2007. Real estate was included in the fund's asset class in 2008, and also, in 2017, it made its first real estate investments in Asia (GPFG, 2020).

2.4.7 Policy of Ethics, Economy, and ecology go together

Part of the investment policy debate is related to discovering several investment cases by The Petroleum Fund in very controversial companies involved in businesses such as arms production, tobacco, and fossil fuels (Stevens, 2018). The Petroleum Fund's Advisory Council on Ethics was established on 19 November 2004 by royal decree (Boscheck, 2007). Accordingly, the Ministry of Finance issued a new regulation on the management of the Government Petroleum Fund, which also includes ethical guidelines. According to its ethical guidelines, the Norwegian pension fund cannot invest money in companies that directly or indirectly contribute to killing, torture, deprivation of freedom, or other human rights violations in conflict situations or wars. Contrary to popular belief, the fund can invest in several arms-producing companies, as only some kind of weapons, such as nuclear arms, are banned by the ethical guidelines as investment objects. The Council on Ethics works with RepRisk ESG Business Intelligence, a global research firm and a provider of environmental, social, and governance (ESG) risk data to support the ethical screening process. RepRisk monitors the companies in the Norwegian Pension Fund's portfolio for severe human rights violations, particularly regarding child labor, forced labor, and violations of individual rights in conflict areas, and gross environmental degradation and corruption. RepRisk has been working with the Council on Ethics since 2009 and, in 2014, re-won the tender for ESG data provision for 2014-2016 (Macias, 2016). An investigation by the Norwegian business newspaper Dagens Næringsliv in February 2012 showed that Norway had invested more than $2 billion in 15 technology companies producing technology that could and had been used for filtering, wiretapping, or surveillance of communication in various countries, among them Iran, Syria, and Burma. Although surveillance tech is not the primary activity of all the 15 companies, they have all had or still have some connection to such technology. The Ministry of Finance in Norway stated that it would not withdraw investing in these companies or discuss an eventual exclusion of surveillance industry companies from its investments. On 19 January 2010, the Ministry of Finance announced that 17 tobacco companies had been excluded from the fund (Backer, 2013; Norouzi & Fani, 2022a; Norouzi & Fani, 2021b). The total divestment from these companies was $2 billion (NOK 14.2 billion), making it the largest divestment caused by ethical recommendations in the fund's history

(Scholtens & Sievänen, 2013). In March 2014, as the result of both domestic and international pressure, the parliament appointed a panel to investigate whether the fund should divest its coal assets in line with its ethical investment mandate. The panel released its recommendations in December 2014, recommending the fund follow a corporate engagement strategy rather than divestment. The parliament was set to make its decision early in 2015. In the event, the fund would be required to divest from companies that derived at least 30% of their business from coal (Stevens, 2018). In 2014, the fund was divested from 53 coal companies around the world, including 16 companies in the US (among them Peabody Energy, Arch Coal, and Alpha Natural Resources), 13 companies in India (including Coal India), and three companies in China (Murtinu & Scalera, 2016). As a result, the total value of the fund's coal holdings fell by 5% to $9.7 billion (Vivoda, 2014). In 2014, the fund also sold its stakes in 59 out of 90 oil and gas companies, in which it holds shares of $30 billion (Vivoda, 2014). On 8 March 2019, the Ministry of Finance (Berg, 2020) recommended divestiture from its oil and gas exploration and production holdings. This came after the August 2017 Lofoten Declaration, which demanded leadership in a global fossil fuel phase-out from the countries that could most afford to act, such as Norway (Osland, 2019). Green energy is becoming an important aspect for the Government Pension Fund since fossil fuel stocks simply are not producing as much value as they used to. As of 2019, new guidelines would prohibit the fund from investing in companies that produce over 20 million tons of coal annually. The fund planned to sell over $10 billion in stocks from companies using too many fossil fuels (Nalule & Mu, 2020). The firm is becoming more environmentally friendly by investing in companies that promote renewable energy to improve the Norwegian economy. For example, the fund will continue to hold stakes in firms like Shell using renewable energy divisions (Green, 2018). In March 2021, it was reported that the Government Pension Fund was examining whether companies in the fund had used forced labor from Xinjiang internment camps (Pearson et al., 2020). Considering that the policies are successful and the Pension fund is thriving and rich, one can conclude that ethics, economy, and ecology go together. For example, in 2015, parliament decided that all holdings in companies that generate 30% or more of the outcome from coal should be sold. These decisions include ethical and human rights cases such as Airbus and Boeing for manufacturing weapons of mass destruction; the following companies have been excluded from the Government Pension Fund of Norway for activities in breach of the ethical guidelines (see table 1) (GPFG, 2020).

