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Influence of the USA and China on the Transformation of the World Oil Market

A. Panzabekova[1], Nguen An Ha[2], A. Suleimenova[3]

Түйін

Бұл мақалада АҚШ және Қытай мұнай нарығының жағдайы, тұтастай бүкіл әлемнің дамуы тәуелді басым елдер ретінде, сондай-ақ мұнай нарығының трансформациялық процестері айтарлықтай әсер еткен елдер ретінде қарастырылады. Мәселен, әлемдік мұнай нарығында мұнай бағасының күрт құлдырауына және нарықтағы елеулі дисбаланстарға алып келген АҚШ-тың сланецтік төңкерісі, Құрама Штаттарды мұнай өндіру бойынша әлемдік көшбасшылардың бірі етіп, ал Қытайды әлемдік мұнай импорттаушылардың көшбасшы болуына әсерін тигіздірді. Осыған байланысты мақалада мұнайдың әлемдік нарығына талдау жүргізіліп, АҚШ және Қытай сияқты елдердің мұнай нарығының әлеуеті мен перспективалары және олардың мұнай нарығының өзгеруіне әсері зерттеледі. Мұнай нарығы тұрақты динамикада тұрғанын, ал мұнайдың бір баррелінің бағасы үнемі өзгеріп тұратынын ескере отырып, дамыған мұнай елдерінің энергетикалық саясатының өзгеруі Қазақстан сияқты дамушы мұнай рыноктарына ғана емес, тұтастай алғанда жаһандық нарыққа да одан әрі өсу мен дамуға айтарлықтай әсер етуі мүмкін.

Түйінді сөздер: мұнай нарығының трансформацисы, әлемдік мұнай нарығы, мұнай өндіру және тұтыну, мұнай экспорты мен импорты, стратегиялық мұнай қоры.

Аннотация

В статье рассматривается состояние нефтяного рынка США и Китая как доминирующих стран, от которых зависит развитие всего мира в целом, а также как стран, которых трансформационные процессы нефтяного рынка значительно затронули. Так, сланцевая революция США, помимо того что привела мировой нефтяной рынок к серьезным дисбалансам, повлекшим за собой резкий упадок цен на нефть, сделала Соединенные Штаты одним из мировых лидеров по добыче нефти, а Китай – мировым лидером, импортирующим нефть. В связи с этим в статье проводится анализ мирового рынка нефти, а именно исследуются потенциал и перспективы нефтяного рынка США и Китая и их влияние на трансформацию мирового нефтяного рынка. С учетом того, что нефтяной рынок находится в постоянной динамике, а цены за один баррель нефти постоянно варьируются, изменение энергетической политики нефтяных стран-держав может значительно повлиять на дальнейший рост и развитие не только развивающихся нефтяных рынков, таких как Казахстан, но и на глобального рынка в целом.

Ключевые слова: трансформация нефтяного рынка, мировой рынок нефти, добыча и потребление нефти, экспорт и импорт нефти, сланцевая нефть, стратегический нефтяной резерв.

Abstract

This article considers the state of the oil market of the United States and China, as dominant countries on which the development of the world as a whole depends, as well as countries that have been significantly affected by the transformational processes of the oil market. For example, the US shale revolution caused serious imbalances for the world oil market, which led to a sharp decline in oil prices, but made the United States one of the world's leaders in oil production, and China the world leader in oil import. In this regard, the article analyses the world oil market, namely,

[1] Deputy Director of the Institute of Economics of the Ministry of Education and Science of Kazakhstan, PhD, Almaty, Kazakhstan, e-mail: panzabekova.aksana@ieconom.kz, ORCID iD: https://orcid.org//0000-0002-6389-9637

[2] Director of Institute For European Studies, Vietnamese Academy of Social Sciences, Hanoi, Vietnam, PhD, e-mail: anhad4@yahoo.com

3 Al-Farabi Kazakh National University and Institute of Economics of the Ministry of Education and Science of Kazakhstan, Almaty, Republic of Kazakhstan, PhD student (Econ.), e-mail: suleimenova.arailym@ieconom.kz, ORCID iD: https://orcid.org/0000-0002-0884-9944

the potential and prospects of the oil market of the United States and China, and their impact on the transformation of the world oil market. Given that the dynamic of the oil market is constantly changing, and prices per barrel of oil are constantly fluctuating, the change in the energy policy of the leading oil powers, can significantly affect further growth and development not only for developing oil markets such as Kazakhstan, but also for the global market as a whole.

Key words: oil market transformation, world oil market, oil production and consumption, oil export and import, shale oil, strategic petroleum reserve.

Introduction

Relevance. The world oil market is one of the largest and most influential markets in the world economy. The transformation of the world oil market affects the interests of a wide range of economic actors, and the study of the essence and role of this process seems to be a pressing scientific and practical task. With increasing globalization, the oil industry has become a worldwide concern. The benefits and advantages derived from commercial oil operations are so significant, and oil itself is a very important fuel and chemical commodity for industrialized countries, that the whole history of the oil industry has been, is, and is likely to be, closely linked for a long time to world policy, in which the interests of oil countries affect the interests of a wide range of economic actors. Therefore, the study of the influence of the dominant players of the oil market on its transformation seems to be a pressing scientific and practical task.

