

The Ministry of Education of the Azerbaijan Republic

Diploma work 2018

“Non-oil sector and its development in Azerbaijan”

Babazade Mirismayil

Faculty: SABAH Groups

Qualification: Industry organization and management

Supervisor: Emil Bashirov



Acknowledgement

I am very proud of completing and presenting my diploma work - as the last step in my university life and bachelor study in UNEC . It makes me very happy and excited.

Therefore, I would like to thank to everybody who supported and helped me by motivating or sharing their knowledge with me during preparing interval of my diploma work and after.

I am thankful all members of University of Economy, Prof. Adalet Muradov, SABAH” faculty, PhD.Aida Guliyeva and all my teachers. Also special thanks to my supervisor Emil Bashirov for supporting and giving valuable advices me in preparing diploma work.

Content and objectives.

Industry is a very important part in national economy. Some countries have natural resources, like oil and gas. But it is obvious that it will be unreasonable to predict the development of national economy based on just natural resources. Because these reserves are limited and will be end. And it is dangerous when economic progress depends on just natural reserves, specially oil and gas sector. (In economics it is approached to this problem as “Dutch Sindrom”). For Azerbaijan, to reach durable progress basic goal is providing development of non-oil sector and increasing the role of it in the export potential. Therefore, many developing countries in the world tries to provide progress in non-oil sector and diversification of economy. This problem is also characteristic for Azerbaijan. Then it is important to find out development paths, problems, and solutions in this sector.

Therefore, I tried to inform you in my dissertation with non-oil sector – specially non-oil industry and agriculture, its structure and future prospectives, problems in progress and suggestions for these problems in Azerbaijan.

Analyzing of these questions forms the major objective of this dissertation. So, my dissertation targets problems in non-oil sector.

Table of content

1. Acknowledgement
2. Content and objectives
3. General information about oil and non-oil industry
 - 3.1. Industry and its structure
 - 3.2. The brief history of industry
 - 3.3. Non-oil industry in the world
4. Current situation in Azerbaijan

- 4.1. Current situation and statistics;
- 4.2. State programs on non-oil sector;
- 5. Problems in the development of non-oil sector in Azerbaijan;
- 5.1. Basic problems in non-oil sector
- 5.2. Suggestions for problems
- 6. Conclusion;
- 7. Literature Review and References;

Chapter 1. General information about oil and non-oil industry.

As a subject, firstly, we must define “non-oil sector” term. This term became very popular in developing countries lately (Nigeria, Saudi Arabia and etc.). To understand the reasons is not difficult: scarcity of resources, the hazards of depending on resource extraction of great part of the economy (in some studies approached as “Dutch Syndrome”) and etc. Therefore, developing countries are trying to develop non-oil sector by using opportunities gaining from “oil sector”. Here “oil sector” does not mean just oil and gas resources. It can include other energy raw-materials in other countries.

Non-oil sector involves those sectors, which are not linked directly to extraction and early-stage processing of oil and gas resources. Oil and gas products are used in these sectors, usually, as raw-materials.

If we consider that industry is one of the economic sectors, then the question “developing non-oil sector” also includes developing non-oil industry.

For the reasons industry will be at focus.

1.1. Industry and its structure.

“Industry” term usually are used in two meanings: in a narrow sense and in a broad sense.

In narrow sense, industry means similar companies which produce goods technically.

But in broad sense industry involves any business activity.

Manufacturing industry is a significant sector in production after industrial revolution. This term is very important in economy. Therefore, firstly, it must be given attention to “industry” term. It means something wider than many people think.

Industry involves production of goods and services in economy. This definition gives impression about “industry” term’s boundries.

“Industry” and “agriculture” concepts are interesting. Some studies approach these as different notions. This depends on “industry” term. Specially, up to last centuries it was mentioned and industry has not developed yet. (Also sometimes it has been prepared “levels of development” by the ratios of industry and agriculture). At the same time, it must be considered that agriculture request human labor and machine today.

Industrial sectors...

Industry has 4 major sectors:

Primary sector;

Secondary sector;

Tertiary sector;

Quaternary sector;

Primary sector plays as a raw-material base for other industries. The other term for this sector is “extraction”. Natural resources are “ products” of this sector. Major structur part of this sector involves

Agriculture;

Fishing;

Mining;

Quarrying;

Primary sector is more characteristic for developing countries.

Secondary sector – this sector uses outputs of primary sector. Secondary sector produses finished goods which are usable. These sector includes aerospace, tobacco, electronics industry and etc.

Light and heavy industry are differentiated in secondary sector from each other.

Tertiary sector – which also called service sector. It provide service to customers and other businesses.

Tertiary sector involves:

News media;

Leisure industry/hotel;

Consulting;

Healthcare/hospitals;

Waste disposal;

Estate agents;

Restaurants;

Government services;

Education;

Law and order / Legal services;

Hospitality industry/tourism;

Information technology;

Business services:

Franchising;

Financial services:

Banking;

Insurance;

Investment management;

Professional services:

Accounting;

Management consulting;

Some economists differentiate fourth sector – which is called quaternary sector. They say that, quaternary sector is related to information and knowledge processes. Thus, it is different from human services which we called it tertiary.

Quaternary sector includes researches for improvement methods in industry. It has importance and great potential. New production methods, providing effective allocation of resources, use of natural resources in efficiency, cutting costs will bring new prospects.

Structure of industry

In industry, its structure is important. Classification may be done by different characteristics.

For the product characteristics industries characterize industries by their similar goods. Some of these are the following:

The textile industry – involves design and production of yarn, cloth, clothing by using natural and synthetic raw-materials.

The chemical industry - manufacturing industrial chemicals.

The petroleum industry - involves extraction, refining, transporting and selling of petroleum products.

The automotive industry – involves design, development, manufacturing and selling of motor vehicles.

Construction industry - means production of construction materials and constructing buildings and infrastructure.

Electronics industry– they are electronic equipments and devices

Electricity industry – generating energy

Aerospace industry - designing, building, testing, selling, and maintaining aircraft, aircraft parts, missiles, rockets, or spacecraft.

The hospitality industry – service and tourism .

The food industry – involving supplying food.

The fishing industry - fish and fish products.

Software industry– programs and intellect providing.

Paper industry - cellulose-based materials by wooden raw-materials.

Iron and Steel industry – considering processing of metallic raw material

Mining industry – involves extraction of minerals and other materials.

Shipbuilding industry – production of ship and vessels.

Arm Industry or Defence Industry – involving production and selling of military weapon and technology.

Pharmaceutical industry – production of drug materials.

And others...

1.2.The brief history of industry

Industry

Archaeology helps us to know the early stage of industry development. The tools are found which are strong evidences and arguments to create such an impression that these tools have been made by ancient pre-humans before 2.5 million years before Christmas. Making these tools may have been the earliest industry in the history.

The automotive industry started in the 1860. Horseless carriage wishes led to realizing of these dreams and started production of early automobiles and engines after.

The history of textile industry goes to even Palaeolithic. Found evidences in excavations in different regions says that first simple tools and yards from trees and grasses were used before decades centuries B.C.E. This sector has been developed after.

Also in 1770 James Hargraves' inventor spinning machine – jenny was a great step in developing textile and started decreasing human labor and an important part of work was done by machines.

First simple constructions were made by ancient people (sometimes slaves) in Bronze Age. They were used very simplest tools and hand to construct earliest “ buildings” . Ancient Egypt, Rome has taken the first places in these type constructions.

The history of mining industry also goes to Palaeolithic, before even 40000 years. Ancient people have been used different materials, metals and minerals found in the surface of Earth. These materials were used for making first simple tools. Ancient Greeks, Romans and Egyptians used and started first mining.

Archeologic researches explain that Petroleum has been used by ancient people before 5000 years. Basic goal was to maintain fire also was used in wars. New methods were applied after.

In 1848, oil well was dugged by using well-method for the first time in the history in Azerbaijan.

Electricity had been produced as a result of the chemical processes which happened in an electrolytic cell after A. Volta made the voltaic pile in XVIII century ,

In 1831, M. Faraday designed a machine generating electricity from rotary motion. In 1878, T. Edison developed replacement for gas lighting and heating.

The first public supply of electricity was realized in 1880s.

Chemical reactions were made and utilized along history, but early heavy chemical industry (production of chemicals in large quantities for a variety of uses) is related to the Industrial Revolution in general.

The planting of domestic trees to make pulp for papermaking goes even to 6th century. For the developed printing technology, paper industry grew to meet the increasing demand to printed books and also printing paper money. The first mechanised paper machine was installed in 1803.

Defence industry or arms industry is relatively new-formed sector. In XIX century this industry began to develop in France, USA and others.

Pharmaceutical industry developed in 1800s.

Aerospace industry began in XX century.

The history of tourism is old enough – back to even 1500 years B.C., when people had been travelled for pleasure.

Services

Services are new-formed, because many of them requested democratic regime, law and legal system, technological progress and other characteristics.

Agriculture

According to the last scientific researches agriculture started before about 12,000 and 15,000 years before Christmas. Ancient people have been gained food from the nature before (trees, animals, soil and etc.). After people have been started early production stage, agriculture had been started developing.

1.3. Non-oil industry in the world.

“Non-oil industry” term covers all of industries which are not linked to extraction and first processing of oil and gas resources. Therefore, it involves wider area.

For the dangers of “Dutch Syndrome” most countries, specially developing countries prefer developing of other sectors.

If we think economy consisting of three sectors – agriculture, industry and service sectors, each sector’s part in GDP will be different in different regions and countries.

This importance will depend on many characteristics: whether is the country one of the developed countries or not? Or historical and geographic characteristics of region will play very important role.

Some countries have potential for developing one sector than others. For example, natural resources for developing agriculture, climate, rains and etc.

But it is actual problem and great challenge to use these reserves in an efficiency way. Different countries choose different ways. But it is obvious that modern economy and life style make us predict information-based society will be the only choice.

Another important problem from political arena is acquiring and protecting the state independency and become one of the most developed countries in the world for each country. This makes them using limited resources for gaining maximum profit from this. Therefore, the best choice for most of these countries would be

development human capital which is “the center line” of the economic policy of the Azerbaijan Republic.