2.4.8 Policy of Providing a pension fund

An important feature of the Norwegian Foreign Exchange Reserve Fund is its role in the Norwegian Pension Fund. The profits from the Foreign Exchange Reserve Fund investments are used to meet the government's long-term commitments in the Norwegian Pension Fund and its proper performance in recent years. It has become the most efficient fund in the world. The fund was established in 1990 as a tool for long-term fiscal policy and the phasing out of oil revenues. The transfer of wealth from Norway's oil resources to foreign assets invested by the Government Pension Fund helps the government improve its oil wealth (BP, 2020).

Table 1: Companies which have been excluded from the Government Pension Fund of Norway

Company	HQ	Date of exclusion	Reason	Divestment (Millions USD)
Rio Tinto Group	UK and Australia	28 Apr 2008	Severe environmental damage	882
British American Tobacco Plc.	United Kingdom	19 Jan 2010	Production of tobacco.	683
Philip Morris International Inc.	USA	19 Jan 2010	Production of tobacco.	476
Wal-Mart Stores Inc.	USA	28 Mar 2006	Breach of human rights and labour rights.	372
Imperial Tobacco Group Plc	United Kingdom	19 Jan 2010	Production of tobacco.	347
Duke Energy +3 subsidiaries	USA	7 September 2016	Risk of severe environmental damage	300
Potash Corporation of Saskatchewan	Canada	30 Sep 2011	Production of phosphate in the occupied territories of Western Sahara.	274
Barrick Gold Corporation	Canada	30 Jan 2009	Extensive environmental degradation related to the Porgera Gold Mine in Papua New Guinea	245
Japan Tobacco Inc.	Japan	19 Jan 2010	Production of tobacco	210
Altria Group Inc.	USA	19 Jan 2010	Production of tobacco	131
Swedish Match AB	Sweden	19 Jan 2010	Production of tobacco	75

Source: (GPFG, 2020)

3. Norwegian Oil Revenue Management Structure

3.1 History of oil revenue management in Norway

Since 1972, with the discovery of oil and gas reserves, the government has divided the oil and gas sector's development process into three separate sections: policy, legislation, and trade, each of which is supervised and managed by a government agency. The first institution of commercial nature and today in charge of extensive oil exploration operations inside and outside Norway is the Norwegian National Oil Company Statoil. This company carries out all technical and economic activities related to government oil and gas. The second government unit in charge of policy-making is the Norwegian Ministry of Petroleum and Energy, which mainly determines the goals and strategies for developing the energy sector in consultation with its political leaders and leaders. The third government agency to provide technical and legislative advice is the Norwegian Petroleum Authority (NPD), which collects information and statistics on all energy sector activities, provides technical advice to the ministry, and regulates the hydrocarbon sector concerning management. This separation of tasks and scope of work in the form of three issues of policy, legislation, and trade is known as the Norwegian model of governance in the oil sector. Many oil-rich countries consider this model as a good way to improve performance and increase transparency in the oil and gas sector has been used (Dewenter, 2010). According to the law, the ownership of oil and gas reserves has been transferred to the government. Therefore, all oil and gas benefits go to the people through the government. This increases the legislative powers of the oil sector. Exploration and production licenses are issued through the government to domestic and foreign companies equally and at low rates. To avoid government involvement in the resource development process and, instead, to profit by selling. Hence, the Norwegian government has absorbed about 80% of its oil and gas profits since 1980.

In 1990, following an increase in the impact of oil prices and oil revenues on the Norwegian economy, the Norwegian parliament passed a law establishing a state oil fund to assist the government in the long-term management of oil revenues and stabilizing economic conditions. It should be noted that since 1967, a fund called the National Insurance Plan Fund had been established to support the insured of the Pension Fund. In 2006, with the merger of the two funds, the State Pension Fund was established to preserve the share of future generations in existing natural resources and counteract the effects of oil revenues on the domestic economy. The fund consists of two sub-categories, which include the State-Global Pension Fund (same as the State Oil Fund) and the Norway-State Pension Fund (the same as the National Insurance Plan Fund) (Norges bank, 2020; Wacziarg, 2012).

