RESOURCE CURSE AND DUTCH DISEASE: ECONOMIC, INSTITUTIONAL, AND SOCIAL IMPACTS IN PERSPECTIVE

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ABSTRACT

This article examines the economic and institutional implications of the resource curse and Dutch disease in resource-rich countries. It investigates how dependence on oil and gas exports influences GDP growth, corruption levels, social development, and governance quality. Using comparative analysis, the study identifies three main patterns: first, countries with strong institutions and diversification strategies, such as Norway and Canada, successfully convert resource wealth into sustainable development; second, countries like Nigeria and Venezuela demonstrate that weak governance leads to low economic performance despite resource abundance; and third, states with mixed outcomes, such as Kazakhstan and Saudi Arabia, show moderate progress but remain vulnerable to external shocks. The findings highlight the importance of transparent fiscal policies, investment in human capital, and institutional reform. Natural resource wealth alone does not guarantee prosperity – effective governance is essential to mitigate risks and ensure long-term economic stability.

Keywords: Resource curse, Dutch disease, Economic growth, Oil dependence, Governance, Diversification.

INTRODUCTION

The term "Dutch disease" originated in the 1970s and describes a negative economic phenomenon in which a significant influx of income from natural resources (particularly oil and gas) leads to the weakening of other sectors of the economy. The origin of the term was linked to the situation that arose in the Netherlands after the discovery of large gas fields in Groningen in 1959. Despite a significant increase in income from gas exports, the Dutch economy faced negative consequences: the national currency strengthened, making the products of Dutch producers less competitive on world markets, and other sectors of the economy began to decline.

The effect of the "Dutch disease" manifests itself through two main mechanisms. Firstly, the growth of income from the export of natural resources leads to a strengthening of the currency, which makes domestically produced goods and services less competitive in international markets. Secondly, the redistribution of resources within the economy contributes to the concentration of capital and labour in the raw materials sector, weakening industry, agriculture and the service sector. As a result, the country becomes vulnerable to commodity price fluctuations, and the structural diversification of the economy slows down. Thus, the resource sector becomes dominant, while other sectors decline.

Therefore, this study has three main objectives. First, to identify the relationship between resource dependence and macroeconomic indicators by analysing how natural rents affect economic growth, government spending and social development based on statistical analysis.

Second, to assess the manifestation of the "resource curse" in different countries by comparing the economies of resource-dependent states and identifying factors that enhance or, conversely, mitigate the negative effects of resource dependence.

Third, to identify key adaptation strategies by analysing successful and unsuccessful examples of resource management in order to highlight effective mechanisms for reducing the risks of the "resource curse" and forming a sustainable economy.

This study contributes to the existing literature by offering a comprehensive comparative analysis of resource-dependent economies, integrating macroeconomic indicators, institutional factors, and social development metrics. Unlike previous studies that often focus on single dimensions of the resource curse or Dutch disease, our research emphasizes the complex interplay between economic performance, governance quality, and social outcomes across a broad set of countries. By categorizing countries into typologies based on economic outcomes and policy responses, we provide a nuanced framework that advances both theoretical and empirical understanding of the resource curse phenomenon.

METHODOLOGY

This study employs a comparative cross-country analysis to investigate the economic, institutional, and social implications of the resource curse and Dutch disease. The analysis is based on quantitative data drawn from several authoritative international databases:

—   World Bank World Development Indicators (WDI) — for GDP per capita, oil exports, government expenditures, and macroeconomic indicators;

—   IMF Data Portal — for oil price trends and macroeconomic performance;

—   UNDP Human Development Reports — for Human Development Index (HDI) data;

—   Transparency International — for Corruption Perceptions Index;

—   Heritage Foundation — for the Index of Economic Freedom.

The time frame of the analysis covers the period from 2000 to 2023. Countries were grouped based on two primary dimensions: (1) the share of petroleum exports in total merchandise exports and (2) the level of GDP per capita, which served as proxies for resource dependence and economic performance, respectively. A three-group typology was developed to compare countries with high, moderate, and low economic resilience under conditions of resource dependence.

Descriptive statistics, visual correlation analyses (scatterplots), and longitudinal comparisons (e.g., GDP and oil prices over time) were employed to identify trends and relationships. Additionally, this study integrates institutional and social indicators to evaluate the broader impact of resource rents beyond macroeconomic variables.

The comparative method enables the identification of success factors and failure patterns across cases with varying institutional capacities and policy responses.

LITERATURE REVIEW

Research on the Dutch disease has been actively developing since the first mention of the phenomenon. In modern research, Dutch disease is seen as one of the components of the "resource curse," in which natural resource wealth slows down economic development. For example, the work of Sachs et al. (1995) has shown that resource-dependent countries have lower economic growth rates than those with more diversified economies. Gylfason (2001) investigated this phenomenon, adding that resource-rich countries often exhibit less diversified economies and tend to have lower growth rates in the long run. His work confirmed that the "Dutch disease" can limit a country's ability to innovate and develop as it becomes difficult to attract human capital and resources to other sectors.

One of the key works that laid the foundation for understanding the "resource curse" was a study by Collier et al. (2005), who showed that high natural resource revenues increase the risk of conflict, especially in countries with weak institutions. The authors emphasize that the struggle for control of resource rents often leads to political instability and violence, which undermines long-term development.

An important step in the development of the theory was the research of Mehlum et al. (2006), who proved that the "resource curse" manifests itself only in countries with weak institutions. The authors showed that under conditions of strong institutions, natural resources become a driver of economic development rather than an obstacle. Their work emphasizes that the quality of governance is a key factor in determining whether resources become a blessing or a curse.

