Czech University of Life Sciences Prague Faculty of Economics and Management Department of Economics



Bachelor thesis

The Impact of Crude Oil Prices on World Economy Case study of Russia

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

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Business Administration

Thesis title

The Impact of Crude Oil Prices on World Economy - Case study of Russia

Objectives of thesis

The aim of this work is to analyze the current trends and dynamics in the oil markets with focus on Russian economy. The objective is to examine the structure of world oil market including main players, demand and inventories of this commodities and perspectives of the market development. The aim is to define the basic characteristics of world market prices of oil and to analyze the pricing system in the world oil market.

Methodology

The thesis will be divided into two parts. Theoretical part will include the analysis of the key theoretical aspects related to the oil market. The practical part will use PEST and SWOT analysis of the global and Russian oil markets. Focus will be aimed at the detailed investigation of the Russian oil market.

The proposed extent of the thesis

40 - 60 pages

Keywords

energy sector, oil market, oil pricing, oil reserves, oil supplies, OPEC, PEST analysis, Russian Federation, SWOT analysis

Recommended information sources

BURDA, M., WYPLOSR, CH.: Macroeconomics 4th edition, Oxford University Press Inc., New York 2005, ISBN-10: 0-19-926496-1

CAROLLO, S. Understanding Oil Prices – A guide to What Drives the Prices of Oil in Today's markets. 2011, ISBN 1119962722

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Declaration
I hereby declare to have compiled this final thesis "The Impact of Crude Oil Prices on World
Economy - Case study of Russia" entirely myself and in accordance with recommendations
of my supervisor, that I indicate all the literature and other supporting materials used in the
index of bibliography. Therefore I declare that I have not violated any right of third parties
while writing my master's thesis.
In Prague 14th of March,
Anastasia Frolova

Acknowledgements	
Therefore I would like to thank my supervisor Assoc. Prof. Ing. Ph.D. for Your time, instructions and advice that were very he writing of this thesis.	

The Impact of Crude Oil Prices on World Economy Case study of Russia

Dopad Cen Ropy na Světovou Ekonomiku -Případová studie Ruska

Abstract

The aim of the thesis is to analyze the current trends and dynamics in the oil markets with focus on Russian economy, the methodology used for running this research includes theoretical overview, PEST and SWOT analysis, case study, and deductive thinking.

Oil is a strategically important resource for any state's economic development and national security. The structure of the global oil market as of today greatly preconditions the structure of international cooperation on the global scale. Russia is one of the major oil manufacturers and exporters in the world, which only raises Russia's geopolitical weight on the international level. The recent negative dynamics in the global oil market contribute to Russia's impaired position as an oil exporter. Moreover, the recent trends in the global energy sector prove that the share of oil in global energy consumption tends to decrease. All this gives birth to preconditions in which the Russian Federation should focus on its energy production and export opportunities for diversifying the sources of budget incomes, or for findings new markets for greater sales of oil. In the long run, Russia should aim to balance its economy for avoiding the excessive dependence on the depreciating oil.

Key words

Energy sector, oil market, oil pricing, oil reserves, oil supplies, OPEC, PEST analysis, Russian Federation, SWOT analysis.

Abstrakt

Cílem této práce je analyzovat současné trendy a dynamiku na trzích s ropou, se zaměřením na ruskou ekonomiku. Pro provedení výzkumu byla použitá metodika, která zahrnuje přehled teoretických poznatků, SWOT analýzu, případová studia a deduktivní myšlení.

Ropa je strategicky důležitým zdrojem pro ekonomický rozvoj jakéhokoliv státu a národní bezpečnost. Struktura světového ropného trhu v současné době je významnou podmínkou pro mezinárodní spolupráci v celosvětovém měřítku. Rusko je jedním z hlavních výrobců a vývozců ropy na světě, což vysvětluje ruský geopolitický význam na mezinárodní úrovní. Nedávná negativní dynamika na světovém trhu s ropou přispěla ke zhoršené situaci pro Rusko, jako vývozce ropy. Navíc nedávné trendy v globálním energetickém sektoru ukázaly, že podíl ropy na celosvětové spotřebě energie má tendenci klesat. To vše slouží podnětem pro vznik předběžných podmínek, za nichž by se Ruská federace měla zaměřit na výrobu energie a vývozní příležitosti pro diverzifikaci zdrojů rozpočtových příjmů, nebo na nalezení nových trhů pro větší prodeje ropy. V dlouhodobém horizontu Rusko by mělo usilovat o vyrovnání svého hospodářství pro zamezení přílišné závislosti na znehodnocování ropy.

Klíčová slova

Energetický sektor, trh ropy, ceny ropy, ropné zásoby, dodávky ropy, OPEC, PEST analýza, Ruská federace, SWOT analýza.

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1 Introduction

In the XXI century, oil continues to be the most important element in international trade. Economic growth and the well-being of many countries depend heavily on the level of development of the oil industry. Problems of development processes that affect the effectiveness of the oil-producing companies, are the most relevant for the stabilization of the oil-producing economies.

Russia, possessing the considerable energy resources, has a powerful fuel and energy complex, which serves as an instrument of foreign and domestic policy. The level of world oil prices is the most important external factor used in preparation of the state budget, trade balance and the state of the Russian economy. Oil prices on the world markets directly affect the trade balance and government revenues of the country and determine the development of oil and gas industry as well as of other sectors of the economy.

Nowadays, oil and oil products form a significant share in the Russian export that highly depend on the dynamics on the world commodity markets, i.e. commodity prices. Oil and gas revenues account for about half of the federal budget, which is formed by taking into account the projected price per barrel in the corresponding period. At current time, dynamics of oil price hesitated from the projected prices per barrel too far and according to such circumstances there is necessity to revision of the state budget. In 2015 after achieving the price of \$50 per barrel of traded mark Brent, the Russian government had to change plan for forming the budget for next years including positive and worst case scenario. But unfortunately this scenario did not include the possibility of oil price decline to the levels of \$10-20 per barrel, which is likely to become probable after the January 2016 oil decline to the level under \$30 per barrel. So that approved budget for the year 2016 before the end of 2015 will be possibly not to adhered to and this fact can threaten all the Russian economics and lead it to the crisis.

Therefore, the close interrelationship of the dynamics of oil prices on the world oil markets, the volume of Russian exports and budget revenues of the Russian Federation, as a source of financial support for the domestic economy, determines the relevance of the theme of the thesis.

2 Objectives and Methodology

Objectives

The aim of this thesis is to analyze the main processes that form the level and dynamics of world prices of crude oil. In terms of the goal, the following objectives were identified as:

- to analyze the structure of world oil market including main players, demand and inventories of this commodities and perspectives of the market development;
- to define the basic characteristics of world market prices of oil;
- to analyze the pricing system in the world oil market;
- to examine the current trends and dynamics in the oil markets with an accent on Russian economy;

and to provide the results of the carried out research in the form of PEST and SWOT analysis applied on the world crude oil market.