Development of educational system and environment would give opportunity for qualified labor. Therefore, the government tries to continue with the economic policy and change resources to human capital. The budget from the export of oil and gas has been directed in this objective

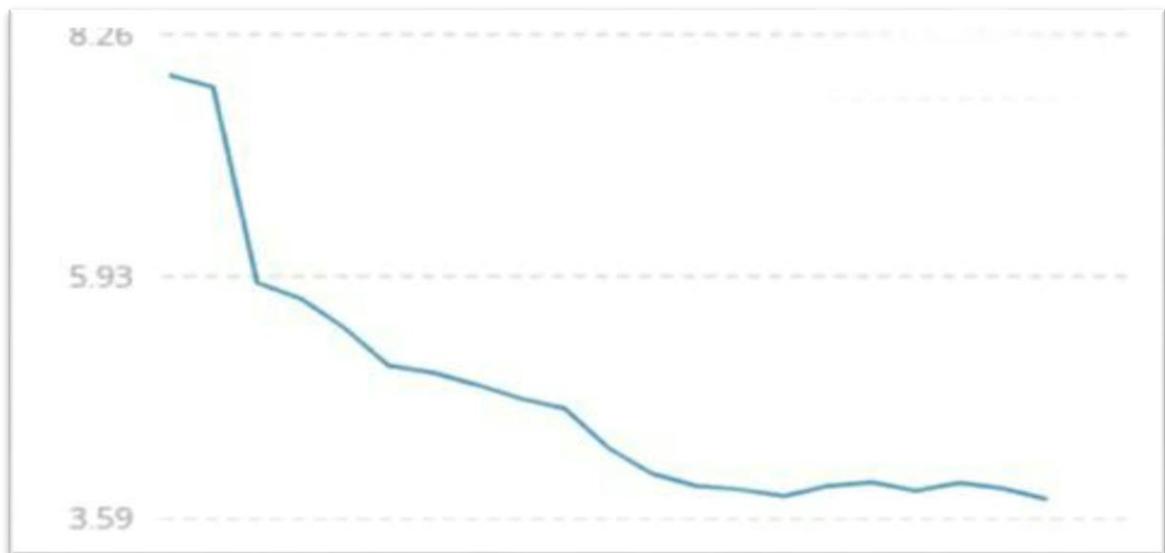
These statistics show the role of each sector in GDP by percent in different countries in 2017:

Country	Agriculture %	Industry %	Service %
USA	0.90%	18.90%	80.20%
Germany	0.60%	30.10%	69.30%
Japan	1.00%	29.70%	69.30%
France	1.60%	19.40%	78.90%
United Kingdom	0.60%	19.00%	80.40%
Italy	2.10%	24.00%	73.90%
Russia	4.70%	32.40%	62.30%
Finland	2.60%	27.20%	70.20%
Spain	2.60%	23.20%	74.20%
Canada	1.70%	28.10%	70.20%
Turkey	6.70%	31.80%	61.40%
China	8.20%	39.50%	52.20%
South Korea	2.20%	38.80%	59.00%
Switzerland	0.70%	25.60%	73.70%
India	16.80%	28.90%	46.60%
Brazil	6.20%	21.00%	72.80%

UAE	0.90%	49.80%	49.20%
Singapore	0.00%	26.00%	74.00%
Norway	2.40%	31.10%	66.50%
Israel	2.30%	26.60%	69.50%
Sweden	1.60%	33.00%	65.40%
Indonesia	13.90%	40.30%	45.90%
Netherlands	1.60%	17.90%	70.20%

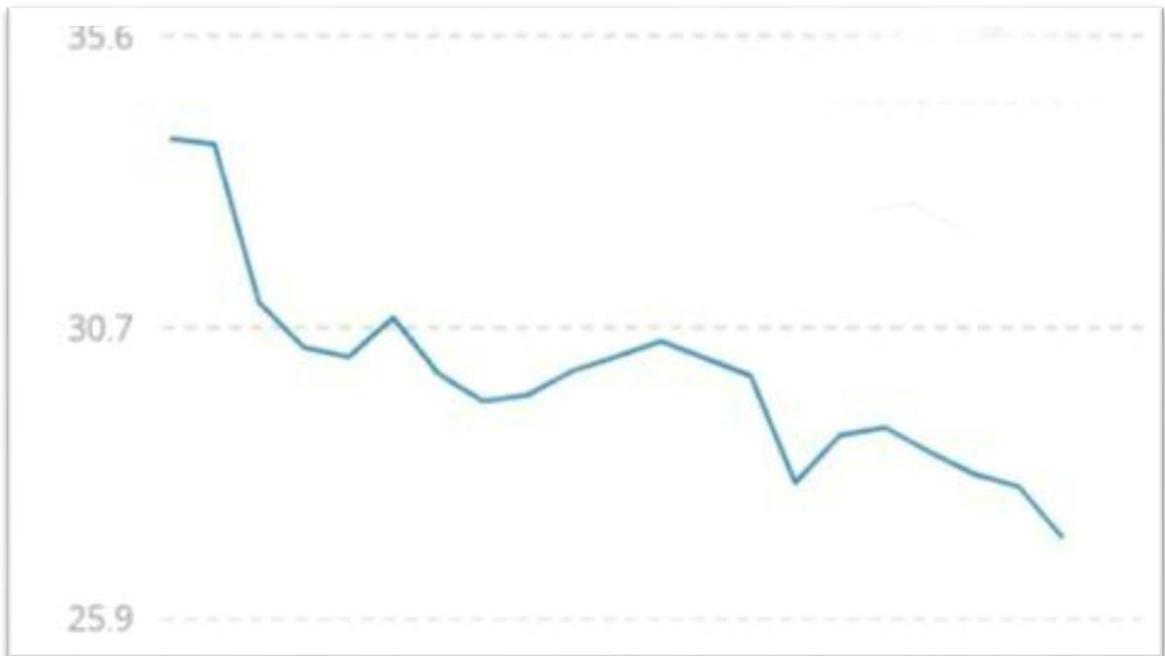
The slope of the following graphs* describes trends in role of each sector in GDP by percent between 1995-2015 years:

- 1) This graph shows the role of agriculture in GDP by percent: According to this,

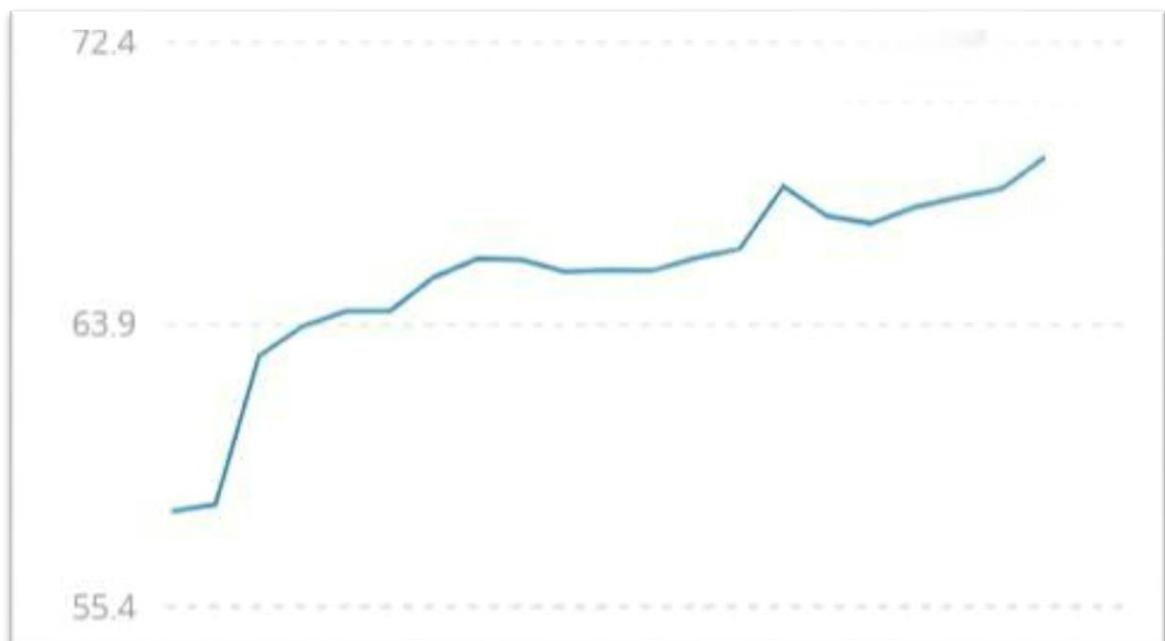


the share has decreased in the last few years;

2) Importance of industry in GDP – has decreased;

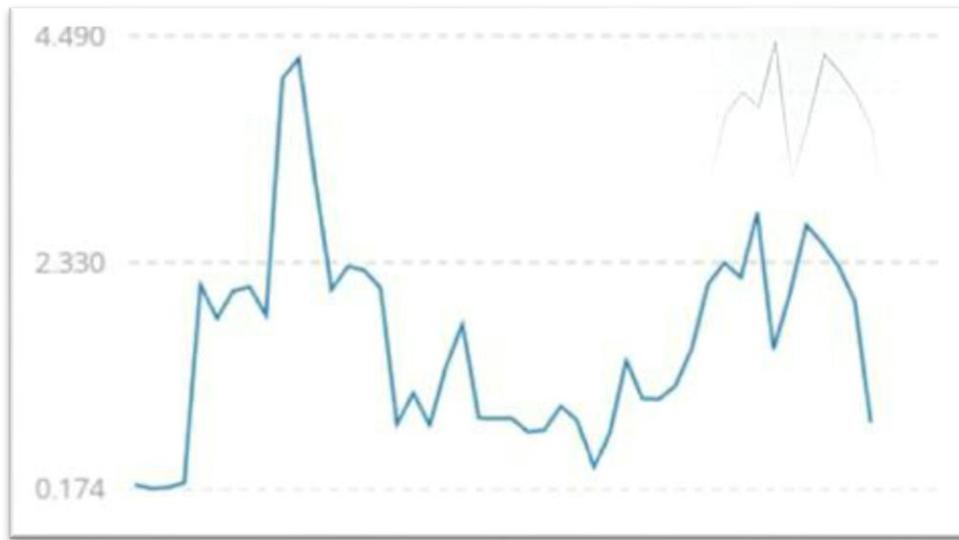


3) Importance of service sector in GDP – increased relatively;



The employment has increased for services sector in the last years. This tendency is a request of modern economy. Therefore, appropriate with this the employment in agriculture and industry has decreased

To evaluate the role of oil industry in GDP in the world we can see the part of oil rents in GDP between 1970-2015 in the following graph:



Graph describes part of oil rents in the whole GDP in percent (%) in the last years. It shows also results of crises in importance of oil sector. 1980's oil glut can be example for this (declining sharply in the left part).

Note*: this types of graphs has been prepared based on World Bank's statistics.

Graphs indicates trends in economic life. Some economists used industry history to prepare the development stages of the mankind. One of these is based on industry-development.

According to this the mankind progresses along three period:

- 1) Pre-industrialization or agriculture;
- 2) Industrialization;
- 3) Post-industrialization (which is called differently by different scientists (third-wave society, information society and etc.)

In post-industrialization, services will play important role as shown progress in graphs.

Chapter 2. Current situation in Azerbaijan

Azerbaijan has 1.0 billion tone discovered oil reserves. In barrels, it is to say 7.0 billion barrels. This is just 0.4% of the world's oil reserves.

Today, Azerbaijan extracts about 1% of world's daily oil production in 24 hours. Daily oil consumption in Azerbaijan is about 0.1% of world's daily oil consumption.

Natural gas reserves of Azerbaijan is 0.9 trillion m³. This is 0.5% of oil gas reserves. Azerbaijan produces 0.5% of oil yearly gas production in a year. Azerbaijan's yearly gas consumption is just 0.3% of world's yearly gas consumption.

In 1994, 20 September Azerbaijan signed " Contract of the Century" with 13 foreign oil companies from 8 countries. The considered continuing interval was calculated 30 years.