Later, van der Ploeg (2011) offered a more optimistic view of the problem, arguing that the "resource curse" is not a verdict. He highlighted strategies that allow countries to turn natural wealth into an advantage, including the creation of stabilization funds, investment in human capital and economic diversification. Van der Ploeg emphasizes that with the right policies and strong institutions, resources can be the basis for sustainable growth.

Ross (2015) in his review article, summarized the results of many years of research, confirming that the "resource curse" is a reality that manifests itself through corruption, authoritarianism, and economic instability. However, he also highlighted exceptions, such as Norway, where smart policies have mitigated the negative effects. Ross emphasizes that lessons from these countries can be useful for other resource-dependent states.

Finally, Badeeb et al. (2017) critically analysed the evolution of the theory of the "resource curse", highlighting new areas of research. They showed that this phenomenon includes not only economic but also political, social and environmental aspects. The authors emphasize that the impact of the resource curse varies depending on the context and quality of governance, which makes this topic relevant for further research.

An additional aspect of analysing the "Dutch disease" is its impact on the country's institutional development. Studies show that the inflow of significant revenues from resource exports can create a tendency for the state to weaken economic reforms and reduce incentives for economic diversification. This is due to the so-called "easy money" effect, in which the authorities focus on the distribution of rent revenues rather than on the development of competitive industries. As a result, public institutions may become less efficient and bureaucracy and corruption may increase, undermining economic sustainability in the long run. For example, countries with high levels of resource dependence run the risk of 'resource populism', where authorities use export revenues to improve the welfare of the population in the short term, while ignoring the need for long-term reforms (Gel'man et al., 2010). This phenomenon reinforces the cyclical nature of economic development and makes the country vulnerable to external shocks, which manifests itself in sharp economic downturns during periods of falling natural resource prices.

ECONOMIC GROWTH IN RESOURCE-DEPENDENT COUNTRIES

One important aspect of analysing the "resource curse" is the impact of this phenomenon on the level of gross domestic product (GDP) per capita. In resource-dependent countries, a high level of income from the export of oil, gas and other natural resources can create the illusion of sustainable economic growth, expressed as an increase in GDP per capita. However, this indicator does not always reflect real improvements in the well-being of the population, as a significant portion of natural resource revenues is concentrated in the hands of the state and large corporations, and the redistribution of these funds within the country remains uneven. In countries such as Qatar or Kuwait, GDP per capita is high due to oil and gas revenues (Table 1), but real economic diversification and employment in non-resource sectors remain limited. At the same time, in countries with sound economic policies, such as Norway, resource revenues are channelled into investment programmes that not only maintain high levels of GDP per capita but also create conditions for sustainable growth. Dependence

on natural resources can lead to significant fluctuations in this indicator, making it a less reliable indicator of long-term economic development.

Table 1

GDP Per Capita for Resource-rich Countries, 2000 and 2020 (in current US$)

Country	GDP per capita (2000), USD	GDP per capita (2020), USD	GDP per capita growth for 2000-2020
Iran	1,650	2,989	1,339
UAE	29,866	37,174	7,308
Russia	1,772	10,108	8,337
Norway	38,178	68,340	30,162
Canada	24,271	43,538	19,267
Algeria	1,773	3,744	1,971
Venezuela	4,776	1,566	-3,210
Qatar	27,535	51,684	24,148
Mexico	7,524	8,841	1,317
Saudi Arabia	11,715	23,271	11,557
Nigeria	547	2,020	1,472
Angola	564	1,450	886
Kazakhstan	1,180	8,782	7,601
Azerbaijan	655	4,230	3,575
Kuwait	19,296	25,236	5,940

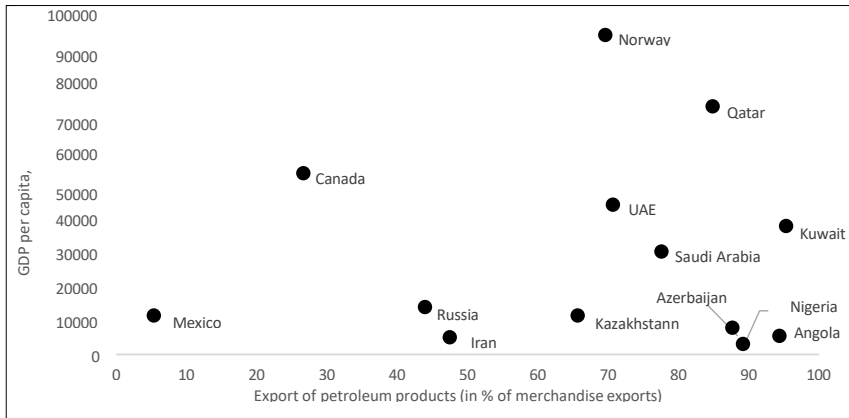*Source:* compiled by the authors from World Development Indicators and IMF data

GDP per capita data for 2000 and 2020 show significant differences in the economic development of resource-rich countries, highlighting the impact of the so-called "resource curse" on economic growth and stability. The most resilient economies, such as Norway and Canada, show high and stable growth, which is attributed to efficient management of natural resource revenues and active economic diversification. Norway, for example, has increased GDP per capita by more than $30,000 over 20 years, made possible by a sovereign wealth fund and a careful resource management strategy.