Methodology

The thesis is divided into two parts. The methods used for running this research include theoretical overview (for the analysis of the key theoretical aspects related to the oil market), PEST and SWOT analysis of the global and Russian oil markets, case study (for the detailed investigation of the Russian oil market), and deductive thinking.

The practical value of this thesis will consist in the investigation of the global oil market and the pricing mechanism in it, as well as the effects caused by the global oil market on the international economy. The findings of the thesis can be taken into account for the subsequent evaluation of the global and Russian oil markets, and the processes preconditioning their further development.

3 Literature Overview

3.1 World oil market description

3.2 Oil industry structure and main market players

The world market of oil and petroleum products represents a very delicate and sensitive system. Its "mood" depends on many factors: political, economic, seasonal, regional, factors stemming from the tanker fleet, etc. However, it is well organized, it has its own characteristics and its own rules.

There are two forms of oil and petroleum products trade:

- Contract trading. The contractual form of trading implies a situation in which the buyer and seller agree on supplies of goods within a certain period, and often at a fixed price. In the past, contracts were signed for two, three or more years. Then, this period reduced due to development of internet and computer technologies, and prices have become more flexible. From the financial point of view there are contracts like forwards, futures, options and other kinds of derivatives.
- **Spot trading.** Spot trading implies short-term transactions. Often, the spot trade can be described as a sale of a tanker with oil or petroleum products. Therefore, the price of such transaction is set on a particular tanker on the day of the transaction. Experts estimate that currently about 50-55% of transactions accomplished on the world market of oil and petroleum products are carried out on the spot conditions.

It makes sense for more detailed considering of the characteristics of these two forms of trading in order to better understand following characteristics of oil and petroleum products on the world market and the internal logic of pricing. This should allow us to surely orientate on this market.

Principally, spot trade is a natural phenomenon. It originates from ancient times, when the goods were exchanged for goods. In contrast with spot trading, the contract form requires partners to comply with certain obligations for a long period. The most important condition for a large company and a small company is a stable, predictable position in its market, which is achieved provided the both counterparties have and fulfil long-term liabilities. This condition is given by a form of contractual trading.

With regard to spot trading, neither the producer nor the final consumer can not accurately predict in the foreseeable future the exact prices for the goods and accurate delivery volumes. In this case the price will always be manipulated. Actual political situation proves this fact when Islamic State sells the acquired oil by dumping prices and thus finance its terroristic activities.

On the other hand, the owner of the oil is in a quite difficult situation. If a company enters into a contract for a long period with a petroleum refinery, the latter is obliged to produce this petroleum product during this period of time and to sell it at the contracted price.

The negative side of said before is the fact that the situation is changing, and it may happen that due to certain circumstances it is necessary, for example, increase the output of light petroleum products and reduce fuel oil production. Thus, the refinery can suffer losses because of the evolving situation. In business conditions with production volumes the losses can be great. For instance, a typical transaction for diesel fuel for one counterparty with shipping cargo 20 000-24 000 tones the value of cargo could be \$ 150 per 1 ton. After change of world price by at least \$1 it will cost for one of the partners of \$20 000-24 000. If we talked about the gasoline trade, the losses would be even greater. In case of the terms of trade and the overall economic situation are stable, the counterparties accept the rigid contracts. In case of the instability rigid prices represents a counterproductive phenomenon. Regard this situation, participants in the oil market and petroleum products have to combine both forms of trade. So that among oil traders appeared term "flexible contracts". Just the fact of presence of too many factors influencing global oil market makes participants of the oil market to apply flexible systems following the rules of the market.

At present time, the market of oil and petroleum products is consisted of three main participants:

- 1) The major oil companies ("seven sisters"), which practice both forms of oil trading. It is assumed that they own about 40% of the spot market. It is worth mentioning all this seven companies. Till 50s of the last century, the dominant players in the global oil industry were 7 oil companies:
 - **British Petroleum** (**UK**). Now the name is shortened to BP. Before the company was named Anglo-Persian Oil Company (United Kingdom). Later this company subsequently became Anglo-Iranian Oil Company and then British Petroleum.

- **Exxon (USA).** Before the company called Standard Oil of New Jersey (United States) and subsequently became Exxon, which renamed itself into ExxonMobil following the acquisition of Mobil in 1999.
- **Gulf Oil (USA).** In 1984 most of Gulf Oil was acquired by SoCal and then enlarged SoCal entity became Chevron. The smaller parts of Persian Gulf Oil were acquired by BP and Cumberland Farms.
- **Mobil** (US). Before the company called the Standard Oil Co. of New York (United States) and subsequently became Mobil. Later the company was acquired by Exxon in 1999 and formed ExxonMobil.
 - Royal Dutch Shell (Netherlands / UK).
- **Chevron (USA).** Before the company was named Standard Oil of California (SoCal) (United States), later the company became Chevron in 1984 when SoCal acquired Gulf Oil.
 - **Texaco (US).** The company was acquired by Chevron in 2001.
- Nowadays new century brings us another list of new seven oil sisters which were identified by Financial times journal:
- **Saudi Aramco.** With 25 per cent of the world's oil reserves and the capacity to produce nearly triple the amount of any other group, Saudi Aramco is the world's most successful national oil company. The House of Saud dictates energy policy but leaves day-to-day strategy to the capable technocrats who run it. Saudi Aramco is investing \$50bn) over 15-20 years but its biggest fields are ageing.
- **Russia's Gazprom.** No other company keeps Europe, and increasingly Asia, on tenterhooks more than Gazprom. As a tool of the Kremlin, it has been involved in a gas dispute with Ukraine.
- **CNPC of China/ PetroChina.** China National Petroleum Corporation, with its 88% owned PetroChina as a listed subsidiary, is the biggest and has the widest international reach. PetroChina holds most of its overseas assets in a joint venture with its parent and is active in about 20 countries from Azerbaijan to Ecuador. CNPC retains sole control of its controversial assets in Sudan.

- **NIOC of Iran (National Iranian Oil Company).** Iran is one of the few Middle East countries with massive hydrocarbon wealth that is open to investment by foreign energy companies.

Venezuela's PDVSA.

- **Brazil's Petrobras.** The strength of Petrobras is in finding and producing oil from deep waters. Expertise gained in Brazil's waters is being applied in offshore west Africa and the Gulf of Mexico.

Petronas of Malaysia. ¹

2) Independent oil companies (which do not belong to the "oil sisters"). They belong to the order of 10-15% of the spot market.

3) Oil traders.