The aim of the article is to explore the influence of dominant oil countries, in particular the United States and China, on the transformation of the world oil market. As the oil market of these countries has recently been significantly modified, their energy policies are aimed at obtaining significant benefits from the sale and purchase of oil, which in turn affects the further growth and development of the global oil market as a whole.

Literature review. When writing this article, works written since the beginning of the XXI century were mainly considered. As the ongoing transformational processes of the oil market is a relatively modern phenomenon. Since oil is such an important fuel and chemical resource for the development of almost all countries, the slightest changes in the oil market are being studied very carefully by many researchers.

During the study, the authors considered the works of both domestic and foreign scientists. Among domestic scientists it is necessary to mention the works of Yegorov O.I., a comprehensive researcher of the problems of the Kazakh oil and gas sector. It defines the main factors affecting the oil market [1].

Trends in the modern world oil market and prospects for its development are the focus of attention of Russian and foreign scientists. Thus, Daniel M.V., Eroshkin S.U. [4] consider and analyze the state of special oil reserves of different countries, as well as the benefits states obtained from ownership of oil reserves. Scientists of the Center for Global Energy Policy of the USA Bordoff D., Halff A., Losh A. [5], studying the modern realities and risks of the strategic oil reserve of the USA, conclude that it is risky to sell oil from the reserves of the USA. The work of Zhao H. is devoted to research on modern energy security, in particular in China [11]. Individual studies look at Chinese business policies, including oil and gas companies seeking to gain control of the world [22]. After all, it is no secret that in the ranking of the largest companies, some years are headed by the large TNCs of China.

Thus, the literature analysis showed that there are a lot of relevant, interesting works concerning the world oil market. As a result of the study of foreign authors, it was revealed that there are both supporters of shale revolution and oil reserves, and those that do not support these processes.

Methodology

The United States and China Integrated Oil Market Assessment Toolkit is based on comparative and systemic analysis, and synthesis.

The study uses methods of system approach, generalizations, economic analysis, economic-statistical groupings, comparisons, and rating evaluation.

Results and discussion

The importance of the oil and petroleum products market in the development of the

economies of many states is significantly increasing (table 1). The overall growth of oil production in the world is accompanied by the growth rate and the increase in the number of oil producing countries. Recently oil was only extracted in a limited number of countries, and now the number has exceeded 60 [1].

Table 1 – **Oil production and consumption by regions of the world, million tons**

	Years	1965	1985	1990	1995	2000	2005	2010	2015	2016	2017
PRODUCTION*	**Total World**	**1567,9**	**2794,4**	**3157,0**	**3285,6**	**3616,2**	**3936,1**	**3981,4**	**4355,2**	**4377,1**	**4387,1**
	Middle East	418,7	514,1	837,4	981,3	1146,9	1227,2	1220,0	1411,5	1500,3	1481,1
	South and Central America	226,3	192,6	234,0	300,1	345,0	374,8	378,5	398,4	381,9	368,3
	North America	489,6	730,2	654,5	645,7	642,5	637,7	638,6	908,4	883,0	916,8
	of them:										
	USA	*427,7*	*498,7*	*416,6*	*383,6*	*347,6*	*309,0*	*332,7*	*565,3*	*543,1*	*571,0*
	Europe	39,0	211,1	217,9	311,1	332,5	269,4	196,7	164,3	165,6	162,6
	CIS	242,9	*596,1*	*570,3*	*358,3*	*396,4*	*579,8*	*663,1*	*683,9*	*695,1*	*699,6*
	Africa	106,5	260,9	317,0	337,1	371,6	464,8	481,5	387,0	366,2	383,3
	Asia-Pacific	44,9	289,3	325,9	352,2	381,3	382,5	403,0	401,7	385,0	375,5
	of them:										
	China	*11,3*	*124,9*	*138,3*	*149,0*	*162,6*	*181,4*	*203,0*	*214,6*	*199,7*	*191,5*
CONSUMPTION **	**Total World**	**1523,5**	**2824,7**	**3154,1**	**3300,0**	**3583,1**	**3926,8**	**4076,0**	**4331,6**	**4408,6**	**4469,7**
	Middle East	43,6	145,5	166,5	219,9	239,0	295,8	356,9	399,2	401,0	404,4
	South and Central America	80,1	159,2	176,2	209,8	235,1	250,3	299,4	329,7	319,2	317,0
	North America	620,0	842,0	923,2	952,4	1060,6	1128,4	1040,5	1041,7	1053,3	1056,4
	of them:										
	USA	*551,3*	*709,9*	*771,4*	*795,5*	*882,8*	*938,4*	*850,1*	*856,5*	*865,1*	*870,1*
	Europe	421,8	691,1	729,4	737,8	762,5	791,0	734,2	681,2	697,2	708,3
	CIS	168,3	*397,2*	*399,1*	*210,4*	*169,1*	*173,1*	*178,6*	*191,2*	*195,9*	*196,3*
	Africa	27,0	84,2	95,6	104,9	118,4	138,1	164,4	182,4	185,9	189,3
	Asia-Pacific	162,6	505,4	664,2	864,7	998,3	1150,1	1302,1	1506,3	1556,1	1598,0
	of them:										
	China	*11,0*	*89,7*	*112,9*	*160,2*	*224,2*	*328,9*	*448,5*	*561,8*	*574,0*	*595,5*

* Includes crude oil, shale oil, oil sands and NGLs (natural gas liquids - the liquid content of natural gas where this is recovered separately).

