

**REPUBLIC OF AZERBAIJAN**

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**ABSTRACT**

of the dissertation for the degree of Doctor of Philosophy

**DIRECTIONS FOR IMPROVING THE NON-OIL SECTOR  
IN THE REPUBLIC OF AZERBAIJAN**

Speciality: 5308.01 - "General economy"

Field of science: Economy sciences

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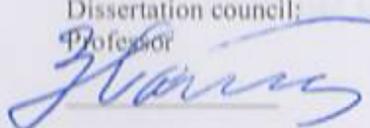
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## GENERAL OVERVIEW OF THE WORK

**Relevance and background of the study.** The COVID-19 epidemic, which started in early 2020, has wreaked havoc on the global economy. As a result, 2020 will go down in history as the year when the world economy shrank by 5.3 percent. Therefore, most governments have taken various measures to support economic activity. Specifically, in most countries, single assistance was provided to individuals and legal entities from the state budget through the combination of fiscal and monetary policies realized by the Central Banks. Similar measures have been taken in our country. The struggle against COVID-19 on the one hand, and the 44 (forty-four) day war with Armenia on the other, shaped the Azerbaijani economy during this time. Naturally, the non-oil sector's development is critical for the re-involvement of the country's regions in economic activity.

It should be noted that one of the most pressing issues facing the Azerbaijani economy today is the development of the non-oil sector. As a result of the oil sector's natural competitive advantage in contrast to other sectors in the structure of our country's economy, it has continued to develop in comparison to other sectors. Naturally, the growing international demand for oil products and its strategic importance have led to large-scale investments in this area. On the other hand, the successful implementation of our country's oil strategy, as well as the resulting inflow of billions of dollars into the country's economy for the development and formation of other sectors of the economy, should be recognized. It shows that the conditions for diversification have long been ripe. As a result, infrastructure in nearly every area of the country's economy has been renovated using oil money. However, one of the most serious challenges is the development of the non-oil sector in order to avoid the country's economy becoming unipolar and to decrease the country's export dependency on oil in terms of international economic connections, to ensure the country's economy's sustainable and balanced development, as well as to enhance the socio-economic position of the population, to ensure the country's transition to a qualitatively new stage in its economic development, and to boost the economy's competitiveness.

Non-oil sector development has also become a necessity for the government to increase and attain efficiency in economic development, as seen by the programs, strategies, and concepts that have been embraced.

Thus, “State Program on socio-economic development of the regions of the Republic of Azerbaijan in 2014-2018”, “Azerbaijan 2020: Look into the Future” Development Concept, State Program on Industrial Development in the Republic of Azerbaijan for 2015-2020 and finally the “Strategic Road Map” approved by the Decree No. 1138 of the President of the Republic of Azerbaijan dated December 6, 2016 stressed the need on the modernization and improvement of the structure of the national economy and increase of export potential of non-oil industries. It is critical to investigate the non-oil sector's formation in our country's present socio-economic processes, as well as a comprehensive analysis of its current state and development directions, as well as boosting the efficiency of the country's non-oil industries. Among the criteria that highlight the dissertation's relevance are theoretical and practical scientific-theoretical approaches, practical analyses, and materials utilized to establish the dissertation's stimulation directions. The importance of non-oil sector development, research, appraisal, and regulation has piqued the interest of many economists.

Among them, we can list the names of the scholars such as E.A. Guliyev, Z.A. Samadzada, G.A. Ganjiyev, B. Kh. Atashov, E.N. Karimov, E.Y. Mammadov, F.A. Mammadov, A.I. Bayramov, Sh. H. Hajiyev, R.T.Hasanov, Kh. A. Khalilov, I.A. Feyzullabayli, N.O. Hajiyev, F.P. Rahmanov and others.

Economic diversification and balanced development of other sectors of the economy has been also studied in the works written by I.N. Kurnosov, F. Kotler, G. Armstrong, G. Eliasson, I. Raheem, A.N. Koshelov, A.S. Schniper, R.I. Belyayevkiy and I. K. Abalkina and others.

When we research the development of the non-oil sector in modern conditions, we can notice scientists from nations with substantial oil reserves who paid a great attention to the development of the non-oil sector as an object of their research. In this regard, the

scientific significance, relevance and practical significance of the problem justifies the need for the topic of the dissertation.

**Object and subject of research.** The Republic of Azerbaijan's non-oil sector is the object of investigation. The study of theoretical, methodological, and practical concerns of non-oil sector development is the focus of the research.

**Goal and objectives of the research.** The goal of the dissertation is to provide scientifically and practically significant proposals and recommendations to establish the country's development path, based on a thorough examination of the country's non-oil sector. In order to achieve the set goal, it is planned to solve the following objectives in a logical sequence:

- Study theoretical and conceptual views on stimulating the development of the non-oil sector;
- Identify the main forms and methods of stimulating the development of the non-oil sector;
- Conduct analysis of international experience for stimulating the development of the non-oil sector of the economy;
- Assess the development dynamics and structure of the non-oil sector;
- Evaluate the business and investment climate in terms of stimulating the non-oil sector in the country;
- Assess the dynamics and structure of the non-oil sector;
- Show the directions of stimulating the development of the non-oil sector.