Spot trading of oil and petroleum products is usually associated with Rotterdam. This fact has its logic because Rotterdam is just a place where was origin of spot trading. In this area are concentrated large processing capacities, storage and distribution systems. However, at present under the Rotterdam spot market we understand a wider geographical spot market. It is necessary to include there all the spot markets of north-west Europe like Sweden, Denmark, Norway, the eastern part of the Britain, Germany, Holland, Belgium and the north-west France. Logistics in Rotterdam area consists of two major segments:

- Tanker commercial transactions are carried out in the north-western region of Rotterdam North Sea;
- Trade deals with river barges are carried out in the Rotterdam area the delta of the Rhine (deliveries to customers in Holland, Germany, Belgium, Switzerland, etc.).

Another world's largest spot market is Singapore. This market is the second in the world after Rotterdam. In addition, this region ranks third in the world in terms of oil refining volumes after Rotterdam and the US (Gulf Coast) regions. The Singapore market is located on a major traffic artery that connects Asia with other regions of the world. Singapore plays

¹ Financial Times. *The new Seven Sisters: oil and gas giants dwarf western rivals*. [online]. [cit. 2015-11-16]. Available from: http://www.ft.com/cms/s/2/471ae1b8-d001-11db-94cb-000b5df10621.html#axzz3zPsk34Tj

role of some kind of balance between the United States and Rotterdam. The Singapore market relevant for producers and traders of crude oil and petroleum products based in Indonesia, Malaysia, China, UAE and Iran. It should be noted that due to the rapid economic growth in the newly industrialized countries like South Korea, Taiwan, Hong Kong and others, there was noticed the increase in the oil flow from the Middle East region to Singapore region.

The major market is the Mediterranean region as well. Oil traders are guided by market Genoa - Lavera. This is understandable and logical. Middle Eastern oil producers and petroleum products are directed to the south of Europe.

Historically, Russian suppliers working on the spot conditions, are guided by indicators of Rotterdam and Mediterranean markets. This is understandable, since traditionally oil and petroleum products were exported from Russia through the ports of the Baltic and Black Seas. It was quite difficult to compete in the Far East, because the capacities of the Soviet refineries were designed to meet only the needs of the regions like Sakhalin, Kamchatka, Vladivostok, Magadan, in spite of the fact that in the past Russia had the good bases for bunkering ships, including foreign ones, in the Far East.²

Traditionally, we operate with the general definition of "the world oil market", but detailed analysis shows that the market is heterogeneous, and has its regional characteristics. Thus, the regions of North America, Europe, Commonwealth of Independent States (CIS) and Asia-Pacific (APR) are the main consumers of oil. In this case the APR and North American markets, which are provided with its own production by 41% and 56% respectively, are the most vulnerable and unstable. Characteristically that the crisis on these markets takes place there and was the reason for the sharp fluctuations in oil prices in the last decade.

In terms of the volume supply main supplier of oil to the world market is Saudi Arabia, the Middle East (Table 1) from the regional point of view, in the organizational point of view - OPEC, which includes most of the oil producing countries in the Middle East region. Below are the 15 countries that exported the highest dollar value worth of crude oil during 2014:

² SCHERBANIN, A. *Mirovaya ekonomika*. [online]. [cit. 2015-11-16]. Available from: http://neon-market.ru/497.html

Table No. 1: Oil exports in 2014

Country exporter	USD, billion	Per cent on total exports	OPEC countries
Saudi Arabia	268,2	18,5%	OPEC
Russia	152,6	10,5%	
United Arab Emirates	98	6,8%	OPEC
Canada	88,1	6,1%	
Iraq	84,4	5,8%	OPEC
Nigeria	76,2	5,3%	OPEC
Kuwait	69,3	4,8%	OPEC
Angola	61,2	4,2%	
Kazakhstan	53,6	3,7%	
Venezuela	53,3	3,7%	OPEC
Norway	44,2	3,0%	
Iran	41,3	2,8%	OPEC
Mexico	36,2	2,5%	
Oman	34,8	2,4%	
United Kingdom	29	2,0%	
The rest	260,6	18,0%	
Total crude oil exports	1451	100,0%	

Source: WTEx. Crude Oil Exports by Country. [online]. [cit. 2015-11-16]. Available from: http://www.worldstopexports.com/worlds-top-oil-exports-country/

Amounting to 7.8% of all exports, crude oil exports totaled US\$1.451 trillion in 2014 Middle Eastern countries accounted for the highest dollar value worth of crude oil exports during 2014 with shipments amounting to \$623.9 billion or 43% of global crude oil exports. Among the above countries, the fastest-growing crude oil exporters since 2010 were: Kuwait (up 88.1%), Canada (up 74.6%), Iraq (up 71.4%) and Oman (up 67.3%). Bucking the upbeat trend were two countries posting declines in the value of their crude oil shipments from 2010 to 2014: Iran (down 11.7%) and Norway (down 7.6%).

According to the organization of supply and methods of global pricing oil market is divided into three sectors:

- The domestic market of oil-producing countries. Total delivery of oil-producing countries on their domestic markets account for 1.6 billion tons per year. Domestic prices in these markets are very different from the world market price and does not affect them. They

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³ WTEx. *Crude Oil Exports by Country*. [online]. [cit. 2015-11-16]. Available from: http://www.worldstopexports.com/worlds-top-oil-exports-country/

are often regulated by the government of the country (either directly or by means of taxes and customs duties) in order to ensure a full load of own refineries and stimulate the development of their economies.

- Export and import of oil through the pipeline system. Through export by pipeline is supplied about 200 million tons per year. The largest pipeline systems in the world belong to the oil pipeline company "Transneft", connecting Russia and CIS countries and Europe, and pipelines connecting Canada with the United States. Currently it is finished creation of a pipeline system between Russia and China. Pipeline oil sector of the market is usually called "connected market". The amount of supplies through it is usually defined in a few the years ahead, with reference to the oil price, which is formed by the resale of oil in tankers.
- Export and import of oil through the "oil-by-sea", i.e. import and export by tankers. Thus, the price of oil on the world market is mainly determined by the tanker market sector. The volume of tanker shipments accounts for 1.6 billion tons per year. Of these, 1.1 billion tones, or 69%, provides OPEC. That is why OPEC plays a major role in the formation of oil prices on the world market. The practice of recent years, however, shows a relatively low efficiency of OPEC on world prices management: Members of the Organization do not comply with the established quotas, a reaction to the behavior of the market is slowed down, the adaptation to the quota level process is not as fast as desired.⁴

As OPEC plays important role in the oil price formation it is essential to describe main characteristics and functions of this organization:

The Organization of the Petroleum Exporting Countries (OPEC) was founded in Baghdad, Iraq, with the signing of an agreement in September 1960 by five countries namely Islamic Republic of Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. They were to become the Founder Members of the Organization.

These countries were later joined by Qatar (1961), Indonesia (1962), Libya (1962), the United Arab Emirates (1967), Algeria (1969), Nigeria (1971), Ecuador (1973), Gabon (1975) and Angola (2007).⁵

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⁴ http://shafranik.ru/publikatsii/-mirovoi-rynok-nefti-vzglyad-iz-rossii-

⁵ Source: http://www.opec.org/opec_web/en/about_us/25.htm

The mission of OPEC is to coordinate and unify the petroleum policies of its Member Countries and ensure the stabilization of oil markets in order to secure:

- an efficient, economic and regular supply of petroleum to consumers
- a steady income to producers
- a fair return on capital for those investing in the petroleum industry.

