THE REPUBLIC OF AZERBAIJAN

On the rights of manuscript

ABSTRACT
Of the dissertation for the degree of Doctor of Philosophy

MARKET MECHANISMS OF REPRODUCTION PROCESS AND ACCELERATION OF NATIONAL ECONOMIC DEVELOPMENT

Speciality: 5307.01- Economic theory

Field of science: 53 – Economic Sciences

Applicant: **Parvin Suleyman Verdiyeva**

Baku - 2021

The dissertation work was carried out in the department of "Theoretical bases of economic policy and history of economic thought" of the Institute of Economics of the Azerbaijan National Academy of Sciences.

Scientific supervior: doctor of economics, professor
Irshad Abdul Karimli

Official opponents: doctor of economics, professor
Umudvar Ganbar Aliyev

doctor of economics, professor
Veysal Seyfal Eyyubov

doctor of Philosophy in Economics,
Associate Professor
Elshan Ali Ibrahimov

Dissertation Council ED 1.10 of the Supreme Attestation Commission under the President of the Republic of Azerbaijan within the Institute of Economics of the Azerbaijan National Academy of Sciences

Chairman of
Dissertation Council: Doctor of economics, professor

_____ **Nazim Muzaffar oglu Imanov**

Scientific secretary of
Dissertation Council: Doctor of Philosophy in Economics, dos

_____ **Sevda Mammad gizi Seyidova**

Chairman of the
scientific seminar:

Doctor of economics, professor
Fuad Alinaghı oglu Qanbarov

GENERAL OVERVIEW OF WORK

Relevance and scope of the research .

In general, as in any region of the world, economic development in each country of the region is characterized by general economic principles, as well as specific processes in accordance with the specific historical conditions of each country. This can be attributed to the process of reproduction of countries, the current state and prospects of its development. In this sense, the Azerbaijani economy needs to be considered in the context of specific development processes of the country, along with the use of general principles of economic development, more specifically, reproduction should be considered not only from the standpoint of general economic development, but also in the context of real national economic development processes in accordance with specific historical conditions.The process of national reproduction, which is the basis for the formation and development of the national economy of Azerbaijan, allows the country's economy to function as a single system. This shows once again that the country's households, firms, companies and all sectors and sub-sectors that are part of the real sector of the economy as a whole are not the sum of mechanical union, but only the enduring continuation, restoration and expansion of the interaction of the constituent elements of the self-reproducing economic mechanism It is vital to further strengthen the interaction and coordination of the stages of reproduction with such a mechanism, and thus to further accelerate the national economic development of the country. The first step in this direction is to clarify the factors influencing the national economic growth in the country, first of all, the economic mechanism and thus the market mechanism. In this sense, the topic of the dissertation is very relevant, has a special theoretical and practical significance.

The decree signed by the President of the Republic of Azerbaijan Ilham Aliyev on both the "Strategic Roadmap for the National Economic Prospects of the Republic of Azerbaijan" and the "Azerbaijan 2030: National Priorities for Socio-Economic Development" further highlighted the need to accelerate Azerbaijan's national economic and social development. Thus, as the level of

development of the national economy increases, as the innovative factors of national economic development become more active, economic competitiveness, inclusion and social welfare, which are the basis of sustainable economic development, will be more ensured in the country.

The experience of national economic development in Azerbaijan in recent years is characterized by the process of formation and development of priority areas of the non-oil sector of the economy in the direction of national industrialization. Therefore, there is a need to fully realize the opportunities to use the objective effects of national industrialization in real practice in the mutual completion of the national reproduction chain in the economy of Azerbaijan. Although this need poses many problems to the national economy, in any case, the precondition for solving these problems is to achieve national economic growth in Azerbaijan as a whole by ensuring the interdependence and conditioning of the market with national production. One of the main problems in the Azerbaijani economy can be considered as the difficulties of ensuring the interaction of the market with national production and its final results. As this process covers the crucial stages of national reproduction, it must be considered an important condition for the functioning of the national economy as a whole. Although the economic reforms implemented in the country in recent years have yielded the necessary results in strengthening the market interaction with the production of national products, especially national brands, in any case, this result is still insufficient. There is an imbalance between the volume and structure of nationally produced goods and services and the volume and structure of the market, there is a shortage of quality nationally produced goods, and there is no flexible innovation in the range of goods.

The modern process of national reproduction has become a fairly progressive economic system with a new content and perfect form. Within the framework of joint activities of state regulation and market self-regulation, an updated system of interaction between the production, distribution, exchange and consumption of goods and services has been formed. This update has benefited from historically

formed theoretical views on reproduction. Such early scientific-theoretical ideas can be observed in studies by J.B.Say, C.M.Keynes, J.Mill, A.Smith, D.Ricardo, K.Marx, A.Marshall, K.Menger, E.Bem-Bawerk, A.Tyurgo, G.Gossen, I. Bentom, M. Weber and others.

The impact of different stages of national reproduction on economic growth was paid special attention at the researches carried out by Azerbaijani economists Z.A. Samadzada, N.M.Imanov, A.Kh.Nuriyev, T.H.Huseynov, I.A.Karimli, Sh.M.Muradov, T.N.Aliyev, G.Z.Yuzbashiyeva, A.P.Babayev, I.H.Aliyev, A.J.Muradov, A.G.Alirzayev, H.B. Rustambayov, S.M.Mikayılova, A.I.Bayramov, U.G.Aliyev, Q.N.Manafov, M.A.Ahmadov, A.Sh.Shakaraliyev..