**Research methods.** The research's methodology is based on relevant scientific provisions from the classical, neoclassical, and institutional schools of economics, as well as applicable laws, presidential decrees, and other legal and regulatory acts from the Republic of Azerbaijan. The research process used a dialectical and system-functional approach, modern means of analysis, structural, comparative, graphical analysis, economic-statistical grouping, dialectical and dynamic series, as well as conceptual approaches.

**The main provisions of the defence.** The following key provisions stemming from scientific research findings are defended:

- Each country's natural-economic, scientific-technological, and

intellectual levels, as well as market abundance and other elements. Despite the fact that the structural sectors of the economy are shaped by a variety of circumstances, there is a pressing need for ongoing regulation;

- Minimizing dependence on the oil sector makes the development of the non-oil sector inevitable;

- There are opportunities to partially apply some elements of international experience in the development of the non-oil sector in our country, and it would be very useful to use them in a smart way;

- In order to ensure the effective development of the non-oil sector, it would be important to implement state support and necessary interventions mainly through economic methods, primarily through financial mechanisms;

- There are specific difficulties in providing financial resources for the development of the vital non-oil sector (tourism) in our country;

- There is a pressing need to govern the non-oil industry in terms of effective and systematic development, as well as to strengthen the sector's financial support mechanisms on a regular basis;

- A favourable business and marketing environment must be created for the development of the non-oil sector.

**Research database.** The information base of the dissertation is based on internet materials retrieved from the State Statistical Committee of the Republic of Azerbaijan, materials of the Ministry of Economy, Ministries of Finance and Taxes, the Central Bank of the Republic of Azerbaijan, annual reports of state bodies, their legal and normative documents, as well as scientific works of foreign scholars and materials of scientific-practical conferences.

The scientific novelty of the work consists of the following:

- Theoretical and conceptual views on the non-oil sector were generalized by analysing the existing scientific approaches on the principle of systematization;

- The main forms and methods of stimulating the development of non-oil sectors have been identified;

- The structure of the current condition of non-oil sectors in the Republic of Azerbaijan was analysed and assessed;

- The volume index was calculated based on the number of jobs

available in the country's non-oil sector;

- The diversification coefficient was calculated in terms of the number of people engaged in various sectors of the economy;
- The business environment was analysed in terms of the development of non-oil sectors in the country;
- Directions for stimulating the development of the non-oil sector in Azerbaijan were indicated;
- Proposals and recommendations on ways to improve the economic policy of the state in the field of development of the non-oil sector were prepared.

**The study's theoretical and practical significance** is that the study's set of theoretical and methodological provisions, as well as practical measures, can be employed by relevant agencies at both macro and microeconomic levels to determine the republic's non-oil industry's development paths.

**Approbation and application.** The main provisions, results and recommendations of the study are presented in 6 articles in prestigious local and foreign journals recommended by Supreme Attestation Commission under the President of the Republic of Azerbaijan, and as a part of the scientific materials published within 3 conferences organized by Azerbaijan Cooperation University (June 1-2, 2018), Белорусского торгово-экономического университета (2019), and international scientific-practical conferences held by the Azerbaijan University of Architecture and Construction (2019). Among the published scientific works we can list “characteristics of the role of the national currency in ensuring the development of the non-oil sector in Azerbaijan” (Baku, 2017), “Factors determining the formation of the structure of the economy” (Baku, 2018), “Development of non-oil industry as Azerbaijan’ priority directions” (Baku, 2018), “Dutch syndrome and development of oil industry” (Moscow, 2018), “Assessment of the dynamics of development of non-oil economy in Azerbaijan” (Baku, 2019), and “Current state of non-oil sectors in Azerbaijan analysis ”(Baku, 2019).

**Name of the organization where the dissertation work has been carried out.** The dissertation study was carried out at the Azerbaijan Cooperation University's "Economic Theory" department.

**The dissertation's overall volume in character, representing the volume of the dissertation's structural units separately.** The introduction (10336 characters), Chapter I (77783 characters), Chapter II (53489 characters), Chapter III (57999 characters), result (16400 characters), and list of references (12690 characters) make up a total of 228697 characters. The number of characters in the dissertation is 216007 characters, excluding tables, figures, list of references and abbreviations.

## **MAIN CONTENT OF THE DISSERTATION**

The introduction of the dissertation substantiates the relevance of the topic, explains its level of study, goals and objectives, theoretical and information base, scientific innovations, practical significance and approbation.

The natural-economic, scientific-technological advantages of each country playing an essential part in forming the structure of the economy are explored in the dissertation's first chapter, headed **“Theoretical and methodological foundations of stimulating the development of the non-oil sector.”** Thus, natural resources and climatic conditions are the primary factors in shaping the structure of the economy. Here, the quantity and quality of natural resources are important for the development of industry, while climate conditions are important for the development of agriculture. The second essential component is historically created specialization, which has a significant impact on the economy's structure. For example, a number of Arab countries, such as Iran, Kuwait, and Venezuela, specialize in the oil sector, while Russia specializes in the military industry, so abandoning the framework built in a short period of time is not an easy task. The level of technological development in the country is the third major component in the establishment of the economy's structure. In a market economy, the availability of innovation and science-based enterprises in the country can play a critical role in the development of new techniques and technologies. The social structure of society, as the fourth factor in the construction of the economy's structure, is also crucial. Thus, if a country has a large population and a low standard