Azerbaijan exports her oil and gas reserves to the foreign countries by different pipelines (BTC,Baku-Supsa, Baku-Novorossiysk and etc.)

2.1. Current Statistics in Azerbaijan.

Firstly, it is important to note that in 2016 investments into the whole economy (its all sectors) became 22868,5 million AZN or \$14329,5 million (which is 14% more than the previous year (2015).

The share of external investment was 16216,1 million AZN or \$10161,1 million. (47% more than 2015)

The internal investments were 6652,4 million AZN or \$4168,4 million.

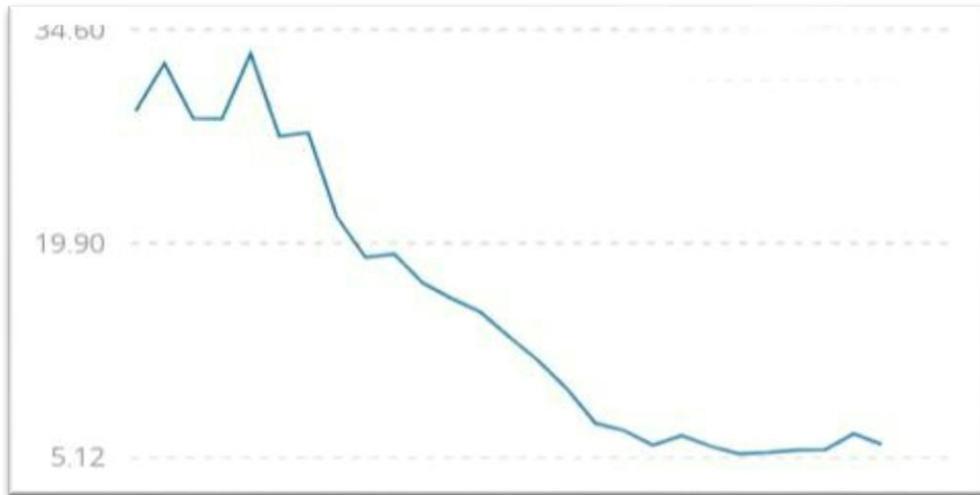
So, the external investments were 71% of all investments.

The number of people working in economy in 2016 was 4759900, whose 1171400 working in state sector by type of property, 3588 working in private sector in the Azerbaijan Republic.

People working in agriculture in 2016 was 1729600, working in education sector 374800, working in health-care and social services was 185600, working in finance and insurance services was 27100, in the information and communication sector 61200, in tourism and public catering was 68400, in construction – 343800, in processing industry – 242200.

The following three graphs indicate changing of the shares of agriculture, industry and service sectors in GDP between years 1990-2016 in percents;

1) Agriculture;



2) Industry;



3) Service sectors;



The trends in population working in different sectors of economy show that the number of employees in service sector increase year by year relatively to the other sectors. But employment in industry and agriculture this value has been decreased in the last years.

This graph reflects of the share of oil and gas sector in GDP between 1991-2017 in percentages;



The schedule gives statistics of oil and gas sector and non-oil sector in GDP in Azerbaijan between 2005-2017 in million AZN:

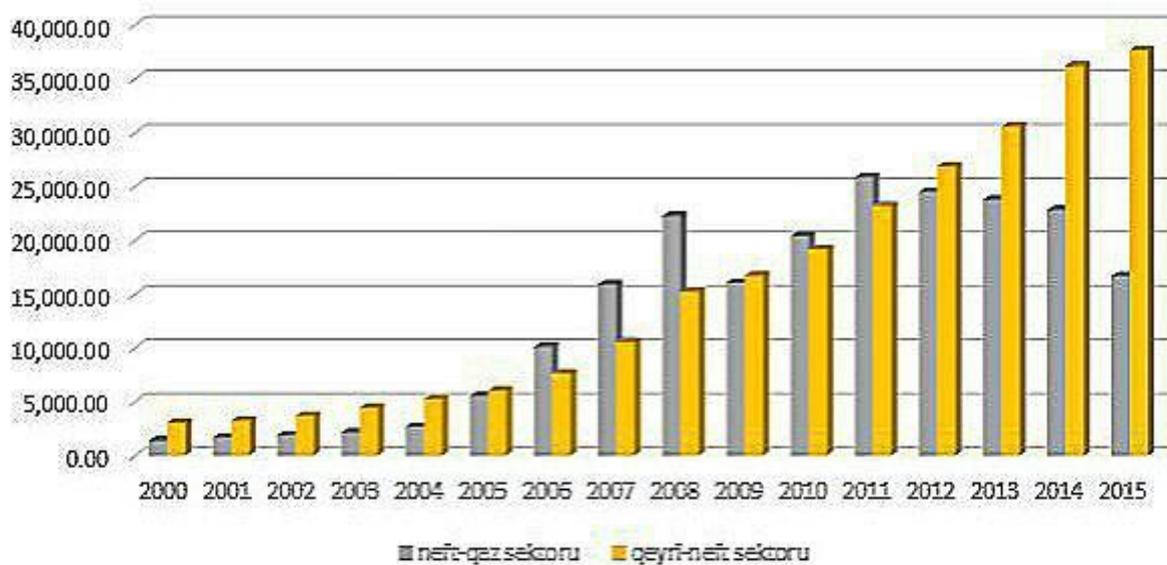
Years	Oil and gas sector GDP	Non-oil sector GDP
2000	1371,0	3055,9
2001	1668,2	3229,0
2002	1882,3	3693,9
2003	2149,1	4447,6
2004	2672,0	5242,5
2005	5520,9	6055,1
2006	10091,8	7630,0
2007	15914,2	10576,1
2008	22251,3	15197,3
2009	16065,5	16726,0
2010	20409,5	19179,0
2011	25829,9	23196,1
2012	24487,3	26864,4
2013	23778,1	30525,9
2014	21405,2	33195,9
2015	15346,2	34500,9
2016	19552,6	35951,1
2017	25000,8	40012,3

The next table shows investments put into oil and gas and non-oil sector in percentages.

Tendency is that oil and gas production and its share in GDP is decreasing, the basic reason is implementation of state programmes for providing development of non-oil sector. Therefore, the share of non-oil sector in GDP is increasing.

Years	Investments into oil and gas sector (%)	Investments into non-oil sector(%)
2005	65.2	34.8
2006	54.7	45.3
2007	47.2	52.8
2008	29.4	70.6
2009	26.6	73.4
2010	29.9	70.1
2011	24	76
2012	25	75
2013	28.5	71.5
2014	33.9	66.1
2015	44.9	55.1

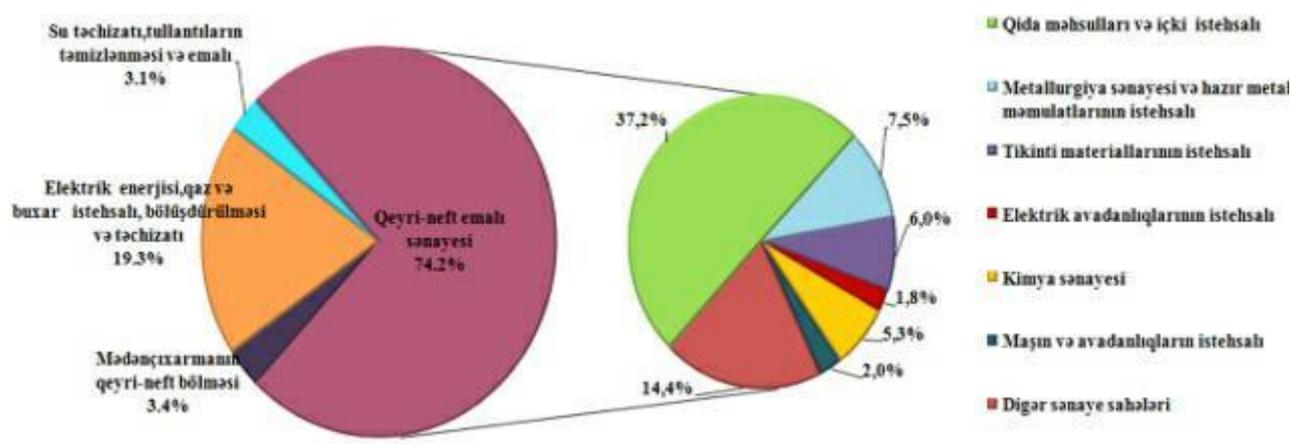
The following table shows the compares of the shares of both - oil and non-oil sector in increasing of GDP in Azerbaijan during 2000-2015 years:



The shares of different parts of non-oil sector in added value in 2017:

