Azerbaijan State Economic University, SABAH Groups

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## The main trends in the development of the industry of Azerbaijan

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#### Introduction

Topicality of the topic: The rapidly developed oil industry of Azerbaijan in the twentieth century, has established strong production bases and scientific centers. Azerbaijan has played a major role in defeating the German fascism by supplying the front with fuel in the Second World War.

One of the greatest achievements of our country during the postwar years was the discovery and development of offshore oil and gas deposits. In 1949, 100 miles off the coast, the first time oil in the open sea was extracted in world experience in Oil Rocks, a unique sheepfold. In 1970-1980, Azerbaijani oil workers were depicted in deeper seas. As a result of purposeful measures taken during this period, the oil industry was strengthened and large infrastructure was created.

The achievements in the oil industry in recent years have very important strategic importance. With the signing of the "Contract of the Century" on September 20, 1994, a new oil strategy was launched, with the many companies of the world being the first in the Caspian Sea to start joint exploitation of oil and gas fields. The first international oil contract reflecting the economic sovereignty of Azerbaijan laid the foundations for the dynamic development of our economy and its practical results are evident.

From that date onwards, the work continues to serve today's and future generations. From this point of view, the issue we chose is one of the topical issues of the day.

1)The purpose of the topic is to examine the scientific innovations that stimulate the development of the oil and gas industry in the republic and to use the theoretical issues that scientists have said in this area by systematizing the subject. At present, the key task of the country's oil and gas complex is to strengthen the successes achieved through the implementation of the oil strategy, to ensure the full repayment of the economy and the population's energy resources

**2**)With the acquisition of the status of independent statehood of Azerbaijan, new quality changes have been made to the study and investigation of the general economic problems in the oil and gas industry. The disintegration of the old economic and ideological system, its replacement with the market economy on the basis of liberal values has made more favorable breakthroughs. Now, more strategically, far-reaching, the solution of the scientifically important issue is awaiting extensive research and practice.. The new geopolitical situation increases the relevance of the problem by turning it into a large scientific research object.

Thus, the object of the research on "Main tendencies in the development of Azerbaijan's oil industry" is Azerbaijan's oil industry.

**3**)At the junction of the last two centuries, the science that covers the oil industry of Azerbaijan has begun to form. The services of Azerbaijan and its scientists have been highly appreciated in the development of oil-related science in the world of oil science, in particular the Soviet Union.

Research and practical activities of prominent oil-gas scientists, engineers and specialists of Azerbaijan are distinguished by high serviceability of the former Soviet Union, Western Europe, North Africa, the Middle East and the oil and gas industry. Scientific researches of X. Yusifzade, E.M. Rustamov, AM Alikhanov, S.Arucov, Suleymanov AB, Hajiyev, ZAAbdullayev, G.Zhuzbashova are important in the investigation of general problems of oil and gas production. The current situation in the oil and gas industry has a profound impact on the economy of the republic, of progress. The reality is that the oil and gas industry has a driving force in the entire economy.

**4**)In terms of modern requirements, the improvement of the economic structure of the national oil and gas complex has been investigated. The use of modern methods in the oil and gas complex has been compared to the different options, and the selection of more optimally touched the volume of investments made, the duration of the payment, the effect, the coefficient and so on. The importance of the oil strategy in the development of the socio-economic development concept of Azerbaijan has been substantiated and substantial concrete proposals and recommendations have been put forward. Research, analysis and recommendations in the dissertation can be used in the development of a new oil strategy in modern conditions and for further research on this subject

Mobile infrastructure issues linking the branch network of oil industry in Azerbaijan were taken into account in view of the oil and gas potential of the Caspian Sea and underlined the importance of improving the infrastructure. In particular, investment opportunities for enterprises producing oil and gas equipment have been investigated.

**5**)The following questions were explained in the research: The essence, purpose and methodological basis of oil strategy in Azerbaijan; The role of oil strategy in socio-economic development of Azerbaijan; current state of the oil industry; dynamics of oil industry development; improvement of the economic

structure of the national oil and gas complex; Application of modern methods in oil and gas complex.

- 2. Strategic importance of the oil industry for economic development.
- 2.1. Oil as a determining factor in the development of the industrial economy.

In the Republic of Azerbaijan, natural resources belong to the state. Above all, natural resources and income from them should be spent on raising the interest of the people. According to Article 14 of the Constitution of the Republic of Azerbaijan, natural resources belong to the Republic of Azerbaijan without prejudice to the rights and interests of any natural or legal persons. According to the Law of the Republic of Azerbaijan "On Reversal of the Earth" dated February 13, 1998 users of the location of hydrocarbon reserves can be both physical and legal persons of both local and foreign countries. Depending on the law, geological exploration and extraction of minerals may be used for up to 5 years for geological study, up to 25 years for extraction of minerals, and up to 30 years on the basis of special permit (license). There are laws according to the number of oil contracts concluded between the exploration, exploitation and production of hydrocarbon reserves and the transportation of oil and gas through export pipelines. That is, these agreements have been ratified by the Milli Majlis as a law. it should be noted that, as a legislative

document regulating the agreement, the legal force of those laws is limited to periods for which agreements are concluded. If the Agreement is terminated due to any reason (termination, mutual agreement of the parties, etc.), the law that ratified it is automatically deemed invalid. Azerbaijan faced many difficulties in the early 1990s after its independence. Breaking economic relations between the former republics of the USSR and the Republic of Azerbaijan, existence of instability on the territory of the republic, and weakening of financial and technical equipment made the oil and gas industry a critical state. All these difficulties did not allow the development of fields such as "Azeri", "Chirag" and "Gunashli", which were revealed financial, technical and other problems. We had to choose one of the two options to get out of the difficult situation in the oil industry and master our country's hydrocarbon reserves. For 15-20 years, we had to wait for the country's financial-economic situation to be favorable, or to invite foreign oil companies. At that time, it was decided to invite foreign oil companies to Azerbaijan. At that time, negotiations with foreign companies on the development of Azeri-Chirag-Gunashli (deepwater part) fields were started. On September 20, 1994, the "Production Sharing Agreement" - the "Contract of the Century" was signed with 11 well-known oil companies from seven countries in the Azeri-Chirag-Gunashli (deepwater) field development. The oil strategy, starting from that period, can be seen as follows:

1. Provision of rapid access to the world's energy carriers through the involvement of international oil companies, large investment in oil and gas projects in Azerbaijan;

2. Creation of the export pipeline system to ensure free and fast access of the Azerbaijani oil to the world market;

3. Gathering and increasing oil revenues from the national wealth of Azerbaijan for future generations, using these revenues for today's generations, taking into account the current social needs of our country, economic progress and development needs;

4. Bringing Western advanced technology to Azerbaijan;

At present, the main task of the country's oil and gas complex is to strengthen the successes achieved through the implementation of the oil strategy, to ensure that the economy and population's energy resources are fully repaid. For the purpose of fulfilling this important task, the State Program on the Development of the Fuel-Energy Complex (2005-2015) of the Republic of Azerbaijan will continue to carry out specific measures for the development of identified areas and their implementation in the upcoming period. The involvement of international oil companies, foreign investments and modern technologies in oil and gas projects, as well as increasing the interest of world countries to Azerbaijan as a reliable exporter of energy will continue. With the purpose of further development of the fuel and energy complex, which is of crucial importance in the economy and social life of the Republic of Azerbaijan, with the purpose of improving the energy supply of the population and economy and increasing the efficiency of use of energy sources by the Presidential Decree 635 of February 14, 2005

The State Program on the Development of the Fuel and Energy Complex of the Republic of Azerbaijan (2005-2015) has been approved. The purpose of the State Program is to develop the fuel and energy complex of the Republic of Azerbaijan in the coming decade, to achieve more and more electricity and gas demand for the population and economy. The main objectives of the State Program are:

- to define the main directions of development of the fuel and energy complex of the Republic of Azerbaijan in accordance with modern requirements;

- To carry out relevant scientific and technical and organizational measures to increase the efficiency of the industrial sectors included in the fuel and energy complex;

- Ensure the implementation of progressive technological measures for the production, processing, transportation, storage, accounting and consumption of energy resources;

- To form a healthy competitive environment in the fuel and energy sector;

- Increase the volume of investments involved in the development of fuel and energy complex;

- Ensure environmental safety in the fuel and energy complex;

- Ensure correct payment of fuel and energy resources (electricity and natural gas) consumption.

The program envisages further work on oil and gas production in the following years in order to further develop the country's fuel and energy complex:

- exploration of new fields;

- involvement of discovered deposits into full-scale development;

- drilling of new wells and rehabilitation of inactive wells in developed fields;

- application of new technologies to increase oil recovery ratio on developed fields;

- construction, reconstruction and modernization of oil and gas extraction, transportation and processing systems;

- widespread use of science and technology achievements and advanced experience

The contract of "production sharing" on the joint development of oil in the Azeri, Chirag and Guneshli fields in the Caspian Sea in Azerbaijan in September 20, 1994 is called the "Contract of the Century" for its historical, political and international significance, about 400 pages and 4 languages. The "Contract of the Century" was attended by 11 most prominent oil companies from 8 countries.