of living, then the state will purposefully try to increase the production of agricultural and industrial products, where the main goal is to meet the growing needs of the population. The fifth factor in the formation of the structure of the economy is the consideration of aggregate demand parameters. Producers of goods and services must always take into account the income of the population. As we know, the needs of the population are not limited. People aim to buy items with the highest consumer value, taking into account their financial capabilities, or choose to choose those goods when purchasing a product for their consumption. To put it another way, demand for goods and services must be stable. From the standpoint of a marketer, methods also imply that producers must learn what products or services consumers like, allowing them to extend their product range, or expand their production. The degree of market saturation is the sixth component that might influence the establishment of the economy's structure. As a result, market saturation with any industrial product and a lack of growth potential in that field can encourage or attract an entrepreneur to start a new business.

In general, the following are the main methods of forming the structure of the economy as a result of the influence of international factors:<sup>1</sup>

1. Support for innovation and scientific and technological progress (ISTP).

Observations confirm that the characteristics and pace of development of ISTP and innovation have a direct impact not only on the formation and development of the economic structure of individual countries, but also on the development of the world economy as a whole. The impact of ISTP on the structure of the economy can also lead to technological unemployment in the country. Robotics in the automobile industry, for example, poses a significant threat to mass technological unemployment in the United States. It is important to emphasize that the placement of electrification, automation, and chemical industries in the economy as a result of ISTP is independent of natural conditions.

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<sup>1</sup> Əbdülsəlimzadə Q.Y., Mikroiqtisadiyyat-Makroiqtisadiyyat, Bakı-2014. s. 303.

2. Providing information and advice to help build a solid basis for the non-oil sector's formation and growth. Government agencies and municipal governments can give information and consulting support to non-oil entrepreneurs, including "bulletins," databases, and "web sites", which are required for the creation of non-oil products. These include economic, legal, production and technological information and marketing information required for the information and telecommunications sector, tourism, industry and agricultural production.

3. In terms of non-oil sector development, supporting human resource development.

It is possible to support the training and activities of additional vocational programs for employees working in the non-oil sector, provide methodological and scientific-pedagogical support, and increase practical knowledge and skills in accordance with the non-oil sector's profile in order to stimulate activities in this direction.

4. Support for non-oil sector development through foreign trade of products generated in this field.

It calls for the promotion of non-oil sector products to international markets and the establishment of favourable conditions in this regard, as well as the supply of export credits and the mitigation of some risks through state guarantees.

5. Ensuring state and municipal regulations for products and services related to the development of the non-oil sector.

Experience shows that there are disparities in modern times between countries' rates and degrees of growth, as well as some variances in the structure of economic resources and technological expertise, all of which affect the cost of producing particular items in any country. There is a difference in the quality and price of an identical product in a different country. In this case, on the one hand, countries face structural changes in their economies, on the other hand, the state can stimulate the sector by being a customer of some of the products produced in the non-oil sector, and on the third hand, the state can stimulate the sector by being a customer of some of the products produced in the non-oil sector.

6. One of the factors necessitating the development of the non-

oil sector is the geopolitical situation and relations with other countries.

The latter element is distinct from economic variables in that it has the capacity to influence the economy's structure in respect to international activities. Factors such as ideological divisions between countries and the looming prospect of military conflict are among them. The growing economic interdependence of countries has had a significant impact on many countries' economic progress. The high level of economic openness in most countries throughout the world has recently resulted in a growth in international trade as well as the free flow of capital between countries.

In current times, the sectoral structure of industry is more prominent in the construction of the economy's structure. In most countries, it can be claimed that the growth of industry's sectoral structure is more essential than other areas. Industry is the most important source of raw materials, accounting for the majority of GDP and national income. For example, industry accounts for more than 40% of GDP in many developed countries. This can be seen by looking at the statistics of the majority countries. Meeting the needs of society for high-quality products, the degree of application of technological advancements in production, technical reconstruction, the level of development of the social division of labour, specialization, and cooperation as well as the level of increased demand for industrial products, socio-historical conditions for the development of industry, natural resources are the main conditions for the development of industry. The establishment of industries, their quantitative linkages, and the expression of specific production relationships between them define the sectoral structure of industry. In this regard, M. Porter confirms that gaining a competitive advantage depends on many factors. It encompasses everything from historical accomplishments to national and spiritual values, as well as culture. As a result, the countries that succeed in international competition are those who have selected a certain area and have favourable conditions in place to support it.<sup>2</sup>

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<sup>2</sup> Портер М., Конкуренция М.: Вильямс, 2005. 608 с.

We must remember the state's structural policy while determining and analysing the economy's sectoral structure. As a result, state economic policy plays a significant role in the construction and stimulation of the economy's structure. The state's structural policy should be viewed as a collection of economic ideas and policies. This policy aims to proportionally build the economy's structure while also regulating and updating the present structure. The socio-economic situation must be analysed and the economy's priorities must be decided before the country's structural policy can be defined. In this regard, in world practice, there are two sorts of structural policies:

- Passive economic structural policy. The main focus here is on the creation of a market mechanism for the economy, which is aimed at altering the structure of the economy through demand, and the state just creates a legal basis for the free flow of capital.