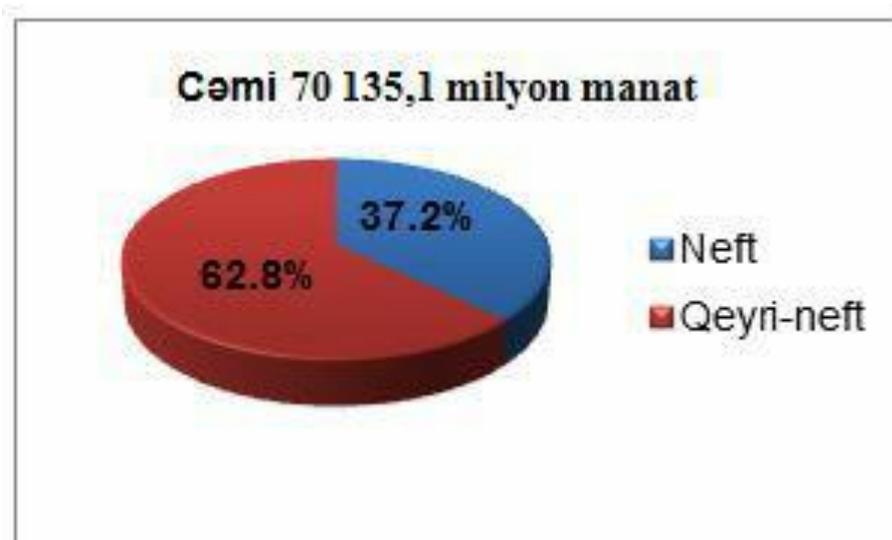


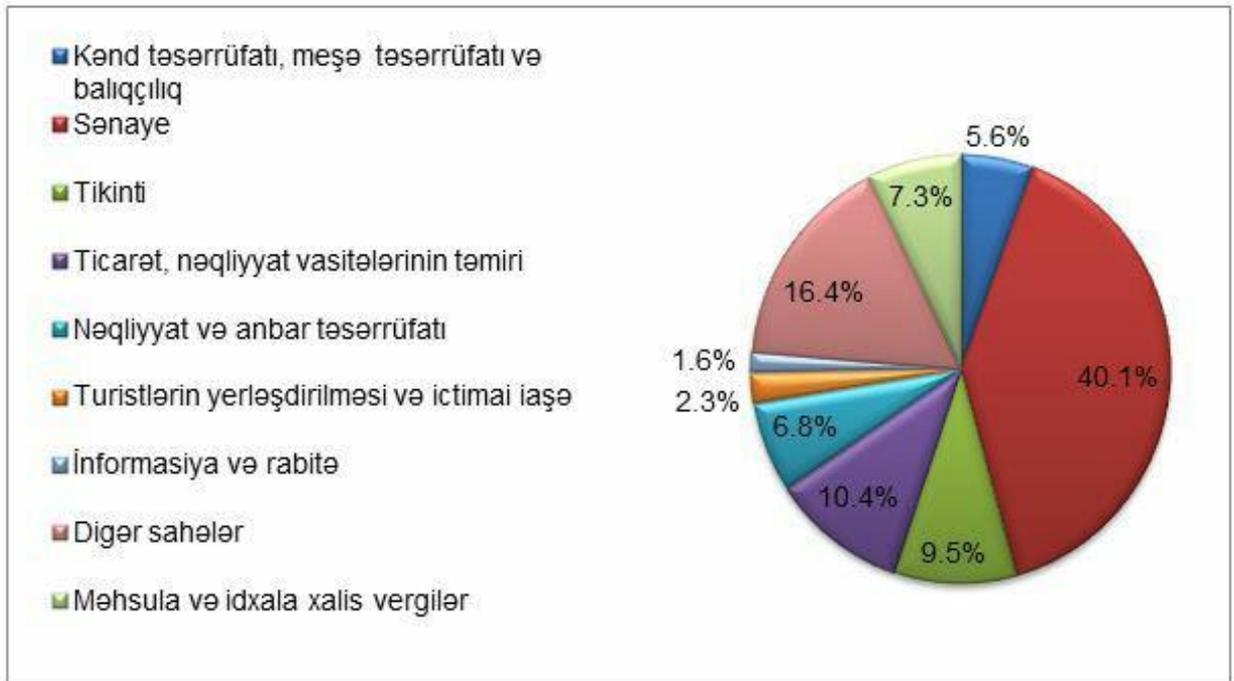
The structur of total output in non-oil sector for 2017:



The total GDP is 70135.1 million AZN in 2017. The structur of it:

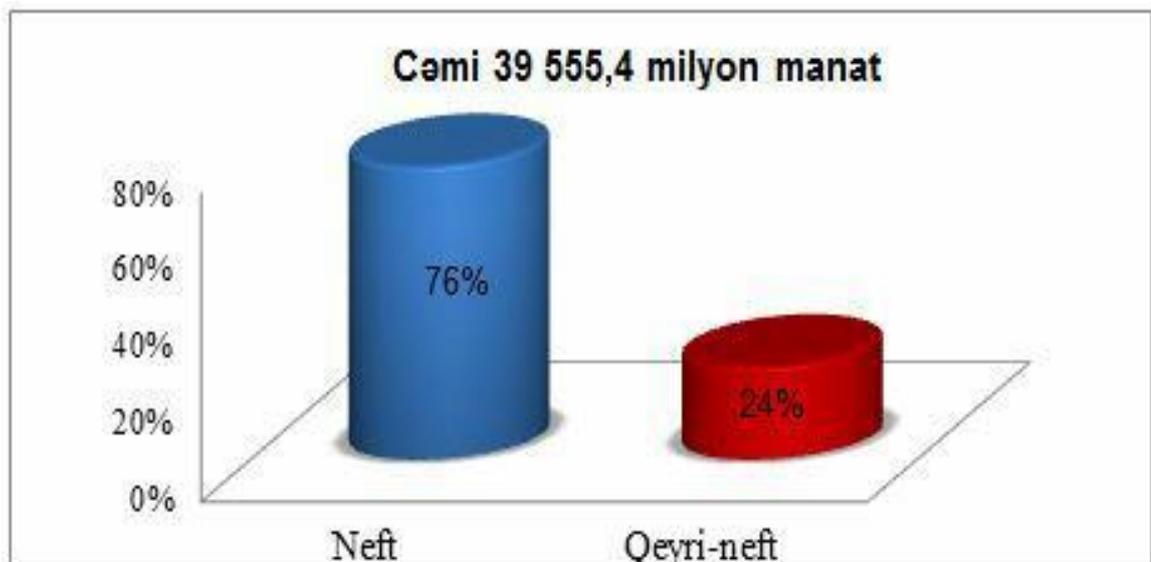
- GDP in oil and gas sector – 26073.2 million AZN,
- GDP in non-oil sector – 44061.9 million AZN.



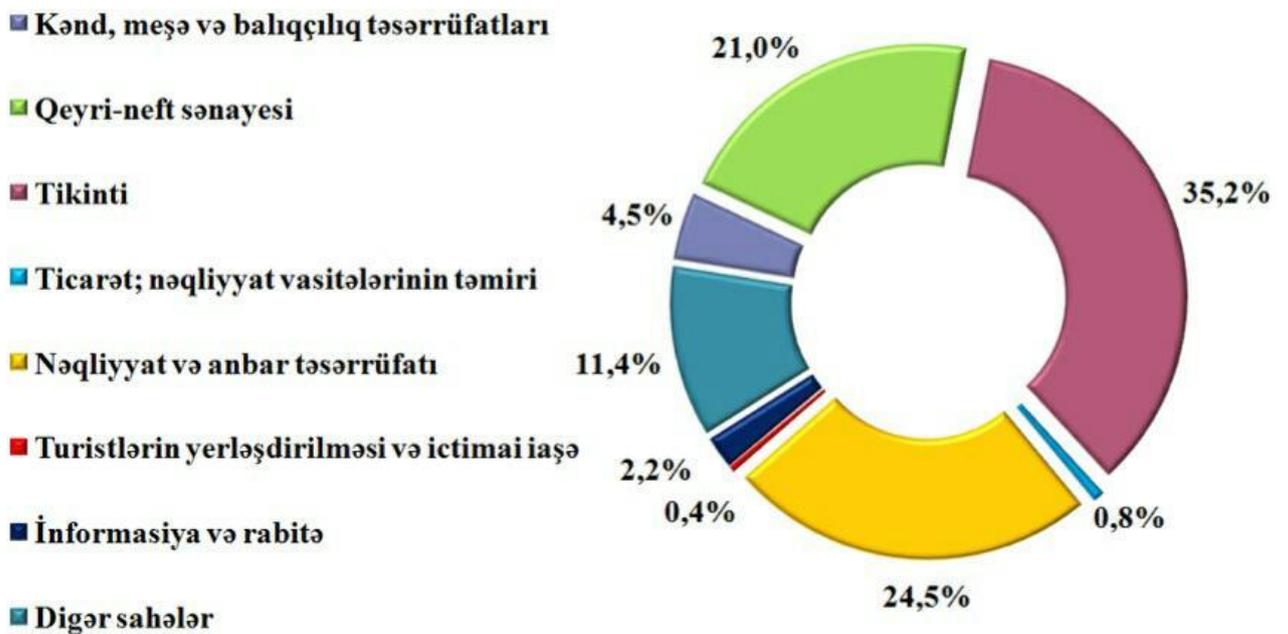
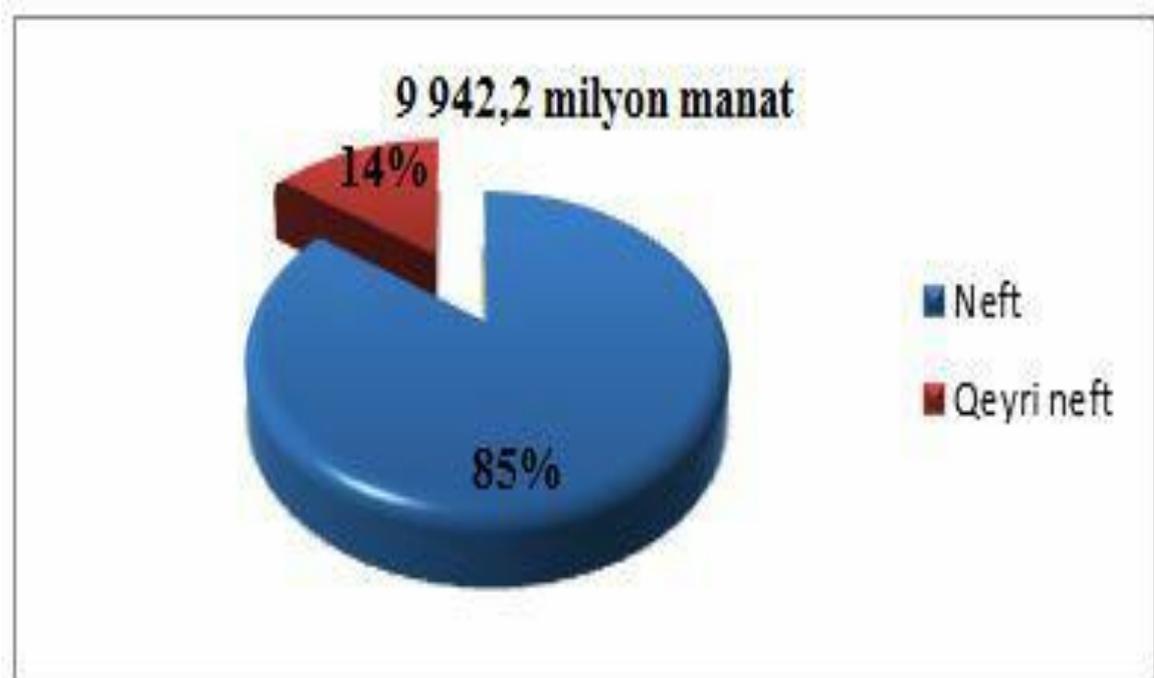


The structur of GDP in 2017:

The shares of oil and non-oil sector in industry in total production:

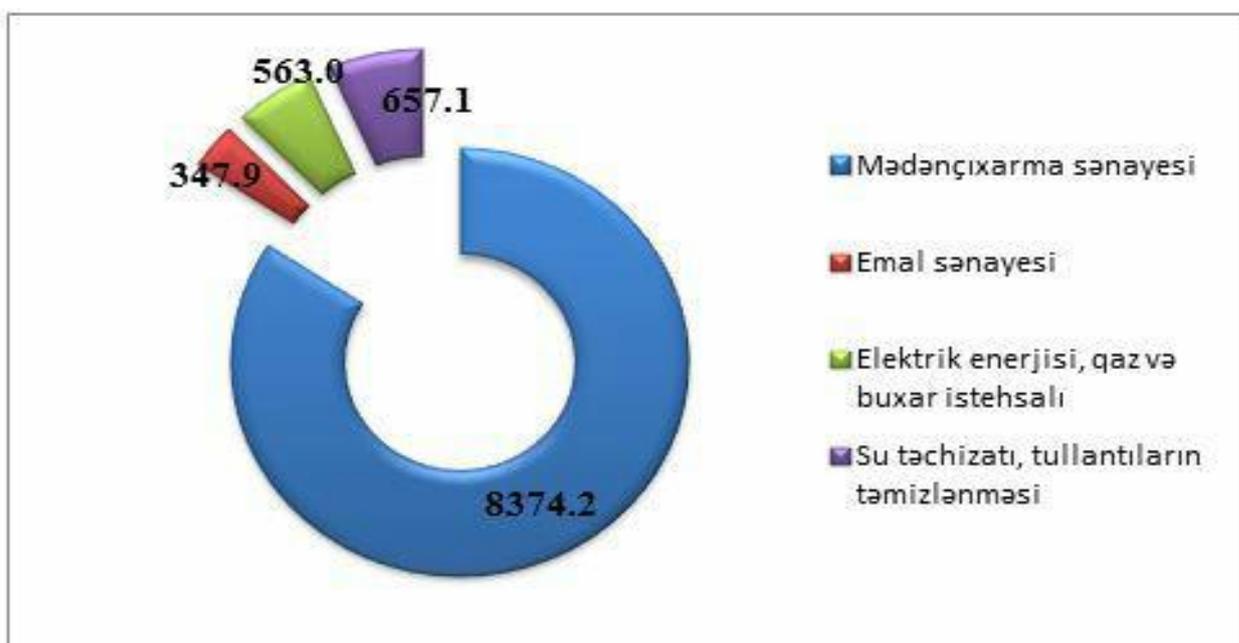


The shares of oil and non-oil industries by the investment put into fixed capital:



The structure of investments put into the fixed capital in 2017:

The values of different fields by the investment put into the fixed capital in industry for 2017:



The added value in non-oil sector in 2017 is 44061.9 million AZN. (2.7% more than 2016)

The added value in non-oil industry in 2017 is 3086.5 million AZN.

