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ECONOMIC DIVERSIFICATION IN RESOURCE-BASED ECONOMIES: NORWAY EXPERIENCE

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Abstract: The need for economic diversification in oil-rich countries is mainly explained by the following reasons. First, oil returns became seriously concerned by highly volatile and unstable oil prices. Second, there is an increasing pressure on all the countries to decrease their use of fossil fuels in order to avoid global warming from becoming worse and avoid the worst consequences of climate change. In current paper, we have considered the experience of Norway in diversifying the economy. In contrast with other resource-based countries, Norway has not demanded oil incomes to relieve poverty-related issues or to sustain any particular political regime. The country has developed strong political, economic and legislation system in order to avoid resource-curse dependency.

Key words: economic diversification, resource-based, oil, Norway, resource-curse dependency.

Introduction

The urgency for economic diversification in resource-based economies is still extreme, given highly volatile commodity prices and the low employment capacity of extractive sectors. The experience of many resource-based economies shows that improvements in diversification were not often followed by stronger competitive capabilities, especially among exceptionally resource-based countries. Diversification in resource-based economies remains ambiguous, especially for extremely resource-dependent, oil-producing countries. In spite of the expansion of other industries, like manufacturing, the resource-based countries often remain heavily dependent on oil revenues and new industries still make low contribution to GDP (Farooki and Kaplinsky, 2014). In this paper, we consider the experience of Norway as a successful country, which has diversified its economy and improved its competitive capabilities in most areas being resource-based economy for long time.

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Literature review

When researching the factors of economic diversification in resource-based countries on the example of Oman, Laos and Indonesia, Lashitew, Ross and Werker (2020) have come to conclusion that diversification efficiency is more successful in the countries where resources have modest economic significance and are also various. The investigation of Wiig and Kolstad on diversification in resource-based economies has also shown that the focus should be on broadening the activity in industries characterized by intermediate mobility (2012). Foreign market conditions have often contributed to the initiation of diversification in resource-based economies (Islam et al., 2020; Khan et al., 2020). For instance, in Laos, the economic growth of neighbouring countries opened opportunities for regional integration, which attracted new FDI, developed non-traditional sources of income such as hydro-power exports. The country has developed manufacturing production on regional and international markets. In Indonesia, the decline of oil prices in the 1980s brought opportunities for economic reforms that initiated growth in the non-resource sector. Furthermore, the country had sufficient demand for the development of a domestic manufacturing.

When exploring economic diversification in Chile and Malaysia, Lebdioui (2019) has concluded that long-term structural transformation of the economy should be supported by fiscal stability and vice-versa. According to the author, the challenge appears not whether to compromise one for the other but how to catch a balance between fiscal stability and domestic investments for long-term transformation. The author also emphasises that the same diversification strategies can bring different results to different economies due to the differences in political, cultural and social factors which to great extent determine the ability of governments in promoting policies aimed at fostering diversification policies. The intellectual climate within which economic development happens in the countries plays significant role while diversifying the economy. According to IMF research on economic diversification in Arab countries (2016) in order to achieve economic diversification, oil-exporting Arab countries should maintain macro-economic stability and develop institutional and regulatory frameworks. Policies promoting economic diversification should be adjusted to country specific factors. Another research of Shadab (2021) on the link between export diversification, imports, capital and economic growth in the United Arab Emirates has shown that cutting down the concentration of exports within the oil sector and an increase in non-oil exports for diversification of exports brings increase in productivity levels and

knowledge (i.e., human capital). According to Haque (2020), who researched the progress of exports diversification in Saudi Arabia, the focus should be on export categories with high growth rates and low current market share, such as electrical goods. World Bank (Gill et al., 2014) research on diversified development in Eurasia has shown that diversification strategies that appeared to be the most successful are those that lead to a more balanced set of economic assets. A strategy aimed at diversifying assets rather than production is more efficient. Oliveira, Jegu and Santos (2020) have emphasized the importance of financial support of diversification policies noting that credits from private and public banks and public investments appeared to be significant to economic diversification in Brazil. In the next section, we consider Norway's economic development.