** Inland demand plus international aviation and marine bunkers and refinery fuel and loss. Consumption of bio gasoline (such as ethanol), biodiesel and derivatives of coal and natural gas are also included.

Note - compiled by the authors based on data [2]

The world oil market is a rather complex structure, including production, consumption, export and redistribution of hydrocarbon resources, which are influenced by factors such as the choice of the main routes of export pipelines, market conditions, quality of raw materials, price level, etc. (table- 2).

Table 2 – **Main factors affecting the oil market conjuncture**

Factors affecting the supply	Factors affecting the demand
Level of oil reserves of exporters	Economic development of consumer countries
Changes in oil production capacity	Oil refining capacity of consuming countries
Hydrocarbon Resource Producers' Policies in the Development of the Industry	Amount of payments for purchased oil and produced petroleum products
Oil production volume	Ensuring optimum volumes of state and commercial reserves of oil and petroleum products
Level of management development in producers	Volumes of production and assortment of petroleum products
Commercial oil reserves of producers and traders	Economic results from the sale of petroleum products
Note - [1]	

Today, the national economic interests of many countries are related to the extraction and use of natural resources, in particular fuel and energy resources, of these the main market is the oil market, which accounts for about 35% of the entire energy market [2]. Consequently, access to it is key to the well-being of virtually all people, economic development and poverty reduction. The oil market is huge and very dynamic. Each day, the oil industry pumps more than 98 million barrels of crude out of the ground. With the price of a barrel currently around $70, it puts the value of global oil trade at a stunning $2.5 trillion per year. For perspective, that's bigger than all the raw metal markets combined, and is more than 10 times the size of the gold market [3]. Therefore, all developed countries carefully predict the future of the world oil market and try to protect their market from possible threats and undesirable consequences. At the same time, at the present moment, the world oil market is being transformed under the influence of a number of factors that influence national oil markets, including in Kazakhstan.

The article considers two main players of the world oil market: the USA and China. This choice is due to the fact that, firstly, the dominant aspects of these countries have undergone a serious transformation. Secondly, each of these countries has its own reasons for dominant positions in the oil market, which are based not only on resource, but also on institutional and technological capabilities, as well as on strategic decision-making mechanisms.

United States of America. For the past 40 years, since the first Arab oil embargo which targeted the United States in 1973, U.S. economic and political interests in the oil market have focused on meeting their energy needs on their own, without being dependent on foreign oil. As a result, the United States, following the oil embargo, established the Strategic Petroleum Reserve (SPR) and improved its emergency response mechanism. The Energy Policy and Conservation Act (EPCA) passed by Congress in 1975 regulated the creation of SPR as a separate state agency; it is almost the only country where the reservation of deposits is formalized by legislation.

Federally owned oil reserves are stored in four huge natural storage facilities (salt caverns) along the Gulf Coast[4] in the states of Texas and Louisiana [4]. At the same time, these storage facilities are one of the cheapest oil storage facilities in the world and are located in the heart of the world transport hub [5]. There is also the infrastructure necessary for SPR operation; refineries, sea terminals, pipelines.

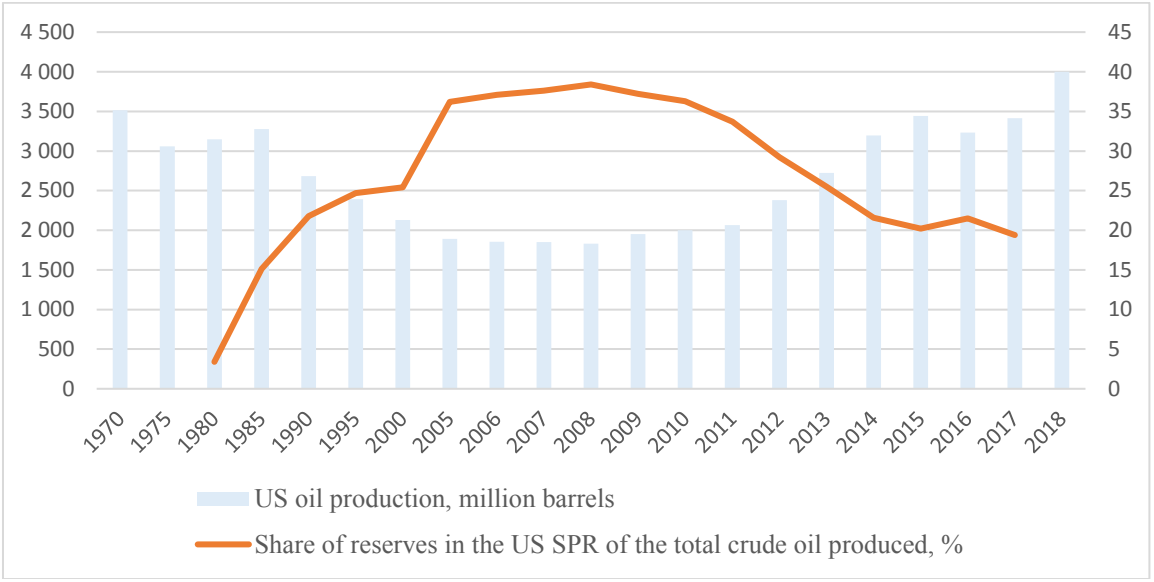
The main task of creating US oil reserves is to ensure national oil consumption in case of disruptions in the oil supply, as well as to reduce