The fund management model is based on a transparent allocation of tasks and efficient control and monitoring systems. The parliament determines the fund's legal framework, and the Ministry of Finance has the official responsibility of managing it. Due to the Central Bank of Norway's high independence, to differentiate between policy-making and financial resources, the fund's management has been transferred to this bank and the Investment Management Institute of the Central Bank of Norway by the Board of Directors (Morgunova, 2020). In consultation with parliament and the NBIM, the Ministry of Finance determines the fund's investment strategies. Regular transfer of oil and gas revenues to the fund is also done with this ministry's approval. The NBIM Board consists of seven members appointed through the Supervisory Board. The Governor of the Central Bank and his Deputy are the Chairman and Deputy Chairman of the Board. The Central Bank Supervisory Board has 15 members elected by the parliament and supervises the good performance and performance of the Central Bank (Delfrooz, 2002; Szulecki et al., 2016).

In general, the fund's resources are the government's total oil revenue, including taxes on oil companies' profits, property interest and dividends of state-owned oil companies, net financial transactions related to oil activities, and net resources balancing the government's non-oil budget deficit. The current fiscal policy, which has been in place since 2001(Behdad, 2019), is such that financing the government's non-oil sector budget deficit should not exceed four percent of the fund's investment income. In other words, it is not allowed to spend more than four percent of oil revenues in the annual national budget. This has led to the government budget's closure based on taxes and the lack of financial resources from oil and gas sales to the government. In general, the Norwegians have not been encouraged to develop exponentially by increasing oil and gas production and resources, despite abundant financial resources. More than 40 years after oil exploration and production, the country has a smaller central government than Denmark and Sweden neighbors. The funds raised are invested outside Norway to prevent price volatility and its inflationary effect on the domestic economy. The fund generally invests in three sectors: bonds, corporate stocks, and real estate, which account for 55%, 40%, and 5% of total resources, respectively. The purpose of forming a diversified investment portfolio is to reduce investment risk, and fixed-yield bonds account for the largest share of the fund's investments. The fund currently invests in reputable stock exchanges in the United States, Asia, and Europe. The Global Government Pension Fund also visits various countries to monitor developments in different countries (Døskeland & Strömberg, 2018; BP, 2020).

According to the State Pension Fund officials, this fund is a tool to protect the resources of future generations and the benefits of the value of oil. At the end of 2010, the fund had a market capitalization of SEK 3,077 billion, or $ 525 billion. However, according to the approved fiscal policy, only four percent of this amount, equivalent to $ 21 billion, was included in the government budget. Therefore, as mentioned, the

Norwegian State Pension Fund was established to reduce economic fluctuations caused by oil price shocks and also to save the rights of future generations from existing natural resources, and to achieve this while preventing the injection of financial resources from selling oil and gas to the domestic economy, it has invested in international stock exchanges and real estate, as well as buying global bonds. In this regard, a significant reserve has been achieved, and a limited percentage of the fund's activities' annual profit, not oil revenues, is allocated to the government (BP, 2020).

Small government ownership of the oil and gas sector and segregation between policy, legislation, and trade areas lead to little government involvement in the process of developing and exploiting oil and gas resources. This led to continuous oversight of the performance of domestic companies and caused the state has become like a foreigner who has maximized his income in the long run by imposing various taxes. In general, all financial resources from Norway's oil and gas exports are stored in the Norwegian State Pension Fund, directly overseen by the Central Bank and the Supervisory Board, whose members are appointed by the Norwegian parliament. Withdrawals from the fund, to cover the deficit of the non-oil sector, are possible up to four percent of the profits of investments made by the fund, and the government is not allowed to use foreign exchange earnings directly in the domestic economy. The management and regulations of the fund are regulated in such a way that the fund does not become an additional source of financing government expenditures, and the industrial structure of the economy does not depend on these oil revenues so that it does not face problems in case of fluctuations (Norges Bank, 2020).

The Government Pension Fund of Norway comprises two entirely separate sovereign wealth funds owned by the government of Norway. The Government Pension Fund Global, also known as the Oil Fund, was established in 1990 to invest the surplus revenues of the Norwegian petroleum sector. It has over US$1.3 trillion in assets, including 1.4% of global stocks and shares, making it the world's largest sovereign wealth fund. In May 2021, it was worth about $248,000 per Norwegian citizen. It also holds portfolios of real estate and fixed-income investments. The fund excludes many companies on ethical grounds (Norges Bank, 2020).