The study of the interaction of factors of production in the process of national reproduction, the impact of the market and consumers on the improvement of the production process due to structural changes in the process of accelerating national economic growth is widely covered in the works of Western economists such as F.List, R.Solow, P.Samuelson, J.Mil, R.A.Jenes, G.Symon, R.Coase, D.Nort, H.Kondratev, Leonid Gurvits, Roger Myerson, Eric Meskin, R.Hausmann, D.Rodrik and others.

Various aspects of the problem were studied in the research work, valuable results were obtained in the scientific and practical direction. However, in order to ensure the process of large-scale duplication of production in a country in response to changing economic conditions, there is a need to use complex assessment methods to systematize and study the factors influencing the acceleration of national economic development. The systematicity and dynamism of this research are quite different. Taking into account the continuity of large-scale reproduction in the national economy of Azerbaijan, it was determined that there is a constant need to study the issues of sustainable growth of national economic development in the country, the interaction of stages of reproduction in the system of macroeconomic relations. All this led to the choice of the research topic, the definition of its goals and objectives.

The object of the research is the interaction of the national economic development of the country with the process of national

reproduction of Azerbaijan.

The subject of the research is the economic relations formed in connection with the impact of the national process of reproduction and its various spheres on national economic development.

The purpose and objectives of the research. The theory and practice of the existence of research work, the implementation of the economic process of reproduction in the national economy of Azerbaijan, the possibility of finding effective ways to develop its national economic development can be provided in modern conditions, can be developed economically.

In the dissertation, objectices of the dissertation were set and prepared in a logical sequence:

-Assessment of the need to study the theoretical and conceptual bases of the process of   reproduction in the direction of modern and future development;

- research of scientific approaches to the formation of the national process of reproduction   and the features of modern development;

- formation of market system and study of general principles in the process of reproduction;

- analysis of the level of national economic development in reproduction;

- Finding ways to describe national economic growth by improving the market mechanism of reproduction in the Azerbaijani economy;

The methods of the research. Using statistical data of the State Statistics Committee of the Republic of Azerbaijan, the Central Bank, the Ministry of Economy, the World Trade Organization and other organizations, as well as the scientific abstractions, grouping, analysis-synthesis, induction-deduction, comperative and systematic analysis, econometric modeling, economic-mathematical methods and techniues

Main provisions for Defense:

– More realistic approach to the specification and analysis of the most generalized national economic indicators that characterize the use of the natural and economic potential of countries on the path

of independent economic development and the impact of that potential on the level of national economic development;

– The basis for strengthening the interaction between production and the market in Azerbaijan is the replacemenr of imported goods and services with nationally produced goods and services. The establishment of such a relationship is related to the future development of the non-oil sector in the country, especially non-oil industries;

– The growth of intensive factors of reproduction in the national economy and the strengthening of their impact is associated with the activity of the distribution sphere, on which the rules of income formation and its fair distribution in the country depend;

– The growth of investment activity and expansion of entrepreneurial activity in the country at the expense of both foreign and domestic sources increases the dependence of the interconnectedness and conditioning of the stages of reproduction of national economic development on the organic combination;

– Assessing the role of both import substitution and export-oriented industrialization strategy under the influence of intensive factors of large-scale reproduction on the national economic development, it can be concluded that Azerbaijan's choice of export-oriented industrialization strategy is more successful and in line with the current global liberalization strategy.

Scientific novelty of research. Theoretical and methodological generalizations, analysis and evaluation, as well as important innovations obtained by the author, which allow to study the impact of the market mechanism on economic development in the Republic of Azerbaijan, are as follows:

– Intensive factors of reproduction, which cause the increase of the level of national economic development, are systematized, the main intensive factors that directly affect the national economic development are revealed;

– The directions of improvement of the main structural elements of the market mechanism of reproduction in the national

economy of Azerbaijan were revealed, spesific proposals of theoretical and practical significance on active and effective functioning of these elements were given;

– The current situation of the level of national economic development in Azerbaijan was analyzed and econometric analysis of the main factors affecting economic development was conducted and spesific results were reached. According to the results of econometric analysis: 1 million manat increase in domestic investment will increase GDP by 5 million manat, 1 million manat increase in foreign investment will increase the country's GDP by 4.83 million manat, 1 million manat increase in budget revenues will increase GDP by 3.14 million manat;

– The impact of increasing the efficiency of the ratio between investment and consumption-oriented resources on the improvement of the market mechanism of the national reproduction process in Azerbaijan is substantiated;

– The objective preconditions that ensure the continuity of national reproduction were grouped and analyzed, and proposals were developed to strengthen the social orientation of the resulting reproduction;

– Effective ways of joint use of public and private investments in the structure of domestic investment resources to ensure national economic development in Azerbaijan have been identified;

– The need to choose an export-oriented industrialization strategy is substantiated by assessing the limited diversity of Azerbaijan's export basket on the basis of the EC (Economic Complexity) index.

Theoretical and practical significance of the research. The theoretical significance of the research is the systematic study of all stages of the process of reproduction, the study of modern features of their impact on national economic development in case of their mutual conditioning, the development of theoretical bases for assessing investment resources for the active functioning of the market mechanism of reproduction.

The practical provisions, proposals and recommendations substantiated in the dissertation are of practical importance for the

empirical assessment of practical issues aimed at improving the elements of the market mechanism in order to develop a broad process of reproduction on the basis of accelerating national economic development.

The main provisions of the research, the results obtained and the proposals put forward can be used in the development of state programs related to the regulation of the process of large-scale reproduction, research, as well as in the teaching of relevant subjects in universities.