[4] The choice of storage facilities on the Gulf Coast was made because their position is convenient for connecting to the commercial oil transport network in the United States. Oil from SPR can be delivered through the system of internal pipelines to almost half of the US refineries or loaded on tankers or barges for transportation to other refineries [4].

the impact of oil imports on the economy of the country [6].

Until today, SPR is not only the world's largest source of crude oil buffer stocks in the United States, but also the largest oil reserve in the world. For example, according to a request of the International Energy Agency (IEA), also established within the OECD after the oil crisis in 1974, IEA member states should have reserves of crude oil or petroleum products equal to at least 90 days of total net oil imports. At the beginning of January 2018, the oil reserves of the SPR were sufficient to cover 193 days of net oil imports, which is more than twice the volume required by the IEA. At the same time, this indicator does not include private oil reserves, which can also be used to fulfill IEA storage obligations [5].

Throughout its existence, the SPR grew in stages (Figure 1) and was activated three times: in 1991, during the Gulf War between Iraq and Kuwait (a total of 33.75 million barrels were taken from the SPR); in 2005, during Hurricane Katrina (30 million barrels); and in 2011, after the Libyan Civil War (30.64 million barrels).



Note - compiled by authors based on data [6]

Figure 1 – **Dynamics of oil production and US SPR share**

Overall, it is very difficult to estimate the benefits of the SPR. Since the key data determining SPR benefits, such as the price of oil, the elasticity of demand to price, the probability of failures in each event is different. In terms of government policy, the SPR (do we need 'the' in front of this) is more like an insurance policy where a fixed payment is made to avoid the likelihood of significant losses in the future. Just as in insurance, the value of the policy is known and relatively defined, but benefits accumulate only if a loss event does occur. Thus, it is impossible to determine the specific SPR benefit from the listed event, but in each situation mentioned above, thanks to the US oil reserve, it was possible, at least for a short period of time, to reduce and/or retain the price of oil, as well as to protect the US economy from the negative consequences of oil shortages.

Meanwhile, thanks to the technological breakthrough that accelerated the growth rate of shale oil production (1,7 times [6]) in 2011-2012, the US converted from the status of 'importer' to the status of 'exporter' of crude oil within a record period of time. This has led to a sharp decline in the share of SPR stock since the beginning of the 'shale revolution'; If before shale the share of oil SPR averaged about 40% of production, today it does not reach 20%. The 'shale revolution' caused a surge in domestic supplies, dramatically reducing U.S. demand for net oil imports, thus reducing U.S.

exposure to the risk of physical supply shortages from other oil-producing countries. In this regard, since 2015, the US Congress has adopted five legislative acts providing for the sale of oil from the SPR to other national programs, including the modernization of the reserve itself (Table 3).

Table 3 – **Legislation acts providing for the sale of oil from the US SPR**

Act of Congress or proposal	Year enacted	Total amount to be sold	Sale period/ year
Bipartisan Budget Act of 2015	2015	58 million barrels	2018 – 2025
Bipartisan Budget Act of 2015 (additionally to finance the upgrade of the SPR)	2015	2 bln. dollars of the USA (it is equal ~32 million barrels)*	2017 - 2020
Fixing America's Surface Transportation Act (FAST)	2015	66 million barrels	2023 – 2025
21st Century Cures Act	2016	25 million barrels	2017 – 2019
Tax Cuts and Jobs Act	2018	7 million barrels	2026 – 2027
Bipartisan Budget Act of 2018	2018	100 million barrels	2018 – 2025
* This figure assumes an average sale price of $62.5 per barrel Note - CGEP based on EIA and other public sources			