3.3 World oil consumption and reserves

Investigating the global trends in oil consumption and the reserves of crude oil available is important in order to understand which countries have the opportunities to dominate in the global oil market, and which trends can be expected in it in the near future.

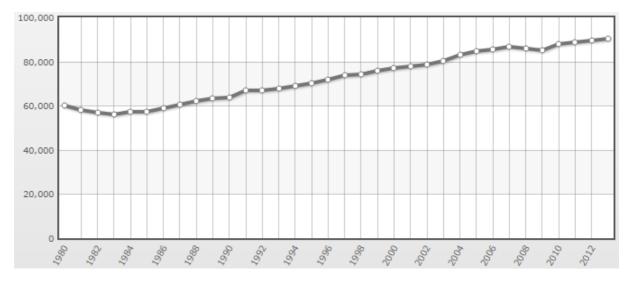
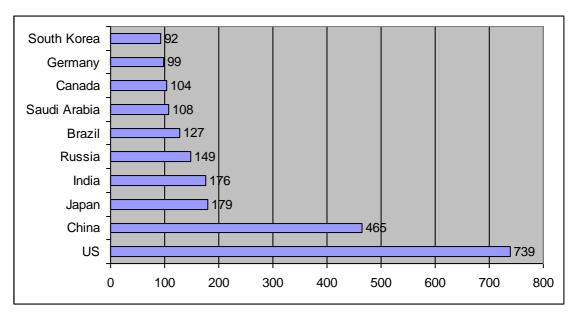


Figure No. 1: Global oil consumption in 1980-2013, in thousand barrels per day

Source: http://www.indexmundi.com/energy.aspx

As can be seen from Figure 1 above, the global consumption of oil has been steadily rising over the prior years, and exceeded 90 million barrels per day in 2013. This tendency testifies that the volumes of oil consumption are growing on the global scale, and the importance of oil as an energy resource only further rises, which makes it an essential natural resource.

Figure No. 2: Top 10 countries in the world by oil consumption, as of 2014, in million tons per year



Source: https://yearbook.enerdata.net/oil-consumption.html

Figure 2 above illustrates the top 10 countries in the world in terms of oil consumption. As can be seen from the chart, the top consumer of oil in the world is the United States: as of 2014, the country consumes as much as 739 million tons of oil per year. It should be noted that the United States' consumption volume significantly exceeds the one of all other top consumers of this energy resource. Thus, China's total level of consumption amounts to 465 million tons per year, Japan's consumption makes up 179 million tons per year, and Russia's and India's respective figures amount to 176 and 149 million tons per year, respectively. Overall, it can be stated that the top consumers of oil are either developed states which require it for the effective operation of their economy or major developing countries for which the growing consumption of oil is a prerequisite for increasing their economic output.

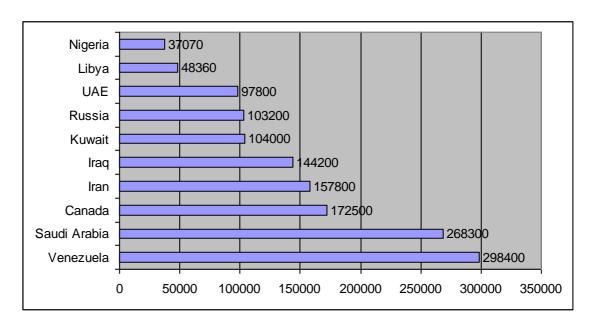


Figure No. 3: Top 10 countries by oil reserves in the world, as of 2014, in million barrels

Source: https://www.cia.gov/library/publications/the-world-factbook/rankorder/2244rank.html

Figure 3 above reveals the top 10 countries in the world by oil reserves. As the chart demonstrates, Venezuela is the world's leaders in terms of proven crude oil reserves, which figure amounts to 298.4 billion barrels. Other countries with important crude oil reserves include Saudi Arabia, Canada, Iran, Iraq, Kuwait, etc., i.e. those states which are already major producers of oil on the global scale as shown in the previous chapter of the thesis. The great availability of oil reserves in those states may become an important factor of their economic development in the near-term and long-term perspectives.

Non-OPEC

286.9 billion barrels

19%

OPEC

1,206 billion barrels

81%

Nigeria

Qatar

Saudi Arabia

United Arab Emirates

Venezuela

Figure No. 4: Share of OPEC countries in global oil reserves, as of 2014

Source: http://www.opec.org/opec_web/en/data_graphs/330.htm

As Figure 4 above illustrates, the OPEC member states account for as much as 81% of the total global oil reserves. This proves the importance of the OPEC member states on the global scale in terms of the control over the production of oil and the price-setting for it. The great availability of oil reserves in those states preconditions their great role as major oil exporters in the international market.

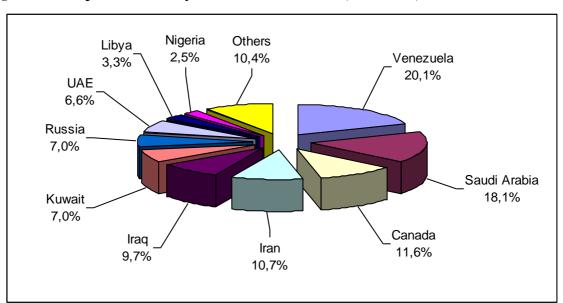


Figure No. 5: Top 10 countries by oil reserves in the world, as of 2014, in shares

Source: https://www.cia.gov/library/publications/the-world-factbook/rankorder/2244rank.html

Figure 5 above illustrates the top 10 countries' shares in global oil reserves. As can be seen from the chart, Venezuela currently accounts for 20.1% of global proven crude oil reserves, while other major states in those terms include Saudi Arabia (18.1%), Canada (11.6%), Iran (10.7%), Iraq (9.7%), Kuwait (7%), etc. Overall, it can be stated that the top 10 countries in the world in terms of oil reserves account for 89.6% of aggregate global oil reserves, while all other states only account for a figure of 10.4% of global oil reserves. This proves the great disparity existing in oil reserves between different countries, which preconditions the current structure of oil production and exports in the world.