- Economic structural policy that is active. The state adjusts the proportionality of the economy and certain sections through this policy.

Based on observations, we can say that the structural policy pursued in different periods and in different countries have two main purposes:

1. Stimulation of economic development by supporting various sectors of the country;
2. Strengthening the country's economic security and stimulating the access of national industrial products to international markets.

This policy will ultimately serve to balance the national economy, ensure proportionality, increase its dynamism and stability, and reduce economic crises. Any country's level of economic development is directly proportional to its production results. The amount of utilization of production variables is critical in defining the production area's outcome. Given that labour, capital, and materials, including natural resources are the components of production. We can claim that production reflects the true technological dependence between the production resources. If the availability of productive resources, particularly natural resources, was thought to be a crucial determinant in a country's economic development until the 19th and 20th centuries, observations show that this was not the case. Thus, in

the 1970s, British economist R. Auty demonstrated that countries with abundant natural resources have slower economic development than countries with limited natural resources. However, D. Sachs and E. Warner later stated these views in their publications. It is worth noting that R. Auty coined the phrase "resource curse" in 1993, and it has now become a part of economics.<sup>3</sup> Because the symptoms of "Dutch sickness" can manifest in a variety of ways in different nations, many economists have weighed in on the study. There are two causes that produce Dutch disease.

1. As a result of the influx of oil money into the country, the actual value of the national currency rises, and areas that were competitive before to the oil boom (such as agriculture, refining, and so on) lose their competitiveness.

2. During a boom, the economy must transition from one equilibrium point to another, as well as return to the prior equilibrium point following the boom.

One of the subjects that has been debated over the last 40 years is whether the income from natural resource-rich countries' exports helps to economic development, competitiveness, socio-economic issues, or, on the other hand, social inequality and falling living standards. It results in a slew of unfavourable outcomes. Of course, the extent to which the government governs the economy has an impact on this. Countries with abundant natural resources can be split into two groups in this regard. Those in the first group manage their economies by making efficient use of natural resources, while countries in the second group do not make efficient use of natural resource earnings and do not apply the appropriate economic regulation methods. The richness of natural resources and the efficient use of export revenues are the key factors of high growth, competition, and human capital development in some countries, according to experience. Norway, the United States, Canada, and the United Kingdom are examples of such countries. However, in some other countries, the abundance of natural resources and inefficient use of cash generated from their usage leads

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<sup>3</sup>Гурьянов П.А.Российская рентная экономика: миф или реальность Международный журнал прикладных и фундаментальных исследований № 11, 2016

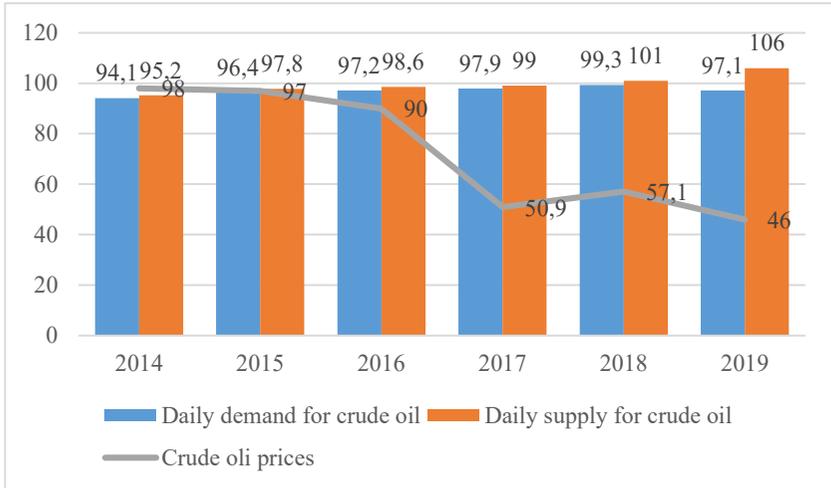
to a decline in living standards and one-sided economic development. Examples of such countries are Iraq, Angola, Syria, Sudan, Colombia, Algeria, Nigeria and others can be shown. The same can be said for Russia, which is just across the border. As a result, Russia's economy, which is the world's largest in terms of territory, has all of the natural resources, and relies heavily on raw materials in its export structure, is unable to compete with the world's top economies.

The Norwegian experience can be very valuable in avoiding the negative effects of oil income on the national economy and in developing non-oil sectors. Norway is the world's only country where the oil boom has resulted in economic development. Local enterprises contribute more than 55 percent of the equipment and services required for oil exploration and production in Norway. More than 100,000 people work in Norway's oil industry, accounting for 3-4 percent of the country's workforce. 30,000 are employed in exploration, over 45,000 in construction, and the rest in other fields. Offshore laborers work for two weeks and then return home for three weeks. Workers in the oil industry earn roughly \$60,000 per year. Norway's oil production costs range from \$5 to \$10 per barrel. The country spends about \$ 23 billion each year on average. USD, which accounts for 40% of total exports. Oil revenue cannot surpass 18-25 percent of total budget income. On the other hand, 170 million tons of oil, 50 billion cubic meters of gas, and 10 million tons of concentrate have been produced in recent years. It should be mentioned that this figure represents 30,000 people in Azerbaijan, or 0.8 percent of the overall workforce. It is worth noting that Norway's energy industry is under state control. Statoil, the country's major oil firm, is wholly controlled by the government.