The Government Pension Fund Norway is smaller and was established in 1967 as a national insurance fund. It is managed separately from the Oil Fund and is limited to domestic and Scandinavian investments; and is, therefore, a key stockholder in many large Norwegian companies, predominantly via the Oslo Stock Exchange. The Government Pension Fund Global is a fund into which the surplus wealth produced by Norwegian petroleum income is deposited. Its name was changed in January 2006 by the Petroleum Fund of Norway. The fund is commonly referred to as the Oil Fund (GPFG, 2020).

The fund's purpose is to invest parts of the large surplus generated by the Norwegian petroleum sector, mainly from companies' taxes and payment for licenses to explore for oil and the state's Direct Financial Interest and dividends from the partly state-owned Equinor. Current revenue from the petroleum sector is estimated to be at its peak period and to decline in the future decades. The Petroleum Fund was established in 1990 after the country's legislature decided to counter the effects of the forthcoming decline in income and smooth out the disruptive effects of highly fluctuating oil prices. As its name suggests, the Government Pension Fund Global is invested in international financial markets, so the risk is independent of the Norwegian economy. Over 9,123 companies in 73 countries are invested in the fund (2021). According to its official website, on 25 October 2019, the fund's value reached 10,000 billion Kroner,

Norway has experienced economic surpluses since the development of its hydrocarbon resources in the 70s. This reality, coupled with the desire to mitigate

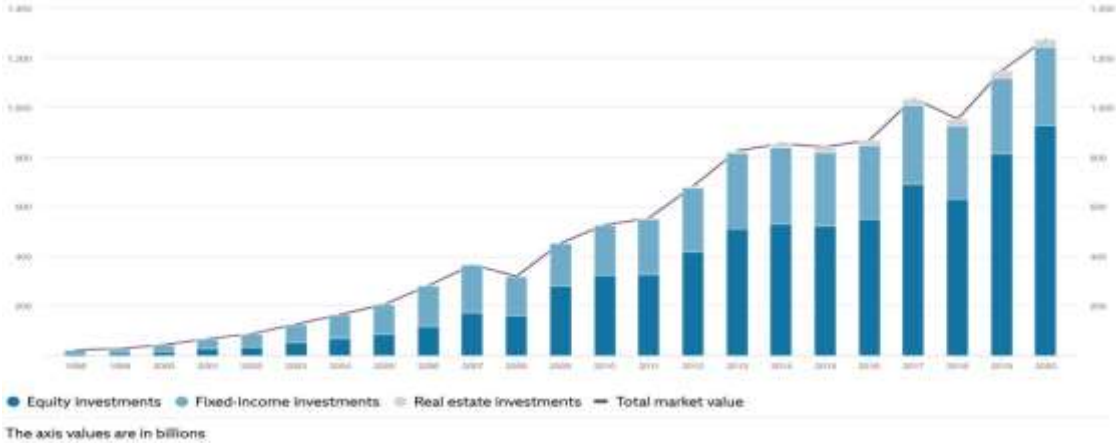
volatility stemming from fluctuating oil prices, motivated the creation of Norway's Oil Fund, now the Government Pension Fund-Global (GPF-G) (GPFG, 2020). The instability of oil prices has been of constant concern for oil-dependent countries since the start of the oil boom, but especially so in the decades following the first oil shocks in the 1970s (Caner & Grennes, 2010). As the real GDP of oil-exporting states is linked with the price of oil, it has been a goal of these exporters to stabilize oil consumption patterns, and a host of these exporting states singled out sovereign wealth funds as an effective policy tool for achieving this outcome (Caner & Grennes, 2010). The adoption of the GPF-G has been in line with global economic trends, especially investment patterns. International investment had increased significantly faster than either global GDP or global trade of goods and services, increasing by 175% over the period when the former two metrics increased by 53% and 93%, respectively (Truman, 2007).

The domestic fund, the Government Pension Fund Norway, is managed by Folketrygdfondet. The global investment fund is managed by Norges Bank Investment Management (NBIM), part of the Norwegian Central Bank, on behalf of the Ministry of Finance (Stevens, 2018). It is the largest pension fund in Europe and larger than the California public-employees pension fund (CalPERS), one of the largest in the United States.

3.2 Government Pension Fund Global

The Government Pension Fund Global was established in 1990, but until 1996 the oil revenues were used in full. From 1996 to 2001, part of this income was used directly, invested in the "oil fund." With the action rule in 2001, the policy was changed so that the oil revenues in their entirety are now allocated to the Petroleum Fund. Withdrawals from the fund can only occur following a Storting decision (GPFG, 2020). The goal is for the petroleum wealth also to benefit future generations and for the fund to function as a buffer for government finances. Over time, withdrawals from the fund must therefore correspond to its real long-term return so that it does not erode the fund's capital itself. Although there are nuances in the party programs formulations, in practice, there has been cross-party agreement on the principles behind the rule of action since 2013, when the Conservatives and the Green Party formed a government together (Puertas & Marti, 2021).