At the same time, countries with pronounced signs of the resource curse, such as Venezuela and Nigeria, showed low or even negative GDP per capita growth. Venezuela's GDP per capita fell by more than $3,000 due to political and economic instability, dependence on oil and lack of diversification. Nigeria and Angola, despite some improvements, still show low per capita figures. Middle Eastern countries such as the UAE, Saudi Arabia and Qatar have experienced significant growth in GDP per capita, which can be attributed to active diversification and investment in infrastructure and new technologies. For example, Saudi Arabia almost doubled its GDP per capita during the period under review, despite its high share of oil revenues, thanks to strategic planning and economic modernization. Figure 1, based on GDP per capita and petroleum product exports, illustrates one of the key characteristics of the so-called "Dutch disease"

– the impact of the economy's high dependence on petroleum product exports on household incomes.

Figure 1

Exports of Petroleum Products and GDP Per Capita, 2021

Source: compiled by the authors based on World Development Indicators data

Theoretically, a large share of oil exports can contribute to economic growth, but in some cases, this is accompanied by structural imbalances, reduced competitiveness of non-oil industries and stagnation of household incomes. This analysis allows us to identify patterns in the correlation between these two indicators and to determine how successful different countries are in transforming oil revenues into overall economic prosperity. Three main groups of states can be distinguished in the presented sample.
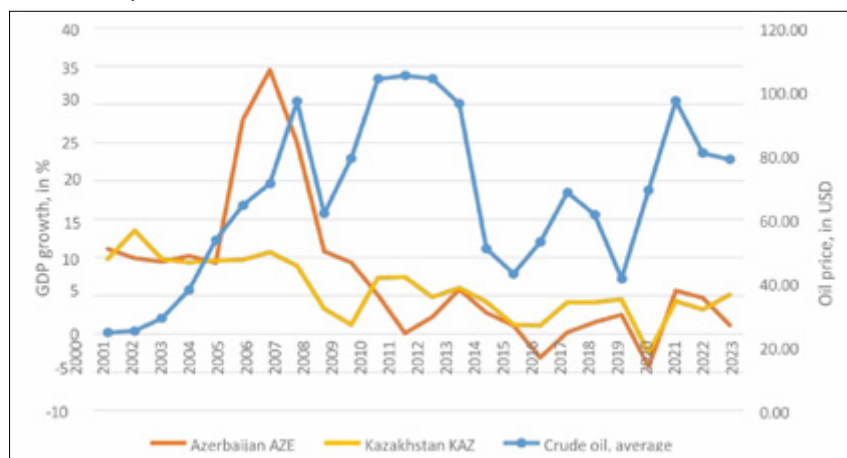
Countries with high dependence on resource exports and low GDP per capita. This group includes Angola (94.16%) and Nigeria (89.15%), where the share of hydrocarbon exports exceeds 85%, but GDP per capita remains relatively low. These countries are characterized by significant institutional problems, poor infrastructure and a high share of the shadow economy, which hinders the effective redistribution of oil revenues to the population. In the case of Angola and Nigeria, we can observe a classic manifestation of the "resource curse": despite huge revenues from hydrocarbon exports, these countries face poverty, high levels of corruption and poor governance.

Countries with high dependence on oil exports but moderate to high GDP. The second group includes such countries as Kuwait (94.63%), Qatar (84.40%), Saudi Arabia (77.49%) and the UAE (70.32%), which demonstrate significant economic development with a high share of oil and gas exports. Unlike the first group, these countries have managed to build a solid macroeconomic foundation based on oil and gas revenues, which has enabled them to achieve a high GDP per capita (ranging from $28,000 in Saudi Arabia to $71,751 in Qatar). This success is largely due to significant public investment aimed at economic diversification, infrastructure development and social programmes. It is worth noting that these economies are also vulnerable to falling hydrocarbon prices and face limited non-resource sector development.

Countries with diversified economies and moderate dependence on hydrocarbon exports. This group includes Canada (25.87%) and Norway (68.93%). In this case, there are significant differences: for example, Norway, despite the high share of oil exports, has one of the highest levels of GDP per capita ($93,072), which is explained by a competent policy of oil revenue management and a developed economy. In contrast to Norway, Russia and Kazakhstan have more modest figures ($12,521 and $9,984, respectively), indicating less efficient use of resource revenues and institutional constraints. Canada, despite the presence of the resource sector, has low dependency and high GDP per capita ($52,497), indicating a strongly diversified economy.

The groups of countries under consideration demonstrate different models of economic development under conditions of resource dependence. However, dependence on oil prices remains as the key factor that determines the vulnerability of the economy. The dynamics of oil prices has a direct impact on the macroeconomic performance of countries with a high share of oil and gas exports, including GDP growth rates. To illustrate this dependence, let us consider the economic growth performance of Azerbaijan and Kazakhstan against the average oil price for the period 2000-2023 (Figure 2).

Figure 2
Oil Price Dynamics and Economic Growth

Source: compiled by the authors from World Bank World Development Indicators and World Bank Commodity Price Data

As Figure 2 shows, economic growth rates in Azerbaijan and Kazakhstan are subject to significant fluctuations depending on oil prices. In the early 2000s, when oil prices were at a relatively low level (around $24-28 per barrel), GDP growth rates in Azerbaijan varied between 9-11%, while in Kazakhstan they were between 9-13.5%. A significant increase in oil prices in 2005-2007 (up to $96.99 per barrel) contributed to the economic recovery in both countries. During this period, Azerbaijan's GDP growth peaked at 34.5% in 2006, while Kazakhstan showed stable, albeit less dramatic, growth rates of around 9-10.7%.