The value of production in non-oil sector became 9484.8 million AZN in 2017.

The share of non-oil sector in the exports has been 14% in 2017.

The enterprises are supported by the Azerbaijan Republic. Specially Azerbaijan National Fund for Enterprise Support give subsidies, grants and discounted credits for the enterprises.

The schedule shows state support from this Fund to the enterprises in 2017:

Sectors of economy	Projects	Amounts of credits (thous. AZN)	New job vacancies
Prod. and proc. of industrial products	68	33663	1000
Proc. of agricultural products	11	3355	220

Prod. of agricultural products	1860	93626	5000
Tourism	8	4875	160
Services	6	10480	200

The amount of money was 146000 thousand AZN in 2017 spent for development for enterprises. (20189 thousand AZN (1875 proj.) small credits, 8941 thousand AZN (41 proj.) medium credits and 116870 thousand AZN (37 proj.) large credits.

Service sector in Azerbaijan.

If we imagine economy as three (agriculture, industry and service sector) sectors then service sector has very significant part in economy. Specially, in XXI century service sector became the biggest sector for both the share in GDP and population working in this sector. Technological progresses gave new opportunities and defined the new design of economic and social life.

Also in Azerbaijan, service sector became the biggest. State programs, free market economy and competitive, economic environment supported progress in some sectors.

Governmental services – includes services which are provided to people by government.

Many of them are following:

Legal system and courts;

Electricity;

Education,;

Emergency services;

Environmental protection;

Health care;

Military;

Postal service;

Bank and finance;

Public broadcasting;
Libraries for society;
Security of society;
Public transportation;
Social services;
Telecommunications;
Transportation and infrastructure;
Water supply network;

Particularly, “ASAN” services have very importance in this field, which centralizes many governmental services in itself and became very important method for cutting costs, reducing time and anticorruption

Tourism sector – The Republic of Azerbaijan has a great potential for providing to develop this sector. In 2016, 2,7% of GDM is produced in tourism sector.

Employment in tourism sector: In 2010 - 1418, in 2011 – 1541, in 2012 - 1730, in 2013 – 1729, in 2014 -1794, in 2015 – 1586. In 2017, employment in tourism sector was about 2000. This is 15% more than previous year. (in 2016 – 1830).

State programs approved orients to reach targets in tourism sector.

Azerbaijan has rich recreative and other resources. Historical heritage and monuments, geographic relief, mineral wasser and lakes (for developing medical tourism), rivers, rare plants and animals, beaches along the Coasts of the Caspiaan Sea and etc. Give probability to progress.

Beach tourism in economic-geographic regions of Absheron, Guba-Khachmaz and Lenkeran-Astara (which are positioned in the Coasts of Caspian Sea, mineral wasser and others for treatment (jod, brom and etc.) in Aran, Naphtalan, Lankaran-Astara, Guba-Khachmaz, Nakchivan - economic-geographic regions, mountian tourism (climate, snow-covered mountains, meadows and other resources) specially characteristic for Shaki-Zagatala region, (because of the Greater Caucasus mountains (also may be in the Lesser Caucasus Mountains in Kalbacar-Lachin and Upper Karabagh regions, but most of regions in this district was occupied by Armenian forces in 1990s.)), historical monuments and old tombs almost in all regions, modern design of Baku city, mood volcanism in Absheron, Gobustan, hospitability of people

and other potential opportunities give prospects to develop tourism sector in Azerbaijan.

Business services – this sector includes banking, insurance, franchising, business consulting and other financial services.

Business and financial sector in the Republic of Azerbaijan is regulated by the legislation of Azerbaijan.

Free market economy gives the chances to engaged in business by creating legal subject or just as physical person.

Banking sector involves Central Bank and commercial banks in the country. Activities of these subjects are regulated by legislation (Law on Central Bank, Law on Banks, Law on Currency regulations, Draft Code on Banks and etc. Resources)

Commercial banks realize operations as credit, deposit, insurance (many of them) and money exchange and gain revenue from these sources. Free market economy and competition between commercial banks provides justice in financial environment which is appropriate with citizens' interests.

The number of commercial bank is 30 (2 of them is state and the rest are private banks) in 2018.

Financial markets are important today in economic life as well.

Also, we can add services such as, estate agents and broker and dealer services who engage in market and arised by demand of market economy.

Education involves the process of simplification of learning of knowledge, skills, values and habits.

The ground for educational development programs in Azerbaijan is the “Law on Education” of Azerbaijan Republic. The regulator function is realized by the Ministry of Education of the Azerbaijan Republic. The primary objectives of state programs in this field are solving problems and implementation of "National Strategy for the development of education in the Republic of Azerbaijan" and realizing sate control and monitoring.

The main problems and tasks are preaparing and implementation of new, qualitative educational system which is reliable with technological requirements and state programs, providing state control, activities in accordaance with other governmental and legislative bodies and predicting demaand for high schools and defining the basic direction of development of education.

Education in Azerbaijan is very important which provides the basis for the development of the state in all areas. Therefore, it has strategic importance and superiority. All citizens are entitled to 9 years of compulsory general education. The right to education is the fundamental right of citizens of the Republic of Azerbaijan which is defined in the Constitution of the Republic of Azerbaijan.

For all reasons state must be target and give attention for development of education in the country.

The number of pre-primary schools in Azerbaijan was 1750 in 2016, about 1,5% of them are private.

The number of primary (for 1-4 classes), general secondary (4-9 grades) and full secondary (10-11 grades) schools was 4452 (99,4% of them was state schools).

The numbers of high schools and universities was 51 (38 of them is state schools).

Health care services provide the maintenance or improvement of health by the prevention, diagnosis, and treatment of illness, injury, and other physical and mental injuries. These processes are controlled by professional doctors.

These kind of services have very importance in modern society, they must meet the demand for health in the community.

The number of medical hospitals was 569 in 2017, which was 559 in 2016. In 2017 the number of qualified doctors was 32200 (33,2 per 10000), the general number of beds in hospitals is 45300 (44900-in 2016).

These statistics show important indicators in health-care services.

The Ministry of Health of Azerbaijan Republic controls over this field and provides preparing modern healths services compliance with the state and international standards.

Transportation defines the movement of humans, animals and things from one point to another. This means usually rail, road, air, water, cable, pipeline. Transportation infrastructure can be defined as “lifeline” of country, because it isn’t possible to imagine the modern country without it. It creates chance to progress state, economy, and society. Therefore, it means “culture”.

Today, The lengths of the roads in Azerbaijan is 19016 km (4659 km with Republic-importance)

The pipelines are 5431 km long (1522 km – oil pipelines and 3909 km – gas pipelines).

The rail-roads are 2071 km long in 2016 (which was 2068 km in 2015).

Total revenue gained from transportation in 2016 was 4780684000 AZN (which was 4005562000 AZN in 2015, this means also increasing 19,4%).

41,8% of total revenue are collected from the pipelines.

Public catering (supplying food in restaurants,cafes, parks and other places.) and trade.

The consumption market.

The total value of public catering, services with payment and retail trade is 39215,5 million AZN in 2016, which was 34295,1 million AZN in 2015.

The structur of this:

1. Retail trade and sales: 30190,3 million AZN,
2. Public catering: 1215,4 million AZN,
3. Services with payment: 7809,8 million AZN.

Broadcasting involves the sharing of files with different characters to the audience by using different channels which are electronic-based. By using internet channels most people prefer them, because they give wider oportunities.

Accordding to the last statistics, the number of internet users in Azerbaijan was 78 per 100 in 2016. This indicator increase year by year. According to the statistics from State Comittee of the Azerbaijan Republic, the value of information and communication services in 2017 is 1724.6 million AZN.

Communal services such as , water, gas and electricity supply is controlled by applying content of “natural monopoly”, because they are very important fields in the social life.

In 2016, the number of power plants was 180. In 2016, there was 23 television and 13 radio channels in Azeebaijan.

Consulting services - this definition determines services by professional experts who supposes advices in different areas. Advices from a consultant (who has knowledge and experience in related field) may be related to, for instance, law and

rights, related to economic activity (finance, marketing, management and etc.) and other areas.

Basic service sector with great potential to develop and reasonable for investors in future may be ICT;

- National Artificial Communication Satellite;
- Production of digital equipments and electronic devices;
- Computer technology and software;

As targeting non-oil sector, we must say that many of services are formed more easily than any industry field (production company). This has different reasons. One of them like, to form any service activity is simpler than production (of goods). Service activity require fewer resources specially and it is one of the most important factors for developing them. Also simpler legal circumstance and structur of services make it more available.

As well as, it must be considered that some service sectors are more competitive. Less capital requirments give opportunities for organizing service sector.

Urbanisation level may affect development of seevices. The cities demand more services day by day. Technological progressing provides more services and more easily ways to form them.

As an important requirement of technological and economic life, there are less requirement for prodividing development of this sector. But, anyway, service sector is a component of non-oil sector and spread widely than others and is developing day by day. Therefore, the state just can take the role of regulator, because this is important and the state must provide control mechanism for confirming of these seevices compliance with international, national standards and legislation and increasing quality of them.

As a result, we can determine that, there are problems for developing of specially some sector. But most of problems are related to providing reliability and efficiency of these sectors or quantity may be enough, but providing quality is important. Solution for this problem can take source from allocation of resources in an efficiency way and evaluating resource potential rightly. New competitive technology and legislation can solve these. Bu above of these, quality education is important.

As an significant problem, it must be targeted also providing efficiency of state services and some other special sector. Because they have strategic importance. For

example education: providing effective education is most important solution for economic progress and non-oil sector as we see in next chapters. Solving the problems in this field will bring the opportunities for development in services.

5.2. Industry sector.

The number of industrial enterprises was 2561 in 2016. (1352 – big and 1209 small companies). 573 of them was in state property. 1588 was in non-state property:

- a) Private property: 1734
- b) Collectivee property: 73
- c) Foreign property: 181.