Approbation and application of research. According to the results of the dissertation research, 9 articles, 3 conference materials and theses were published, 3 of them were published in foreign country.

The main provisions of the research, proposals and recommendations were presented at local and international scientific conferences, as well as discussed at the "XIX Republican Scientific and Practical Conference of Doctoral Students and Young Researchers" in Baku in 2015. It was awarded with the Certificate of the Ministry of Education and with certificate at the "30 August Symposium on Scientific Research" held in Turkey in 2019.

Organization where the dissertation work was carried out. The dissertation work was carried out at the Institute of Economics, the Azerbaijan National Academy of Sciences.

The volume of the research. Chapter I of the dissertation consists of 81676 characters, Chapter II of 63412 characters, Chapter III of 811126 characters, the dissertation consists of 240968 characters in total.

CONTENS

MAIN SCIENTIFIC PROVISIONS FOR DEFENSE

1. A more realistic approach to the specification and analysis of the most generalized national economic indicators that characterize the use of countries natural and economic potential pursuing in their independent economic development and the impact of that potential on the level of national economic development.

If we look deeply into the current level of national economic development, we can see that the transition to greater use of economic resources over natural resources, not only in the real sector of the national economy, but also in the economy as a whole, is gaining ground. The transition to economic resources itself must be based on real economic potential. We are witnessing that this potential, in all its aspects, is fed mainly from one source - human capital.

The economic potential of national economic development and the formation of corresponding resources should be considered the priorities of the present and the future. As the level of economic development in general and the level of national economic development in particular depends more on the size and structure of the country's economic potential, the degree and speed of its formation, and the extent to which it can be used.

As an important macroeconomic indicator that includes national economic development, indicators such as the speed and quality of GDP can reveal the pace of economic development in Azerbaijan. Thus, the stable positive trend of these indicators has led the Azerbaijani economy to take a leading position in the world since 2000.
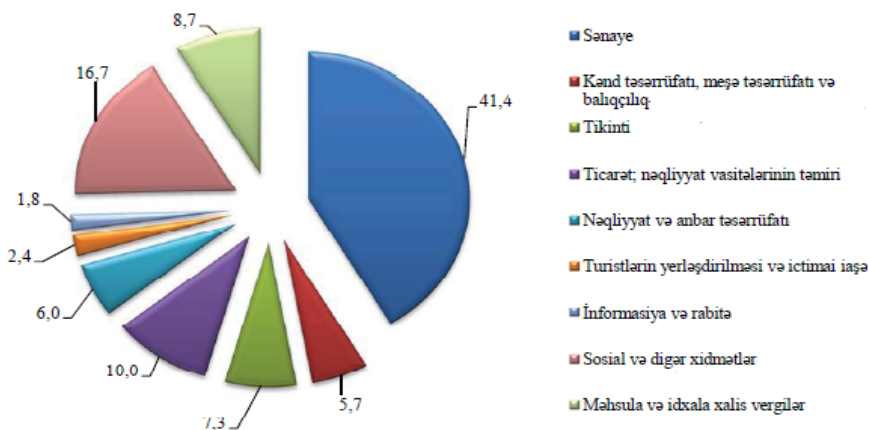
Table 1. GDP in Azerbaijan during 2000-2019

Years	GDP per capita		GDP per capita	
	million manat	*million dollar*	*million manat*	*miliyon dollar*
2000	4718,01	5272.8	593.2	662.9
2005	12522,5	13238,7	1494,3	1579,8
2010	42465,0	52909,3	4753,0	5922,0
2012	54743,7	69683,9	5966,1	7594,3
2015	54380,0	52996,8	5706,6	5561,5
2017	70135,1	40867,9	7226,0	4198,5
2018	79797,3	46939,6	8126,2	4780,1
2019	81896,2	48174,2	8268,8	4864,0

Source: The table 1 is compiled by the author based on the information of https://www.stat.gov.az/source/system_nat_accounts/

As it can be seen from the table above, there has been a steady increase in GDP and per capita GDP in Azerbaijan in recent years. Thus, if in 2005 the GDP in Azerbaijan increased by almost 3 times compared to 2000, in 2019 this growth was more than 17 times. The same dynamic growth can be observed in the amount of GDP per capita. Thus, compared to 2000, the GDP per capita in 2010 increased by 8 times, and in 2019 by about 14 times (see: Table 1).

The economic potential created by the sustainable economic reforms implemented by the Government of Azerbaijan to increase economic activity has increased the resilience of the economy and boosted the rate of GDP production. For a more in-depth analysis of the current socio-economic situation, consider the sectoral structure of gross domestic product (see Figure 1):

Figure 1. Structure of GDP by types of economic activity in Azerbaijan in 2019 (in% to final)

The analysis of Figure i shows that in 2019, 41.4% of the value addition created in the country was produced in industry, 10% in trade, vehicle repair, 8.7% in construction, 6% in transport and warehousing, 5.7% in agriculture, forestry and fisheries, 2.4% in tourist accommodation and catering, 1.8% in information and communication, and 16.7% in social and other fields. Net taxes on products and imports accounted for 7.3 percent of GDP

As it can be seen, most of the value addition created in 2019 falls on the industrial sector. 70% of industrial output is in the mining sector, 25.2% in the processing sector, 4.3% in the production, distribution and supply of electricity, gas and steam, and 0.7% in water supply and waste treatment and the processing sector.