Profit oil gained within the framework of the "contract of the century" is divided by the state profitability ratio (IRR). Profits in the lower levels of profitability are divided between the Azerbaijani government and oil companies as follows: at a rate of less than 16,75% - in the proportion of 30% to 70%;

• Changed from 16.75 to 22.75 percent - 55% to 45%;

• In the case of higher than 22.75% - in the proportion of 80% -20%.

Within the framework of production sharing agreements, foreign oil companies pay income tax, acreage payments and bonuses to the state.

The field was developed in several stages:

Oil is extracted from the Chirag field as early as November 1997;

• Next stage: Starting from February 13, 2005, the production of Azeri Phase 1 has been started from the Central Azeri field;

• Next stage: Production on the Azeri Phase 2 project on the West Azeri field in October 2006 and in the East Azeri field in October 2006;

• Production at the Deepwater Guneshli field at Phase 3 started in April 2008;

• Chirag Oil Project, which was sanctioned in 2010, at the start of the last phase. The West Chirag platform was installed between the existing Chirag and Deepwater Gunashli platforms. On January 28, 2014, the West Chirag began production. The construction of the West Chirag platform was carried out in the entire country, using the local resources for the first time in the history of world-class construction sites in Azerbaijan

More than 4,000 workers have been involved in construction works at all CTL construction sites, of which 90% are citizens of Azerbaijan. The design capacity of the new platform is 183,000 barrels of oil per day and 229 million standard cubic feet of gas, but the platform can export 285 million standard cubic feet of gas daily and has the capacity to deliver gas to 80 million standard cubic feet per day.

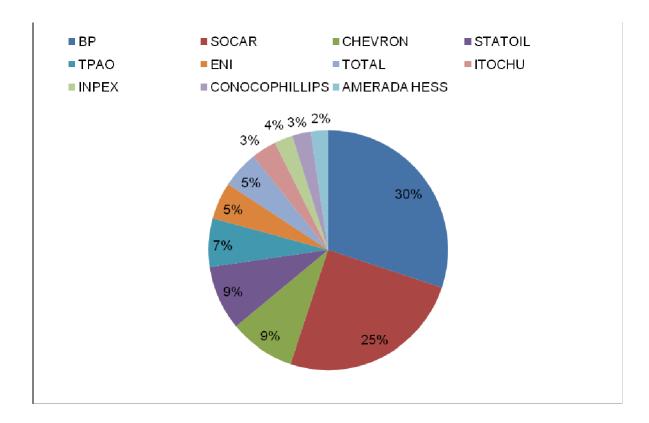
The shareholders of the Azeri-Chirag-Guneshli fields and their shareholdings have been subject to changes from time to time. In September 2013, according to BP's announcement, ACG shareholders' shares and stakes were as follows:

- BP (UK, operator) 35.78 per cent,
- Chevron (USA) 11.27 percent,
- AzAgG (joint venture of SOCAR) 11.65%

- INPEX (Japan) 10.96%
- StatoilHydro (Norway) 8.56 percent,
- ExxonMobil (USA) 8.0 percent,
- TRAO (Turkey) 6.75 percent,
- ITOCHU (Japan) 4.3 percent,
- ONGC Videsh Limited (India) 2.72 percent

The first oil was launched on November 7, 1997, under the "contract of the century". The stable export operations started from the Novorossiysk port of Russia in March 1998. At present, export operations are carried out on 3 routes, 2 of which are via pipelines (Baku-Tbilisi-Ceyhan and Baku-Supsa), and one is railroad (Baku-Batumi, this route is used by American company ExxonMobil, because the company was forced to use the railroad because it had previously refused to finance the BTC and that the cost of transporting the pipeline is more expensive for it). ACG shareholders have been exporting from the Baku-Novorossiysk pipeline since the beginning of 2009 and this pipeline is currently on the balance of SOCAR

In 1999, the first tanker filled with Azerbaijan's first crude oil was exported to the world markets. The agreement once again convinced leading countries and companies that Azerbaijan is an independent state and a reliable partner, where it can be invested in this country. It is no coincidence that after signing this Agreement, more than 30 agreements with foreign companies were signed and this is a major political issue . Within the ACG project, one platform (Chirag-1) has been upgraded and 6 new platforms have been built and one of the world's largest oil and gas terminals has been built and a very complex submarine pipe network has been established at the bottom of the Caspian Sea. Revenues from the sale of "Profit Oil" are accumulated at the Oil Fund and are spent on the progress of the non-oil sector, the regions and Azerbaijan in general. One of the main directions of the oil strategy was the transportation of Azerbaijani oil to the world markets. The main purpose was the long-term preservation of the interests of Azerbaijan and the creation of a strategically important East-West route for the transportation of oil to the world markets. For this purpose it was crucial to establish a trans-corridor that could provide the transportation of fuel from the Azeri-Chirag-Guneshli fields to Europe. It was proposed to lay Baku-Tbilisi-Ceyhan (BTC), the safest and long-lasting, profitable route in the region.



BTC Co shareholders:

At that time, Baku-Novorossiysk and Baku-Supsa oil pipelines played a significant role in the export of Azerbaijani oil to the world markets, but BTC was considered to be a more international and profitable export corridor. Azerbaijan has been producing oil and gas for more than 150 years. During this period, 67 oil, gas and condensate fields have been discovered, of which 55 are currently being exploited. 1,365.5 million tons of earthworks, including about 430 million tons of oil and 443.8 billion cubic meters of gas were extracted from the offshore fields. The signing of the oil contracts and the subsequent

signing of new contracts on the use of the hydrocarbon reserves of the Azerbaijani sector of the Caspian Sea has created great opportunities for the revival of our country's economic potential and the flow of billions of dollars needed to the economy today.

The closure of the "century's treaty" has not only economic, but also of great political importance. Over \$ 60 billion has been invested in 19 oil contracts signed with 33 of the world's largest companies. It was considered to be a powerful financial channel that would bring the country's economic system and relevant infrastructure.

The country's energy security plays an important role in sustainable economic development of each country. Socioeconomic development of each country, its role in world economy is determined by energy potential. In this regard, production of hydrocarbon raw materials is reflected in the strategic economic principles of the producer country. In this regard, the problem of extraction of hydrocarbon raw materials is reflected in the strategic economic principles of the manufacturer. It is important to increase the reserve capacity of these resources for the development of the national oil industry, the raw material base. The transition to a new economic system and methods of farming has set some tasks before science. At the beginning of the 21st century, industrialized oil extraction led the economy of Azerbaijan to a large scale, making the capital Baku a whole commercial and financial center.

As a result of the successful work carried out jointly with foreign partners in the oil industry of Azerbaijan, large oil revenues have begun to come to our country. Large volumes of oil revenues open up opportunities for Azerbaijan. According to the State Oil Fund of Azerbaijan for January-March 2017, budget revenues of the Fund amounted to 3 billion 272.5 million manat and budget expenditures amounted to 3 billion 847.5 million manat. In January-March, the State Oil Fund of Azerbaijan received revenues from the implementation of oil and gas agreements worth 2 billion 899.1 million manat, including 2 billion 894.4 million manats from the sale of profit oil and gas, bonus payments - 0.1

million manat, and transit revenues - 4.6 million manat. During the reporting period, revenues from management of the fund amounted to 373.4 million manat. In recent years, the government has been implementing important measures to strengthen social protection of the population, increase pensions and allowances, and increase public attention and social care to vulnerable families. Confident steps towards the market economy have been observed with successful changes in the socio-economic life of our country. Successes in economic and social spheres after our independence are the result of a consistent, consistent reform course led by national leader Heydar Aliyev. The oil and gas industry of the Republic of Azerbaijan has not reached the present level very easily. As it is well known, the oil and gas industry, as well as other industrial sectors of the Republic of Azerbaijan during the first years of its independence, faced a number of financial and technical difficulties. The main problems were related to the collapse of the Soviet Union and the collapse of economic relations between the former allied republics. Therefore, technical equipment has dropped to zero, the main branches of national economy, including the oil and gas industry, have faced a deep crisis. Even large oil and gas deposits discovered at that time and located deep in the deeper part of the Azerbaijani sector of the Caspian Sea the development of the Azeri-Chirag-Guneshli oil and gas deposits was not possible due to the lack of technical equipment, supplies and mainly financial resources. Thus, Heydar Aliyev, who came to power again, began to closely deal with the restoration and development of the oil and gas industry of the republic. Heydar Aliyev preferred to invite foreign oil companies to the Republic of Azerbaijan and to work jointly with the foreign oil companies, taking into account the socioeconomic situation of our country, and neighboring countries, especially the Russian and Iranian Islamic Republic of Armenia, were jealous of the issue of working together with foreign oil companies in Azerbaijan. It should be noted that the technology and technology brought from western countries have a great role in the implementation of the new oil and gas strategy. In particular,

world-class new techniques, technologies and equipment used in construction and development of fields, drilling and exploitation of oil and gas wells has had a positive impact on the industry. Foreign economic relations play an important role in Azerbaijan's socio-economic development program. Economic cooperation with foreign countries has great advantages to ensure the diversified development of Azerbaijan's national economy. For this reason, the economic relations with foreign countries and the development of these relations are of great importance in the conditions of the formation of the national economy of Azerbaijan. Azerbaijan is a country that attracts the attention of the near and far, small and big states of the world, international and regional organizations in terms of political and economic issues of many vital importance. The foreign economic policy of the Republic of Azerbaijan is understood as the activity directed to the realization of the objectives set out in the international economic relations. Foreign economic policy is an economic concept and is an integral part of the overall economic policy and is directly related to the country's socio-economic program. In the socio-economic development program of Azerbaijan, foreign economic policy is mainly implemented in four directions: foreign trade policy; payment balance policy; foreign investment policy; foreign aid policy.