Norway's economic development

Norway, from year to year, takes one of the first places in the world in terms of GDP per capita. According to World Bank data (2021b) GDP of Norway in 2020 was USD 63,198 thousand. For many years the country has ranked first in terms of Human Development Index (United Nations, 2021). Norway is one of the most developed countries in Europe and the world. The economic development of Norway (like other Scandinavian countries) is based on the concept of the welfare state, which plays a key role in regulating and ensuring the social well-being of its inhabitants.

Large investments in human capital and social protection are provided by the state through high tax revenues to the budget. A high standard of living in the country is ensured by an effective system of government spending on social policy and a low level of corruption. Norway has become one of the world leading donors contributing to the economic progress of the world's less developed countries. In the Figure 1 below, we have presented the dynamics of GDP per capita growth, current account balance, general government deficit.

Figure 1. The dynamics of economic indicators in Norway.

Source: Authors' own workings based on data from the World Bank, OECD (2021; 2021c, 2021a)

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The fall in the country's GDP was recorded only twice during almost 40 years. For the first time, Norway's GDP fell in 1988, by 0.3% because of the banking crisis in the country. Then a stronger contraction of the economy occurred during the global financial crisis in 2009, when the country's real GDP decreased by 1.7% (World Bank, 2021c). However, after the world financial crisis, in 2008, the demand for gas in the European Union countries, having reached a historical maximum in 2010, began to decline due to the implementation of the energy efficiency program of the EU economy. Due to this, it appeared impossible to restore the growth rate of Norway's GDP to the previous level. Despite the fact that the energy sector is very important in Norway, the country's economy is significantly diversified. The diversification of the economy allowed to generate additional income by increasing the competitiveness of non-energy export goods in terms of the devaluation of the national currency caused by the decline in energy prices in 2014. Economic stability in Norway is achieved through the efficient spending of budget funds: the state budget surplus in the country has been maintained since 1994. Sovereign Wealth Fund of Norway makes great contribution to maintaining fiscal stability in Norway, the main purpose of which is to accumulate the country's oil revenues and develop strategies for their reinvestment (Zanizdra, 2019). At the same time, the income received from the sale of oil is invested both in international assets and in national projects. Fund replenishment is ensured by an extremely high level of taxes for energy companies. The petroleum taxation system is based on the rules for ordinary company taxation. Because of the high returns on production of petroleum resources, the oil companies are subject to an additional special tax. The ordinary company tax rate is 22%, and the special tax rate is 56%. This gives a marginal tax rate of 78%. In 2020, the total amount of tax payments from petroleum activities were about NOK 23 billion and NOK 8 billion in 2021. The tax revenues from petroleum activities are presented in the Figure 2.

Figure 2. Norway's tax revenues from petroleum activities.

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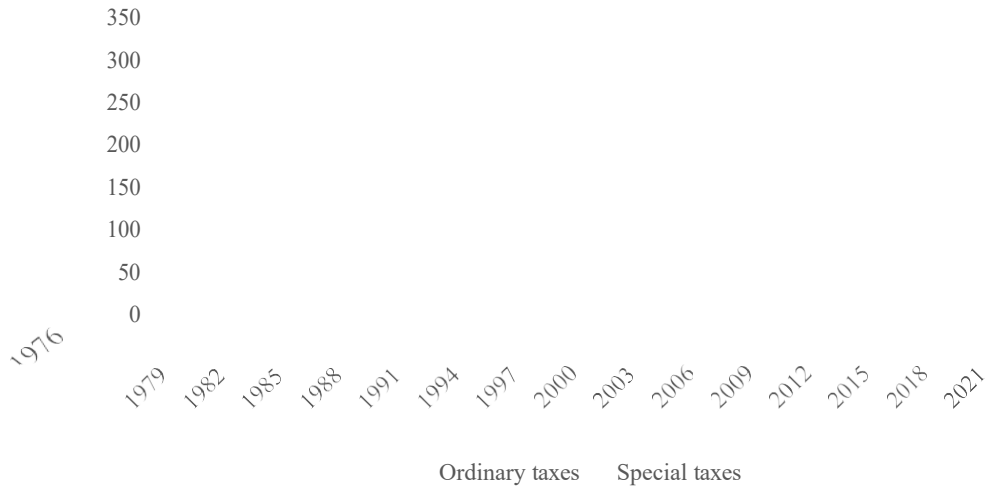