However, the sharp decline in oil prices in 2008 (to $61.76 per barrel) led to a slowdown in economic growth. In Azerbaijan, the GDP rate fell to 10.76% and in Kazakhstan to 3.3%. In the following years, oil prices fluctuated but were

at relatively high levels (above $100 per barrel in 2010-2014), which ensured moderate economic growth in both states. However, in 2014, oil quotations collapsed to $50.75, triggering a sharp economic downturn. GDP growth slowed to 2.75% in Azerbaijan and 4.2% in Kazakhstan.

The most dramatic decline in economic performance occurred in 2015-2016, when oil prices fell to $42.81 and $52.81, respectively. Azerbaijan's GDP in 2016 showed a negative value (-3.1%) for the first time in the period under review, indicating a deep crisis caused by the decline in oil revenues. Kazakhstan also experienced an economic shock but managed to avoid recession, maintaining positive, albeit minimal growth (1.1%).

Since 2017, a gradual increase in oil prices began, which was accompanied by a recovery in economic growth. In 2018-2019, the oil price stabilized in the range of $60-70 per barrel, which allowed Azerbaijan to reach 1.5-2.5% GDP growth, and Kazakhstan 4-4.5%. However, the COVID-19 pandemic in 2020 led to another sharp drop in prices (to $41.26), which again had a negative impact on both economies. Azerbaijan's GDP fell by 4.3% and Kazakhstan's by 2.5%.

The subsequent recovery of oil prices in 2021-2022 ($97.10 and $80.76 per barrel) again contributed to positive GDP growth rates. Azerbaijan grew by 5.6% in 2021 and 4.7% in 2022, while Kazakhstan grew by 4.3% and 3.2%, respectively. However, even with relatively high oil prices, Azerbaijan's economic growth slows to 1.1% in 2023 (around $78.73), indicating long-term structural problems and limited efficiency in the use of oil and gas revenues. In contrast, Kazakhstan experienced growth to 5.1%, suggesting that the economy is better able to adapt to external shocks. Kazakhstan, with a more diversified economy, is better able to adapt to fluctuations in oil prices, while Azerbaijan remains more vulnerable to external shocks.

RESOURCE DEPENDENCE, INSTITUTIONAL DEVELOPMENT AND HUMAN CAPITAL

Despite significant differences between groups of countries, institutional quality and a strategic approach to economic management remain key factors in the successful utilization of resource revenues. The experience of Norway and Canada shows that an effective system of income redistribution, investment in human capital and support for non-resource industries can minimize the negative effects of the "resource curse". A favourable business environment, where export revenues are channelled not only for social needs but also for the development of the private sector, technology and innovation, plays an important role.

For countries where oil dependence is accompanied by low GDP per capita, structural reforms aimed at developing competitive industries are critical. Introducing tax incentives for business, removing bureaucratic barriers, reforming public administration and fighting corruption can improve the investment climate and facilitate the reallocation of capital to non-oil sectors. Social aspects should also be taken into account: if oil revenues are not used to improve the quality of education, health care and infrastructure, long-term prospects for economic growth remain limited. The example of Kazakhstan and Russia shows that even with moderate economic diversification, insufficient institutional changes can slow down the transition to sustainable development. Thus, a strategic approach to oil revenue management should include not only macro-

economic stabilization, but also a comprehensive development policy aimed at creating a solid economic base that can function independently of commodity market fluctuations.

One of the key aspects of assessing the impact of natural resources on socio-economic development is the correlation between the share of natural resource rents and the Human Development Index (HDI). High dependence of the economy on resource revenues can both contribute to financing social programmes and improving the quality of life and lead to institutional problems, unequal distribution of benefits and slow human capital development. To analyse this dependence, let us look at data on natural resource rents as a percentage of GDP and the Human Development Index for 2020 in a number of countries with varying degrees of resource dependence

Table 2 identifies 15 countries, each showing varying levels of natural resource dependency and degree of development.

Table 2
Share of Natural Resource Rents and HDI for 2020 (WDI, HDR)

Country	Share of rent from natural resources (% of GDP)	Human Development Index (HDI)
Iran	23.24	0.779
Russian Federation	7.59	0.826
Saudi Arabia	17.32	0.861
Angola	20.25	0.594
Nigeria	5.07	0.539
Norway	4.18	0.963
Mexico	1.56	0.757
United Arab Emirates	11.97	0.930
Canada	1.24	0.928
Algeria	14.03	0.730
Azerbaijan	13.00	0.722
Kuwait	29.28	0.826
Kazakhstan	12.84	0.806
Qatar	20.23	0.863
Venezuela	11.84	0.691

Source: compiled by the authors from World Development Indicators and Human Development Reports

Most notable is Kuwait's high share of natural resource rents at 29.28% of GDP, with an HDI of 0.826. This indicates that, despite the significant dependence on oil revenues, the country has been able to provide a sufficiently high standard of living and social services for its population. We observe similar dependence on natural resources in Iran and Angola, where the rent share is 23.24% and 20.25% respectively, but their HDI is lower (0.779 and 0.594). These examples empha-

size that high dependence on natural resources does not always ensure positive social outcomes and can lead to economic and social hardship.

Norway, with a natural resource rent of 4.18%, has the highest HDI of 0.963, driven by a diversified economy and sustainable resource management. Norway is known for its best practices in natural resource wealth management, which serves as an example for other countries. Countries such as Nigeria and Venezuela, despite their rich natural resources, are facing serious economic and social crises. Nigeria, with a natural resource rent of 5.07%, continues to be plagued by corruption and institutional governance deficiencies that negatively affect the living standards of the population. Venezuela, with rents of 11.84%, is experiencing economic collapse and a humanitarian crisis, illustrating how over-reliance on oil revenues can lead to economic stagnation and deterioration in the quality of life. High natural resource rents may not guarantee the well-being of the population unless accompanied by good governance and sustainable economic policies. This analysis supports the "Dutch disease" hypothesis, according to which excessive dependence on natural resources can inhibit the development of other sectors of the economy and lead to social problems.