Figure 4: Expenditure on government oil revenues was calculated based on a non-oil structural budget and the Pension Fund's actual expected return rate in a million USD in 2020.



Source: Norges Bank, 2020

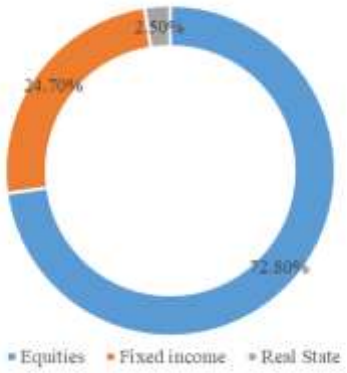
Transfers from the Government Pension Fund Global to the central government budget mean that the central government can finance public goods beyond what is financed by taxes and fees. Central government revenue thus accrues to "most people" in that the value of publicly produced services and transfers to private individuals exceeds the value of taxes and fees paid (see Figure 4). The structural oil-adjusted deficit in the central government budget is the difference between the central government budgets revenues and expenditures excluding oil and expresses how much oil money must be taken from the Petroleum Fund each year to cover this. This means that the fund relies more on investment returns, which become a diverse set of investments (GPFG, 2021).

3.3 Financial and economic status of the fund

As of June 2011, GPFG was the largest pension fund in the world, but it is not a pension fund in the conventional sense, as it derives its financial backing from oil profits, not pension contributions (Norges Bank, 2020). In September 2019, the fund exceeded US$1 trillion in value for the first time, a thirteen-fold increase since 2002. With a population of 5.2 million people, the fund was worth $192,307 per Norwegian citizen. Of the assets, 65% were equities (accounting for 1.3% of global equity markets), and the rest were property and fixed-income investments. Norway can withdraw up to 3% of the fund's value each year (Puertas & Marti, 2021). The first withdrawal in its history was made in 2016 (GPFG, 2020). In a parliamentary white paper in April 2011, the Norwegian Ministry of Finance forecast that the fund would reach $1 trillion by the end of 2019 (GPFG, 2020). According to the forecast, a worst-case scenario for the fund value in 2030 was forecast at $455 billion, and a best-case scenario at $3.3 trillion (GPFG, 2020). With 2.33 percent of European stocks (GPFG, 2020, it is the largest stock owner in Europe (GPFG, 2020).

In 1998, the fund was allowed to invest up to 40 percent of its portfolio in the international stock market. In June 2009, the ministry decided to raise the stock portion to 60 percent. In May 2014, the Central Bank governor proposed raising the rate to 70 percent (Vasudeva et al., 2018). The Norwegian government planned that up to 5 percent of the fund be invested in real estate, beginning in 2010 (Norges Bank, 2020). The Swiss Partners Group's report for the Norwegian Ministry of Finance (GPFG, 2021). Norway's sovereign wealth fund is taking steps to become more active in company governance. In the second quarter of 2013, the sovereign fund voted in 6,078 general meetings and 239 shareholder proposals on environmental and social issues. Norway's Government Pension Fund Global (GPFG) can influence the corporate governance market in Europe and possibly China (Tadeo, 2016). It has also started to become active in pushing for lower executive pay (Lie, 2018). The amount of the investments of this fund is mentioned in Figure 4. As shown in that figure, the fund's investments are mainly divided into three sub-categories: Real state, Fixed income, and Equity investments. The average share of each one in the portfolio is mentioned in Figure 5, and the main companies GPFG invested in are mentioned below.

Figure 5: share of each investment sub-category in the portfolio (average for 2000-2020)



Source: (GPFG, 2021)

Figure 5 shows the overall schematics of the investment portfolio of GPFG. The illustration shows that the Equities with 9123 companies and an amount of 928$ billion is shared 72.8% in the total investment of this funding body. The main invested companies are also mentioned in Table 2 (GPFG, 2021).