In the second chapter of the dissertation, entitled "**Analysis and assessment of indicators characterizing the development of the non-oil sector in the Republic of Azerbaijan**", Azerbaijan's non-oil sector's dynamics and structure has been assessed, analysis and evaluation of the current state of the oil sector have, as well as the business and investment climate have been conducted in order to stimulate the country's non-oil sector.

The pandemic's global spread, most countries' restrictive travel and tourism policies, and the accompanying steep drop in the use of

transportation have all resulted in a drop in oil consumption according to the World Energy Information Administration's statistics.



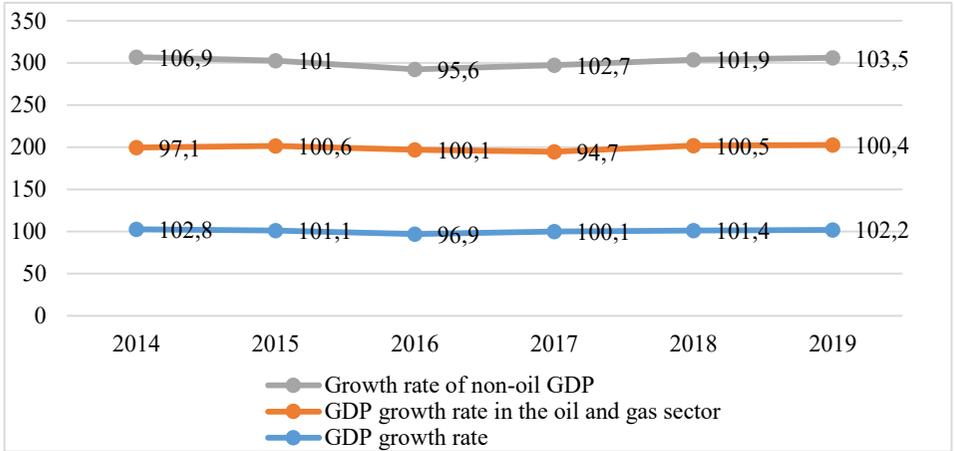
**Figure 1. Daily demand and supply of crude oil in the world. Average price in US dollars (million barrels, prepared by the author)**

Investments play a significant impact in defining the economy's sectoral structure. At the very least, theoretical methodologies can be used to determine this. The faster a sector's economic growth rate, the bigger the volume of investment in that industry. From this perspective, the oil sector's rapid expansion in our country has been made possible by the fact that it is a strategic product, as well as significant investment in the field. The significant amount of money invested in the oil industry during the independence period has naturally resulted in an increase in the volume of oil industry products and the percentage of oil products in the export structure. The Azerbaijani government is taking major steps to expand its non-oil sector and industry, as oil is a depleted natural resource on which the economy is growing increasingly reliant. In light of this, the President issued a Decree on the "Strategic Road Map for the National Economy and Key Sectors of the Economy" on December 6, 2016.<sup>4</sup>

<sup>4</sup>Azərbaycan Respublikasının milli iqtisadiyyat perspektvləri üzrə Strateji YolXəritəsi 06.12.2016-ci il AR Prezidentinin Fərmanı;

Observations show that the factor that proves the effectiveness of economic development in modern times is the establishment of an economy based on technology and sophisticated technology, not oil, natural gas, gold, or silver. As a result, non-oil sector development is essential. As previously said, investment is the most important factor in the development of the non-oil economy.

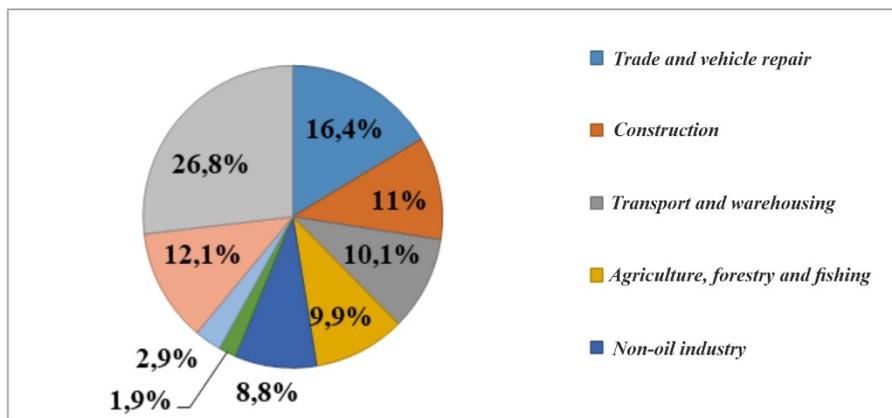
Observations show that other sectors, excluding social and other services, account for not just 80% of GDP, but that some sectors, including agriculture, trade, and services, account for 90% of GDP. That is not all. The private sector accounts for a large portion of GDP. Despite the fact that such a scenario is highlighted as a positive example, we would like to highlight a unique point or contradiction in this instance. This is owing to the fact that, despite the fact that the private sector accounts for more than 84.0 percent of GDP, non-oil products and services account for only 57.1 percent of its total value. In other words, I do not believe it is desirable that there is a big mismatch between the size of the non-oil sector and the items it produces. It would be preferable to have production that corresponds to the private sector's share of GDP. The non-oil sector's contribution of GDP was 44.54 percent in 2011, but is expected to rise to 61.9 percent by 2020. On the other hand, it should be noted that the growth rate in the non-oil sector was higher than in the oil and gas sector and GDP growth. As a result of the statistics in Table 2, the GDP created by the oil and gas sector in 2006-2011 outpaced that of the non-oil sector. However, since 2012, the non-oil industry has generated more GDP than the oil and gas sector. According to the data, the non-oil industry's gross output climbed by 78 percent in 2020 compared to 2011, while the oil and gas sector generated just 14.2 percent less during the same period. The examination of the growth rate for the investigated periods is equally interesting from this perspective.