The Corruption Perception Index and Economic Freedom Index data (Table 3) confirm that high dependence on natural resources is often accompanied by institutional problems.

Table 3

Corruption Perceptions Index and Economic Freedom Index, 2023

Country	Corruption Perception Index	Index of economic freedom
Iran	24	42.2
Russian Federation	26	53.8
Saudi Arabia	52	58.3
Angola	33	53
Nigeria	25	53.9
Norway	84	76.9
Mexico	31	63.2
United Arab Emirates	68	70.9
Canada	76	73.7
Algeria	36	43.2
Azerbaijan	23	61.4
Kuwait	46	56.7
Kazakhstan	39	62.1
Qatar	58	68.6
Venezuela	13	25.8

Source: compiled by the authors based on data from Transparency International and Heritage Foundation
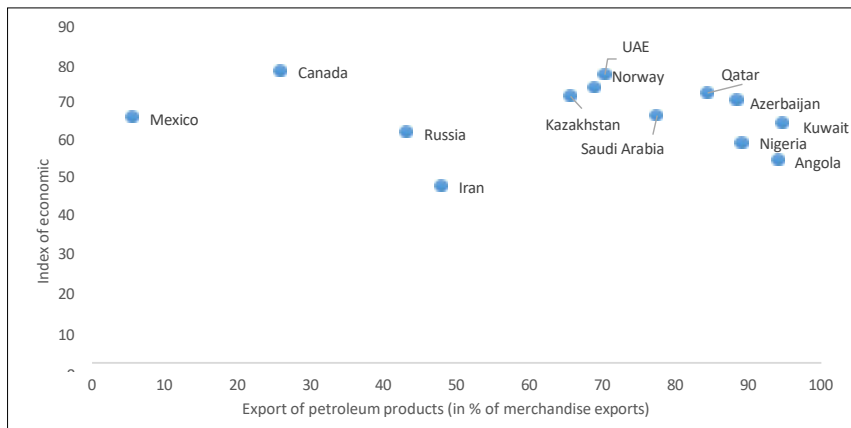
In countries with a large share of oil rents, such as Iran, Russia, Nigeria and Venezuela, a low corruption perception index (from 13 to 26) and weak economic

freedom (from 25.8 to 53.9) indicate poor resource management, administrative barriers and dependence of the economy on the commodity sector. At the same time, states that have managed to diversify their economies perform better. For example, Norway and Canada have high indices of perceived corruption (84 and 76) and economic freedom (76.9 and 73.7), reflecting transparent governance and a developed private sector. The UAE and Qatar also have relatively high values for economic freedom (70.9 and 68.6) due to investment in non-resource industries and an improved business climate. These examples show that proper management of resource revenues and institutional development can minimize the negative effects of the Dutch disease and ensure sustainable economic growth.

Figure 3 presents data for 2021, illustrating the relationship between the volume of oil product exports and the values of the Economic Freedom Index for exporting countries. The obtained results allow us to visualize the hypothesis about the negative impact of resource rents on economic diversification and institutional development, which is consistent with the concept of "resource curse".

Figure 3
Exports of Petroleum Products and Index of Economic Freedom, 2021

Source: compiled by the authors from World Development Indicators and Heritage Foundation data
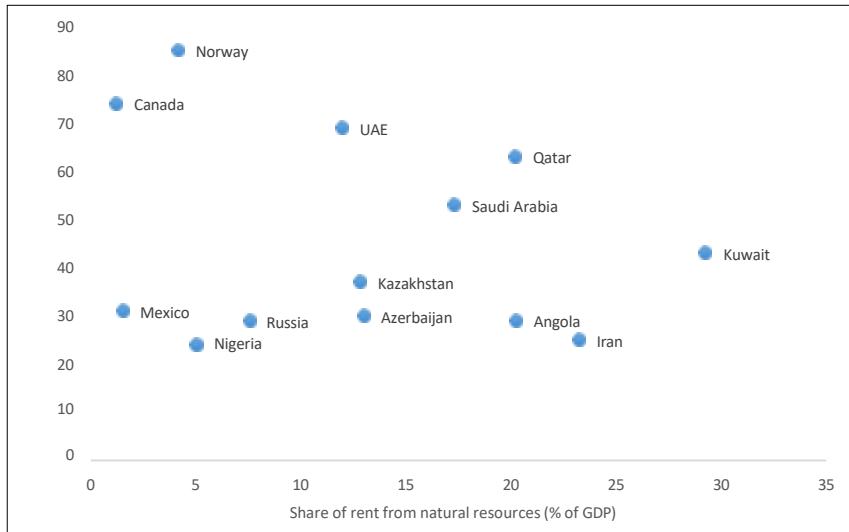
As Figure 3 shows, high commodity dependence often correlates with tighter government regulation and low market freedoms. This is particularly evident in countries such as Iran (47.9% of exports, index 47.2) and Nigeria (89.1%, 58.7), where state control, corruption and institutional weaknesses hinder the development of a competitive environment. At the same time, countries with a comparable dependence on oil revenues but active reforms demonstrate a higher level of economic freedom. For example, the United Arab Emirates (70.3%, 76.9) and Qatar (84.4%, 72) use resources to stimulate investment, develop the non-financial sector and attract capital, creating a relatively liberal economic environment. A unique case is Norway (68.9%, 73.4), which, despite its large share of oil exports, enjoys a high level of economic freedom due to transparent resource management, institutional quality and strategic revenue allocation. These data confirm that it is not the fact of commodity dependence that determines the lev-

el of economic freedom, but the nature of institutions, the efficiency of public administration and the ability to diversify the economy.