Structural analysis of GDP in Azerbaijan over the past years shows that the oil and gas sector has been a key driver of economic growth. In 2019, in the mining industry more value was created compared to previous years, ie 28818.1 million manat.However, this increase was mainly due to gas production.

The process of reproduction of the gross domestic product formed in Azerbaijan can be considered one of the main results of the new economic mechanism established by the country. This has

been achieved through the successful implementation of a number of fundamental economic reforms. The market model of economic development as a whole has been realized by placing the priority areas of the national economy in the sphere of market relations. Building a market model for the development of key sectors of the economy is a very delicate process that also encompasses the national economic development strategy.

2. The basis for strengthening the interaction between production and the market in Azerbaijan is the replacement of imported goods and services with nationally produced goods and services. The establishment of such a relationship is connected with the future development of the non-oil sector in the country, especially non-oil industries.

The need for a theoretical study of the forms of interaction between the market and production requires a new approach to both areas, raises the issue of justification of the interaction. The structural link between aggregate supply and aggregate demand plays an important role in strengthening the relationship between production and the market. It is necessary to pay attention to these indicators, their structure and dynamics, which were reflected in Azerbaijan in 2005-2018. Thus, the amount of goods and services produced within the country is growing over the years. (see Table 2).

Table 2. Balance of aggregate demand and aggregate supply in Azerbaijan for 2005-2018 (million manat))

	2005	2010	2015	2018
Domestic product supply	20252	57797,5	78991,1	111946,2
Import supply	6624,5	8782,3	18927,9	30098,8
Aggregate supply	26877,5	66579,8	97919	142045
Demand of national market	12 115,8	40 811,1	53266,8	78126,4
Aggregate demand	19997,6	63871,6	73819,6	78179,6

Table: Table Statistical indicators of Azerbaijan. Baku: 2019 and National Accounts of Azerbaijan. Baku: 2019- compiled by the author on the basis of information.

According to Table 2, domestic demands in Azerbaijan in 2018 increased by 6.4 times compared to 2005 at comparable prices. Payment of 54.6% of domestic demand in 2005, of 21.5% in 2010, of 35.5% in 2015, and of 38.5% in 2018 at the expense of import supply shows that although the supply of domestic production in Azerbaijan has increased in quantitative terms, this growth has been in one direction (oil and gas sector) and tends to be exported. The production supply for the domestic market includes food, clothing, transport and technical-technological means, etc., which constitute the main consumer expenditures of the population. The lack of such goods has stimulated imports. However, the relative decrease in the share of imports in total consumption in recent years can be attributed primarily to the positive trend in the production of national products (see: Table 2).
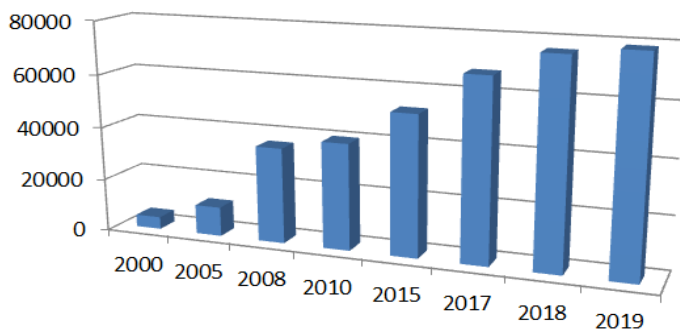
The sharp drop in energy prices on global commodity markets since 2014 has stimulated diversified and consistent economic reforms to reduce the country's dependence on oil revenues and develop the non-oil sector. The aim of consistent economic reforms is to ensure the replacement of imported goods and services by increasing the production of competitive products in the country's processing industries and priority areas of agriculture, to be able to meet aggregate domestic demand with the national production supply.

The "Azerbaijan 2030: National Priorities for Socio-Economic Development" approved by the Decree of the President of the Republic of Azerbaijan dated February 2, 2021 attracts more attention on the solution of the problem of efficient use of foreign investments not only to maintain the competitiveness of the non-oil sector in the national economy of Azerbaijan, but also to strengthen it. To this end, support for the participation of local firms and companies should be strengthened, with greater emphasis on the correct selection of international investment projects in accordance with the specifics of production and economic priority areas of the national economy in which foreign investment will be made, and the purpose of intermediate and final output. Only in this way, with the help of more promising and rated investments, priority areas of the

competitive non-oil sector can be created in Azerbaijan, which will become more sustainable..

3. The growth of intensive factors of reproduction in the national economy and the strengthening of their impact is due to the activity of the distribution sphere, on which the rules of income formation and its fair distribution in the country depend.

It is the growth of national income, which is the only source of development of national production, ensuring meeting the needs of economic entities and the population in various goods and services in the national economy. The steady growth of national income is a key indicator of the the national reproduction process and effective functioning of its distribution sphere in order to developentrepreneurial activity in the country as a whole, as well as to improve the welfare of each individual of population.

2000	2005	2008	2010	2015	2017	2018	2019
4633.5	11094.2	36012.5	39922.2	52641.2	67678.6	76251	78721.4

Source: The diagram was compiled by the author on the basis of the data of the National Accounts of Azerbaijan, Baku: 2020, p.19.

Figure 2. Dynamics of growth of National Income (NI) in Azerbaijan for 2000-2019 (million manat)

The diagram data show that compared to 2000, NI in 2010 increased by 8.6 times, in 2015 by 11.3 times, and in 2019 by 17 times and had a high growth dynamics (see Figure 2).