**Figure 2. GDP, oil and gas sector, non-oil sector growth rate**  
(prepared by the author).

Figure 2 shows that the average annual GDP growth rate for 2011-2020 was 0.8 percent, with the oil and gas industry growing at 4.6 percent (a decline) and the non-oil sector growing at 0.8 percent. This indicator has a value of 3.8 percent. Thus, the analysis shows that the growth rate of the non-oil sector over the last 10 (ten) years (2011-2020) was higher than the growth rate of both GDP and the oil sector. Based on the findings, it can be stated that the non-oil sector of the country has not been properly constituted in terms of production.

According to data from the country's Ministry of Economy, value added in the non-oil industry reached 50.8 billion manat in 2020. It accounted for 70.2 percent of GDP. As a result, the following was the sectoral structure of value added created by sectors of the national economy in 2020.



**Figure 3. In the non-oil sector, created in 2020, distribution of value added by areas, in percent**

The International Monetary Fund (IMF) reports that one of the criteria for the economic dependence of resource-rich countries is the formation of more than 25% of the country's budget revenues from the sale of these resources. Natural resource income accounts for more than 25% of a country's state budget, indicating that the country is reliant on natural resources. If we believe theory, the Republic of Azerbaijan's state budget is a country that is entirely reliant on oil. Let's take a look at state budget income from the oil and non-oil sectors in this regard.

**Table 1.  
Revenues of the state budget of the Republic of Azerbaijan (%)**

Years	Revenues from the oil sector	Revenues from the non-oil sector
2014	66,0	34,0
2015	58,4	41,6
2016	52,7	47,3
2017	47,4	52,6
2018	60,2	39,8
2019	59,8	40,2

The table illustrates that revenues to the country's state budget are significantly higher than income from the oil sector and non-oil sector. According to a study conducted in the United States in 2014, the main requirement for economic stability is the level of economic diversification. Economic diversification can be based on a variety of parameters, according to observations. The diversification coefficient can be calculated by looking at different aspects of the economy, different regions of the country, different types of employment, and so on. The Hachman Index stands out among these ratios for its importance and significance. The Hachman Index was chosen as one of the important determinants in economic stability in the United States by no accident. The Hachman Index can be represented mathematically as follows<sup>5</sup>.

$$HI_t = \frac{1}{\sum_1^n (S_i^r / S_{ölke} * S_i^r)}$$

Here;  $HI_t$  - the Hachman index on the year  $t$ ;

$S_i^r$  - The share of employment in the  $i$ -industry of the economic region for the year  $t$ .

$S_{ölke}$  - is a portion in a  $i$ -industry on the country.

As a rule, the Hachman index always receives a value less than 1 (unit). A proximity of the Hachman index to 1 (unit) indicates better diversification, and a proximity to 0 (zero) indicates a lower or lower level of diversification. It is obvious that a country's economy is more sustainable and resilient if its diversity is better or more perfect than that of a country with a less diversified economy. The present global crisis has verified this.

The diversification factor is used to calculate the economy's diversification and variety, as well as numerous characteristics of the country's economic regions, regional disparities in development, and the employment diversification ratio. Diversification coefficient is calculated as below.

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<sup>5</sup>N.Z.Mehdiyeva “İqtisadiyyatın strukturunun formalaşmasını müəyyən edən amillər” Əmək və Sosial problemlər. Elmi əsərlər toplusu, № 1(21), 2018, səh. 152-157

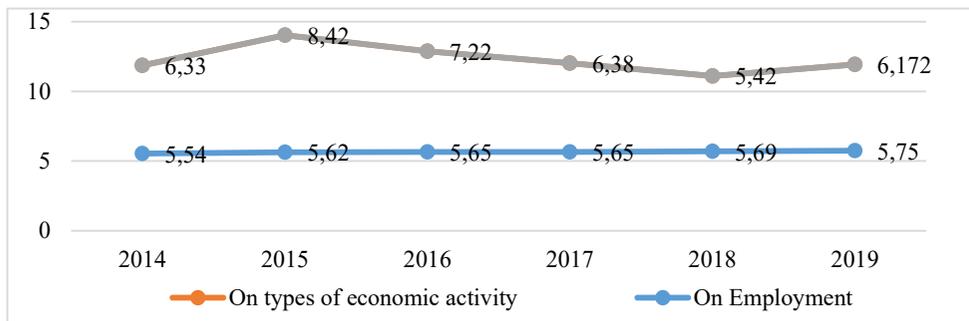
$$D = \frac{S^2}{S_1^2 + S_2^2 + S_3^2 + \dots + S_n^2} \quad 1 \leq D \leq n$$

Here; D-coefficient of economic diversification,

The numerator of the fraction  $S^2$  - Total employment by types of economic activity,

$S_1^2, S_2^2, S_3^2$  - shows employment by types of economic activity.