Corruption and poor governance are serious problems for countries rich in natural resources. They are critical aspects that make it difficult to utilize natural resource revenues to achieve sustainable social and economic development. High revenues from resources such as oil and gas often result in ruling elites concentrating power and wealth in their own hands, leaving large segments of the population without access to these resources. Figure 4 shows the relationship between the share of natural resource rents in the economy and the Corruption Perceptions Index (CPI) values for 2021.

Figure 4
Share of Natural Resource Rents and Corruption Perceptions Index, 2021

Source: compiled by the authors based on data from World Development Indicators and Transparency International

The data include 12 countries with different levels of dependence on natural resources and varying degrees of corruption. Overall, there is a clear trend: countries with a high share of natural resource rent revenues in GDP tend to have lower values of the corruption perception index. For example, Kuwait (29.28% of rent income) and Iran (23.24%) show low CPI scores (43 and 25, respectively), indicating a high prevalence of corruption. A similar situation is observed in Angola, where the corruption perception index is 25 with natural resource rents accounting for 20.25% of GDP. At the same time, countries that, despite having abundant natural resources, have managed to build effective governance institutions and reduce dependence on rent revenues demonstrate a higher level of anti-corruption transparency. The most illustrative example is Norway, where the share of natural resource rents in GDP is only 4.18% and the corruption index reaches 85, one of the highest in the world, indicating a low level of corruption. The situation is similar in Canada (1.24% of rents, CPI = 74) and the United Arab Emirates (11.97% of rents, CPI = 69), indicating the importance of good governance and institutional controls.
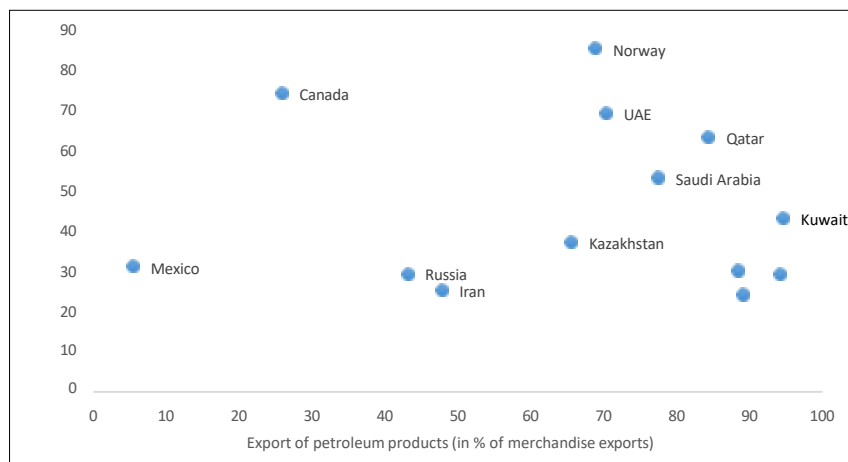
However, there are exceptions to this general pattern. For example, Saudi Arabia, with its significant dependence on natural resource revenues (17.32%), has a relatively high corruption index (53), which may be due to institutional reforms and anti-corruption campaigns. Kazakhstan (12.84%) and Azerbaijan (13%) occupy intermediate positions, reflecting the presence of corruption problems, but at the same time showing strong potential to address them.

Among the countries represented, Nigeria has the lowest perception index of 24 points. Studies show that due to corruption and mismanagement, much of the oil revenues are not utilized for the benefit of the people, resulting in poverty and lack of basic social services. Venezuela is another prime example of how wealth from natural resources can become a curse. The country, with the largest oil reserves in the world, is experiencing an economic and humanitarian crisis, and inflation has reached astronomical levels. Corruption and mismanagement of resources have meant that oil revenues are not being used for the country's development, but are instead fuelling the crisis.

Figure 5 shows an inverse correlation between the volume of oil product exports and the level of governance transparency: countries with a high share of commodity exports show lower values of the Corruption Perception Index, which confirms the systemic nature of institutional risks in resource-oriented countries.

Figure 5
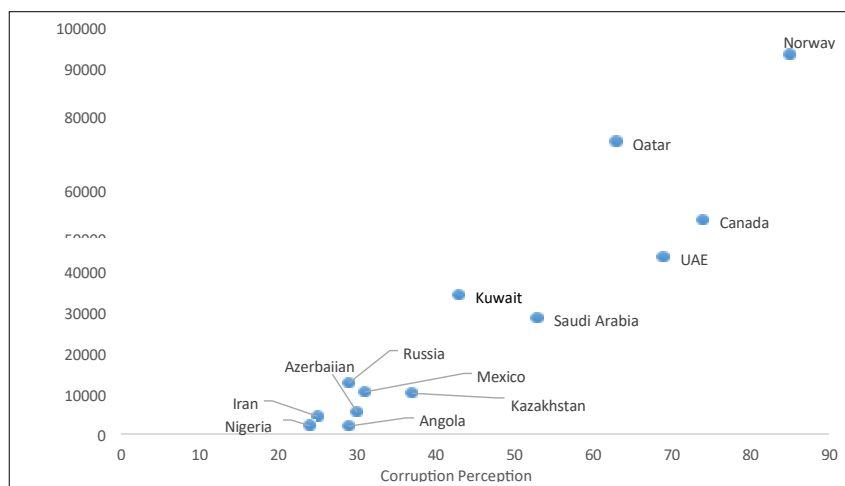*Exports of Petroleum Products and Corruption Perception Index, 2021*