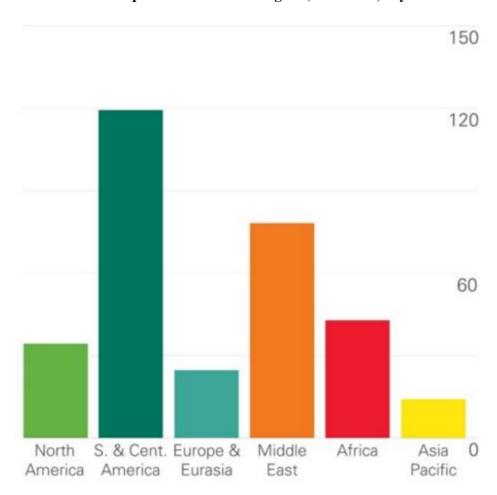


Figure No. 6: Oil reserves to production in world regions, as of 2014, in years

Source: http://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil-review-by-energy-type/oil-reserves.html

Figure 6 above reveals the oil reserves to production ratio as of 2014. As can be seen from the chart, South and Central America has the greatest oil reserves as related to the current amount of oil production (it is expected that the region will have oil for 120 years at the current level of production). Another major region in those terms is the Middle East. At the same time, the regions with the lowest provision with oil as related to the current levels of production are Asia Pacific and Eurasia.

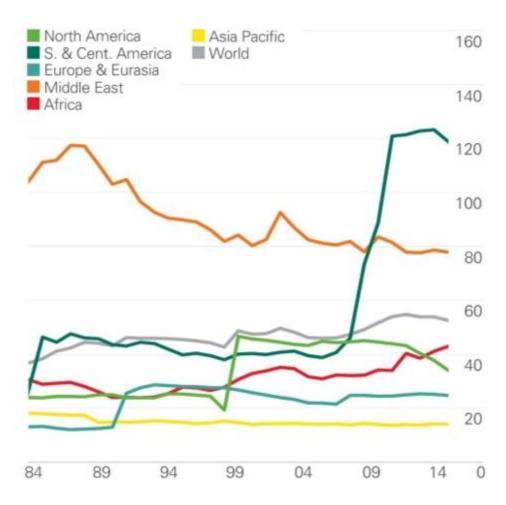


Figure No. 7: Oil reserves to production dynamics in world regions, in 1984-2014

Source: http://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil-review-by-energy-type/oil-reserves.html

When investigating the trends with changes in the level of the proven oil reserves to production ratio in recent years, it can be stated that the Middle East's available reserves as

related to production have been steadily contracting in recent years, which rather proves the great level of oil extraction in the region, and thus the gradual depletion of the oil resources in the region. At the same time, thanks to the oil deposits revealed, the oil reserves to production ratio significantly increased in the Americas in the 2000's, and Africa's prove oil reserves as related to production grew as well.

Thus, overall, it can be stated that the current levels of oil consumption prove the resource' strategic importance for the effective operation of the global economy, and the structure of oil reserves proves that there is a great disparity in the levels of oil reserves available to different countries and region, which preconditions the domination of states with the greatest oil reserves in the global oil market, and their ability to affect it in different respects, including in terms of pricing, which will be investigated more in detail in the next chapter of the thesis.

4 Main characteristics of oil pricing

4.1 Exchange pricing

The exchange pricing for oil stands for the set of mechanisms of formation of oil prices via the regulated oil market, namely the commodities and stock exchanges in which the market value of oil is defined through the correlation between supply and demand. On exchanges, the prices for oil are defined based on the spot rates and the forward, futures and other derivative contracts concluded between the counterparties with the aim of oil sales in future periods. The formation of market prices via exchanges is important for the global oil market, as it is transparent thanks to the regulatory framework set by the exchanges. Therefore, exchange pricing reflects the current situation of the global oil market through the formation of fair value for oil under market mechanisms.

The main advantage of the transactions performed by companies and countries in the oil market via exchanges is the fact that they incur smaller risks associated with such deals, and namely the risk of financial losses. Moreover, thanks to the transparency of accounting and the reflection of transactions in financial statements by stock and commodities exchanges, there is an overall greater level of stability as compared with the unregulated market, and companies can forecast more easily the expected outcomes of their trade transactions, and thus plan their subsequent activities in the energy sector. Moreover, companies have guarantees of the performance of the deals concluded, as their counterparties are most often required to place deposits in stock exchanges.

However, a major drawback of exchange oil pricing consists in the fact that it is less flexible as compared to over-the-counter transactions due to the strict regulation on the part of both exchanges and the public authorities. At the same, the contractors are required to pay commission fees to the exchanges for the performance of their transactions, which means their greater financial expenses.⁶

⁶ Source: http://oilprice.com/Energy/Oil-Prices/Oil-Price-Scenarios-For-2015-And-2016.html

CLJ06 - Crude Oil WTI (NYMEX) 160.00 ■ CL*1: 32.55 ■ Vol: 1364546 140.00 120.00 100.00 80.00 60.00 40.00 32.55 20.00 2000000 1000000 0.00 0 2007 2009 2011 2013

Figure No. 8: Exchange prices for WTI oil in 2006-2016, in USD per barrel

Source: http://www.nasdaq.com/markets/crude-oil.aspx?timeframe=10y

Figure 8 above reveals the recent price dynamics for the WTI grade oil. As the chart illustrates, as of February 2016, the price per barrel of WTI oil amounts to USD 32.55, which is 69% lower as compared to 2014, or 77% lower as compared to 2008. This trend is negative, as it testifies a major decrease in the overall price for all in recent years, thus reducing the overall profitability of countries and companies largely involved in oil production, refinement and exports.

CBJ06 - Crude Oil Brent (ICE) 160.00 ■ CB*1: 33.90 Vol: 805988 140.00 120.00 100.00 80.00 60.00 40.00 2000000 1000000 20.00 2007 2009 2011 2013 2015

Figure No. 9: Exchange prices for Brent oil in 2006-2016, in USD per barrel

Source: http://www.nasdaq.com/markets/crude-oil.aspx?timeframe=10y

Figure 9 above reveals the recent price dynamics for the Brent grade oil which serves as a benchmark for the investigation of the current global oil market price dynamics. As can be seen from the chart, as of February 2016, the price for Brent oil amounts to USD 33.9 per barrel, which is 70% smaller as compared to 2014, or 76% smaller as compared to 2008. The recent negative price dynamics show the decreasing value of oil, and thus the lower financial income generated by oil-exporting countries through their sales of the energy resources. It also correlates well with the dynamics of the price foe the WTI oil brand as illustrated above, which further testifies the negative trends in the oil market on the global scale.

Taking into account the specificities of exchange oil pricing, in the next chapter of the thesis, over-the-counter oil pricing will be investigated in detail.

4.2 Over the counter pricing

The over-the-counter pricing for oil stands for the mechanism of establishment of oil prices and hedging of associated financial risks via the over-the-counter market, i.e. beyond the framework of exchanges and regulated trade. The performance of over-the-counter transactions is done via financial intermediaries. Such transactions are concluded beyond any stock or commodity exchanges, and therefore belong to the unregulated segment of the market. They are in fact represented by the arrangements reached between the respective companies or governments and companies. However, such intermediaries themselves might run their own activities in stock exchanges with the aim of speculating or hedging their financial risks.