GDP from industry sector became 22446.8 million AZN or 37.2% of the total GDP for 2016

The enterprises in mining industry was 298 (176 – small and 122 – big)

- 32 the extraction of oil and gas;
- 5 rhe extraction of metal;
- 173 other mining industries.

The enterprises in secondary sector was 1775:

- a) 391- food indsutry; (219 – small, 172 – big)
- b) 75 – chemical industry;
- c) 10 – pharmaeutical industry;
- d) 3 – oil products;
- e) 29 – metallurgy;
- f) 97 – furniture;
- g) 7 – tobacco products;
- h) 43 - electronic devices;
- i) 25 – computer and pther equipments;
- j) 60 -clothing;
- k) 32 – paper industry;
- l) 14 – means for transportation;
- m) 140- poligraphy
- n) 239 – electricity, gas and steam turbins eenegy;
- o) 249 – water supply and waste management::;

69.8% of the annual production of the industry was produced in mining industry for 2016. 62.1% of this share was produced in oil and gas industry. This proves how the extraction industry plays important role in the national economy of the Azerbaijan Republic. Secondary sector of industry just took 23% of the total production. Therefore, one of the basic challenges of the century is the diversification of economy and providing decreasing of dependency on just one sector, in the example of Azerbaijan – extraction, particularly, oil and gas. As the results of state programs it is hopeful that the share of extraction industry decreased in the last few years. (in 2012 – 79%, in 2013 – 77%, in 2014 – 73%, in 2015 – 67%)

The value of industrial production

The value of industrial production became 32300 million AZN in 2016 (22,5% more than 2015). 6328 million AZN of this value was produced in state sector. 25972 million AZN value was produced in private sector. The structure parts of this value is as following:

- a) mining industry – 21192 million AZN;
- b) food industry – 3257 million AZN;
- c) tobacco – 41,5 million AZN;
- d) textile – 97 million AZN;
- e) chemical industry – 347,2 million AZN;
- f) pharmaceutical – 1 million AZN;
- g) furniture – 58,4 million AZN;
- h) transportation means -311 million AZN;
- i) metallurgy – 287,5 million AZN;
- j) machine and equipments – 155 million AZN;
- k) construction materials – 397,2 million AZN;

Employment in industry;

Employment in different sectors of industry for 2016:

Total – 186100, 87600 – in state sector, 98500 – in private sector for 2016.

Also, 34100 in mining industry, 95200 in secondary sector of industry, Food industry - 18800 and construction – 11300 takes the other great parts.

The employment in industry sector has been decreased in compare with other sectors every year and become 338300 or 7.1% of the total employment in economy in 2016.

GDP in both oil and non-oil sector is predicted 70135.1 million AZN. 25000 million AZN of this comes from oil and gas sector, i.e. about 36% of the total GDP, while 40012 million AZN, or 57% of the total comes from non-oil sector in 2017 according to the latest statistics.

GDP in industry.

This table shows GDP in industry and the share of it in total GDP for that year between the years 2000-2016 in million AZN:

Years	GDP in industry	In percent (%) of the Total GDP
2000	1699	36
2001	1999.6	37.6
2002	2270	37.4
2003	2700	37.3
2004	3268.6	38.3
2005	6202	49.5
2006	10768.3	57.4
2007	16927	59.7
2008	23574	58.7
2009	17510.2	49.2
2010	21942.2	51.7
2011	28010.7	53.8
2012	27040.4	49.4
2013	26441.7	45.4
2014	24169.4	41
2015	17912.4	33
2016	22446.8	37.2

Industry from the aspect of the factors of production

For analyzing industry we can define its elements. As we know, in economics there are differentiated four factors of production:

- Land;
- Labor;
- Capital;
- Enterprise;

Land – involves natural resources and raw-materials from nature. (Mineral, wasser and etc.)

Labour – means human resources, employees and their physical and mental efforts;

Capital – equipments for production. Capital may be physical (equipments and tools, also factory), financial capital (money funds) and human capital (skills of employees).

Enterprise – defines human resources which combines other factors. This factor the last - mentioned and refers to intellectual capital.

These factors provide production of goods and services.

Sometimes these are combined into two large groups: Labour and Capital.

But by considering 4 factors of production we can research the developing potential of industry sectors in Azerbaijan.

1. Land Factors.

As mentioned, this factor includes natural resources and basic raw-materials. Azerbaijan has rich different natural resources. Therefore, for searching this potential we must give attention to “economic-region”. This means division of the territory of the country into the smaller districts.

In Azerbaijan, there are differentiated 10 economical-geographical regions by their geographical and economic characteristics.

1. Absheron region:

Covers: Baku and Sumgayit districts, Absheron and Xizi regions. (5900 km²).

This region has rich oil and gas resources and is the basic core of oil industry in Azerbaijan Republic . The region also has tourism potential, because is positioned in the west coasts of the Caspian Sea and has beaches, mud volcano and mineral wassers (Shikh and Surakhani) and has potential for developing medical tourism (mud for treatment). The rich architect and modern construction makes Baku one of the famous cities all over the world. Basic scientific and cultural objects in Azerbaijan are in Absheron region.

There are basic construction raw-materials, such as cement and limestone in this district. The region has today electronic industry (firms like, Baku Shipbuilding, Sumgayit compressor, Baku Electrotermic devices firms).

The following schedule reflects basic statistics for the region in 2016:

Indicator	The number of industrial enterprises	Value of production (thous. AZN)	Non-state sector in percent (%)	Employment
Quantity	236	977300	61,4	19754

Mahor prioritet sectors in Absheron are considered food industry, light industry, construction materials, furniture and production of chemical matters and agriculture.

2.Guba-Khachmaz region.

Covers: Khachmaz, Guba, Gusar, Davachi and Siyazan regions. (7000 km²).

The region has rich resources such as, oil, sand and other construction materials also recreative resources and tourism potential with beaches and mineral wasser. Development of agriculture provides opporrunities to progress in different agricultural-industry complexes. There are conserv combinat, electronic devices, brick production, metal combinats, oil and gas extraction. Guba-Khachmaz region has important transportive- geographical position.

Basic statsistics in 2016:

Prioritet direction in Guba- Khachmaz region is described tourism, food and light industry, production of furniture and construction materials,also agriculture.

Indicator	The number of industrial enterprises	Value of production (thous. AZN)	Non-state sector in percent (%)	Employment
Quantity	95	94265	44,7	4254

3.Daghlig Shirvan.

Covers: Shamakhi, Ismayilli, Aghsu, Gobustan regions (7100 km²).

There are oil and gas, construction materials, mineral wasser and other resources. Foodd industry (bread and cheese factories) and light industry are basic sectors of industry in the region. There are quarrying manufactures, tree processing factories in this region. Textile industry of the region has importance not just for region, also for Azeebaijan.

Basic statistics in 2016:

Indicator	The number of industrial enterprises	Value of production (thous. AZN)	Non-state sector in percent (%)	Employment
Quantity	44	19361	40.2	2249

The prospective sectors in the region are tourism, food and light industry, construction and agriculture.

4.Shaki-Zagatala

Covers: Balakan, Zagatala, Gakh, Shaki, Oghuz, Gabala regions and Shaki city (with republic importance)

The region has rich forest area, tree and animal resorces, copper, sulfur, lead, zinc and polimetal resources. Food industry, light industry are basic sectors. There are perfumery-cosmetic factories, wine and brick faactories, silk and textile industry, weaving canning , tea, meat, tobacco factories. Tourism potential with mountain tourism has importance.

Industry sector for the region in 2016 :

Indicator	The number of industrial enterprises	Value of production (thous. AZN)	Non-state sector in percent (%)	Employment
Quantity	141	193190	83	5312

Basic prospective are the same for Daghliq Shirvan.

5.Ganja-Gazakh region

Covers: Gazakh, Aghstapha, Tovuz, Gadabay, Shamkir, Dashkasan, Khanlar, Samukh, Goranboy regions (12400 km²)

The region has ore and iron, copper, alunit (with importance in the world), gold resources, construction materials, There are food indsutry factories, textile, contruction fabrics and light indsutry manufactures. Agruculture provides to construct agricultural-industry complexes.

Industry in 2016:

Indicator	The number of industrial enterprises	Value of production (thous. AZN)	Non-state sector in percent (%)	Employment
Quantity	288	615700	59.8	12363

Major sectors with pote ntial are food and light industry, tourism, construction and furniture industry.

6.Kalbajar-Lachin region

Covers: Kalbajar, Lachin, Gubadli, Zangilan. (6400 km²)

The region was occupied by the Armenian Army. It has rich raw-material reserves such as ,gold, copper, mercury, chromit.

7.Yukhari Karabagh,

Consistency: Aghdam, Shusha, Tartar, Khodjali, Khodjavand, Fuzuli, Jabrayil, regions (5800 km²).

The region has forest resources, quarrying materials,cement, marble raw-materials, There are textile and carpet-weaving factories, wine , fruit and vegetable works in this district.

Industrt for the region in 2016:

Indicator	The number of	Value of	Non-state	Employment
-----------	---------------	----------	-----------	------------

	industrial enterprises	production (thous. AZN)	sector in percent (%)	
Quantity	38	29346	24.6	1720

8.Aran region.

Consistency: Yevlakh, Aghdash, Ujar, Goychay, Kurdamir, Hadjigabul, Zardab, Barda, Aghdjabadi, Beylagan, Imishli, Saatli, Sabirabad, Bilasuvar, Salyan, Neftchala regions (20800 km²)

The region has oil and gas, iodine and bromine resources. There are electricity power-plants, electronic devices, rubber, weaving, construction materials, tobacco, leather, carpet-weaver and cotton factories. Agriculture is developing. Therefore, there are great potential for agricultural-industrial complexes.

Indicator	The number of industrial enterprises	Value of production (thous. AZN)	Non-state sector in percent (%)	Employment, person
Quantity	329	1145700	58.4	23008

The sectors with potential in the future are considered chemical industry, electronics, food and light industry.

9.Lankaran-Astara

Covers: Lankaran, Jalilabad, Masalli, Astara, Lerik, Yardimli (6100 km²)

Basic resources are forests, mineral water. Agriculture is developed. Tourism has great potential (beaches and etc.). There are agricultural-industrial complexes, fishing, fruit and vegetables, tea factories

Indicator	The number of industrial enterprises	Value of production (thous. AZN)	Non-state sector in percent (%)	Employment
Quantity	95	101997	67.4	5978

10..Nakhchivan region

Covers: Babek, Djulfa, Sharur, Shahbuz, Ordubad, Sadarak districts and Nakchivan, Ordubad, Djulfa cities. (5500 km²)

The region has mineral and quarrying, ore raw- materials, construction materials, salt, molybdenum and other resources.

There are wine, food industry (fruit and vegetables, cheese and milk, bread and etc.), textile, weaving and other factories.

Indicator	The number of industrial enterprises	Value of production (thous. AZN)	Non-state sector in percent (%)	Employment
Quantity	134	942900	95.6	16525

Capital resources- means money funds for organizing a company. Capital resources can be come from individual funds, subsidy and discounted credits from the state budget, investments, bank credits and debts. Solving capital problem will support for development of sector.