In total, authorized sales totaling about 288 million barrels will reduce the SPR by about 40% by the end of 2027 (about 410 million barrels). According to the Congressional Budget Office (CBO), selling only 100 million barrels from the SPR would bring the state $6.36 billion between 2018 and 2027. Given that only $2 billion is enough to upgrade the SPR, according to U.S. Department of Energy calculations, the rest will be used to finance the U.S. government [7]. Also, given the rapid change in the US oil market, when oil production and exports increased by about 5 times in a record short period of time, and domestic production provides about 80% of domestic oil consumption [8], on the one hand it is reasonable to sell off some of the oil reserves, especially since the SPR infrastructure is obsolete and needs to be updated. While risks must be considered, on the other hand, because the oil market is not constant, and oil is a world commodity that is not losing demand, and because the US never had a single energy strategy, the SPR was considered one of the few cornerstones of US energy security. It should be noted, however, that following the oil embargo, the United States has learned to adapt quickly to the ongoing global changes in the oil market. Therefore, the Government, taking advantage of the shale advantage, seeks to further benefit from the SPR by selling part of the reserves. For example, in the report "US SPR Long-Term Strategic Review" published in August 2016, the US Department of Energy proposed to reduce the SPR from current levels to a range of 530-600 million barrels, which is equal to 60 days supply. At the same time, they argue that the proceeds of the sale will allow the Department to take the necessary measures to improve the integrity and extend the service life of the SPR [9, 10].

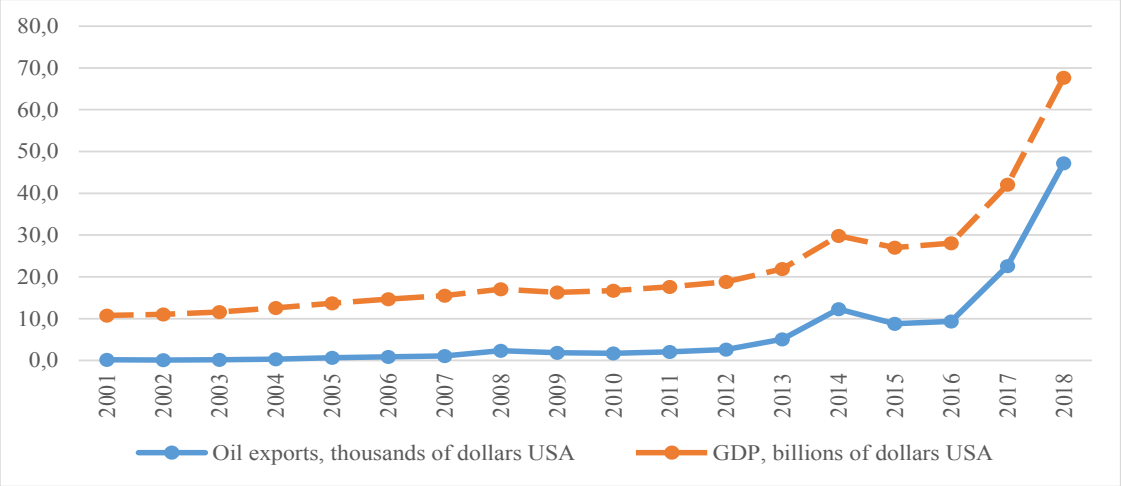
Unlike many countries around the world, the United States pays more attention to the impact and limitation of the energy issue on national security. Many Americans believe that energy independence contributes to the independence and growth of the American economy, strengthening national security, and increasing the flexibility of the United States as a whole [11]. Therefore, the United States is taking full advantage of shale oil, and the government's assistance in repealing the U.S. Oil Export Ban Act[5] has not only expanded and increased exports, but has also generated significant economic growth overall, strengthening U.S. position in the global oil market, as well as national energy security at home.

[5] U.S. Oil Export Ban Act - passed by Congress in 1975, also after the oil embargo, in response to a sharp jump in oil prices

For example, the increase in oil exports has also increased the GDP of the country as a whole (figure 2), as the oil market uses huge amounts of capital and labor, keeping large oil rents and taxes in the country. It should be noted however that the share of oil and gas, and their distillation products, has only made up about 12% of all exports since 2018. Until then, their share did not even reach 10%.

As Figure 2 shows, the dynamics of GDP change is identical with the dynamics of oil exports, which proves the dependence of the country's GDP on the state of the US oil market.

According to the forecast of the CBO by 2040 it is planned to increase real GDP (taking into account inflation) by 0.9%, labor productivity by 0.5%, and tax revenues of the country by more than 1% (or about $45 billion) through shale development [14].