The main advantage of the over-the-counter pricing in the global oil market is the fact that it ensures greater liquidity, and requires smaller amounts of funds to be invested, as the commission fees otherwise paid to exchanges are avoided. Moreover, as such transactions are performed beyond the regulated market, this testifies that they are not subject to great limits on the part of the public authorities, which further eases transactions and pricing in the over-the-counter segment. The period of over-the-counter coverage of oil assets may differ depending on the goals followed by entities and governments, and may be much flexible.

However, there are also major drawbacks of OTC oil pricing. Namely, as the market is unregulated, the contractors involved in the performance of transactions incur inherently higher risks in all respects. A particularly important risk is the risk of possible financial losses as a result of the lack of guarantees available in case of the performance of transactions via official stock exchanges.

Taking into account the above information, it should be noted that OTC oil pricing is mostly used by smaller companies or governments of poorer countries which tend to use this pricing mechanism with the aim of reducing the expenses which would otherwise be associated with the exchange commission fees.⁷

Also, it is worth noting that, as part of the over-the-counter oil market, the illegal or black market of crude oil functions on the global scale, and its volumes are considerable in some

il+prices&source=bl&ots=-n0e7diHhq&sig=Ba257okBrIMwZBQ7-Xax7YxI1e4&hl=uk&sa=X&ved=0ahUKEwiV2YjWro3LAhWDkywKHekFB0IQ6AEIMDAD#v=onepage &q=over%20the%20counter%20oil%20prices&f=false

⁷ https://books.google.com.ua/books?id=EgYMwMCXcK0C&pg=PA11&lpg=PA11&dq=over+the+counter+o

cases. The illegal oil market is particularly important in terms of the oil extraction and sales volume in countries where the level of governmental control is lower due to the specificities of the legislation and the high penetration of corruption. Namely, this is true when speaking of African states such as Nigeria which belongs to the global leaders in terms of oil reserves as shown earlier in the thesis. This is a negative trend for the global oil market, as it undermines the effectiveness of the official pricing mechanisms. This is due to the fact that in the black oil market, the prices for this resource are inherently lower as compared to the official energy market, and therefore this brings to the decreasing profits of major oil exporters, and thus alters the average market prices for oil in the global scale.⁸

The growing importance of oil smuggling, the black market of oil and the black market oil pricing is also preconditioned by the rising scope of terrorist activities in the Middle East, one of the world's major regions in terms of oil production and sales. Namely, when speaking of the activities of the Islamic State of Iraq an Syria, it should be understood that the extraction and illegal sales of oil in the region is one of the key financial components making the backbone of ISIS' economic development. This further contributes to the greater instability in the global oil market, and significantly affects the aggregated level of prices due to the fact that terrorists' sales of oil are performed at a significantly lower level as compared to market prices.⁹

Overall, it can be stated that, although exchange and over-the-counter oil pricing significantly differ in terms of the pricing mechanisms applied and the ways in which they affect the average value of oil on the global scale, they both play an important role in the formation of the global oil market conjuncture and oil price dynamics in it. Taking into account the different mechanisms of and approaches to global oil pricing, in the next chapter of the thesis, the focus will be put on the investigation of the factors affecting oil prices on the global scale.

⁸ Source: http://www.oecdobserver.org/news/fullstory.php/aid/4219/Oiling_an_illegal_market.html

⁹ Source: http://www.ibtimes.com/turkey-russia-iraq-syria-black-market-oil-trade-thats-fueling-isis-dividing-terrorist-2217476

4.3 Factors influencing oil prices in the world oil market

The oil prices in the global oil market are affected by a great number of differently vectored factors. Within this chapter, factors affecting oil demand, supply, and the speculative component of oil prices will be investigated.

4.3.1 Factors affecting oil demand

The factors affecting oil demand include those factors which precondition a country's need in oil as an energy resource, thus boosting either its production sing the own capacities or imports from foreign states producers of oil.

First of all, it should be understood that oil demand is greater among countries with greater economic development. Due to the fact that their national economies require greater oil resources for the purpose of ensuring their uninterrupted operation and the effective functioning of all branches and sectors, such countries have the greatest demand for oil. However, it is worth noting here that the more rapid technological and scientific progress which is inherent of developed states preconditions their lower consumption of oil and other traditional energy resources such as natural gas, as such countries tend to switch to alternative energy sources with the aim of sparing their funds and reducing the harm brought to the external environment. Although this process is rather slow overall, developed states indeed tend to reduce the share of oil in their energy consumption.¹⁰

At the same time, another major factor preconditioning the demand for oil in different countries around the globe is the relative pace of their economic development. Namely, as already shown earlier in this thesis in the section dedicated to oil consumption patterns, the most intensive growth in aggregate oil consumption has been observed lately in major developing countries which require energy resources most for rapidly boosting their economic development. In contrast to developed countries, such states tend to pay less attention to the use of alternative energy sources, and seek achieving the greatest economic growth pace, for which purpose oil suits as one of the most widely used global energy

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¹⁰ Source: http://www.investopedia.com/articles/investing/072515/top-factors-reports-affect-price-oil.asp

resources. Therefore, the pace of developing countries' economic growth is another major factor preconditioning the establishment of the global prices for oil.¹¹

One of such developing states which belong to the greatest global oil consumers is China. Therefore, the trends in the Chinese economy largely predefine the global demand for oil, and thus the prices for oil established in the international market. Despite the recent growth in the Chinese economy, it is expected to slow down in the near future, and this might negatively affect the global oil market in terms of the contracting demand for energy resources in general and for oil in particular.¹²

Another important factor preconditioning the aggregate demand for oil in the global scale is the price elasticity of demand, i.e. the patterns in oil demand change in case of any upward or downward trends in oil prices. It can be stated that the price elasticity of demand depends on the particular country's level of economic development, financial stability, provision with sufficient energy resources, and a great number of other factors. The greater the price elasticity of demand, the greater the fluctuations in the respective country's or regions demand for oil with any changes in the prices for the energy resource. Generally speaking, price elasticity of demand is lower when speaking of developed states with greater financial resources and of major oil exporters, while it is greater for developing countries and states which do not have own energy resources sufficient for ensuring the effective operation of their national economy.

Having investigated the key factors affecting oil demand on the global scale, in the next chapter of the thesis, the factors affecting oil supply will be analyzed more in detail.

4.3.2 Factors affecting oil supply

The factors affecting oil supply include those events and phenomena which predefine the actual volume of oil supply on the global scale or in particular geographic regions in the world.