If the diversification coefficient is calculated by type of economic activity, if  $D > \frac{n+1}{2}$  the equilibrium level of the distribution of the population by type of economic activity is satisfactory,  $D < \frac{n+1}{2}$  on the contrary, the level of distribution of the population engaged in economic activities is considered unsatisfactory.



**Figure4. Graph of population diversification coefficient by types of economic activity and employment of economic sectors (calculated by the author).**

The analysis shows that the level of distribution of the employed population by type of economic activity in the country during the analysed period was unsatisfactory.

The third chapter of the dissertation, entitled "**Directions for stimulating the development of the non-oil sector in the Republic of Azerbaijan**" shows the priorities for the development of non-oil

sectors in Azerbaijan and ways to improve economic policy in the development of the non-oil sectors. Improving the state's economic policy in the development of the non-oil sector in the country should be in four directions:

1. Creating more favourable conditions for financing investments in the non-oil sector;
2. Improving production efficiency;
3. Risk reduction and diversification;
4. Reducing interference in the development of enterprises operating in the non-oil sector and increasing state support.

The development of the country's non-oil industry necessitates the expansion of finance sources and the decrease of bank interest rates. In this sense, the state's economic policy should be improved in this direction. To promote agriculture and processing firms, we feel that key agencies or investment companies should be founded. It is worth noting that the Entrepreneurship Development Fund's soft loans to agribusiness and enterprises have a maximum annual interest rate of 6%. It should be noted that this figure seems to be 4 times lower than the average interest rate on commercial loans issued by banks. This demonstrates that, in order to build the country's non-oil industry, soft loan financing should be expanded. The second option to boost public investment in the economy's non-oil sector is for the government to raise spending and capital investment, as well as extend public procurement of locally manufactured items. We feel that this can be accomplished, particularly in educational institutions, by utilizing the opportunity provided by local businesses in this area in terms of giving apparel and equipment to law enforcement. Increased investment in business operations should also result in increased revenue. As a result, the state's spending must be increased appropriately. The occurrence of such a situation has a multiplicative effect. That is, the multiplier rises when producers seek to expand their needs as their income rises. When producers tend to gather, on the other hand, the multiplier decreases. It should be mentioned that there are some aspects of animation that limit its usefulness. When there is unused power and free labour in the economy, multiplication efficiency is poor.

The rise in production efficiency is the second crucial stage in

enhancing the state's economic policy in the development of the country's non-oil industry. The level of competitiveness of the national economy determines the efficiency of the country's non-oil sector, as well as the economy as a whole. The fact that the country's exports are raw materials reveals the economy's low efficiency as a whole, implying that products produced in the country's non-oil sector compete poorly with identical foreign products. The low competitiveness of indigenous products, on the other hand, indicates that the economic resources engaged in the country's economic turnover are not being utilised effectively. International observations demonstrate that organizing and creating competitiveness in the economy in a short period of time is impossible. As a result, the state should encourage and promote the development of economic sectors that secure the country's long-term economic progress.

The efficiency of businesses is directly tied to improving living conditions in any country. As a result, the state's implementation and support of investments in this direction to provide quality training in terms of enterprise development can be considered a strategy to strengthen the state's economic policy in terms of non-oil sector development. We believe that there is a critical need to effectively link the non-oil industry to the labour market in order for it to develop. The state and development of the country's existing infrastructure is one of the most important variables impacting the efficiency of producing regions in terms of non-oil sector development. The country's infrastructure development has a direct impact on its economic development. When a country's infrastructure is well-developed, the speed of financial, material, and information flows rises, resulting in lower costs.

## **CONCLUSION**

1. The natural resources and climatic conditions in which the country exists are the most important factors determining the establishment of the national economy structure in modern times; the second most important component is historically created specialization. The level of technological development in the country

is the third major aspect in the establishment of the economy's structure, and the social structure of society is the fourth. The examination of aggregate demand parameters is the fifth factor in the construction of the economy's structure, and the sixth factor is the degree of market saturation. Along with natural resources, the state's economic policy, the level of scientific and technological progress, the quantity and quality of labour resources, infrastructure and existing transportation networks, the nature of the area's production location, and the state's economic policy all have a direct impact on the formation of the economy's structure.;

2. Any country's level of economic development is directly proportional to its production results. The amount of utilization of production variables is critical in defining the production area's outcome. We can state that production shows the true technological dependence between the production resources involved and the output of final products because the components of production are labour, capital, and materials, including natural resources. In practice, it may appear that one factor of production can outperform another. However, in comparison to other countries, the factor of unequal distribution of production factors is also significant. However, relying on a single component, particularly natural resources, to ensure economic progress is ineffective. A country's richness of natural resources shows that it possesses all of the necessary components for economic progress. However, as evidenced by the experiences of a number of countries, natural resource abundance is not necessarily a driving factor of economic development, and the concept of "Dutch syndrome" has already entered the economics literature.