In addition to the political significance of the new oil strategy, which has taken its start since 1994, we also consider some other economic significance. Thus, the implementation of the new oil strategy means employment of hundreds and thousands of Azerbaijani citizens. It should be noted that the investments directed to the realization of the new oil strategy of our country not only increase the capacity of infrastructure to meet the requirements of the modern times, but also gave a great impetus to the solution of the employment problem of the population. It is enough to say that more than 6,000 citizens of Azerbaijan were involved in the implementation of the construction works under the Phase-1 and Phase-2 projects aimed at the development of the Azeri field. Besides, about 3,000 citizens of our country worked on the construction of the Baku-Tbilisi-Ceyhan main export pipeline, which envisages the extraction of crude oil through the Mediterranean Sea. In addition to the construction and installation works within the oil projects, a number of social and environmental investment programs are also being implemented at the expense of foreign companies in Azerbaijan. These programs, in turn, create new jobs. The work of BP, the operator of large oil projects in Azerbaijan, draws particular attention to this. It is important to demonstrate the presence and exploitation of oil and gas resources as one of the strongest factors, along with the human factor, in expanding the integration of Azerbaijan into international structures, turning into a solid, civilized state based on secular values. Oil and gas resources are one of the main factors in the economy of Azerbaijan, its cultural development, and improvement of the social and cultural wellbeing of the population. The increase in oil and gas reserves in recent years, the effective use of them, the signing of new contracts with other countries in this area has contributed to the development of the country's economy and at the same time improving the welfare of the country's population. Oil and gas resources, which constitute the most extensive part of the country's natural resources, now represent the leading area of our economy. The oil and gas industry, which incorporates 2/3 of the fuel and energy complex, also stimulates economic revival as the main area of socio-economic development of the republic. Today, the State Oil Fund has received more than \$ 25 million in sales of oil and gas, including the "Contract of the Century".

All these funds were transferred to the Oil Fund in a transparent form and managed and transferred to different projects within the framework of the annual budget of SOFAZ, as well as transfers to the state budget. Over the past 10 years, SOCAR has become one of the strongest oil companies in the region. In addition to the diversified oil and gas pipelines system, the company's assets are equipped with specialized construction and repair facilities for terminals and hydrotechnical facilities. Complex measures to modernize this rich infrastructure are continuing. Taking into consideration the need for renewal of

the fleet of the Oil Fleet fleet, which maintains its uniqueness in the Caspian Sea for 60 years, as well as the increase in maritime transportation in the country, in 2010, together with our domestic and foreign partners, the construction of a new shipbuilding plant meeting modern standards in Baku began. As you know, the future of the oil and gas industry is related to exploration and drilling operations in the depths of the Caspian Sea bed and prospective structures. SOCAR needs new generation drilling rigs. In the middle of this year, Keppel Offshore & Marine Ltd. signed an agreement for the construction of the 6th generation semi-drilling rig in the Caspian Sea. The new facility will be able to drill up to 1,000 meters deep and drill 12,192 meters. The device will also be equipped with all the advanced equipment corresponding to the world standards against the likelihood of contamination of the Caspian Sea. The device must be delivered in 2016. We will continue to work on modern drilling rigs in the future. At present, Azerbaijan's oil and oil products are exported to 30 countries of the world, including USA, China, Great Britain, Germany, France, Italy, Spain, India, Indonesia, South Korea, Thailand and Brazil. In order to ensure the direct sale of products to endconsumers and to centralize this type of activity, SOCAR Trading Company, which started operating in Switzerland in 2008, has recognized itself in Europe in a short period of time and has achieved remarkable successes in organizing business structures in other geographical areas acquired. Under the instruction of Mr. Ilham Aliyev, President of the Republic of Azerbaijan, to expand the capacity of the underground gas reservoirs to improve the population's natural gas supply, complex measures have been implemented, new compressor stations, gas distribution points have been built, the warehouses are equipped with modern equipment. In a short time, the active capacity of underground gas storage facilities in Garadagh and Kalmaz has been expanded to an unprecedented extent - more than 3.5 billion cubic meters. At the same time, the Azerigaz Production Association was set up to SOCAR in 2009 and developed and implemented a major program for the modernization of the gassupply system and the provision of uninterrupted natural gas to the population and the industry. A reliable gas gathering and transportation system has been established, thousands of kilometers of pipelines have been laid, and hundreds of settlements have been excavated so far. Daily intensive work is underway to improve the operation, monitoring and control systems, to reach international standards, and 95 percent of the country's territory. The example of modernization of Hajigabul, Siyazan, Astara and Garadagh compressor stations is an example.

#### **1.2.** Foreign experience of the effective development of the oil industry

The Oil Business is a vital industry on the planet and a considerable measure relies upon the cost of the oil and it has been watched that at whatever point the oil costs increment the cost of different items likewise increments. The Oil Business additionally through oil generation represents a lot of the utilization of vitality. In this issue the Center East is in the primary position and the most minimal utilization is finished by the nations in Europe.

Oil prices are still below \$ 115 per barrel (and this is a psychologically significant mark in the aftermath of the post-crisis period of March 2011), despite the fact that it is important for Brent oil, for a barrel of 90 per cent in 2016 At \$ 50. As a result, companies still need to be careful about the oil and gas exploration and production industry, even though they have begun to consider new investment plans to develop the resource base attractively. Actual changes in price determination may have little effect, and the proposal may result in a decline in resource development projects over the past few years.

The collapse of oil prices, which began in June 2014, caused waves of exploration and production cuts. In 2014-2016, international oil and gas companies have reduced investment by approximately 40%. As a result of the Campaign's cost reduction campaign, approximately 400,000 workers were dismissed and large projects that did not meet the profitability criteria were

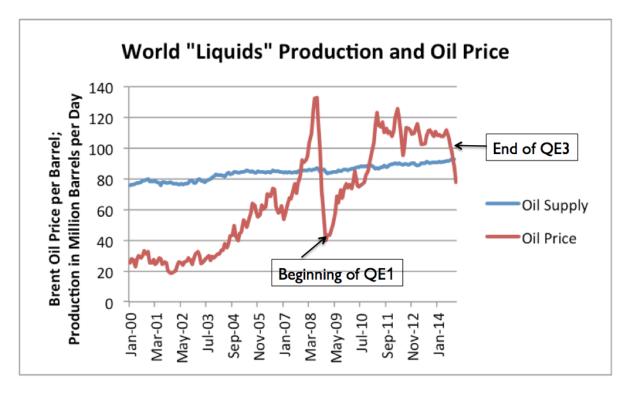
canceled or postponed. These steps, combined with measures to increase efficiency, begin to bear fruit. While many projects are at the level of oil prices above \$ 20, they can bring profitability levels. The profitability of the development of the Johann Sverdrup oil field in the North Sea, owned by Statoil, has been reduced to approximately \$ 25. A few years ago, this seemed unreasonable.

Recent oil prices will continue to partially halt the decision to reduce OPEC's production due to a review of key demand and supplies in the near future. Expectations are in line with positive industry forecasts: Oil and gas investment in 2017 will increase by about 7%, according to Barclays' latest exploration and production costs. In addition, according to BakerHughes, the number of oil wells at the international level, and in particular in the US, is increasing since 2016. In addition, the combination of mergers and acquisitions over the past few months has been observed that companies are trying to make transactions in assets. If the process is affected by the suspension of investment in key projects since 2014, then oil prices may rise from five years to ten years. The newly emerging uncertainty was welcomed by traders, largely avoiding the oil market due to a drop in their prices. An increase in the volume of stock trading can lead to significant increases in oil prices from three to five years. Oil and gas companies simply need a firm guarantee that their business models will be able to interact with the variability of that type and be prepared to benefit from it. Can international oil companies (MNF) benefit from the cost reduction because oil prices are restored? A certain increase in costs is inevitable. For example, oil field service companies (NJCs) may begin to give up their concessions to the RCC during the collapse of the market. Such a measure can add up to 15% of the barrel's oil production cost, which will allow MMK to reach its revenue level. At the same time, oil and gas companies should be careful in maintaining other costs, especially in the supply chains and in resource development. This task can be challenging, as the wave of staff drops has resulted in a significant reduction in resources, such as experience,

knowledge and skills. In the absence of proper monitoring, the loss of these capacities may increase the value of development projects. MNF's intellectual solutions are used to further improve the prices of new valuable initiatives used to achieve price increases.