Labour and enterprise – represents human resources and its skills, abilities and etc. New competitive industry sectors demand using of new technologies which produce goods and services with high quality and answering requests of standards. But, using of new technology and modern production process request also professional stuff and skillful employees. As well as, we must note that efficiency and effective allocation and use of resources is important challenge from economics. Solution of this question also related to effective organized production and economy. Therefore, for production of competitive goods with quality there is needed qualified personnel which have ability to work with new technology, applying new management technics, cost management and etc. news.

The solutions for these problems can be found in education and education problem is the most important problem in this field.

As a result we define that, industry sectors which can be developed in short-term may be tourism, oil and gas (refining), food and fishing, textile, furniture and light industries. Mining industry is developing.

But one of the main objective must be development of secondary sectors more. Azeevaijan Republic has resources for it. State is ready for supporting these sectors. But main problems may be in labour and enterprise. Because, these sectors are competitive and demand highly-qualified labour and reasonable efforts.

Investment activities.

The investment in 2016 became 9.950 million AZN in the industry totally.

7.351 million AZN or 74% of them of them was foreign investment. 8.577 million AZN or 86.2% of them was invested in mining industry. Secondary sector just took 4.3% of the investment. Unfortunately, 8560 million AZN of investment which put into mining industry, spent for oil and gas extraction. This is 86% of the total investments.

Potential sectors.

Potential industries which may be put into investment in the future:

Chemical, metallurgy and power engineering industries:

- Production of different polymers which required less energy and raw-materials;
- Production of metal parts with export potential;
- Products produced from waste matter of other metallurgy sectors;
- Perfume products;;
- Plastic pockets and parts;
- Construction of Renewable energy sources;
- Reprocessing of wastes;

Automotive and construction industries:

- Production of repairing parts;
- Production of construction materials
- Production of devices and machines with different destination (medical, daily and etc.)

Light and food industry:

- Processing of cotton and woolen materials;
- Silkworm-breeding;
- Textile and furniture;
- Wood processing;

- Production of food;

Tourism sector:

- Mountain tourism;
- Hotel services;
- Medical tourism;

The value of innovation for production in 2016 became just 540.9 thousand AZN. Whose 524 thousand AZN is gained from the production of machine and equipments, 16 thousand AZN from installation and repairing of them.

Agriculture

The land of the Azerbaijan Republic is 8660,0 ha. But the suitable for planting is just, 4772,9 ha. This means 55% of total land reserves.

According to the last statistics the sown areas are 1628300 ha. 590300 ha of this takes wheat floats with the greatest - 36.3% share.

The employment in agriculture, forestry and fishing has been decreased relatively to other sectors and became 1729600 in 2016 or 36.3% of the total employment in different sectors.

GDP from agriculture, forestry and fishing was 3369.5 million AZN in 2016. This is 5.6% of the total GDP for that year.

The total value of agricultural products in 2016 was 5632.4 million AZN. 449.2 million AZN, or just 8% of this value is from agricultural manufactories, but 5183.2 million AZN, i.e. 92% of the value from individual farming.

The value of products from plant-growing was 2577.2 million AZN (145.8 million AZN from agricultural manufactures and 2431.4 million AZN from the individual farming) or 45.8% of the total, while the value of products of cattle-breeding 3055.2 million AZN (303.4 million AZN from agricultural manufactories and 2751.8 million from the individual farming) or 54.2 % of the total.

317.8 million AZN of the total investments for fixed capital put into agriculture in 2017.

These are statistics which reflects the shares of each sector in the production of goods in agriculture in percents in 2016:

	Total	Cattle-breeding	Plant-growing
Agricultural fact.	8.0%	9.9%	5.7%
Individual farming	92.0%	90.1%	94.3%

The number of agricultural manufactories was 1249 in 2016.

This table shows GDP in agriculture and the share of it in total GDP for the same year between the years 2000-2016:

Years	GDP in agriculture In million AZN	In percent (%) of the Total GDP
2000	759	16.1
2001	788.7	14.8
2002	846	14
2003	888	12.4
2004	937.3	11
2005	1138	9.1
2006	1329.4	7.1
2007	1901	6.7
2008	2246	5.6
2009	2179.5	6.1
2010	2344.6	5.5
2011	2643.5	5.1
2012	2813.7	5.1
2013	3122.2	5.4
2014	3139.2	5.3
2015	3359.4	6.2
2016	3369.5	5.6

Also, for the reason of changing trends of new centuries, services sector became dominant sector in the economy. Therefore, the structure of economy in Azerbaijan

changed as well as. The number of farms and agricultural factories decreased in the last years:

The number of agricultural factories decreased every year to 1249 in 2016 (1299 - in 2015);

Individual farming was 1468 for 2016 (1534 was – in 2015)

Technical providing, tractors and combine harvesters also decreased in the last years.

Almost 50% of individual farming are belong to Aran economical-geographical region. - Total profit -8690 thousand AZN.

98% of individual farming could gain profit over zero in 2016.

The total value of technology and machine which are sold or leased to the farmers is 138.7 million AZN by “ Agrolizing” in 2016 and it is more than any year’s amount.

The total weight of fruits in agriculture was 882800 tons.

There was 1592 agricultural manufacturers in 2016 in Azerbaijan (less than any year before). 1488 of them could gain profit. The total profit became 71700 thousand AZN from the sales.

Agricultural sectors with investment potential in future:

- Technical base for agriculture (conservation, storage etc.)
- Production of fertilizers;

Plant growing:

- Cotton-growing;
- Tobacco cultivation;
- Fruit-growing;
- Tea production and etc.

Cattle-breeding;

Agro-industrial complex

We must define the role of agro-industrial complexes. Agro-industrial complexes are very crucial from the perspectives of Azerbaijan. Rich resources, land reserves and characteristic climate for Azerbaijan provide the development of different sectors of

agriculture. In this situation, we need agricultural-industrial complexes. They form the demand in the market of agriculture and promote the production in agriculture.

Pretending and decreasing of product from decaying, becoming worse and time wastes and cutting costs explain the role of them. There is need develop these complexes and commercial relations between the subjects of both industry and agriculture.

2.2. State programs.

The Azerbaijan Republic is applying state programs and controls realizing of them. The basic objectives are providing development in non-oil sector and diversification of the economy.

Prioritet industry sectors is considered tourism, agriculture, information and communication technology. Therefore, these programs targets these goals.

State program on the development of the industry in the Republic of Azerbaijan in the years 2015-2020 is also targeting to reach these objectives and providing growing until 2020.

One of the important priorities of the economic policy in the Republic of Azerbaijan is increasing the economic competitiveness and the development of industry.

In the last 10 years industrial production increased 2.7 times.

In 2017 Azerbaijan's non-oil economy expanded 2.1%, non-oil industry increased 3,5% and agriculture grew 4,2%.

Today the non-oil sector in Azerbaijan makes up 66% of the national economy.

The great amountt of money spent for supporting of small and medium businesses, granting to those engaged in this field , subsidies to agriculture, development of the infrastructure in the country based on the orders of the President of rhe Republic of Azerbaijan. Programs targets create the ground for diversification of the national economy and development of the non-oil sector in the country.

“ State Program on social-economic development of the regions of Azerbaijan during 2004-2008”, “State Program on social-economic development of the economic regions of Azerbaijan during 2009-2013”, “Program on poverty reduction and steady development during 2008-2015,”State program on reliable provision of the population of Azerbaijan Republic with foods during 2008-2015”, “ State

Program on social-economic development of the regions of Azerbaijan during 2014-2018” and other programs were approved.

The Concept on the Development of Industry 2015-2020 has also great importance. This Concept targets using oil and gas reserves to achieve the long-term goals and durable economical development. The transform of “black gold” to the human capital and development of non-oil sector, diversification of the national economy by using oil-gas revenues are basic objectives of the economic policy.

The major directions in state investment policy of the Azerbaijan Republic between 2013-2016 years became directing investments into non-oil sector and regional development, optimizing the distribution of investments among regions, strengthening social directions of investment activities and investments into human capital and infrastructure, providing transparency in investment policy, controls for strengthening economic safety and increasing defensive potential of the state.

The major directions of investment policy for private investments between 2013-2016 years were increasing attractiveness of enterprise for investments, improvement external trade policy for bringing modern technologies to Azerbaijan, directing external investments into the sectors with export potential, improvement of regulation policy of external investments and providing auditor and accounting activity compatible with international standards.

Development Concept “Azerbaijan 2020: Look Into the Future” approved by the President of the Azerbaijan Republic which considers wider activities for development and diversification of national economy:

This Concept targets using renewable energy resources, development of economic infrastructure, non-oil sector, tourism sector, using the potential of the Caspian Sea, food industry and increasing the shares of small and medium business by 10%, development of logistics and etc.

Although oil and gas sector plays an important role in the economic development of the country, but as the results of programs, the non-oil sector became to take center stage in recent years.

About 362.7 million manats (\$213.34 million) were invested in the non-oil sector in January 2018. This is 68 percent more than in the compare with period last year.

The rich resource potential will provide the development of non-oil sector.

The International Monetary Fund predicts that in 2018 the non-oil sector of the economy will grow about 4%.

On the whole , the growth in the country’s economy is forecasted about 2%..

Chapter 3. Basic problems and solutions

3.1. Problems in non-oil sector.

Chosen of innovative development of non-oil industry are related to several factors: economic crises, demand for quality in production, innovative infrastructure, biotechnology and nanotechnology, increasing productivity from production factors, new technologies, coordination between private and state sectors, relations between non-oil industry and other sectors of economy, science-industry-education chain and other factors.

The basic directions of development of non-oil industry are the followings:

- Improvement of the structure and technological base of non-oil sector;
- Directions for innovation and production of new technology in non-oil industry;
- Development of nanotechnology and biotechnology;
- Improvement of the infrastructure in non-oil industry;
- Providing innovative direction in industry and preparing high-qualified labor;
- Stimulating investments into non-oil sector and providing production of competitive goods by using domestic raw-materials;
- Effective regional and technological integration;
- Relation between non-oil industry and other sectors;
- Regional development of non-oil sector;
- Production of goods with export potential;

- Development of traditional sectors in non-oil sector;
- Implementation of international standards in production process;

The statistics above give us impressions about current situation in national economy. But, The providing of the durability of economic development request the researches at non-oil sector, to find major problems and to form and realize the solutions for these problems.

Researches show that, problems are complex enough for their nature and they don't come just from one source. Therefore, for solution of these problems, there is need complex methods in different fields of economy and society.

The Azerbaijan Republic makes the policy for providing development of non-oil sector.

Survey

According to the survey realized among industrial subjects, the basic arguments which hinders innovation in industry was assessed as the following:

The basic 5 reasons as shown not having enough monetary funds, high costs for innovation and not enough support from state, high risks and low innovation potential. The other factors are deficiency of qualified labour, information and etc.

The survey shows that many of the companies select firstly economic factors, then production factors basically. Yes, it is important to know evaluating of major problems and difficulties from the companies and it has importance, because they see and manage the insight of production process.