Source: Authors' own workings based on data from Norwegianpetroleum (2021)

In 2018, due to the high volatility of financial markets and low profitability, the Sovereign Wealth Fund of Norway incurred a net loss: 6.1% of placing funds in international assets and 0.4% of reinvesting in national projects. In this regard, it was decided to gradually sell off energy assets to reduce dependence on fluctuations in energy prices. In the next section, we consider the economic success and the factors of diversification of Norwegian economy.

Economic success and a need for diversification of the Norwegian economy

At the beginning of the twentieth century, Norway could be called a fishing province. Exports from the country comprised of seafood, wood raw materials, as well as non-ferrous metallurgy products. One of the key industries was shipbuilding, which has reached a high technological level.

In 1969, the American company Phillips Petroleum informed the Norwegian authorities about the discovery of the first oil field on the shelf of the North Sea. It turned out to be one of the largest and contained significant volumes of gas. It should be noted that at that time there was no clear policy on energy resource management in Norway. In 1971, Parliament passed a conceptual bill known as the "10 Petroleum Commandments". The main principle of the Bill was national sovereignty (Ryggvik, 2015). According to the Bill, natural resources belong to the people and should work for their benefit. Only the state gives Norwegian and foreign citizens access to offshore development and industrial oil production. The raw materials industry was managed by the Parliament and the Oil Directorate. The latter was responsible for the technological and geographic analytics required by the government, issues of issuing licenses, and regulating the oil production safety.

In 1972, the Norwegian national company Statoil was established. The goal of the company was to create own oil community and gradually extract all profitable resources. The company was engaged in exploration operations, transportation, refining of oil products, and expansion of the sales market. Until

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1990, Norway invested most of its raw material income in the development of the oil and gas sector and related infrastructure (Österblom and Blasiak, 2021).

Since 1986, Norway has consistently limited the rate of oil production in order to stabilize export prices for oil, ensure reserve capacities for the production of hydrocarbons and concentrate capital investments. In addition, the development of large oil fields was limited. The depletion of oil reserves in Norway began to affect the volume of its production, which began to decline since 2002. Under these conditions, the country's resource policy began to focus on increasing efforts to "monetize" the accumulated scientific, technical, technological and production potential for the times when hydrocarbon reserves will be completely depleted, and natural gas will become a priority of the energy policy. Accordingly, Norway's energy strategy was aimed at diversifying hydrocarbon production, that is, intensifying natural gas production, increasing its domestic consumption. With the commissioning of additional gas transmission capacities in the second half of the 1990s, in particular, with signing the Troll Gas Sales Agreement and after the appearance in 2007 of capacities for the production of liquefied natural gas (the Snow White project) gas deliveries for export increased significantly. In 2008, the world's longest (1,200 km) undersea gas pipeline from the Ormen field in the Norwegian Sea to the Isington terminal in the UK went into full operation (Mäkitie et al., 2019).

Thus, the guidelines for the diversification of the main activities to increase the economic efficiency of oil and gas production in the Norwegian shelf imply the intensification of scientific and technical support and are focused on the solution of urgent problems, the main of which are:

- extension of the period of production of hydrocarbon raw materials from old, depleted fields based on an increase in the oil extraction rate;
- an increase in the extraction rate in wells operated by bottom equipment;
- reduction of costs for exploration and development of new shelf deposits, especially deep-water ones;
- the development of new areas, including the Arctic, the development of appropriate equipment and technology;
- modernization of equipment for exploration and operational work in other countries of the world, as well as the implementation of service contracts.