A more specific direction of improving the market mechanism of reproduction in the national economy of Azerbaijan is to increase

the efficiency of the ratio between investment and consumption-oriented resources. The connection of the investment process of savings with the improvement of the living standards of the population is more clearly expressed in the specific historical conditions, depending on the level of national economic development of the country and the degree of application of modern equipment and technology in production. Here it is necessary to calculate the collection rate and use the corresponding economic indicators.

$$Y_N = \frac{\dot{I}_{MA} + \dot{I}_{TS} + \dot{I}_{IK}}{GDP} \qquad (1)$$

Here, Y_N –*saving rate;*
$\dot{I}_{MA}$ – *investments in manufacturing of machinery and equipment;*
$\dot{I}_{TS}$ – *investments aimed at increasing natural resources;*
$\dot{I}_{IK}$ – *investments aimed at creating human capital;*
GDP is a gross domestic product

The saving rate should be such that it allows the growth rate of new machinery and equipment, industrial facilities to be built, renewable natural resources and advanced education to exceed the rate of deterioration and obsolete. Undoubtedly, such an opportunity is aimed at increasing the savings rate of the country's economic resources, and thus the discovery of economic potential.

Table 3. Use of national income for investment and consumption

Indicators	2005	2010	2012	2015	2017	2019
In per cent						
National income allocated for investment and consumption	100	100	100	100	100	100
including: consumption	80,7	75	70,6	83,7	91,8	90
Investment and other expnses	19,3	25	29,4	16,3	8,2	10

Source: Table Statistical indicators of Azerbaijan. Baku: 2020, p.122- compiled by the author on the basis of information.

Table 3. shows that, there is an unequal dynamic of investment in the distribution of national income in Azerbaijan. Thus, in 2005-2012, the average share of investments in the country's national income was 25%, but despite the dynamic growth of national income in 2012-2019, its share in investment decreased to 16.3 % in 2015, in 2017 it was 8.2%, and in 2019 it was 10%.

When calculating on the basis of formula 1. it turns out that in 2005 $Y_N = 0.12$; in 2010 $Y_N = 0.14$; in 2015 $Y_N = 0.12$; in 2017 $Y_N=0.05$; in 2019 it was equal to $YN = 0.07$. The low level of saving rate confirms once again that the main direction of improving the market mechanism of the reproduction process in Azerbaijan is to increase the efficiency of the ratio between investment and resources directed to consumption. First of all, it is possible to increase labor productivity in production by allowing to increase the efficiency of investments in national production. Because both processes lead to an increase in national income at the level of existing technology, labor and other factors of production. Improving labor efficiency in all areas of national economic activity can be achieved not only by saving investment resources on live labor, but also by increasing its equipment.

4. Investment activities and expansion of buesiness activities in the country at the expense of both foreign and local sources increase the dependence of the interconnection and conditioning of the stages of reproduction of national economic development on the organic combination

Economic growth is a step towards the economic development-a basic condition that express its quantitive side but, in no way economic growth means economic development itself. Table 4 shows the statistical data characterizing the national economic development of Azerbaijan for 2000-2018

Table 4. Time series of economic indicators reflecting national economic development

Years	GDP (mln. manat)	Domestic investments in the economy (mln. manat)	Foreign investments in the economy (mln. manat)	State budget revenues (mln. manat)	GDP production in the non-oil sector (in current prices, million manat)
2000	4718,1	460,3	829,5	714,6	3693,9
2001	5315,6	437,7	1016,8	784,8	4447,6
2002	6062,5	546,1	2172,8	910,2	5242,5
2003	7145,5	938,3	3311,0	1220,9	6055,1
2004	8531,2	1324,0	4496,3	1509,5	7630,0
2005	12522,1	2104,9	4628,5	2055,2	10576,1
2006	18746,4	2901,4	4514,2	3868,8	15197,3
2007	28360,3	4626,7	5727,2	6006,6	16726,0
2008	40136,1	7702,2	5625,8	10762,7	19179,0
2009	35600,2	6079,9	4395,1	10325,9	23196,1
2010	42464,7	7499,2	6619,7	11403,0	26864,4
2011	52083,2	10199,0	6849,8	15700,7	30525,9
2012	54745,2	12148,3	8102,7	17281,5	33195,9
2013	58183,1	13178,9	8269,3	19496,3	34138,8
2014	59015,3	12715,0	9175,6	18400,6	35951,1
2015	54353,4	9058,5	10998,9	17498,0	40328,0
2016	60425,2	6490,3	16216,1	17505.7	35951,1
2017	70337,8	8765,2	15697,3	16516,7	40328,0
2018	79797,3	11874,9	14002,1	22508,9	41510,5

Source: The table is compiled by the author on the basis of information of www.stat.gov.az.

Based on the time series shown in Table 4, GDP (Y), which we choose as a dependent variable, plays the role of influencing factors: the impact of Domestic investment in the economy (X1), Foreign investment in the economy (X2), State budget revenues (X3) and GDP production (X4) on the non-oil sector has been quantified.

In order to conduct econometric studies based on time series in the dissertation, $Y = b\_0 + b\_1 \, x + \varepsilon$ double regression models were constructed, which quantitatively characterize the effect of individual factors on GDP selected as a dependent variable in the first stage, and then a multi-regression model $Y = b_0 + b_1 x_{i1} + b_2 x_{i2} + b_3 x_{i3} + b_4 x_{i4} + \varepsilon$ reflecting the combined effect of all factors on this dependent variable was formed and its suitability for quality indicators and forecasting was evaluated.