Table 2: companies with the greatest value of the investment in the "equities" category

Company	Amount (USD)	Industry type	Ownership,%	Country
Apple Inc	21,646,804,706	Technology	0.97%	United States
Microsoft Corp	17,273,340,269	Technology	1.03%	United States
Amazon.com Inc	14,521,745,443	Consumer Services	0.89%	United States
Alphabet Inc	11,369,209,390	Technology	0.96%	United States
Nestle SA	8,996,578,826	Consumer Goods	2.65%	Switzerland
Facebook Inc	7,874,893,856	Technology	1.01%	United States
Taiwan Semiconductor Manufacturing Co Ltd	7,718,865,097	Technology	1.58%	Taiwan
Roche Holding AG	6,905,513,440	Health Care	2.29%	Switzerland
Samsung Electronics Co Ltd	6,610,433,127	Technology	1.32%	South Korea
Alibaba Group Holding Ltd	6,489,028,689	Consumer Services	1.03%	China
Tencent Holdings Ltd	5,799,770,797	Technology	0.83%	China

Source: (GPFG, 2021)

Figure 5 shows the overall schematics of the investment portfolio of GPFG. The illustration shows that fixed income with 1245 bonds and an amount of 314.7$ billion is shared 24.7% in the total investment of this funding body. The main bond contracts are also mentioned in Table 3 (GPFG, 2021).

Table 3: bonds with the greatest value of the investment

Contract participant	Value (USD)	Type	Country
Government of United States of America	83,851,826,975	Government	United States
Government of Japan	34,360,689,711	Government	Japan
Government of Germany	16,138,363,212	Government	Germany
United Kingdom Government	10,248,369,797	Government	United Kingdom
Government of France	8,460,900,148	Government	France
Government of Spain	5,996,895,178	Government	Spain
Government of Australia	4,796,214,235	Government	Australia
Government of Korea	4,209,893,093	Government	South Korea
Canada Mortgage & Housing Corp	3,699,450,357	Government Related Bonds	Canada
Government of Italy	3,651,183,793	Government	Italy
Government of Canada	3,648,931,011	Government	Canada

Source: (GPFG, 2021)

Figure 5 shows the overall schematics of the investment portfolio of GPFG. The illustration shows that real estate with 867 properties and an amount of 31.9$ billion is shared 2.5% in the total investment of this funding body. The main bond contracts are also mentioned in Table 4 (GPFG, 2021).

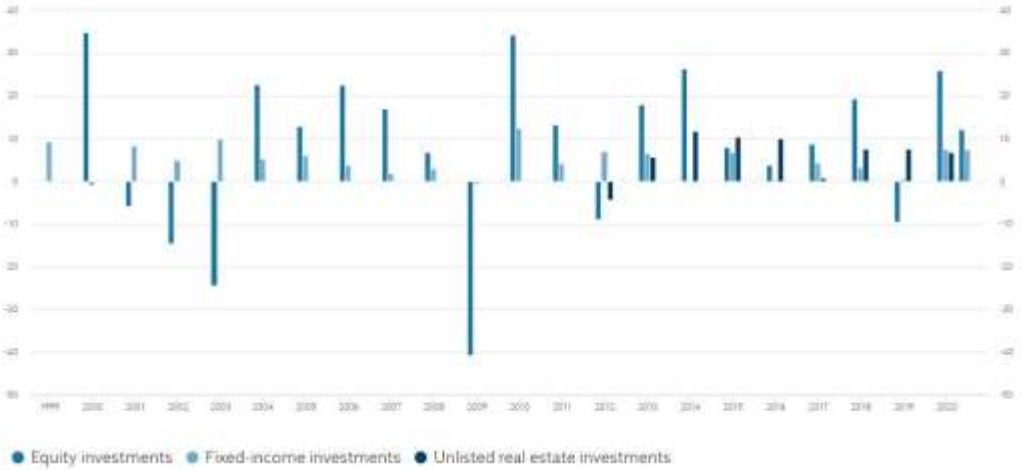
Table 4: real estate properties with the greatest value of the investment