When improving technology and equipment, the greatest efforts are focused on the following: processes of transporting multicomponent two-phase flows and their separation; bottom equipment for various purposes; increasing the oil extraction rate, reducing the cost of maintenance and repairs, modernizing stationary platform bases, including their use for the operation of satellite productive structures with bottom equipment; detection of leaks of liquids and gases from equipment, technological lines and pipelines. Due to the depletion of large active fields, which are being replaced by new low-rate productive structures located in more complex geological and climatic conditions, hydrocarbon

production in Norway has become more and more difficult and expensive (Kliuchnyk, 2019). In the next section, we consider Norway's experience in diversification of the economy.

Economic diversification in Norway

One of the key steps towards economic diversification in Norway has become turning a considerable part of its oil worth to financial assets in a sovereign wealth fund, equivalent to 2.5 times the GDP of the country. The Norwegian oil fund, formerly known as the Government Pension Fund Global (GPFG), executes the stabilization and reserves functions successfully. The fund rigidly controls annual withdrawals, making Norway an example of an effective case of avoidance the resource curse. An obligatory spending cap has been offered as a way to manage the spending of revenues ingoing the fund each year and limit it to 3% of the stock of assets. It is worthy to note that the Norwegian Oil Fund has enjoyed a high degree of public trust and legitimacy. The Norwegian oil fund has developed a wealthy and progressively diversified economy and became the most significant element of the Norwegian government's diversification policies. The fund is aimed at putting aside oil returns for future generations in order to stimulate intergenerational equity. It should be noted that founding and sustaining one of the world's major sovereign wealth funds is the way Norway has managed to develop a great industrial sector that supplies goods and services and brings intermediate inputs to the oil industry. Industrial sector in Norway is technologically advanced, globally competitive and highly profitable with the share in exports of 35% (UNCTAD, 2021).

Norway has also achieved high level of education that is the most vital instrument to empower inhabitants to recognize their rights and be competitive and productive. According to OECD research Norway is characterized by high participation rates and the country's educational mobility in higher education among the OECD is the highest (OECD, 2020). Among important reforms, a new system of transparency in education in the country was developed, as previously there was concern about the lack of information on education performance. There was introduced national testing, market economic values, reform of the curriculum. Implementing a new curriculum was the main element of the 2006 Knowledge Promotion reform arranged by the 2001–2005 government. The reform was launched as part of the transparent piloting system planned to improve the information flow. Openness and knowledge have been promoted as prerequisites for improving schools (Helgøy and Homme, 2016).

Furthermore, Norway has a sound and sufficient collective bargaining system, which has developed wage growth in line with productivity increases and diplomatic industrial relations. Collective bargaining in Norway is extremely coordinated, ensuing a compressed wage structure. The model for wage formation in Norway – introduced in the 1960s – is characterized by the so-called "trendsetting industries model," in which growth of the wages in industries that compete in the international market, create a norm for the remainder of the labor

market. The model creates an anchor for increases in wage in the public sector and domestic industries, confirming strong linkages between productivity growth and wage as well as distributing returns resulting from productivity growth in the private sector to the rest of the economy (Alsos et al., 2019).

Conclusions

Norway has retrained becoming economically and politically dependent on oil incomes by excluding oil capital from the political system, avoiding distortions of market that allowed its industry to steadily develop. Norway has intelligently used its Oil Fund as a protective system against the oil curse by effective governance and proper institutional system put in place.

Thus, resource-based countries that lack such effective institutions and authority are unable to practice the Norwegian success. Norway's government has also recognized the importance of education and introduced efficient educational reforms. It should be noted that some oil exporters like Gulf Cooperation Council countries are most interested about being rich in terms of national income per capital rather than achieving sustainable development. Average GDP per capita in UAE and Qatar is high, however, their educational results are comparable with upper-middle-income countries like Ecuador and Mexico. Lagging education and training reflect in turn on doing business, thus, the ability to diversify away from oil industry for many resource-based countries appears to be not possible at all. Thus, resource-based countries should, first of all concentrate on educational development.

It is important also to develop a proper governance, politics and leadership vision and the wise management of oil revenues so as to promote the welfare of current and future generations and ensure an equitable distribution of oil wealth between them. Only in case of strengthening institutions and governance practices, resource-based countries can achieve effective economic diversification.

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