Based on the indicators shown in Table 4, the contact equations and their characteristics obtained with the help of Eviews software packages are listed in the following table:

Table 5. Double regression models of the dependence of the Gross Domestic Product on the influencing factors

Explanatory factors	Contact equations	Coefficient of determination	Correlation coefficient	Fisher's criterion
Domestic investment in the economy (X_1)	$Y=5415.926+5.003247\,X_1$	0.85	0.92	94.49
Foreign investments in the economy (X_2)	$Y=3060.695+4.828078\,X_2$	0.79	0.88	63
State budget revenues (X_3)	$Y=4624.451+3.140211\,X_3$	0.97	0.98	473.77
GDP production in the non-oil sector (X_4)	$Y=-3257.399+1.766654\,X_4$	0.96	0.97	407.40

Based on the results of our econometric research, the qualitative characteristics of the dual regression models of dependence of GDP on economic regressors are quite high, and they can be considered useful mechanisms for forecasting. Based on the econometric analysis, it was determined that the main impact on the

process is domestic and foreign investment (X_1 and X_2) and state budget revenues (X_3). The effect of another regressor (X_4) on GDP is not clear and additional studies are needed. Thus, according to the economic meaning of the double regression model, an increase of 1 million manat in domestic investment will increase GDP by 5 million manat, an increase of 1 million manat in foreign investment will increase the country's GDP by 4.83 million manat, an increase of 1 million manat in budget revenues will increase GDP by 3,14 million manat.

Our econometric analysis has once again shown that the growth of investment activity and the development of entrepreneurial activity in the country at the expense of both foreign and domestic sources is very important in terms of the formation of the reproductive base of national economic development. It is possible to achieve the development of national reproduction and thus accelerate national economic development by increasing the share of national investments in fixed assets by giving more space to national investments.

5. Assessing the role of both import substitution and export-oriented industrialization strategy in national economic development under the influence of intensive factors of large-scale reproduction, it can be concluded that Azerbaijan's choice of export-oriented industrialization strategy is more successful, and this choice is in line with current global liberalization strategy.

Assessing the role of both industrialization strategies under the influence of the intensive growth of reproduction on national economic development, it can be concluded that Azerbaijan's choice of export-oriented industrialization strategy is more successful, and this choice is now in line with the rules of free trade in the world. This strategic line allows exporting goods and services to both domestic and foreign markets. In general, due to the influence of foreign trade factors on the national economic development of Azerbaijan, the intensive state intervention in the field of strategic industrialization should be carefully considered.

Based on the assumption made in 2005 by Harvard University professors R. Hausmann, J. Hwang, and D. Rodrick that productive knowledge is reflected in the products produced by a country, the Economic Complexity Index was established which studies the relationship between export diversity and economic growth in a country and is able to measure and compare different and complex productivity capabilities. According to them, the nature and composition of exports in the country can be important, but neither specialization nor diversification will contribute to economic growth unless the export basket is large in quantity and variety of finished products.
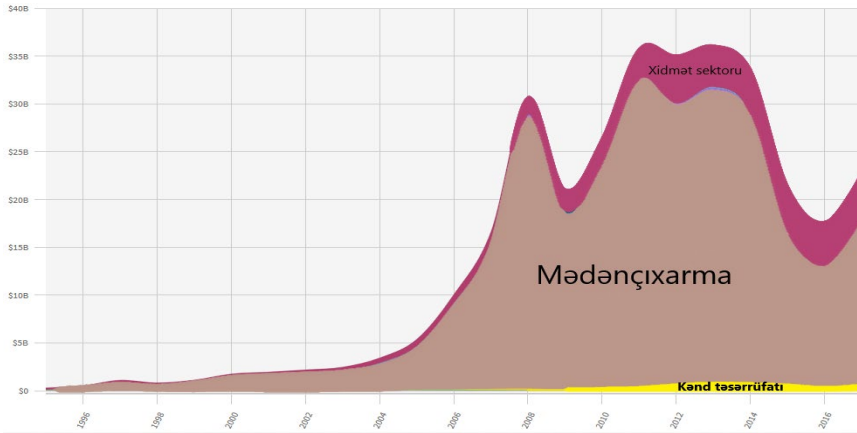
Table 6. World Economic Complexity Index

Years	Years					
	1993-1997		2003-2007		2013-2017	
	İMİ	Placemet order	İMİ	Placement order	İMİ	Placement order
Azerbaijan	0.440148	38	-1.08907	106	-0.654587	84
Japan	2.53902	1	2.34652	1	2.30938	1
Germany	2.2561	2	2.0148	2	2.07537	3
South Korea	1.1494	19	1.54709	10	1.77613	6
Singapore	0.9837	21	1.5565	9	1.86534	4
China	0.328308	41	0.632635	34	0.69130	33
Norway	0.8298	24	0.660506	32	1.09466	22
Russia	0.469322	35	0.510294	41	0.85204	27
Turkey	0.099291	53	0.413431	43	0.175726	52
Saudi Arabia	-0.142044	64	-0.153061	62	0.747155	29
Georgia	0.20617	45	-0.257126	71	0.0587891	63
Turkmenistan	-0.613978	79	-0.917194	98	-1.19506	112

Table 6. shows that in economically developed countries such as Japan, Germany, Norway, the ECI is high. In Japan, where the position in the ECI rankings has remained unchanged for many years, the state's economic policy has focused on the development of science-based industries that create higher added value. In the post-war years in Japan, the human factor was brought to the forefront and the rapid diversification of the economy began with the selection of national priorities.