Partner	Property	Ownership(%)	Type	Country
Norges Bank	Sixty London, 60 Holborn Viaduct, EC1A 2FD, London, UK	100.00%	Office	UK
Norges Bank	Sedley Place, 355-361 Oxford Street, W1D 2HE, London, UK	100.00%	Retail	UK
Norges Bank	Queensberry House, 3 Old Burlington Street, W1S 3AE, London, UK	100.00%	Office	UK
Norges Bank	Merrill Lynch Financial Centre, 2 King Edward Street, EC1A 1HQ, London, UK	100.00%	Office	UK
Norges Bank	73-89 Oxford Street, 73-89 Oxford Street & 1 Dean Street, W1D 3RB, London, UK	100.00%	Retail	UK
Norges Bank	Uetlihof, Uetlibergstrasse 231/233, 8045, Zurich, Switzerland	100.00%	Office	Switzerland
Norges Bank	Schützenstrasse 26, 10117, Berlin, Germany	100.00%	Office	Germany
Norges Bank	Vendôme Saint Honoré, 9, Place Vendôme / 368-374 Rue Saint-Honoré, 75001, Paris, France	100.00%	Retail	France
Norges Bank	Le Madeleine, 23, Boulevard de la Madeleine, 75001, Paris, France	100.00%	Office	France
Norges Bank	La Boétie, 54-56 Rue de la Boétie, 75008, Paris, France	100.00%	Office	France
Norges Bank	79 Avenue des Champs-Elysées, 75008, Paris, France	100.00%	Retail	France

Source: (GPFG, 2021)

The Norwegian government first transferred the capital to the fund in May 1996. By the end of 2020, the fund received a total of 352.8$ billion, while the fund's cumulative return was 737.4$ billion. The fund generated an annual return of 6.3 percent between 1 January 1998 and by the end of 2020. The net annual return on the fund is 4.4 percent. The details for the return in the funding body are illustrated in Figure 6.

Figure 6: Annual return by asset sub-category



Source: (GPFG, 2021)

4. Discussion and Conclusion

Rising oil prices in the early 1970s caused a lot of revenue flow into the Norwegian economy. The Norwegian government launched a series of costly economic programs assuming that the oil prices would rise continuously, but when the conditions were not met, in the late 1970s, the country faced the highest state debt in its history. With the fall of oil prices in the late 1980s, the Norwegian government decided to learn from its mistakes in the 70s and impose restrictions on oil revenues. Their main goal was to reduce the state's dependence on oil prices and decrease states' vulnerability toward price fluctuations. This aim was followed by policies that prompted the Norwegian parliament to approve establishing a foreign exchange reserve fund in the early 1990s. The sovereign fund was officially launched in 1996 and has since reformed the Norwegian economy. The fund is legally a krone-based account of the Norwegian currency in the Norwegian Central Bank, known as the State Oil Fund. The Ministry of Finance initially managed the fund, but in October 1997, the Ministry of Finance transferred the State Oil Fund's operational management to the Central Bank of Norway. According to the law, the fund's funds are invested in foreign financial documents of bonds, corporate shares, financial market documents, securities, and the application of fundamental changes in the fund must be discussed in the parliament. Transparency of fund operations, fund costs, and degree of risk are communicated to the public every three months by the central bank of Norway. The fund's quarterly reports are also regularly posted on its website. The establishment of the Foreign Exchange Reserve Fund and the policies pursued by Norway in the exploration and development of its oil and gas fields by domestic and foreign public and private companies paved the way for the following consequences:

1. The total income from the sale of oil as a natural resource, which belongs to all generations of the Norwegian people, will remain for the people of all generations, and all will benefit from it.

2. All civil and current government activities are mainly financed by tax revenues, and the resources from the sale of the country's wealth are not in the hands of the government. Therefore, due to the government's need for people to cover expenses, the government must be held accountable for its actions.

3. Because the management of the society is mainly done through taxes, people work more to create more welfare in the society to earn more income and consequently pay more taxes.

4. The boom in the oil industry in Norway has created many direct and indirect job opportunities.

5. Many oil and gas specialists and technicians have been trained in Norway who, even with the completion of oil reservoirs, can generate income and capital for Norway by working in other countries.

These are just some of the Foreign Exchange Reserve's huge contributions to Norway's growing economy. Norwegian government deposits all their revenues from the sale of oil and gas into the account, and the government has no right to withdraw from the original account for domestic uses. The withdrawals are only allowed for investment outside Norway with parliament's permission. One of the Norwegian Foreign Exchange Reserve Fund's important features is its role in the Norwegian Pension Fund. The profits from the Foreign Exchange Reserve Fund investments are used to meet the government's long-term commitments in the Norwegian Pension Fund. It has become the most efficient fund in the world. Although Norway is the third-largest oil exporter after Saudi Arabia and Russia, its economy has not become dependent on oil revenues. Still, forming a foreign exchange reserve fund has prevented these revenues from entering the Norwegian economy unrestrained. The Norwegian government's plans for spending its oil revenues are the best example for the world's oil-exporting countries.