3. The richness of natural resources and the efficient use of revenue from exports are the key factors of high growth, competition, and human capital development in some countries, according to experience. Such countries include Norway, the United States, Canada, and the United Kingdom. However, in some other countries, abundant natural resources and inefficient use of revenue from exports result in a decline in living standards and one-sided economic progress. Iraq, Angola, Syria, Sudan, Colombia, Algeria, Nigeria, and others are

examples of such countries. The same can be said for Russia, which is just across the border. As a result, Russia's economy, which is the world's largest in terms of area and natural resources, and whose export structure is dominated by raw commodities, is unable to compete with the world's top economies. The fundamental issue, in my opinion, is the wrong establishment of regulatory procedures. The government can take a variety of steps to ensure the flow of investment in the non-oil sector of the economy, based on the following principles.

- Application of temporary taxes, customs and a number of other benefits for the development of non-oil sectors;
- Providing financial incentives to attract investment in the non-oil sector, covering a certain part of loan interest by the state;
- Creation of necessary infrastructure for the establishment of non-oil industries, etc.

4. It is interesting to review the Norwegian experience. Thus, this country is a leading producer of oil and gas that made it 7<sup>th</sup> in the world in terms of oil and gas production in 2018. However, there is no problem in the mentioned country associated with the exports of raw materials. The observations approve that the reason behind the Norwegian success story is the effective utilization and transparent management of oil and gas revenues including their effective division among other structures of the economy. Other economic factors can be mentioned as the following:

- It is not allowed the government budget to be inflated due to the oil and gas revenues;
- Industrial structure is diversified;
- Protection of macro-economic stability is provided;

Experience shows that the precondition for the economy to be free from oil dependence is to achieve economic diversification.

5. Special attention must be given to the development of the following sectors in order to regulate the development of the non-oil sector:

- Application of achievements of scientific-technical progress in the production;
- Make substantial investments in the development of non-oil industries;

- Achieve the deployment of productive forces in line with the development of non-oil industries;
- Stimulate the establishment of technology for the production of new products;
- Provide innovative establishment of the economy;
- Benefit from the recommendations of the foreign investors.

**Main content of the dissertation has been compiled in the following publication:**

1. Mehdiyeva, N.Z. Azərbaycanca qeyri-neft sektorunun inkişafının təmin edilməsində milli valyutanın rolunun səciyyəvi xüsusiyyətləri // – Bakı: AMEA-nın Xəbərləri, İqtisadiyyat seriyası, – sentyabr-oktyabr 2017, – № 5, – səh. 71-75.

2. Mehdiyeva, N.Z. İqtisadiyyatın strukturunun formalaşmasını müəyyən edən amillər // – Bakı: Əmək və Sosial Problemlər jurnalı, – 2017, – №1 (21), – səh. 152-157.

3. Mehdiyeva N.Z. Azərbaycanca qeyri-neft sənaye sahələrinin inkişafının prioritet istiqamətləri // – Bakı: AMEA-nın Xəbərləri, İqtisadiyyat seriyası, – noyabr-dekabr 2018, – № 6, – səh. 203-209.

4. Mehdiyeva, N.Z. İqtisadi təhlükəsizliyin təmin olunmasında qeyri-neft sənaye sahələrinin inkişafının dövlət tənzimlənməsi mexanizmləri // – Bakı: AR Təhsil Nazirliyi, Azərbaycan Kooperasiya Universiteti. “Müstəqil Azərbaycan dövlətinin ərzaq təhlükəsizliyinin təmin edilməsi və aqrar sahənin rəqabətqabiliyyətliliyinin yüksəldilməsi” mövzusunda beynəlxalq elmi-praktiki konfrans, – 1-2 iyun 2018, -səh. 254-256.

5. Мехдиева Н.З. Голландский синдром и развитие нефтяных промышленных отраслей // – Москва: Экономика и предпринимательство, – 2018, – № 9, – ст. 490-493.

6. Mehdiyeva, N.Z. Azərbaycanca qeyri-neft iqtisadiyyatının inkişaf dinamikasının qiymətləndirilməsi // – Bakı: Azərbaycan Universiteti. İpək yolu jurnalı, – 2019, – № 1, – səh. 39-46.

7. Mehdiyeva, N.Z. Azərbaycanca qeyri-neft sahələrinin müasir vəziyyətinin təhlili // – Bakı: Azərbaycan Kooperasiya Universiteti, “Kooperasiya” elmi-praktiki jurnal, – 2019, – № 2 (53), – səh. 63-69.

8. Мехдиева Н.З. Некоторые проблемы развития нефтегазовой промышленности в Азербайджана // – Белорус: Потребительская

Кооперация стран постсоветского пространства: состояние, проблемы, перспективы развития. – 26-27 сентября 2019, – ст. 57-59.

9. Mehdiyeva, N.Z. Qeyri-neft sənayesinin inkişafı sahəsində dövlət tənzimlənməsinin bəzi məsələləri // – Bakı: AR Təhsil Nazirliyi, Azərbaycan Memarlıq və İnşaat Universiteti, “Doktorantların və gənc tədqiqatçıların XXIII Respublika elmi konfransının materialları. – 2019, – səh. 328-330.

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