Source: compiled by the authors based on data from World Development Indicators and Transparency International

Angola (94.16%), Kuwait (94.63%) and Nigeria (89.15%) show extremely high dependence on resource exports and low anti-corruption transparency scores (29, 43 and 24, respectively). This supports the hypothesis that mono-resource economies face problems of poor revenue management that increase corruption risks. At the same time, Norway, despite its significant oil exports (68.93%), remains one of the most institutionally resilient countries with a high corruption perception index (85), indicating the existence of well-developed mechanisms for controlling resource revenues. In the Arab countries, the picture is mixed: Qatar (84.40%) and the UAE (70.32%) show relatively high anti-cor-

ruption scores (63 and 69, respectively), while Saudi Arabia (77.49%) and Kuwait (94.63%) remain in the zone of moderate corruption vulnerability (53 and 43). Kazakhstan (65.61%) and Azerbaijan (88.41%) are in the medium group, emphasizing the presence of corruption problems related to oil rents. Countries that are resource-rich, but have not implemented effective revenue management mechanisms face high levels of corruption, which negatively affects their socio-economic development (Figure 6).

Figure 6
GDP Per Capita and Corruption Perception Index, 2021

Source: compiled by the authors based on data from World Development Indicators and Transparency International
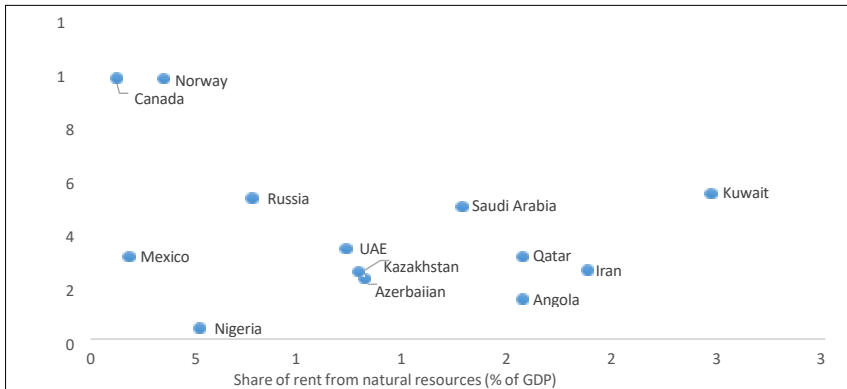
The analysis of the correlation between the corruption perception index and the level of GDP per capita demonstrates pronounced regularities that confirm the theoretical provisions of institutional economics and the concept of "resource curse". The data indicate that high levels of corruption in resource economies correlate with low levels of economic well-being. For example, in Nigeria ($2,017) and Angola ($1,925), with CPIs of 24 and 29 respectively, a large share of oil revenues either settle in narrow elite groups or are used inefficiently, hindering economic development and leading to high levels of poverty and social inequality. The situation is similar in Iran ($4,334) and Azerbaijan ($5,408), where high levels of dependence on oil revenues are accompanied by systemic corruption that limits the effectiveness of state institutions. At the same time, countries with low levels of corruption show markedly higher GDP per capita: Norway ($93,072, CPI = 85) and Canada ($52,496, CPI = 74) confirm that transparent governance, rule of law and institutional quality contribute to sustainable economic growth and efficient distribution of natural resource revenues. An interesting case is presented by Qatar ($71,751) and the UAE ($43,360), where despite a relatively high dependence on the oil and gas sector, investments in human capital, technological development and economic diversification have partially mitigated the negative effects of the Dutch Disease. However, Kuwait ($34,043) and Saudi Arabia ($28,396), with similar income levels, face more pronounced corruption risks (CPI = 43 and 53, respectively), indicating insufficient anti-corruption policies and institutional challenges. Kazakhstan ($9,983)

occupies an intermediate position, demonstrating a higher level of GDP compared to most CIS countries, but still lagging far behind developed oil-producing countries, emphasizing the need for further institutional reforms to reduce corruption and increase transparency in public administration. Overall, the presented data confirm empirical studies indicating that the institutional environment and the quality of public administration have no less significant impact on economic development than the availability of natural resources.

Analysing the share of natural resource rents in GDP and the level of public spending on health reveals important patterns in countries with abundant oil and gas reserves. While natural resource revenues provide significant potential for investment in social sectors, including health, the efficiency of their allocation varies considerably. It would be logical to assume that countries with high natural resource revenues allocate a large share of these funds to social needs, including health. However, the reality is much more complex. Figure 7 shows that oil and gas wealth alone does not guarantee a high level of health care.

Figure 7
Health expenditure and share of natural resource rents, 2020

Source: compiled by the authors based on World Development data

Kuwait (29.28% of GDP rent) and Saudi Arabia (17.32%) are among the largest oil producing countries in the world, but their levels of health expenditure differ significantly, at 5.67% and 5.20% of GDP, respectively. In both cases, these rates are higher than many other resource-dependent states, but still below the level of developed countries. This suggests that energy-rich countries still have limited investment in long-term social infrastructure development, despite significant financial opportunities.