Azerbaijan ranks 84th out of 133 countries in the ECI rankings (see Table 6). This reflects the limited diversity of our country's export basket.

Source: The diagram is compiled by the author based on the information of http://atlas.cid.harvard.edu.

Figure 3. Changes in Azerbaijan's export basket during 1996-2017

Figure 3. data show that mining products dominate in Azerbaijan's export basket. This picture reflects the high rate of economic growth in one direction, namely in the oil and gas sector. At the same time, over the past 10 years, we have seen an increase in the service sector in our export basket, especially in the ICT, transport and tourism sectors. The country has pursued a systematic policy to create an information and knowledge economy, increase efficiency in various sectors of the economy, produce competitive

and quality products in the direction of development of the service sector, especially the ICT sector. Thus, adoption of "National Strategy for Information and Communication Technologies for the Development of the Republic of Azerbaijan" on February 17, 2003, and the "State Program for the Development of Communications and Information Technologies in the Republic of Azerbaijan" on October 21, 2005, The announcement of 2013 as the "Year of Information and Communication Technologies" by the President of the Republic of Azerbaijan Ilham Aliyev has given impetus to the development of ICT in our country. New forms of economic activity such as e-government, e-commerce, Azercosmos, the first and only satellite operator in the South Caucasus, have been established in order to develop the ICT sector and increase the production of export-oriented products, which are among the priorities for sustainable and sustainable development in Azerbaijan. One of our main strategic goals is to ensure our information security and become a country exporting services to the world market by having 3 satellites such as Azerspace-1, Azersky and Azerspace-2.

It is very important to get on the path of strategic industrialization as soon as possible in order to increase the opportunities for the accelerated growth of large-scale reproduction to accelerate national economic development. In this way, the process of investing in fixed capital must be brought to the forefront, and the rules that arise between the productive efforts of investments and capital directed to a large number of property entities and the confrontation of financial resources must be followed. Only in this case, economic growth, reflecting the development of the national market economy, can provide real growth of gross national product and accelerate national economic development as a result of diversification of the economy and exports.

The following suggestions were proposed according to the research conducted in the dissertation:

1. The normal functioning of all stages of large-scale national reproduction plays an important role in the development of the

national economy as a whole, including national production, which is an integral part of it, and consumption, which is interrelated with this production. Lack of any element in any stage of a country's reproduction, such as the production process, distribution system, market and consumption of the population, can have a negative impact on the normal operation of the relevant stage and the operation of other stages. In this sense, for the stability and sustainability of the national economy as a whole, and its national economic growth in particular, requires a comprehensive approach to the effective organization of all stages of national reproduction, as well as to the all problems of matching the volume of national production and market capacity and solution of tese problems.

2. Based on the analysis of the essence and specific features of the state's both national economic modernization policy and national priorities for socio-economic development, the intensification of interaction between production and the market is considered an important condition in determining and implementing the main directions of efficient use of available resources in national reproduction. Therefore, as a result of the serious and acute requirements of the modern market economy, it is necessary to strengthen the industrial base of national production and accelerate its development, ensure the social orientation of national production, and implement more effective socio-economic development programs.

3. In order to clarify the reality of Azerbaijan's economic development, to formulate the preconditions of the national industrialization strategy and to ensure Azerbaijan's entry into the post-industrialization stage, it is necessary to revise the development programs of priority sectors and processing industries in the agricultural sector. First of all, in order to complete all phases of the reproduction process in both fields within the borders of Azerbaijan, it is necessary to build a new investment base for this process and find effective ways to use state investment for these purposes.

4. Analysis materials show that the volume of investments in the production of finished and final goods and services as a part of total investments is still low. It is possible to increase the production

of finished and final goods and services not only by foreign investment, but also by increasing the volume and level of national investment. For this, it is very important to use the joint financial resources of the public and private sectors. The establishment of a "Finished Industrial Goods Investment Fund" in the production of non-oil industrial goods in Azerbaijan should be considered a more noteworthy state measure.

5. The active operation of the market mechanism in itself requires the intensive nature of innovative activities in production. In this sense, it is crucial to strengthen innovation activities that can be formed in the national economy and to identify technical, technological and economic and social indicators that reflect the specifics of these activities. It can be said unequivocally that a stable growth of the country's gross domestic product and national income and the prospects for this growth can be guaranteed by pursuing an effective innovation policy in the process of large-scale national reproduction and at each stage of it.

6. Purposeful measures taken to involve the liberated Karabakh region in the national economic development of Azerbaijan have a direct impact on the formation of production and consumption in the country as a whole, the rapid growth of production capacity. In our opinion, domestic investment in the development of the national economy of Azerbaijan directly increases the interest in the comprehensive expansion of personal and industrial consumption, and thus in productive labor. In order to expand this process strengthening direct financial support from the state to enterprises that increase and improve the structure of national industrial production, innovating using innovative investments for modernization, and even applying tax incentives to those enterprises, if necessary can be considered an important step.

7. In order to ensure sustainable economic growth and expand non-oil exports in our country, it is important to develop a processing industry that produces competitive, innovative end products with medium and high levels of complexity. It is very important to get on the path of strategic industrialization as soon as possible in order to increase the opportunities for the accelerated growth of large-scale

reproduction to accelerate national economic development.

8. Achieving the optimal distribution of national income between consumption and saving in Azerbaijan is one of the main directions of improving reproduction. At present, the dependence of the living standards of the Azerbaijani population on national economic development is growing. To do this, the government needs to identify potential opportunities for national investment by identifying ways to make more efficient use of production savings. This direction will not only ensure the constant renewal of the scientific and technical base of national production, but also have a positive impact on the acceleration of national economic development.