Large-scale operations in the oil and gas industry are registered in the OPEC and the US, but in the coming years, other regions can reach a certain level of influence. For example, in Latin America today, the investment climate is improving. The number of local oil and gas companies is increasing and creates new jobs. The confirmation of this fact is Mexico: the reforms in the oil industry allow us to use unconventional oil extraction methods, and this shows their importance. OffshoreOilCorporation (China), BHPBilliton (Australia), Total (France), Chevron, ExxonMobil and Inpex from Japan participated in the tender for deep drilling in this country. Other relevant areas for the development of hydrocarbons include the shelf in Egypt. BP has recently acquired a stake in the Kashagan field, which represents Kazakhstan's main reserves, at the giant Zor Gas Field, which has been operated by Eni. Generally, these fields have the largest oil and gas reserves discovered in the last 30 years, and their commercial production has been restored by the end of 2016. As prices increase, private investors can also increase their interest in the industry. It was clear during the two major operations in the British North Sea sector: obtaining OMV assets by SiccarPointEnergy and the decision to acquire targeted assets from Chrysaor's Shell.

Fluctuations in oil prices led to the loss of critical personnel



Leaders of the oil and gas industry are preparing plans for the future, for example, properly used business models. How can a company start to create new opportunities and which areas will be affected? How should active portfolios develop? What kinds of technology scenarios do you need to invest in?

By 2020, companies predict the emergence of a number of business models and strategic response models such as:

1. The goal of corporate strategy is to achieve continuous profitability

The decline in oil prices in recent years has highlighted the urgent need for companies to develop plans to maintain profits in different price scenarios. Increasing production and inventory are the main process in the oil and gas industry, although profitability is usually the first.

Nevertheless, the shock of low prices and the change in interest rates that could lead to the rise in the value of loans in the near future have increased the flow of cash flows to become "priority" from 'ordinary revenues'.

In general, the concept of cost effectiveness and effectiveness in many large companies has already been placed in the corporate structure. Other organizations, such as the Middle East's national oil companies (NOCs), must adapt to developed conditions. In order to pay attention to cost effectiveness and profitability, corporate culture and outlook should be substantially changed and consequently a corporate portfolio should be reviewed. Indeed, Shell is planning to sell its business shares in Majnun and West Gurna deposits in Iraq, where low income rates are subject to the terms of service contracts, which may reflect this trend.

2. Individualized opportunities can be key to success in the future

In recent years, the oil and gas industry has been characterized by extensive working conditions, including the exploration of non-classic flooring and exploration of new territories in the increasingly demanding and remote corners of the planet. However, despite the traditional wishes that exist in all possible fields, there is no skill and corporate culture needed to maintain competitiveness in all emerging situations. Indeed, companies such as ChesapeakeEnergy, EOGResources, and WhitingPetroleum have preferred the US non-classic oil production because they succeeded in adapting business models to new unique requirements. Likewise, intelligence and manufacturing companies with special capabilities in recent years, for example, have been able to make deposits in the final stage of development and carefully play major players in certain segments, paying attention to price increases carefully and accurately. In the future, this type of specialization will probably be everywhere. In fact, the existing uncertainty in industry will require companies to at all levels to look for opportunities to increase productivity and even to be able to recover and, therefore, to capitalize. And the emergence of business models created in recent years in the field of registration and acquisition of MGK sector specific capabilities. For example, GE BakerHughes is an attempt to build a business that focuses on the more efficient exploitation of oil wells through automation, improved visualization and data analysis in the center of the latter period. Recently, the key capabilities of Technip and FMCT

technologies have been to create a work related to engineering research and the use of water-based devices.

The model of a single integrated company using exploration and development of oil and gas field and its depletion prior to its extinction is at the substitute stage

3. New business models and partnerships will always be available

The development of the oil and gas industry requires the creation of new forms of co-operation to balance the specific capabilities of each market participant in organizations representing the transition from large companies to dominant companies to companies with weaker business environments. In our opinion, many models and models of a single integrated oil and gas exploration company are reduced to the possibility of using such a model and are altered by alliances, alongside with property alterations, so that the management can fully control the relevant stages of the life cycle of the site he knew.

In response to an increase in oil prices, energy companies are increasing production levels

An example of this is the emergence of specialized oil companies such as KosmosEnergy, as well as formation of mature players in the manufacturing sector, such as EnQuest in the North Gulf. Additionally, BP and KosmosEnergy, recently established for development in Mauritania and Senegal, are a good example of a major MNE that balances technical competence with fewer competitors. It is most likely that relations between oil and gas companies and MMM enterprises will develop in the same direction. Large NJC players such as Schlumberger and Halliburton offer integrated oilfield management solutions that allow for monitoring and exploitation of alliance assets and managing daily operations of other companies, such as Petrofac. However, in spite of the critical nature of this tendency, some well-known enterprises, especially the Middle East-controlled NJCs, face the challenge of developing new models of cooperation and partnerships. 4. After

emergence of new business models, portfolios will be revised for reliability and convenience

The portfolio valuation procedure should focus on something more than the simple sale of assets to make money. This should be considered an opportunity to ensure that business based on future conditions is radically restructured and that the company has the capabilities of the projects involved. For example, by reviewing their portfolio, some organizations prefer to diversify, so they are prepared to use a low carbon environment. French company Total has implemented this step with one-fifth of its asset base focused on low-carbon technologies. The acquisition of the battery maker also wished to implement the energy saving initiative. In the same way, DongEnergy, the oil and gas producer, primarily focuses on renewable sources of energy in order to earn resources for the development of a wind power plant in the sea and is leading the mining industry. The portfolio needs assessment will be increasingly more affordable, as companies take part in the expected consolidation series over the year. More recently, concerns about the fluctuations in oil prices and, in particular, probability of falling, have made it difficult for buyers and sellers to agree on the assessment of oil fields. However, at present, the activity in the field of commerce is accelerating after market prices are restored, and confidence in the market is at \$ 50 per barrel. As part of the latest operations, Total and Statoil signed a multibillion-dollar deal on deep oil reserves in Brazil, Exxon applied for InterOil in Papua New Guinea, and NobleEnergy acquired assets belonging to the Permian Pool in the United States, from ClaytonWilliams.

In the future, we expect the companies to pay attention to transactions involving assets to build a portfolio to evaluate their prices. Oil companies, mergers and acquisitions represent a critical part of the portfolio revaluation process. This approach can be used to sell non-core assets and re-balance the strategy, and then can be used to pay attention to the best possible level of the company's ability to recover after sweeping changes. In some cases, mergers and acquisitions may turn into a change in Shell's BGGroup's acquisition of \$ 70 billion in 2016. This process significantly increased the existence of Shell in the natural gas market. Likewise, combinations and procurement can be used to create less ambitious, equally promising opportunities. These opportunities have influenced a number of operations between Total and Statoil over the past few years. They allowed these companies to grow their place in renewable energy sources.

5. Companies try to implement new technologies in technology

Companies will appreciate the role that can play a role in improving the performance of digital technologies. Of course, they will prepare new techniques that support back office and collaborative functions, with little participation fee available, but adoption of certain technologies within certain framework implies new opportunities beyond obvious practice. Application of digital technologies should be an indicator of innovation that will help to increase productivity and efficiency of the industry. Perhaps the most common trend will be to direct the typical tasks, such as the robot's direct production of oil-producing plants, as well as the processing complex, the consolidation of pipelines and the replacement of equipment abroad to reduce the need for labor.

In some cases, the purchase of technology will be through partnership. For example, GE has signed a number of contracts with large and small oil companies to immediately increase the productivity of the offshore oil platforms, expand the scope of the oil field exploration, and introduce digital services, databases and services that can predict the spillage of equipment immediately before it starts.

6. Innovative approaches to retention and recruitment of talented employees can be key to long-term success

Personnel value restructuring in the oil and gas sector is largely great. Reducing the number of operations that have changed to a stringent and tough situation deprived the industry of some talented professionals and scared the newcomers. Nevertheless, some of the opportunities that oil and gas companies should not miss are still important. Young workers are more interested in providing traditional jobs - they are interested in a higher level of collaboration, open communication, and less directive decisions. Oil and gas companies need to attract the latest graduates to the company, as they can bring new ideas that can make it easier for the future to come. Looking at such high-profile innovations in the industry, finding young employees is not difficult, but in this respect companies need a clearer and more attractive line of business.

What is waiting for industry in the future?

We believe that managers of oil and gas companies are causing a number of new problems as a result of industry changes. At the same time, the oil and gas industry in the past has proven its ability to innovate and re-invest. Despite two difficult years, the industry has succeeded in reducing costs and reducing its costs for significantly lower oil prices. Taking into account the correct implementation of the right measures, the creation of a less agile and dynamic field, and the proper use of low carbon raw materials, we expect existing and still available mineral resources. In other words, the future of the industry corresponds to the most optimistic notion of an indefinite phrase from the Outcast movie we mentioned at the beginning of the article: "... because the sun will rise up tomorrow, and who knows what will come in the future?"