The case of Norway offers an interesting comparison with other oil-rich countries. The fact that Norway's economic development and institutions before discovering oil had a special role in managing and optimally using this huge income is not unreasonable. In Norway, where government capacity was high and ethnic institutions stopped the temptation to accelerate development and quell potentially divisive political issues using routine practices, they developed clear policy approaches. They corrected wrong political decisions, especially the spread of rent behavior. They controlled the search with a culture of work and effort and production. Therefore, with a correct understanding of the state of the country's natural resources and reserves, Norwegian policymakers realized that if the initial process of extraction from reserves continues, the revenues from this industry will reach zero in less than 40 years. Therefore, given the significant impact of this industry on the Norwegian economy, they sought to prevent such an event, and, based on their studies, the need for technology as the key tool to combat value-added is at the top of the agenda. Technology strategy as a comprehensive program that directs all components of the oil and gas cluster can also be considered. Finally, they provided the tools, institutions, and structures needed to implement this strategy, paving the way for developing knowledge-based services. Finally, unlike other oil-rich countries, Norway focused on human development instead of emphasizing its natural assets. And this country used oil wealth as support and an engine of development. The state decided to prevent the entry of oil revenues into the country's public budget and store it in the foreign exchange reserve sovereign fund. This fund is used as the capital of the current generation and the capital of future generations, stored, managed, and invested wisely abroad. This smart strategy prevents the state from becoming a rentier state and falling into the Dutch disease, resource scourge, and the natural resources are used to advance the country's economic, political, social, and cultural programs. Therefore, it seems that despite what has been said, oil does not only have negative and anti-developmental consequences. The existence of oil as a natural gift if used properly, efficiently, and capable like Norway is anti-developmental and can enhance capabilities. Economies of countries and help develop various national industries. This developmentalist view has saved Norway from falling into the trap of rentierism.

The Norwegian Government Pension Fund is the largest of any sovereign wealth fund in the world. According to data from the SWF Institute, the fund contained more than $1.1 trillion as of January 2021. Most of the assets are tied up in stocks, bonds, and real estate. Not far from the proportions of the Government Pension Fund is the China Investment Cooperation fund. It manages a similarly large amount of assets of just above $1 trillion. The other sovereign wealth funds in the top eight are not nearly as big. Assets range between $370 and $580 billion. Most of the funds are located in Asia and the Arab world – in Hong Kong, China, Singapore, Kuwait, and the United Arab Emirates (Zahorskyi et al., 2020). Kingdom of Suadi Arabia is also trying to structure a vision for 2030 and follow a similar pathway to Norway (Moshashaia et al., 2018). Many other countries, such as Iran, also tried this vision and failed to sustain it due to their political situations (Norouzi & Fani, 2021a). Elsgård (2014) studied other countries in a comparative view. By comparative analysis, large differences in institutional quality are revealed. Transparency, accountability, and a strong rule of law are among the features that distinguish successful countries. These differences translate into different economic policies. While Norway and Botswana have exhibited prudent fiscal management, government spending in Venezuela, in particular, has been procyclical and unproductive. Although Ghana lags behind Norway and Botswana, it should avoid the resource curse if it follows success.

On the other hand, Venezuela seems unlikely to pursue sustainable growth policies (Elsgård, 2014; Banerjee & Duflo, 2005). To conclude the Norwegian pathway from a rentier state to a modern developed economy, it can be said that this strategy was significantly successful since all economic aspects of Norway experienced an average growth during the last two decades. And IMF forecasted the continuation of this stable growth in the next decade (Long & Ascent, 2020). However, the Norwegian government should constantly revise their policies about the fund since the Covid-19 shows that the oil market is unreliable (Norouzi, 2021a), and it may suddenly be hit by the demand side shocks (Norouzi & Fani, 2020a; Norouzi et al., 2020a). Also, several environmentalist movements are active against the oil industry, leading to more pressure on this market (Minnerop, 2019). However, some legislative cases can help the oil industry to stand (Norouzi & Fani, 2021), but the overall trend of the long-term investment in the oil industry (Norouzi, 2021a; Nilsen et al., 2019) shows its constant downfall, which may lead to the fall of the oil age phenomena (Garavini, 2019; Norouzi et al., 2020b; Fitzgerald, 2021; Norouzi, 2020b; Norouzi & Fani, 2020b; Norouzi & Fani, 2022). This phenomenon may affect the Norwegian economy. Thus, a long-term strategy of an alternative must be considered (i.e., renewable energies, solar fuel, higher value-added chemicals, etc.)

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