But as we note above the problems are different. We can note the followings as some of the basic problems in non-oil sector:

- Deficiency of state support to this sector. Although, the state separates the budget for development of this sector (specially in agriculture), but this is important problem "how effective using of this fund?". The effective use is significant which defines maximum profit by using limited resources. Effective using may be realized by high-qualified management. Therefore, this problem is also related to quality education.

- Sometimes the state itself realizes to create the manufactories for privatization these after. But its opportunities also must be limited and many economists reject this effort and they take the argument that state is inefficiency subject (because the basic goal is not to gain maximum profit).

- For the reason other financing sources must be available (investments).

- Lags in research opportunities in industrial subjects.

- Sometimes the problem is different. For instance, in agriculture. According to the statistics, there are not enough qualified agrarian employees to use new technology brought from abroad, although the amount of these are not few. Therefore, solving these problems, creating centers in the bases of universities (e.g. Azerbaijan State Agricultural University) and implementation of new methods in education are important.

- Problems in mechanism of supporting. The state facilitate applying for financial support, but it is also important to form control mechanisms on how using of this funds by enterprises. Also pretending other negative situation and corruption are basic problems which the state tries. So, providing effective methods, electron systems, clarify in supporting mechanism would be beneficial.

Deficiency in qualified labour and finance infrastrucatur (accounting and etc.). The problem brings some other. Quality education can solve these. Innovation, problems in production and significant accounting, merketing and other microeconomic infrastrucatur problems may be solved by well-educated people. This will decrease innovation costs, give oppotunities to evaluate and decrease innovation risks and bring efficiency by using minimum resources and budget as we note this, allocation of resources in an effective way is an important challenge of the modern economics.

Azerbaijan has rich resources. But the evaluate the potential of this resources is problem also sometimes. The solution for the problem above can help this.

Researches in non-oil sector will provide information about absolute and relative advantages in the world market and give a thought that which sectors must be helped particularly or effective allocation of monetary funds into fields in the best manner;

Difficult conditions in bank sector for giving credits, high percents and requirement pledges properties with high value, these are reasons why the enterprise are not interested in to take risks; but business is always risks;

Deficiency in scientific centers, researching this field in the world and scientific and innovation searches which could be organized in the bases of the universities. Organizing these types of centers will provide development in non-oil sector.

Not enough business-education relations. This can provide putting investments into the researches of educational centers. This is also effective method for pretending “brain movement” from Azerbaijan to the other foreign countries. Therefore, the relations between universities and enterprise must be upgraded.

Difficulties in relations between finance and enterprise. High rate and percents in credits, difficulties in credit conditions discourage new enterprise. They do not want to take responsibilities of this. Therefore, facilitation in credit conditions and regulation in this field might have positive effects.

Investment problems; form positive image of the country in the world for potential investors, researching today’s investment trends, improving investment infrastructure, problems generating from the lack of legal legislation are basic tasks.

Other problem related to investment activities is directing investments to non-oil sector of national economy is basic problem. Unfortunately, Most part of investment directs to oil and gas sector and this is a serious challenge.

The relations between different fields of non-oil sector must be learned also. To evaluate which of them can play raw-material base for other fields;

The information problem for the business is one of the difficulties in the economy. Providing information to all subjects, pretending information asymmetry and organizing information base must be new directions to solve them.

We noted lacks in legislation, but they are not related to just investment, to prepare legislation acts and controls over management, innovation and form legal-normative base for these is important.

Although, service sector develops in Azerbaijan, but providing these services compliance with international standards may be successful step in development of non-oil sector;

The implementation of new technology in non-oil sector is important issue. Specially, the state bodies tries to do this. But the role of private sector must be encouraged and providing monetary funds into new investments mechanisms.

Tax and customs mechanisms mus be upgraded. Free market economy will provide successful conditions;

Delays in implementation of legal acts is another issue. The coordination of activities of the governmental body and business must be considered;

The implementation of the international and national standards are in low quality. For the reason, this field and certification must be controlled carefully;

Encouragement of enterprise for production of goods competable may be realized. Because, most of them are not interested in production of such types of goods. Improvement of export potential and support enterprise in export of goods are new problems.

Other problem is importance and priority of fuel-energy in the base of economy.

Problems in innovation infrastructure and legal frame;

Centralization in non-oil sector, differnciation in regional development;

Problems related to the implementation of new technologies;

Technological and technical lags in non-oil indsutry;

Unefficient adminstration;

Unefficient using of natural resources and etc.

3.2. Suggestions for problems.

Improvement scientific analyze and marketing researches in non-oil sector and learning directions of development in global scale;

Using potential of universities, improvement relations between the universities and industry and supporting new technologies and innovation realized by these universities.

- Reconstruction in some sectors of industry and researches about its raw-material base.
- Pretending unfair competition in industry;
- Organizing industrial and technology parks, industrial clusters;
- Providing development of education, preparing high-qualified and well-educated people;
- Strengthening business-university relations;
- Improvement of legal framework and legislation in different fields;
- Improvement legal-normative base of investment activities;
- Preparing and realize activities to attract foreign investments;
- Providing competitive investment environment;
- Improvement information base for investors;
- Encouragements for flow of most parts of investments into non-oil sector of national economy;
- Regulations in bank sector for creating better conditions for enterprise for example:

- Opportunities for pledge business (if the results are failure, then the bank take the business (equipments, factors and etc.) maybe for selling it to another entrepreneur which is used in foreign countries successfully;
- Improving bussiness amd investment environment in the country;
- Providing most parts of investments into non-oil sector;
- Attracting foreign investors may be realized in different ways:
- Business forums in foreign countries about investment potential of the country;
- Taking part in international events for investments;
- Campaign in international media;
- Increasing the role of the state in providing stable legal-normative regime;
- Preparing electron resources on investment environment, projects, natural resources, industry potential of the country;
- Membership for World Trade Organization;
- Quality in services considering foreign investors and implementation electron methods for providing transparency;
- Contracts with regional countries about bilateral trade relations and discounted tariffs;
- Membership in international and regional blocks;
- Strenghtening mechanisms for stimulating export and learning international experience;
- Services for investors based on “Single Window” principles;

The followings are the examples also considered in Development Concept “Azerbaijan 2020: Look Into the Future” approved by the President of the Azerbaijan Republic which considers wider activities for development and diversification of national economy:

- Preparing offers for developing new enterprise in different sectors of industry bases on domestic raw-materials and production factors which will be able to produce competable goods.
- Supporting construction of of new processing manufactories and reconstraction of industry.
- Preparing offers for supporting export of industrial products;
- Preparing national standards on industry based on international standards;
- Preparing exemplary investment projects for enterprises to product competable goods;

- Control over implementation of new technology using energy efficiently and in an ecological way;
- Preparing offers for Simplification in conditions for leasing industrial equipments and technology;
- Providing relations between infrastructure projects and investments of private sector;
- Preparing conferences and discussing for development of domestic production;
- Accelerating privatization of industrial manufactories;
- Production of equipments and technology used in agriculture;
- Production of technology for renewable and alternative energy;
- Production of new technology with defensive destination;
- Constructing of manufactories processing wastes;
- Preparing public articles and scientific materials on potential of industry;
- Providing information system for manufacturers about state demand;
- Researches about industry and inform manufacturers about results;
- Preparing offers for supporting industrial subjects to implementation standard and getting international quality certificates;
- Creating new brands, development of its and supporting them;
- Upgrade information base on industry in the country;
- Preparing offers for training employees in industry;
- Innovation centers in universities and high-schools by supports from private sectors
- Development in cadre potential and technical base of education;
- Development of cooperation between the countries and other countries and international organizations;
- Improvement of legislation;
- Preparing offers for analyzing and improvement legislation on regulating activities in industry;

- Preparing normative-legal acts and mechanisms for attracting investments into industry;
- Preparing proposals for changes in legislation about controls over industrial subjects who damage environment;
- Preparing mechanisms for printing articles about technical profession in international magazines;
- Industrial parks in Ganja, Mingachevir and form infrastructure;
- Training courses in foreign countries for experts;
- Proposals for creating clusters;

To solve these problems and realize suggestions in this field coordination of state bodies is important. The bodies to realize them are attached Azerbaijan National Academy of Sciences, Ministry of Education of Azerbaijan, Ministry of Economy, Ministry of Agriculture, other ministries and state committees.

According to the “Regulation on Industrial Parks” the following stimulating activities may be realized in industrial parks:

- Providing modern infrastructure in industrial parks;
- Discounted credits and financial support;
- Simplification in administrative procedures;
- Services for efficiency enterprise activities;
- To be released from all taxes and other payments for 7 years;

Conclusion:

As a country gaining independency in the last years and having rich resources, the Azerbaijan Republic tries to provide durable economic development. One of the basic methods of this transforming revenue from oil and gas resources to human capital and intellectual property. Diversification of the national economy and development of non-oil sector and providing durable development.

One of the basic directions of state policy is development of non-oil sector. Therefore, firstly, there is needed to search problems in this area and solving these problems.

To solve this problem and other some related problems give us the thought that the way to development may be related to qualitative education. At least, many of the problems in this area can be solved with education.

Overall, the state takes the greatest role and responsibility to come over these problems. It can form the efficient infrastructure in different fields to solve the problems.

Therefore, to form the effective infrastructure by using budget and improvement it, form the legislation and standads, also development of control mechanisms over realizing them are some of the state's basic responsibilities.

So, improvement the infrastructure (education and etc.), legislation regulating the issues in non-oil sector and providing control mechanisms for realize laws will bring development in non-oil sector.

Literature Review.

1. <https://www.stat.gov.az/>
2. <http://www.worldbank.org/>
3. <https://data.worldbank.org/>
4. <https://en.m.wikipedia.org/wiki/Industry>
5. https://en.m.wikipedia.org/wiki/Industry_classification
6. Arzu Rehimli. "Geyri-neft sektorunun inkishaf etdirilmesi istigametleri", magistr dissertasiyasi.

7. Gabil Alizade, “Azerbayjanin geyri-neft sektoruna investisiya goyulushunun stimullashdirilmasi yollari”
8. National Accounts of Azerbaijan. State Statistical Committee of the Republic of Azerbaijan.
9. Industry of Azerbaijan, State Statistical Committee of the Republic of Azerbaijan.
10. <http://www.economy.gov.az/index.php?locale=az&lang=az>
11. 2017-ci ilde geyri-neft sektorunun inkishafi barede. State Statistical Committee of the Republic of Azerbaijan.
12. “Azerbayjan Respublikasi iqtisadiyyatinin saheleri və iqtisadi rayonlari uzre prioritet istigametler”. Sahibkarliga Komek Milli Fondu.
13. “Strategic Road Map of National Economy”.
14. “Azerbayjanda sahibkarlig regemlerde”. AR Ministry of Economy and Industry.
15. State Program on Developmeny of Industry between 2015-2020.
16. http://www.azerbaijans.com/content_1671_en.html
17. <http://cesd.az/new/?tag=development-of-the-non-oil-sector-in-azerbaijan>
18. <https://www.azernews.az/business/103930.html>