The contrast is even more marked between Africa's resource countries, Angola and Nigeria. In Angola, 20.25% of GDP comes from natural rents, but medical expenditure is only 1.70% of GDP. Nigeria, with less dependence on natural resources (5.07% of rent), spends only 0.51% of GDP on healthcare. These figures demonstrate that in countries with poor governance and high levels of corruption, natural resource revenues do not improve the quality of life, but instead often exacerbate social inequality.

If we compare resource-dependent states with developed countries, the picture becomes even clearer. Norway (4.18% rent) and Canada (1.24%) spend 9.82% and 9.61% of GDP on health care, respectively, which is much higher than the high oil rent states. This is a clear example of the fact that effective public institutions and sound economic policies play a much more significant role than the presence of natural wealth itself.

Kazakhstan (12.84% of rents, 2.47% on health care) and Azerbaijan (13% of rents, 2.33% on health care) show an intermediate situation. Their level of medical expenditure is higher than in most African countries, but markedly lower than in developed economies. This suggests that although these states are investing in the social sector, the effectiveness of these investments remains questionable.

High levels of corruption in resource-rich countries can also undermine public trust in government. In addition, it should be noted that some resource-rich countries face problems not only because of corruption but also because of the environmental consequences associated with the exploitation of natural resources. In Nigeria, pollution from oil extraction has had serious consequences for public health and the Niger Delta ecosystem. Local communities are often in a vulnerable position when it comes to the distribution of revenues from the resource economy (Nriagu et al., 2016).

Thus, resource-rich countries face the challenge of properly managing incoming revenues, as price spikes in global markets can have unpredictable effects on their economies. These countries have to react quickly to changes in global prices of their main export commodities in order to minimize macroeconomic volatility and stabilize domestic markets. However, the delay between decision-making and action, as well as price fluctuations, can lead to unproductive measures that exacerbate economic problems and even provoke political instability.

Among stabilization strategies are fiscal rules, which limit government spending and revenues within certain limits and keep the macroeconomic balance. China and Saudi Arabia have used these rules to stimulate investment and growth, while developed economies such as Norway and the US have channelled excess revenues to future generations or social needs. The introduction of fiscal rules also helped countries in Latin America and Africa to improve economic resilience after a series of crises in the 1990s and 2000s (Bova et al., 2018).

However, the creation of a sovereign fund does not guarantee success, as the experience of Nigeria and Venezuela shows. Nigeria established the Petroleum Trust Fund in 1995 in an attempt to support education and health care with oil revenues. But most of the money was channelled back into the oil and gas sector, and the fund failed to live up to expectations, becoming an unnecessary intermediary. Venezuela's Macroeconomic Stabilization Fund, created in 1998, suffered a similar fate, as it failed to significantly improve the country's economic performance (Rzhevskaya, 2011).

CONCLUSION

In the context of global economic instability and volatile resource prices, the "resource curse" remains a pressing problem for many countries. The sustainability of the economy and the ability to resist this phenomenon are directly re-

lated to the effectiveness of public policies aimed at diversification and strategic management of revenues.

The impact of the Dutch disease on the socio-economic development of a country is manifested in a number of negative consequences for non-resource sectors and the sustainability of the economy as a whole. When a country derives significant revenues from the export of natural resources, the appreciation of the national currency leads to a decrease in the competitiveness of other sectors such as industry and agriculture. This causes a gradual decline in the productive sector, which leads to the economy's dependence on fluctuations in resource prices.

Over time, such changes affect not only the economy but also the social sphere. The economic structure of the country becomes less diversified, which increases vulnerability to external economic shocks and fluctuations in global markets. Dependence on a single sector leads to employment instability and lower incomes during periods of falling resource prices. At the same time, the redistribution of wealth in favour of the resource sector often causes social imbalances and increases inequality, especially if resource revenues are not used to improve infrastructure and public services.

Research on the "resource curse" in resource-dependent countries has confirmed that natural resource wealth can be both a driver of growth and a source of economic instability. High dependence on rent income is often accompanied by poor development of other sectors, low health expenditures and social vulnerability. The examples of Nigeria and Venezuela show that, without effective management, resource surpluses not only do not contribute to sustainable development, but also exacerbate structural problems and provoke economic crises.

The findings of this study align with and, in some cases, diverge from the existing literature. Consistent with Mehlum et al. (2006) and Ross (2015), we confirm that institutional quality significantly conditions the impact of resource wealth, with countries like Norway and Canada avoiding the negative consequences of resource dependence through strong governance and diversification strategies. Conversely, our results corroborate Sachs and Warner's (1995) view that resource-rich countries with weak institutions, such as Nigeria and Venezuela, often experience economic stagnation and heightened corruption. Interestingly, while Van der Ploeg (2011) argues for the possibility of transforming resource wealth into an advantage, our analysis suggests that such transformation remains contingent on sustained institutional reform and transparent fiscal policy, which not all resource-rich countries achieve despite apparent modernization efforts.

At the same time, successful natural resource management strategies prove that negative effects can be mitigated. The experience of Norway, Canada and the UAE shows that sound fiscal policy, transparent stabilization funds and investment in human capital can not only avoid economic dependence on resources, but also create the basis for long-term growth. In the end, the key factor is not the availability of resources, but the ability of the state to build a sustainable economic model, using natural resources as a tool for development rather than as a source of short-term income.

Ethical Commission Approval

This study did not require approval from an ethics committee as it did not involve human participants, animals, or sensitive personal data. All data used in this research were obtained from publicly available sources.

Conflict of Interest Statement

There is no conflict of interest with any institution or person within the scope of this study.

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