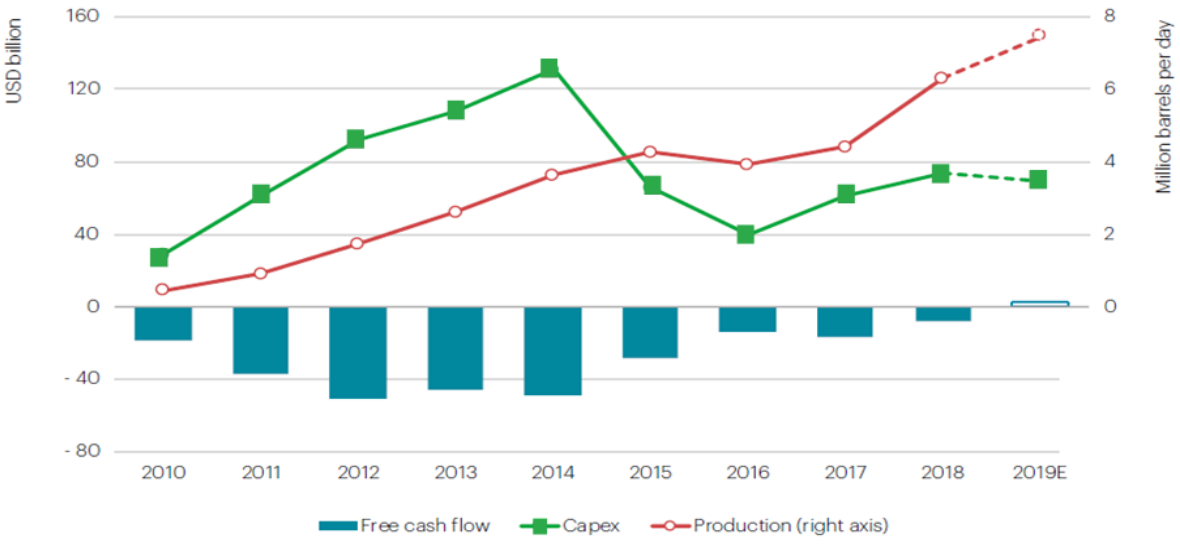
Note – compiled by authors based on data [12, 13]

Figure 2 – **Dynamics of US oil exports and GDP**

In addition, the increase in oil volume in the market has also shown significant improvements in the financial sustainability of the US shale sector: cash flow increased by about 50%, investment by 20%, and free cash flow reached about $90 billion in 2018, which has not been observed since 2008 (Figure - 3) [15].

The improvement in financial conditions has allowed oil companies to reduce their debt obligations to shareholders, which had increased significantly since 2014. Thus, over the past 2 years oil companies have reduced their debt obligations, by about half, to around $115 billion [15].

The high financial sustainability of the US oil industry is also evidenced by the fact that there was no mass bankruptcy in the industry. According to the data of the law company Haynes and Boone, from 2015 to May 2019 in the sector of American geological exploration and production a total of 154 companies went bankrupt: in 2017 - 24, in 2018 - 29, and in 6 months of 2019 - 6 companies. The peak of bankruptcy occurred in April - May 2016. The total debt of bankrupt American companies is about $98.5 billion [16]. Given the company's high degree of heterogeneity in the hard-to-recover oil sector in the United States, it can be assumed that bankruptcy has primarily affected low-efficiency or small companies aiming at continuously reducing production costs or focusing solely on obtaining a cash flow sufficient to support current operations. Also shale production is not as costly as traditional oil production. About 35% of all shale wells bring profit to companies at quotations for "black gold" from $40, at the cost of $53 companies can operate without loss, and at the price of $60 and higher can plan production levels for at least 5 years, launching long-term investment projects [17].

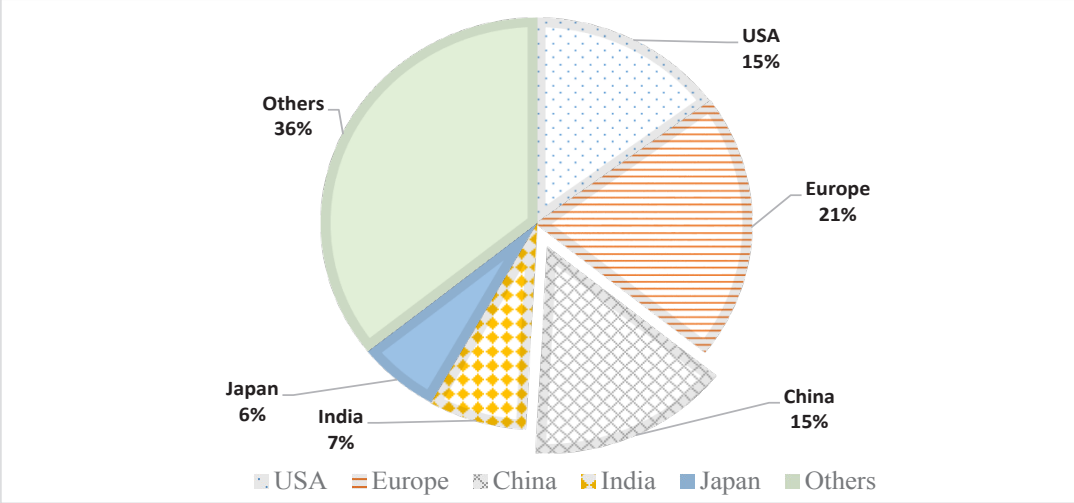


Note – based on data [6]

Figure 3 – **U.S. Oil production, capital expenditures, and free cash flow**

Thus, the United States seeks to take advantage of the shale revolution to strengthen and protect its national interests in the oil market. Without violating free-market principles, the US seeks to turn its status as an energy superpower into a strategic advantage to properly maneuver in global trade policy, and thus secure American leadership worldwide.

The People's Republic of China is currently the most important player in the global oil market. Unlike the US, the PRC does not have enough of its own energy resources for to satisfy its own needs, so it is the world leader in importing crude oil (Figure 4).