3. Modern trends in the development of Azerbaijan's oil strategy

3.1 Analysis of the current state of development of the republic's oil industry The "contract of the century" played the role of locomotive of the Azerbaijani economy and gave it a new breath. The increase in oil production has prompted the construction of a major export pipeline in the short run. The Great Leader Heydar Aliyev, who always occupied the interests of the Azerbaijani people, put forward the Baku-Tbilisi-Ceyhan route and eventually supported the idea and achieved its realization. It is no coincidence that on May 28, 2006, the arrival of Azerbaijani oil to the port of Ceyhan was regarded as a turning point in the development of the world oil industry in the media. The 1768-kilometerlong compound construction, the product of the most advanced engineering and technological idea, called "The Legend of the Three Seasons", from legend to reality, provided world consumers with an uninterrupted volume of oil from the new, non-traditional energy source, and ended the monopoly on crude oil supply worldwide. So, time, reality is again the national leader Heydar

Aliyev demonstrated political wisdom and predictability, and demonstrated that the multifaceted export strategy built on long-term strategic interests of Azerbaijan was justified in the eyes of the world. BTC is already important as important technical and economic infrastructure allowing reliable an transportation of oil in Central Asia to international markets in international circles. The pipeline's capacity is about 50 million tons per year, which is expected to reach 60 million tons in the future. As of September 1, 2014, Azerbaijan's fare oil pipelines framework has achieved 384 million tons, including BTC - 254.9 million, Baku-Supsa - 69.1 million, Baku-Novorossiysk pipeline - 39.1 million tons, 20.5 million tons of oil was sent out by means of the railroad. At the same time, 11.6 million tons of Turkmen, 4.3 million tons of Kazakh oil were transported via the BTC pipeline. At present, the position, position and magnitude of Azerbaijan as a country of oil and gas are largely within the framework of the "contract of the century" The work is connected with the new renaissance in the oil and gas sector. Currently, about 2.7 million tons of oil and 1.5 billion cubic meters of associated gas are extracted from 80 production wells in the Chirag, Azeri fields and the deep part of the Gunashli field. Another important fact is that Azerbaijan's crude oil exports to world markets increased more than 10 times in comparison with the end of the 90s of last century, and SOCAR has become the largest oil exporter in the country: about 70 percent of crude oil exported from Azerbaijan today, fall. In the course of the "contract of the century", the hydrocarbon reserves of the ACG blocks were increased up to two times. It should be noted that at the time of signing the agreement, the total volume of reserves was estimated at 511 million tons of oil and 160 billion cubic meters of gas. At present, the block's recoverable reserves are estimated at 1 billion tonnes of oil and 350 billion cubic meters of gas. From the beginning of development, 345 million tons of oil and 100 billion cubic meters of gas were produced from the block of fields. In the upcoming period, oil production is forecasted to be 34-35 million tons per year. The ACG has developed a future development program for the 2050s

and subsequent periods in which the stable production and increase of production as a matter of priority. So far, about 185 million tons of oil has been shipped to the world market. The volume of profit oil that reaches our country is increasing year by year. The work done within the framework of the "Contract of the Century" in the last 20 years is actually quite large and multifaceted. At the same time, the construction of 8 world-class Sangachal, Supsa and Kulevi oil pipelines, the largest platforms in the Caspian Sea, the modernization of floating drilling rigs, construction sites, It is worth mentioning other major measures of importance. Full introduction of beds, drilling of new wells, and successful implementation of Chirag Oil Project provide more optimistic predictions. Implementation of the highest technology and technology in accordance with world standards in the "contract of the century" and other contractual areas has been very important for the modernization of the oil industry. It should be borne in mind that ACG blocks have a very complex geological structure. Technological innovations have played a major role in transitioning from the Initial Oil Project to a gigantic phase of development and achieving such great success in a difficult hydrocarbon zone over a total of 20 years. New technologies, machinery and machinery have been used to improve the technical and economic performance of the oil and gas industry, to optimize production, to improve efficiency, to ensure the technical and environmental safety, and to effectively utilize the existing scientific and technical potential. Azerbaijan is now able to use fourdimensional seismic surveys in oil and gas operations in the sea. The Chirag Oil Project, which was commissioned in 2010 and successfully completed at the beginning of this year, is a vivid embodiment of the most up-to-date technologies applied in the Caspian Sea. Within the framework of the project, West Chirag platform was built and commissioned at the depth of 170 meters at the seismic site of Azerbaijan. Daily power of the platform 25,000 tons of oil and 8 million cubic meters of gas. Dere Gorgud floating drilling rig has been drilled here 17 pre-drill wells are currently being drilled to the depth of the

project. It is expected that 48.6 million tons of oil will be extracted through the wells from the West Chirag platform until the end of the contract period, which means that daily oil production will increase from 7 to 8,000 tonnes to 24,500 tonnes. This platform also creates important considerations in terms of occupational safety and environmental problems. Over the past years, great achievements have been made in the maritime exploration and drilling operations. The deposits of "Ashrafi" and "Garabagh", which are assessed on the basis of their reserves, were discovered. As a result of the exploration and 3D seismic activity in the contract area of the ACG blocks block, oil and gas reserves have been discovered more than twice as previously. In recent years, the opening of Umid and Absheron fields has also been a major achievement.

However, the greatest achievement in exploration and exploration in the past 20 years is the discovery of the Shah Deniz field in 1999. The Shah Deniz field is located at a depth of about 70 kilometers from the shore, about 600 meters in the Caspian Sea and covers an area of approximately 860 square kilometers. The field has been operating since 2006, with 1.2 trillion cubic meters of gas and more than 240 million tonnes of condensate. There are not so many reservoirs in the world's marine aqueducts. The development of this field has been important for our country in several ways. First of all, energy security of Azerbaijan is fully ensured, which is a very important component of the national security of each country. The "contract of the century" was the result of the spectacular measures that resulted in the fact that gas production in the country increased dramatically from 5.6 billion cubic meters in 2004 to 29.5 billion cubic meters in 2013. Annual growth of Azerbaijan's gas resources is mainly provided by three sources within the framework of the energy strategy developed by the national leader of our nation, Heydar Aliyev. The first source is the associated gas produced from the ACG blocks. Since 1997, 32.3 billion cubic meters of gas extracted within the framework of the "Contract of the century" has been handed over to the Azerbaijani government and has been of particular importance to meet the country's needs. The second source is the gas

extracted from the Shah Deniz field. From the date of commissioning, 54.4 billion cubic meters of gas and 14 million tons of condensate have been extracted from there. The third source is the gas extracted from the fields of SOCAR independently. As a result of numerous complex measures implemented, our company's gas production increased by about 2 times in 2005 compared to 2005 and amounted to 7.14 billion cubic meters last year. The development of the Shah Deniz field allowed hundreds of industrial facilities to pass from mazut to gas, and this measure has made a significant contribution to the country's economy. For this purpose, gas pipelines have been constructed in "North" DRES in Baku, Sumgayit Heat and Power Station, Mingachevir stations, in other words, all the stations which play an important role in the country's electricity supply, and other necessary measures have been taken. The beginning of a new era in the history of Azerbaijan's rich oil and gas industry is the beginning, which is related to the Shah Deniz field development project. In December last year, the final investment decision on the 2nd phase of the project was signed. Thus, the 5-year tense negotiations under the leadership of President Ilham Aliyev have come to a logical end. In his speech at the solemn signing ceremony at the Heydar Aliyev Center with the participation of state and government leaders from many countries, President Ilham Aliyev characterized this document as "the contract of the XXI century": "... Today, I want to return 19 years ago - the year 1994 when Azerbaijan's energy strategy emerged, as a result of the wisdom and predictability of our national leader Heydar Aliyev, for only 3 years since independence, 1 year from the end of civil war in Azerbaijan, Only 4 months after the cease-fire with Armenia in the war, Azerbaijan has signed a "contract of the century" with its foreign partners, which opened the Caspian Sea for foreign investment and provided the country with a successful economic development, which was named the 20th century agreement, and Shahdeniz, I think it will be the contract of the XXI century. " At present, all the efforts of SOCAR and other consortium companies are aimed at timely, flawless and high-quality technical-innovative work to be

carried out within the framework of this project with geopolitical and economically synergy power. This is the largest infrastructure project implemented for EU countries. Azerbaijan plays a leading role in the implementation of such a historic project. According to the project development concept, the volume of production in the second phase will be increased by about 2 times, while Phase-1 will produce up to 9 billion cubic meters of accidents and 16 billion cubic meters of gas will be added to the minimum estimates. Annually, 10 billion cubic meters of gas will be supplied to European countries and 6 billion cubic meters to Turkey. The first gas is planned to be delivered to Turkey in 2018. Contracts for engineering-design, construction and supply have already been signed for Phase-2, primarily, and even some production the main work areas are started. Within the framework of this gigantic project, the most advanced underwater production technologies in the Caspian Sea will be constructed with a 3500 km long pipeline system from Azerbaijan to Europe. Of course, for the transportation of such large volumes, a proper gas-transport infrastructure capable of providing safe transport and potentially capable of increasing transmitting capacity is needed. The Southern Gas Corridor, which consists of three important segments, will be such a system. The first of the segments is the South Caucasus Gas Pipeline (SCP), which transports Shahdeniz gas to Georgia and Turkey on the Baku-Tbilisi-Erzurum route and becomes an important factor in energy security in the region. The capacity of the pipeline has proven to be 20 billion cubic meters of pipe annually. The expansion project, which is part of the SCP's final investment decision, as part of the Shah Deniz-2 project, will continue to be a continuation of the work to boost the pipeline's capacity. The TANAP - Trans-Anatolian pipeline, which is the second important and unifying segment, is envisaged. This is a joint project of two brother countries - Azerbaijan and Turkey. BOTAS (30 per cent) and BP (12 per cent) consortium companies are already completing preparations for the construction of the pipeline with the operation of SOCAR (58 per cent). The annual capacity of TANAP is 16