¹¹ Source: https://www.eia.gov/finance/markets/spot_prices.cfm

¹² Source: http://oilprice.com/Energy/Energy-General/Top-Five-Factors-Affecting-Oil-Prices-In-2015.html

One of the main factors influencing oil supply is the level of oil production in the world's major producers of crude oil such as the OPEC countries, the Russian Federation, etc. The above major producers of crude oil tend to regulate the level of oil production depending on their own vision of the market, prices in it, and forecasts for the subsequent trends in its development.¹³ For instance, as of February 2016, Russia and the OPEC member states negotiate the opportunity of freezing oil production for raising the dropping prices for crude oil. If this imitative is implemented, it will lead to contracted global oil supply.¹⁴

The geopolitical hot spots are other major factors which influence the level of global or regional oil supply. For instance, the conflict in Nagorno-Karabakh is one of the key factors affecting the level of oil supply in the South Caucasian region, and the inherent threats of such activities. The ongoing conflict in Syria and the activities of the terrorist organization Islamic State lead to the contraction of global oil supply, and at the same time to the growing scope of the black oil market in the Middle East, and so on.¹⁵

The internal policies of the United States with regard to the conservation or use of natural resources affect greatly the global oil supply as well. For instance, in December 2015, the ban for oil exports from the United States was lifted, which increased the global oil supply, and caused further coils of oil barrel depreciation.¹⁶

Geopolitical developments on the global scale, and the relations between major oil manufacturers may be another key factor affecting the overall level of global oil supply. For example, in the early 2016, sanctions were relieved from Iran, one of the world's most powerful oil manufacturers, thanks to the compromised achieved through the negotiations regarding the Iranian nuclear deal. As a result, Iran obtained access to the global market of energy resources, and started exporting its oil, which boosted the aggregate global oil supply.¹⁷

It should also be noted here that oil supply may be boosted by oil demand, as they are interconnected, and the growing demand for energy resources makes major oil producers

 $^{^{13}\} Source:\ http://oilprice.com/Energy/Energy-General/Top-Five-Factors-Affecting-Oil-Prices-In-2015. html$

¹⁴ Source: http://www.cnbc.com/2016/02/17/oil-production-freeze-deal-is-questionable.html

¹⁵ Source: http://ig.ft.com/sites/2015/isis-oil/

¹⁶ Source: http://www.businessinsider.com/lifting-ban-on-us-oil-exports-could-backfire-short-term-2015-12

¹⁷ Source: http://www.aljazeera.com/news/2016/01/iran-rejoins-world-economy-sanctions-lifted-160117132734049.html

increase their production and exports of crude oil. For instance, prior to 2016, the Chinese economy had been steadily growing for several years, and its rapid growth pace contributed to the growing supply of oil in the global market thanks to the constantly increasing demand for energy resources in the Chinese regional market.¹⁸

Overall, it can be stated that, just as the demand for oil, oil supply is preconditioned by a great number of different factors. In the next chapter of the thesis, the speculative component of oil prices will be investigated.

4.3.3 Speculative component of oil prices

In addition to the market mechanisms which precondition the formation of fair market prices for oil based on the correlation between the existing demand and supply of oil on the global scale, the oil prices also feature their speculative component, namely the part of prices which is preconditioned by the desire of the respective economic counterparties involved in oil trade to derive greater profits from the existing fluctuations in the oil market conjuncture.

The speculative component of oil prices can be conditionally divided into two major subelements: rational and destabilizing speculation. Rational speculation is related to speculative demand when economic counterparties anticipate the development trends and scenarios in the global oil market, and therefore try to either sell or increase their stocks of crude oil with the aim of avoiding losses in the subsequent periods. Such activities are preconditioned by the specificities of the economic environment, and are inherently rational, as each economic agent is interested in minimizing its risks. At the same time, destabilizing speculation stands for the activities of economic agents in the oil market which are related to the use of artificial tools and levers for increasing the existing fluctuations in the global oil market, thus contributing to its destabilization and the growing or decreasing oil prices in it.¹⁹

The speculative component in oil prices on the global scale is preconditioned by a great number of differently vectored factors, and its quantification raises significant problems for

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¹⁸ Source: http://oilprice.com/Energy/Energy-General/Top-Five-Factors-Affecting-Oil-Prices-In-2015.html

¹⁹ Source: http://www.voxeu.org/article/oil-price-volatility-and-speculation

the researchers. Therefore, different models may exist for the calculation of the correlation between any movements in global oil prices and the efforts put by economic agents for ensuring such fluctuations. In the economic practice, large international institutions such as the World Bank or the International Monetary Fund may use various regression models consisting of a great number of factors affecting the amount of the speculative component in oil prices for calculating its actual value. Among such major factors, it is particularly worth noting the trends in the global commodities markets, and the existing fluctuations in them, including due to any speculative trade.²⁰

Overall, it can be stated that speculation plays an important role in the formation of the price for oil on the global scale, and therefore the amount of speculative transactions in the energy sector significantly preconditions the global oil market conjuncture. Taking into account those facts, in the next chapter, the Russian Federation's role in global oil pricing will be analyzed.

4.4 Russian Federation as an element of world oil pricing

As it has been stated earlier in this thesis, the Russian Federation is one of the world's leaders in terms of the available crude oil reserves, oil production and exports. As a result, a conclusion can be drawn that Russia is one of the world's major contributors to global oil supply, which means that the country significantly affects the global oil market conjuncture, and therefore the level of prices in it.

However, it should be understood that even despite Russia's great share in the global oil production and sales activities, the country's own levels of production and trade cannot significantly affect the global market on their own. Moreover, the 2015-2016 oil price crisis as described earlier in this research has revealed a major negative tendency in the Russian oil market. In contrast to the Middle Eastern producers of oil, the cost of oil production in the Russian Federation is higher, and therefore, the dropping prices for oil on the global scale make the devaluation of this resource even greater for Russia. The consequences of dropping

²⁰ Source:

 $https://www.ecb.europa.eu/events/pdf/conferences/mopo_commodity/juvenal.pdf?c3646eb6322c10f2f25bc99a525cfd16$

oil prices for the Russian economy are much worse as well as compared to the OPEC states. According to expert estimates, Russia's losses are comparably the greatest from the dropping oil prices.²¹

As a result of Russia's inability to directly control or even significantly affect the level of oil prices in the current conditions of the global market conjuncture, the Russian Federation aims to apply its geopolitical levers of tension for bringing the prices for oil to a higher lever in order to increase its budget incomes.