Note - compiled by the authors based on data [2]

Figure 4 - **Share of countries leading in world oil imports, 2017**

Although China's oil production is higher than any other Asia-Pacific country (about 54%) [2], the country's high rate of economic development requires more energy resources (table 1).

Today, China accounts for about 25% of world energy consumption and about 35% of world energy demand growth [2]. China is thus the world's leading net importer of oil.

In 2018, China's oil imports amounted to about 0.46 billion tons, increasing by an average of 9% annually. The main exporters are the countries of the Middle East, Iraq and the Russian Federation, but the share of Kazakh oil on average is not more than - 1% in the last 5 years [11]. Notably, among the major oil exporters, only Iraq and Russia were able to significantly increase their share of Chinese oil imports.

Currently, total net oil imports (mostly crude oil) overtake domestic supplies, so China's dependence on oil imports has also risen from 30% (in 2000) to 70% or more (in 2018). Long-term dependence on oil imports to meet the demand for sustainable economic development has become an irreversible reality for China. It is predicted that by 2025 the demand in the country will reach 12-14 million barrels per day, and by 2030 80% of crude oil will be imported [2, 18]. In this regard, the most important energy problem of the PRC is the shortage of energy resources (mainly oil), which is exacerbated by the absence of any significant hydrocarbon reserves in the country and the rapid rate of economic growth. Therefore, since 2007, China has established its strategic oil reserve and unlike the United States, it is now, on the contrary, rapidly increasing its capacity to purchase crude oil. Given the closed policy of the country and the difficulty in obtaining information on Chinese resources, the information that is publicly available on China is a rough estimate from various agencies. Thus, in the research report of JPMorgan Chase & Co, for 2016 the SRP of China is in the order of 400 million barrels, compared to the target of 511 million barrels, which makes them the second after the USA in the ranking of countries with the largest SRP in the world [9].

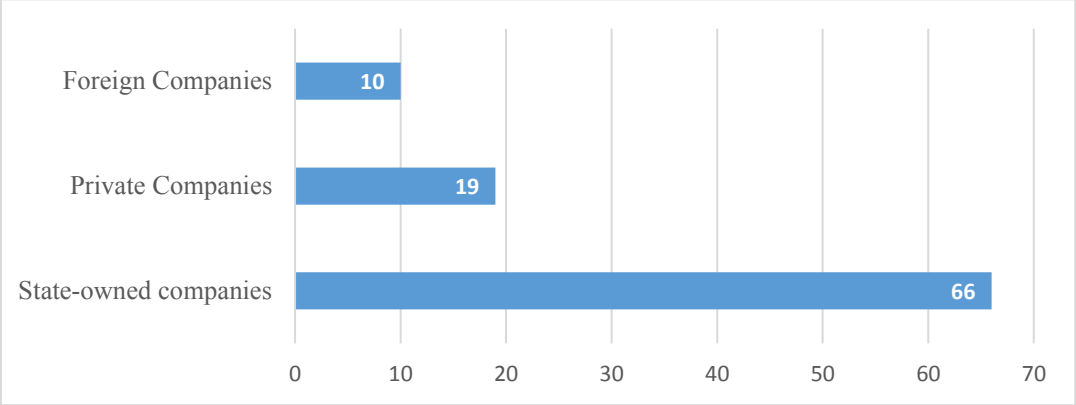
Overall, China's economic interests are linked to its energy security and are an integral part of economic security. Growing energy demand affects national interests such as economics and ecology. Here it should be noted that the energy strategy of the People's Republic of China since the late 1990s has implied large-scale participation of Chinese national companies in foreign oil and gas production projects. This suggests that the PRC protects its economic interests from the point of view of preserving its own natural resources. And the geography of participation of Chinese companies is gradually expanding and has now covered both nearby regions (Asia-Pacific and the Central Asian region) and rather remote regions of Africa, Europe, North and South America. Given that China is both a maritime and continental state and a world record holder in terms of the number of neighboring countries (since the collapse of the Soviet Union, China borders on land with 14 countries including North Korea and Vietnam, and also has a maritime border with 6 countries), the prospect of further cooperation will increase.

In 2014, the State Council of the People's Republic of China adopted the Action Plan on Energy Development Strategy (2014-2020). China is committed to efficient, self-sustaining, environmentally friendly and innovative energy production and consumption. One of the priority areas, according to the Plan, is the active development of advanced oil production technology and the desire to increase storage potential, increase oil recovery, maintain production stability, as well as the organization of non-traditional and deep-sea research and development of oil and gas [19].

According to the Plan, Chinese companies intend to allocate significant funds to research and development (R&D). For example, in 2018, China's R&D spending increased by 11.6% compared to the previous year to 1.97 trillion Yuan ($293.6 billion), or 2.18% of the country's GDP. It should be noted that China has been the leading country for several years in a row in terms of increasing its R&D spending [20]. At the same time, from January 1st 2018 to December 31st 2020, enterprises are allowed to demand 175% (instead of 150%) of the super-calculation for the corresponding R&D costs actually incurred during R&D. Alternatively, if R&D costs incurred are capitalized as intangible assets, enterprises are allowed to amortize intangible assets based on 175% of actual costs incurred [21].