billion cubic meters per year. Subsequently, the possibility of increasing this figure up to 30 billion cubic meters was also taken into account. In the long term, this pipeline will have the potential to transmit "the second wave" gas produced from the fields of Azerbaijan and transit through the South gas corridor to Europe, as well as the gas volumes produced in Central Asia, the Middle East and the Eastern Mediterranean. . The third part of the Southern Gas Corridor will be the Trans-Adriatic Gas Pipeline (TAP). The 870kilometer TAP pipeline will connect with TANAP on the Turkish-Greek border, and then extend from the Greek and Albanian lands to the southern coast of Italy, crossing the Adriatic Sea. TAP, which supplies South-Eastern Europe with natural gas, will also open up opportunities for future transit of natural gas produced in the Caspian basin to other major gas consumers in the continent - Germany, France, the UK, Switzerland and Austria. The initial capacity of the pipeline is 10 billion cubic meters a year. The consortium implements the construction of the pipeline by means of large-diameter pipes, which will increase the capacity to 2 times in the future.

SOCAR has owned 66% of the shares of DESFA, Greece's natural gas transmission operator. Currently, DESFA implements the transportation and storage of natural gas in Greece as well as the construction, maintenance and operation of the gas transportation system of the country, supplying natural gas to all regions. The company plans to build Greece-Italy and Greece-Turkey pipelines, which will create favorable conditions for transportation of natural gas to other European countries within the TAP project. Thanks to the achievements of the "contract of the century" and other large-scale projects, Azerbaijan has become a country investing in prospective areas of foreign countries from the investing country. Expansion of activities in foreign markets and the establishment of productive economic relations in this way play an important role in the strategic development trends of SOCAR. Establishments were established in 13 countries, a Swiss company was established in Switzerland, assets were acquired in Georgia, Turkey, Ukraine, Romania,

Switzerland and Greece, in short, SOCAR entered the world energy market confidently. Petkim, the only producer of Turkish petrochemical sector, is under SOCAR's management since 2008. At present SOCAR Turkey Energy Inc., operating in Turkey, It owns 61.3 percent of the stock holding package. Today, Petkim in Turkey has about 30% of the country's petrochemical products market. SOCAR intends to increase this figure by more than 40 percent due to the projects it will implement in the coming years and its investments. For this purpose, an integrated "Value-site 2023" project was developed, covering the development prospects of oil refining, oil chemistry, energy and logistics. The project envisages the construction of the STAR Oil Refinery, with a capacity of 10 million tons per year, the construction of a Container Terminal with a capacity of 1.5 million TEU and a wind power plant of 51 MW, thus increasing the production capability of PETKIM. Basically most of the drilling and field preparation work on the construction project of the STAR Oil Refinery by President Ilham Aliyev and Turkish Prime Minister Recep Tayyip Erdogan has been completed in 2011. The company will produce petrol and petrochemical products by producing light and heavy naphtha products and currently produce sulfur-derived diesel, liquid gas, aviation fuel and other petrochemical products imported to Turkey. Construction of PETKIM Container Port, which will be the largest port in the Aegean region, is also an important project. Implementation of the Value-site 2023 project will enable PETKIM to become the largest petrochemical, logistics and port hub in the region, not just in Turkey but in 2023. The closer integration of PETKIM with the oil and gas processing and petrochemical complex to be built near Baku will further improve the position of SOCAR in the international market. Today SOCAR provides 90% of Georgia's gas supply. Dozens of gas distribution networks in the neighboring country are managed by SOCAR Energy Georgia. With intense efforts, about 4600 km of gas lines were laid, the gasification level reached 65% in a short time and about 16,000 people were supplied with natural gas. Today, SOCAR also controls about 25 percent of the

oil products retail market in Georgia. In addition, there are 114 petrol stations operating under SOCAR brand in Georgia. Kulevi's Black Sea Terminal, which was acquired by SOCAR in 2006, gained a very favorable position in the Black Sea. This terminal, which allows 10 million tons of oil and oil products per year to be stored, stored and loaded on tankers, is currently playing an important role in the transportation of crude oil and oil products from the of Azerbaijan and Central Asia to the world countries market. SOCAR Trading SA established in Switzerland in order to provide oil and gas products to consumers directly and on favorable terms, to optimize revenue from this area and to centralize their activities. The company will soon introduce itself in Europe, with offices in Geneva, Singapore, Turkey, B66, Nigeria, Vietnam and Through its missions, it has strengthened markets in East and South-West Europe, North and West Africa, Southeast Asia and the Mediterranean. The trading company sells oil and oil products from SOCAR and other companies on international markets, as well as provides mediation services for third parties in trade relations. In Switzerland, Romania and Ukraine, filling stations operate in accordance with global strategic development trends, providing consumers with a high level of service with the brand "SOCAR". In several Swiss cities, including 148 airports in Zurich and Geneva, 30 in Romania and 41 in Ukraine. FDI, which has earned the reputation of buyers in the market of retail oil products, also makes a significant contribution to the economic benefit of SOCAR and to the promotion of Azerbaijan as a whole.

### **3.2** The main directions of innovative development of the republic's oil industry and increasing its competitiveness

The importance of the oil factor, its role and place in the economy of the country is shown above and there is no doubt that for decades, and even decades, oil will remain as the most important factor of economic development that stimulates the balanced and proportional structure of industrial production.

In order to answer this question, first of all, it is necessary to evaluate the prospects of the oil and gas complex in terms of hydrocarbon reserves, the ability to fully and efficiently utilize the potential for the implementation of key investment projects and the dynamics of oil and gas production. As illustrated in previous chapters on the example and experience of the largest countries producing oil and gas, one of the most striking indicators characterizing the development prospects of the oil industry is its hydrocarbon reserves, which are part of the geological structure of the underground geological structure. In general, the territory of Azerbaijan and the adjacent part of the seabed the Caspian Sea, for example, is characterized by the broad development of thick sedimentary sediments, covering a large stratigraphic origin from Mesozoic (Lower Jurass) up to 22,000 meters in several depressions (229 meters) of Jerozane. With an adjacent part of the Caspian Sea, Azerbaijan is represented by two oil and gas states in terms of oil and gas -Southern Caspian-Kur and Terek-Caspian are distinguished by the geological characteristics of oil and gas fields. Explored layers and horizons during drilling of the main oil and gas field are limited to Pliocene, Miocene paleogene and Mesozoic deposits. Taking into account the Azerbaijani part of the Caspian Sea, prospective oil and gas fields are geologically geostrategic, north-west-south-east direction and from sea to sea. Despite the long history of

oil and gas production in Azerbaijan, the country's land reserves and prospects for the existence of oil and gas and the presence of large hydrocarbon reserves are highly appreciated by experts. The common land of Azerbaijan, which is an adjacent Azerbaijani part of the Caspian Sea, is more than 100,000 square meters. Km.

Approved regions The estimated 70,000 square meters of oil and gas reserves are about 20,000 square miles in length. Potential oil and gas fields in the adjacent seafront are likely to have more than 17,000 square meters of prospective areas. km Low level geological learning and undiscovered areas oil and gas is 13,000 square meters. Km. In our

opinion, oil extraction, exploration and prospecting of new deposits are of special importance in modern conditions. The use of new intensification technologies enables full and maximum use of resources and increases oil production. At the same time Middle Pliocene, Miocene-Oligocene and Mesozoic deepened sequences and productive horizons remained untouched on the ground. More than 30% of the country's land area was not sufficiently assessed for exploration of lithologic and stratigraphic non-structural traps, which is a very important reserve and increased hydrocarbon reserves. First of all, geological structure, proper selection of exploration wells, new methods and technology of condensate testing and specification of complicated geological

At the same time, the main prospects for the development of the oil industry in Azerbaijan are related to the development of offshore deposits and prospective structures of the Caspian Sea. Almost half of Azerbaijan's initial potential reserves are concentrated in the shelf zone of the Azerbaijani sector of the Caspian Sea. Intelligence level geological and geophysical methods are only 34%. Our work (60) has been based on a comprehensive basis. The analysis of the results of exploration and development experiences and the use of oil and gas fields provide us with considerable opportunities. The discovery of large hydrocarbon deposits confirms the high likelihood of the South Caspian sector in Azerbaijan. This is due to the degree of intelligence the oil reserves in the water sector are 61.5% and for gasoline - 31.7%. At the same time, the resource development ratio is high and should not exceed 17.6% of the oil reserves and 6% of the expected natural gas reserves.