9. In the restructuring of the sectoral structure of the non-oil sector in Azerbaijan, it is necessary to include the coordinating state means in the system of economic management mechanisms, along with market instruments. This situation allows to achieve positive results by combining the stimulating effect of market mechanisms with the methods of economic regulation of the state in overcoming problems that are impossible or difficult to solve. Effective integration of Azerbaijan into the global reproduction and value chain is possible through a state policy aimed at developing import-substituting and diversified export potential, adapted to the volume and structure of the population's solvent demand in domestic and foreign markets.

10. Noting that the application of the products produced by the knowledge economy with high economic value in Azerbaijan in the process of large-scale reproduction is of some concern, it is necessary to take into account the need to continue the implementation of effective state programs in this direction. Strategic goals in this area should be clarified, first of all, the adaptation of science-education-innovation-production unity in Azerbaijan to the requirements of modern times should be kept in the focus of public and private sector.

List of published scientific works of the author:

1. Verdiyeva, P.S. Milli iqtisadi inkişaf və sosial sferanın inkişaf yolları // – Bakı: AMEA İqtisadiyyat İnstitutu. Elmi əsərlər. IV Buraxılış. – 2013, – s. 120 – 126.

2. Вердиева, П.С. Оценка аспекта воспроизводства национального экономического развития // – Москва: Экономика и предпринимательство. №4. Т.2 (45–2). – 2014, – с. 207–214.

3. Verdiyeva, P.S. Milli iqtisadi inkişafın təkrar istehsal aspektləri və onun qiymətləndirilməsi // – Bakı: Azərbaycan Dövlət İqtisad Universitetinin elmi xəbərləri. №4. – 2014, – s. 112 – 124.

4. Verdiyeva, P.S. Milli iqtisadiyyatın təkrar istehsal prosesinin sürətləndirilməsinin milli iqtisadi inkişafa təsiri istiqamətləri // Azərbaycan Respublikası Təhsil Nazirliyi Azərbaycan Milli Elmlər Akademiyasının 70 illik yubileyinə həsr olunmuş doktorantların və gənc tədqiqatçıların XIX respublika elmi konfransının materialları. I Cild. – Bakı: İqtisad Universiteti, – 7 – 8 aprel, – 2015, – s. 294 – 296.

5. Вердиева, П.С. Направления усиления влияния механизма воспроизводства на развитие рыночной экономики // – Москва: Наука и бизнес. Пути развития. №1(55). – 2016, – с. 32-36.

6. Kərimli, İ.A. Azərbaycan iqtisadiyyatında təkrar istehsal mexanizmi və milli iqtisadi artımın sürətləndirilməsi perspektivləri // İ.A.Kərimli, P.S.Verdiyeva. – Bakı: AMEA İqtisadiyyat İnstitutu. Elmi əsərlər. II Buraxılış, – 2018, – s. 31 – 36.

7. Verdiyeva, P.S. Azərbaycan iqtisadiyyatında təkrar istehsal mexanizminin təkmilləşdirilməsi istiqamətləri // – Bakı: AMEA İqtisadiyyat İnstitutu. Elmi əsərlər. I Buraxılış. – 2018, – s. 92 – 97.

8. Verdiyeva, P.S. Azərbaycan ümumdünya təkrar istehsal prosesinin ayrılmaz tərkib hissəsi kimi // VI Beynəlxalq türk dünyası araşdırmaları simpoziumu. II cild. – Bakı: Bakı Avrasiya Universiteti. – 13 – 15 iyun, – 2019, – s. 293 – 296.

9. Verdiyeva, P.S. Yığımla istehlak arasında uyğunluğun yaradılmasının əsas istiqamətləri // Uluslararası Bilimsel Araştırmalar

Sempozyumu. – Türkiye, İzmir: İksad. – 29 – 31 Avqust, – 2019, – s. 164 – 167.

10. Verdiyeva, P.S. İnvesting in the Azerbaijani economy is a factor in the improvement of the recycling mechanism // – Vienna, Austria: European Journal of Humanities and Social Sciences. Premier Publishing. №4. – 2019, – p. 111-116.

11. Verdiyeva, P.S. Azərbaycanda davamlı ekoloji inkişafa əsaslanan bazar mexanizminin formalaşdırılması istiqamətləri // "Dövlət atributlarından Konstitutsiyaya" adlı respublika elmi-praktiki konfransı. – Bakı: Azərbaycan Respublikası Dövlət Təhlükəsizliyi xidmətinin Heydər Əliyev adına Akademiyası. – 12 noyabr, – 2019, – s. 286 – 291.

12. Verdiyeva, P.S. Azərbaycanın ixrac səbətinin İqtisadi Mürəkkəblik İndeksi əsasında təhlili // – Bakı: Statistika xəbərləri. №3, Cild 3. – 2021, – s.34-40.

Defense will be held on 10 November 2021 at 11^{00} at the meeting of the ED 1.10 Dissertation Council of Institute of Economic of the Azerbaijan National Academy of Sciences.

Address: H.Javid ave ., 115, Baku city, Azerbaijan Republic, AZ1143.
E-mail: economicscomaz@gmail.com

Dissertation is accessible at the library of Institute of Economics, Azerbaijan National Academy of Sciences,

Electron versions of dissertation and abstract are available on the official website of the Azerbaijan National Academy of Sciences, Institute of Economics.

Abstract was sent to the required addresses on 8 October 2021.