From the point of view of protecting national economic interests, according to the Plan, the government of the country establishes high barriers of entry for international foreign companies.

Therefore, China's energy market is controlled not by private corporations, as in many developed and developing countries, but by large public companies. For example, 46% of the total oil refining capacity is controlled by the national company, Sinopec, and 31% is controlled by Petrochina, their total revenue for 2018 amounted to 4.38 trillion Yuan ($613.2 billion). Foreign international corporations such as Shell, BP and Mobil also take an active part in joint projects. A similar situation is observed in the equipment market, where 66% is owned by state-owned companies, 19% is private and only 10% is owned by foreign companies [18] (Figure 5).



Note – compiled by authors based on data [18]

Figure 5 – **Chinese Equipment manufacturers market share, %**

At the same time, it should be noted that without strong state support it is very difficult to compete with Chinese state companies in traditional industries, including oil production. According to the new Chinese model of doing business and competition - the state acts as a single corporation. And a large state-corporation has more financial power than multinational corporations and gradually displaces them from their traditional markets in the same way that strong multinational corporations once displaced national companies from markets, promoting the idea of globalization in America and Europe [22]. Therefore, developed countries are trying to protect their domestic market by imposing duties and other restrictions, as the US is doing today.

In considering the effectiveness of these actions, the losses of the Chinese Government's response should be taken into account. In addition, African and Asian markets in China's economic sphere of influence remain outside the scope of duties and restrictions. It is from these growing markets that the PRC primarily displaces competitors from developed countries.

Although foreign oil companies are allowed to participate in and manage China's oil resources exploration, development, and production, it is only in conjunction with government PSCs[6] or government-appointed Chinese national oil companies.

In general, the main policy, planning and regulation body in China's energy sector is The National Development and Reform Commission of the People's Republic of China (NDRC). The Ministry of Commerce, the Ministry of Land and Natural Resources, the Ministry of Environmental Protection and the State Oceanic Administration also monitor various elements of the country's oil policy [23].

Thus, China's oil market is one of the world's major markets, where its key feature is the high degree of state involvement in its development, giving it comprehensive support.

[6] PSC (Person with Signature Control) is a person (physical or legal) with substantial control over a company. The concept of 'PSC' has appeared and is used in the UK, the corresponding legislation requiring the maintenance of the Register of Persons with Significant Control (PSC-Register) here has been in force since April 6, 2016 [Financial Dictionary].

Conclusion

In conclusion, it should be noted that since the beginning of the 'shale revolution' the world oil market has significantly transformed. For example, the United States has significantly reduced the share of oil imports in the domestic market in a historically record short period of time, and by 2030, the IEA forecasts that its production will be able to fully supply its market with its own oil. At the same time, shale production influenced the growth of GDP of the country, qualitative improvement of financial indicators of oil companies, and most importantly, shale oil production allowed the country to partially disband its strategic oil reserve (SRP), which for more than 40 years was a guaranteed source of oil in emergency situations.

However, it should be noted that the benefits derived from shale oil for the US are not the benefits for the world oil market, as the increase in the volume of oil in world trade destroys the world balance that OPEC countries seek to create. In particular, the increase in the volume of shale oil in the world market helped to cause the sharp collapse of oil prices in 2014, which negatively affected the economies of almost all countries. But, despite this, US shale oil production should be seen as a long-term factor in the development of the world oil market.

Unlike the US, China has on the contrary begun to actively purchase huge volumes of oil and increase its strategic oil reserves, thus ensuring its own energy security. At the same time, although China is not a world oil producer, its participation in the world oil market is very significant. As China is the world leader in crude oil imports and changing its oil demand could significantly affect both the price of oil and global economic conditions as a whole, which is a threat to developing oil countries. Especially since over the past few years there have been fluctuations in the rate of development of world oil trade, which is due to changes in the demand for oil and oil products. According to IEA forecasts, the need for them will grow over the next five years. This is primarily due to the current increase in economic growth in the United States, Japan, and some European countries, which has led to an increase in demand for petroleum products in world markets.

To summarize the above, it can be concluded that the transformational processes of the oil market clearly affect the economic growth of almost all countries. And the clear benefit of this, to date, is seen by the US, which has significantly increased its GDP revenues in a short period of time. But China also sees certain benefits: by objectively assessing the oil market, it purchases oil at better prices, while increasing its oil reserves, which also contributes to economic growth.

For Kazakhstan this issue is also relevant, as the republic is dependent on the development of its own oil market, despite the fact that more than 25 years have passed since independence. The development of the oil industry has a huge impact on the political and social aspects of the life of Kazakhstan, as well as on the development of many other sectors of the economy. The proven reserves of the republic indicate that the potential for hydrocarbon raw materials is huge. However, this is not yet a guarantee of prosperity. It is necessary to find a place in the system of world markets, which will allow Kazakhstan to receive the greatest economic benefits and will ensure national interests in the context of the transformation of the world oil market.

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