Another important question is in some way or another the use of modern methods of oil production intensification in the final stage of the operation and small streams, high water cuts and low reservoir pressure is to solve the oil and gas industry. From this point of view, four method groups are adopted and applied worldwide by an industrial method. Increasing oil production, referred to as third grade, including: Temperature based on oil displacement by heat carriers (the effect depends on the exothermic oxidative reactions of the earth);

- gas, hydrocarbon gases, and liquefaction solvents, carbon dioxide, nitrogen and flue gases;

- water that is a water pipeline surface active ingredients (polymer and misel water flow);

- Microbiology involves the inclusion of bacterial products into oil and gas fields or direct production of plastic

Most of these technologies have been introduced in our country in the 1980s

However, the volume of these works has diminished and almost stopped in recent years, though nearly 60% of the country's oil and gas fields are in oil and gas, up to half the total natural gas reserves. It should be noted that in many countries of the world special sectoral programs such as the United States, Canada, China, Norway are being implemented, which is a key indicator of field development and oil production efficiency aimed at increasing the oil production factor. According to available data, the application of methods of production intensification has been confirmed worldwide.

Renewable oil reserves increased by 65 billion tons or 1.4 times.

We focus on the exploration, development and production of oil and gas volumes, in many respects, the success of Azerbaijan's economy depends on the fuel and energy complex, the successful implementation of the oil strategy, in the previous chapters, which was \$ 24 billion in 01.01.2008 ,. As already mentioned, in 2008 there were 44.5 million tons of oil and a record figure for more than 150 years in this country.

45.25 million tons in 2009, 52.2 million tons in 2010 and 60 million tons in 2011.

One of the most important indicators for evaluating oil and gas potential of the country in recent years is availability and potential of export.

System and its sorting rate. In the previous chapters, we have analyzed this issue fairly well, so it is expedient to note that Azerbaijan now has a multitude of vector transport systems.

The Baku-Novorossiysk pipeline has 231km long and 115,000 barrels per day on the Russian border;

Baku-Supsa with a length of 830 km and a throughput capacity of 115 thousand barrels per day; Baku-Tbilisi-Ceyhan pipeline with a length of 1,768 kilometers and a throughput capacity of 1 million barrels per day; and the Baku-Tbilisi-Erzurum gas pipeline stretching to the border with Turkey 690 kilometers and carrying capacity of 22.08 thousand cubic meters per day. In the 21st century, the further development of the oil refining industry, whose modern history is inseparably linked with the name of Heydar Aliyev, who invested undeniable personal contribution to the reconstruction and modernization of oil refineries plants, the introduction of new technologies and the expansion of production capacities.

In accordance with the "State Program for the Development of Fuelenergy complex for 2005-2015 ", approved by the the President of the Republic of Azerbaijan, Ilham Aliyev, in oil refining industry provides for a huge in scope and scale of a complex of purposeful work on further modernization of production, the introduction of advanced technologies and automated control systems at the level of world standards.

An important direction in the development of the oil refining industry the level of the depth of processing of oil and raw materials, bringing this indicator to the world through processing of heavy oil products. In this regard, it seems extremely expedient to complete the work on the introduction of a computer control system for the coking plant with the aim of production of coke and production of additional light petroleum products from heavy residues of oil refining.

More seriously, we should approach the solution of such a problem as improving the quality of motor gasolines and their compliance with European standards. It is necessary to immediately begin work on the introduction of a computerized control system for catalytic reforming for catalytic processing of gasoline fractions under pressure in order to obtain high-octane automotive gasolines, aromatic hydrocarbons and hydrogen-containing gas.

In this connection, I would like to I would particularly emphasize the exceptional importance of the Order of the President of the Republic of Azerbaijan, I. Aliyev, dated September 23, 2009, "On approval of the commission for the preparation of proposals for the strategic development of oil refining and petrochemical industry of the Republic of Azerbaijan ", in accordance with which by the forces of the relevant ministries, departments, scientists and leading specialists are developed directions and programs of reconstruction and modernization of these industries.

Another, no less important task, which urgently needs to be implemented in the 21st century, is the use of high technologies to reduce energy consumption by saving and saving energy. The policy of energy saving, as for many energy producers, in particular, is relevant for our country, which traditionally lived under the conditions of "cheap" cheap energy resources that have formed a situation of excessive and uneconomical energy consumption, which does not correspond to the volumes of production and energy intensity of products. According to expert estimates and national energy programs, the unused potential of energy saving in our country is 8-10 million tons of oil equivalent. The development of such a large potential, comparable to a significant part of the annual consumption of energy resources in the country, will ensure a serious increase

[41]

in the level of energy efficiency of consumption and savings, will significantly increase the export of energy resources, increase the competitiveness of products, reduce the negative impact of the energy sector on the environment.

Developing a policy of energy conservation and the use of renewable energy sources of energy, it is necessary to provide for sources of financing and gradual introduction of economic mechanisms of energy-saving projects and measures to ensure the improvement of energy efficiency.

One of the acute problems facing oil and gas production the country's industry, is to address the issue of improving the environment, reclamation of oil contaminated land, reducing emissions of carbon dioxide and other toxic gases into the atmosphere.

At present, the enterprises of the State Oil Company of the Republic emit about 8.5 million tons (in the equivalent of carbon dioxide gas) of gases that create a greenhouse effect. Of this volume, 1.9 million tons is carbon dioxide, and the rest is methane and other commercial hydrocarbons in the form of associated natural gas. In accordance with the decisions of the Kyoto Protocol ratified by Azerbaijan in 2000, the State Oil Company made an inventory of sources of toxic emissions into the atmosphere and prepared proposals for their utilization in oil fields Stones and Gunashli. Implementation of projects within the framework of the program "Mechanism" Clean Development ", which is part of the plan provided for by the Kyoto Protocol, will reduce emissions to the atmosphere of the "greenhouse effect" of gases at the enterprises of the State Oil Company is 6.7 million tons equivalent to carbon dioxide. As a result of the use of associated gas at the sites of the oil and gas production departments "Gum Adassy" and "Siyazanneft" and fisheries on land, gases in the atmosphere is planned in the amount of approximately 6 million tons.

The huge resource potential is sufficient in our opinion, is the effective use of geographical and natural, economic and transit potential, increasing the global competitiveness of the fuel and energy sector.

In his dissertation on the problems of management prospects of the development of the oil and gas industrial complex of Azerbaijan, we investigated in detail the results and peculiarities of the production, economic, financial and economic activities of the oil and gas industrial complex various stages of its formation and development, and especially in the period of transformation of production relations and the transition to principles market economy. The study of the dynamics of quantitative and qualitative indicators and indicators of the state of the oil and gas complex have shown that the long, more than 70-year period of the industry's functioning under the dominance of the command and administrative centralized planning and management system caused the accumulation and concentration of negative phenomena, the emergence and deepening of contradictions and trends that contribute to the destruction system and principles of effective production management (60). The need to resolve the accumulated serious problems in the consistent and sustainable development of oil and gas complex, increasing the efficiency of use, first of all, of the resource potential and infrastructure, made it possible to develop we (4,6,7,8)conceptual approaches to the strategy of reforming and improving the management system of the production complex and, on the whole, the industry in entirely new socio-economic conditions, characterized, above all, by pronounced dominant principles of market relations in the production sector.

Research and thorough analysis of practice and results financial and economic activities of the complex during the transition period allowed us (60) to conclude that reform and restructuring, including organizational, is inevitable, including measures to improve the structure of organizational links, as well as management, providing for a consistent transformation directive command-and-control methods into the modern system economic corporate governance. Along with the institutional reforms that we proposed, we consider it important to start and to radical changes in the tax legislation with respect to the oil and gas complex with the aim of improving and stimulating exploration and increment of reserves, exploitation of deposits with different natural conditions extraction and production of oil, including low-quality and hard-to-reach reserves. Taxation should create a favorable Increasing the efficiency of oil production from fields that are in the late stage of development with a high degree of depletion of reserves, as a result, the maximum oil recovery factor due to a wider use of secondary and tertiary methods of reservoir development.

In our opinion, the reform of the legislation on the use of the environment, the improvement of taxation and the allocation of issues related to hydrocarbons, into a separate unit, especially such as the features and conditions of conducting geological exploration and prospecting works, extraction and transportation, stimulation of enhanced oil recovery, would significantly enhance the activation, rational and efficient use of mineral resources and reserves, as well as improve the efficiency of the country's oil and gas production complex. It is also necessary to use the experience of other oil and gas producers countries on the flexible application of the tariff system and duties on export oil, depending on the change in oil prices in the world market, and to create an effective mechanism for the removal of natural rents and oil and gas producers, corresponding to the real conditions that are developing in the world market. An important factor hampering the development of national oil companies that are the main factors of the country's economy and budget, is a high level of tax deductions. This, in turn, significantly reduces the investment opportunities of the industry and does not allow to ensure the necessary increase in hydrocarbon reserves and the positive rates of oil and gas production, create favorable conditions for the renewal, modernization and reconstruction of production assets, and the implementation of social programs for oil workers. In the domestic practice in assessing the activities of profitability and profit margins of oil companies, in our view, recently, it is necessary to take into account such factor as the level of inflation. It is this indicator that makes incomparable profitability and profit of world and domestic national companies.

For example, if in the oil-producing countries of the CIS In 2007 and 2008, the inflation rate was expressed in double digits figures, in Norway this indicator was 0.8 percent, in France - 1.6 percent, in Great Britain and the USA, not more than 3 percent. As a consequence, the world's major oil companies, the so-called "major", carrying out their economic and commercial activities proceed from the fact that the company's profit after paying all necessary expenses and taxes was at least 20 percent, which allows them confident enough to plan development and expenses for production needs, increase of assets and renewal of fixed assets. In our opinion, due to the above reasons and factors taking place in reality, as well as taking into account the deterioration of fixed assets, the profitability of the oil industry and the estimated profit of our The national oil company should be provided at a level of at least 30 percent. In addition, it is necessary to differentiate tax load on oil and gas producing enterprises that differ from each other a friend on the terms of oil and gas production, the degree of depletion of the reserves of deposits, the wear and tear of fixed assets, the complexity of extraction and many other objective factors and indicators affecting the costs and cost of oil and gas production. Another feature of national oil companies, including including Azerbaijan, is, in our opinion, a duality their functions, on the one hand - purely commercial, and on the other state. This clearly manifested itself in the 1990s in the activities of the State Oil Company of the Republic of Azerbaijan, when in the conditions of the economic and financial crisis, serious problems in the production and the logistical sphere, serious measures have been

taken to attracting large-scale foreign investment to the industry on the basis of agreements on the share distribution of products in which SOCAR of the other side was a party to a commercial contract, and on the other hand, at the same time, represented not only the interests of the state, but also acted on behalf of the state, performing the functions of individual ministries and even the government. The analysis of the activities of many national (state oil companies) oil and gas companies (especially in countries with undeveloped economies and non-oil production spheres) is that they often serve as money donors for the state budget and the whole society as a whole, due to voluntaristic redistribution of NOC revenues from oil sales depending on the state of the economy in the country. In this regard, the activities of the NOC are increasingly politicized, it becomes a party to negotiations, agreements and state level, as well as the active side of current political processes, economic transformations in the industrial sphere. In addition, national oil and gas companies begin to perform functions that are not characteristic of them (at the expense of their own financial resources) to implement various state social-oriented programs in education, health, science, art, not to mention ecology, environmental protection and improvement of oil-contaminated territories. Their obligations to the state for the development of social infrastructure, increasing employment and creating new jobs in the country leads to a significant excess of the required quantity employees and staff, the inflation of the states. There is no doubt that the fulfillment of these functions and tasks by powerful financially, the national companies are extremely important for the country and the state, at the same time, in our opinion, this considerably distracts the activities of the NOCs, distracts them from the performance of their direct production-economic and commercial functions and duties, cause serious damage to the main task companies - increase capitalization, increase core assets, upgrade the production fund and achieve maximum economic

indicators,

## including

profits.

Thus, the international audit company "PricewaterhouseCoopers", which conducted an audit of the financial and economic activities of the State Oil Company Company of the Republic of Azerbaijan, concluded that in order to increase the efficiency of the economy and its most important production It is necessary to reduce the costs of the company, to preserve all Onshore fields that are not significantly affected to the level of oil production in the country (total production on land is 2.5 percent of the total oil production), and to reduce the number this of workers due to from 20,000 to 12,000 people. At the same time, in our opinion, the role of the national oil company In the future it is very important for the state independent energy policy, ensuring the energy security of their country and region. Similarly, the national oil companies in the context of attracting large foreign investments and participation in megaprojects of transnational oil companies are considered by us as a necessary counterweight and regulator of monopoly activity, an economic and financial stabilizer of the country's economy.

As we have shown above, the oil factor in the economy of our country will be conditioned by objective processes and features of development and, first of all, the steady growth of world prices for oil and oil products; expansion of demand and consumption in the domestic and world markets; increase protectionist measures in oil and gas producing countries in respect of hydrocarbon reserves and natural energy resources; reinforcing competition and struggle against the monopoly of energy flows and transport corridors; aspiration to provide diversification of sources of resources and ways of their deliveries to the world markets. Based on the analysis of the role and place of oil and oil factor in the economy of Azerbaijan, we affirm that the oil and related industries of the country for a long time will remain the basic segment, the guarantor of long-term and stable development of our economy, on the processes of structural reforms and changes in the economy, the of its rate growth. That is why it is necessary to continue the implementation of state targeted programs aimed at solving the systemic problems of the oil industries and the creation of long-term conditions for sustainable development oil and gas, oil refining, petrochemical and chemical complex of the country, taking into account the competitiveness of production, development of global markets and market principles of economic management. In this regard, in our opinion, it is necessary to constantly improve and develop the material and technical base of the industry, to raise the level scientific and technical developments and research works, create conditions and a favorable regime for investment and attraction of the latest technologies and world practice in the oil-producing, oil-refining and petrochemical industries.

## Conclusion

In the wake of picking up freedom, the Republic started intimately with nations on the planet to reconstruct the scattered economy. The recently autonomous conditions of remote states had awesome interests in the oil saves. In this way, because of incredible endeavors of Heydar Aliyev, the assention was come to on the creation and fare of Azerbaijani oil to Western countries. Thanks to this, the independent development of the Republic of Azerbaijan, state security and geopolitical position, the development of its rich hydrocarbon reserves and the free transfer of world energy markets are not only the foreign policy priorities of our country, but also the contemporary issues of the world politics and the international arena. Oil and gas resources of the Caspian Sea and its Azerbaijani sector were of great interest to Russia, Iran, Ukraine, Turkey, US, England, France, Italy, Holland, Poland, Japan, China and many other states. One of the main reasons for this is the new oil strategy. As a result of implementation of the strategy, the economy of the republic integrated into the world economy. This strategy has led Azerbaijan to expand its interaction with other countries in the world as an independent state and to strengthen its international position, to integrate into the European Union and the world economy as a whole.

More than 24 years have passed since the signing of the "Contract of the Century" on September 20, 1994. In spite of all these years of pressure and persecution, our republic has consistently implemented its independent oil policy, has implemented its national rights with its natural resources and has created equal partnership relations with the world's most advanced and advanced technological backyard.

In connection with the market economy conditions, the formation and development of the national economy in our republic is not only related to domestic opportunities, but also with the use of foreign factors and all forms of international economic relations effectively. It is important to demonstrate the presence and exploitation of oil and gas resources as one of the strongest factors, along with the human factor, in expanding the integration of Azerbaijan into international structures, turning into a solid, civilized state based on secular values. Oil and gas resources are one of the main factors in the economy of Azerbaijan, its cultural development, and improvement of the social and cultural wellbeing of the population. The increase in oil and gas reserves in recent years, the effective use of them, the signing of new contracts with other countries in this area has contributed to the development of the country's population. The industry, which is the most extensive part of the country's natural resources, is now the industry's leading oil and gas resource. The oil and gas industry, which unites 2/3 of the fuel and energy complex, also stimulates economic revival as the main area of socio-economic development of our republic.

At the same time, the improvement of the economic structure of the national oil and gas complex has led to an increase in oil and gas production. The state has taken important measures in this area.

The following can be deduced from the foregoing:

- The oil contracts signed by the most powerful companies in the world's leading countries are in line with the goal to significantly strengthen Azerbaijan's geo-strategic position and its role in international politics;

- One of the main areas of social programs is the improvement of the management system. The goal is to improve administrative capabilities and transparency through income management, with particular interest in civil society and local energy;

- The revenues generated by the development of the oil industry are expected to generate more funds to the state budget, to change the social content of the economy, increase the people's financial wellbeing, to increase the country's defense potential and military power, to strengthen energy and food security; - Expansion of the foreign capital for the development of the oil and gas industry can accelerate the growth of new jobs and the involvement of qualified oil workers; - Our country's investment in the new oil strategy is a modern state It is advisable to increase the capacity of the infrastructure to meet the requirements;

- On December 29, 1999, Heydar Aliyev signed a decree on the establishment of the State Oil Fund of the Republic of Azerbaijan. The proceeds from the State Oil Fund are distributed in a transparent manner. These funds should be spent on the development of the non-oil industry, the improvement of the welfare of the country's population, the development of the national economy and the development of current social needs, economic progress, etc.

- Taking into account the fact that oil is depleted and non-renewable natural resources, proposals for the use of alternative energy sources can be properly evaluated and further widely used in the future by the heat, water, wind power, and other alternative energy sources;

- Technical, organizational and socio-economic measures implemented in the Oil and Gas Production Administration are in line with the improvement of the labor and living conditions of the workers working in the field, improving their cultural level, etc.

- It is important that the country's oil and gas production, the recovery of the economy, and the proper operation of oil and gas wells, use advanced techniques and technology in the exploitation process.

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