Namely, the Russian Federation aims to oppose the attempts of Azerbaijan and Iran to build up direct pipeline connections with the European Union for the purpose of exporting natural gas and oil, as the availability of such direct connections would obviously deprive Russia of the status of exclusive energy supplier, and would further bring to the decreasing prices for energy resources.²²

The late crisis with the oil prices has also shown Russia's desire to affect the OPEC countries. Namely, the Russian Federation is the main initiators of the freezing of global oil production for raising oil prices. The country holds negotiations with major global oil manufacturers for persuading them to freeze their oil production on the current level. So far, Russia has been able to achieve the consent of some of the OPEC member states, and this might be a sign of the country's geopolitical success in the context of its influence on the oil market.²³

Some of the experts even believe that Russia's military involvement in the ongoing Syrian conflict is first of all preconditioned by the country's authorities' desire to reverse the tendencies in the global oil market, and to boost the current level of oil prices. Namely, Russia's support of the current authorities in Syria aims on the one hand to prevent the establishment of geopolitical control over the region by the Western allies, and on the other hand, it aims to prevent major OPEC member states such as Libya from raising their value in the region, and from seizing major oil deposits in the territory of Syria. Therefore, by supporting Assad, Russia aims to preserve its own control over the Middle Eastern oil

²¹ Source: http://www.ogj.com/articles/2016/02/russia-s-economy-is-surviving-global-oil-price-plungeforum-told.html

²² Source: http://en.trend.az/business/energy/2345346.html

²³ Source: http://oilprice.com/Energy/Energy-General/Is-Russia-Plotting-To-Bring-Down-OPEC.html

market, and thus over the level of oil prices in it is which greatly affects the global oil pricing.²⁴

Overall, as of today, it can be stated that the Russian Federation has limited economic opportunities of affecting the pricing mechanisms in the global oil market, but the country actively uses its geopolitical might and global weight with the aim of affecting the global prices for oil, and thus for ensuring the maximum benefits for its economy.

Taking into consideration the above facts, in the next chapter of the thesis, the PEST and SWOT analysis of the global oil market will be run.

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²⁴ Source: http://www.theguardian.com/world/2015/oct/10/putin-russia-syria-oil-prices

5 Practical Part

5.1 PEST and SWOT analysis of the global oil market

5.1.1 PEST analysis of the global oil market

The PEST analysis of the global oil market is important to run in order to understand the main factors of the global environment which precondition the development trends and patterns, and affect the activities of the major global actors in it.

1. Political factors

The importance of political factors in the overall trends in the global oil market conjuncture is preconditioned by the strategic role of oil and other energy resources in ensuring any country's effective economic operation and the overall national security. Therefore, the political or geopolitical conjuncture in the regional markets here major oil producers and exporters are located shapes to the largest extent the overall tendencies and processes occurring in the global oil market.

Namely, one of the main geopolitical factors affecting the global oil market as of today is the presence of the so-called "hot spots" in oil production regions. Factors such as the Persian Gulf War, the American-led intervention in Iraq, the ongoing military conflicts in Syria and South Caucasus, affect the global supply of oil, and thus the levels of prices for energy resources on the global scale.²⁵

Moreover, any changes in major oil manufacturers' national legislation or any shifts in the principles and approaches followed by international organizations in the energy sector, and so on greatly affect the global oil market conjuncture.²⁶

2. Economic factors

The economic factors affecting the global oil market environment include a variety of economic and financial phenomena and mechanisms.

²⁵ Source: http://oilprice.com/Energy/Oil-Prices/War-Between-Saudi-Arabia-And-Iran-Could-Send-Oil-Prices-To-250.html

²⁶ Source: https://c1wsolutions.wordpress.com/2012/04/30/factors-affect-price-of-oil/

Namely, it should be understood here that all countries require consuming energy for the purpose of ensuring the effective operation of their national economies. Given this fact, major energy-consuming industries include transport, petrochemical industry, machinery production, and a great number of other branches. As a result, the trends and dynamics in those particular fields precondition the overall level of demand for energy around the globe, and thus the overall development of the oil market.²⁷

In this context, it is also worth noting in particular that the trends of economic development persisting in individual geographic regions around the globe affect greatly the overall trends and the general situation in the global oil market. Namely, the stagnation of the developing states' economy and the economic recession in China as forecast by experts for the short-term perspective are expected to have a negative impact on the global oil market, as such effects should contribute to the overall shrinking need for oil supplies on the global scale.²⁸

Finally, it is worth noting that concerns over the preservation of energy resources for the long-term perspective make part of most developed states' national development programs, and this affects the actual volumes of oil consumed by them for ensuring their operational activities, which undoubtedly affects the global oil market in its turn.²⁹

3. Social factors

Within PEST analysis, social factors mainly include demographic indicators, and the evaluation of cultural, ethnical, religious and any other similar specificities of particular local communities' attitude toward the investigated subject matter. When dealing with the energy market, it should be understood that all countries deal with the use of energy resources, and namely oil, and the consumption of oil isn't prohibited or opposed in any culture. Therefore, the focus should be put here on the investigation of the demographic parameters affecting the global oil market.

²⁷ Source: http://www.eia.gov/finance/markets/reports_presentations/eia_what_drives_crude_oil_prices.pdf

²⁸ Source: http://oilprice.com/Energy/Energy-General/Top-Five-Factors-Affecting-Oil-Prices-In-2015.html ²⁹ Source: http://oilprice.com/Energy/Energy-General/Top-Five-Factors-Affecting-Oil-Prices-In-2015.html

Regional % change, 2015-50 forecast 108.9 Africa Oceania. 43.9 Latin America & 23.6 the Caribbean 21.0 North America 19.9 Asia -4.3 Europe Total population, bn 2015 2050 forecast 2100 forecast

Figure No. 10: Forecasted global population growth in 2015-2100

Source: http://www.economist.com/blogs/graphicdetail/2015/08/daily-chart-growth-areas

Figure 10 above illustrates the anticipated global population growth in the period from 2015 to 2100. As can be seen from the chart, experts estimate that the global population will be likely to grow from the current figure of 7.3 billion persons to 11.2 billion persons (i.e. by over 53%) by the end of the century. This means that, in case that no major shifts occur in energy production technologies, humanity will require greater consumption of energy resources, including oil, for the purpose of servicing the growing needs of the rapidly growing global population.

Also, within the framework of social factors, it should be noted that in some countries (for instance, in Asian states where rapid industrial development has been observed for great periods of time), there are greater tensions made by the population on the local authorities for promoting stricter limitation on industrial manufacturers with the aim of decreasing the harm brought to the environment. This limits the use of traditional energy sources in such

countries to some extent.³⁰

4. Technological factors

The technological factors preconditioning the global oil market conjuncture include the shifts and changes in the technologies used by humanity for servicing its needs in energy. In this context, it is worth noting in particular a common trend inherent of all developed states where there is a gradual shift toward the greater use of alternative energy sources instead of the traditional ones such as coal, oil or natural gas. This trend is due to several key reasons, namely the cheaper cost of such alternative energy sources on the one hand, and their significantly smaller harm brought to the environment on the other hand.³¹

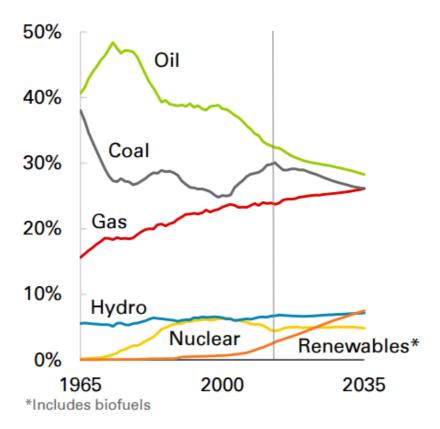


Figure No. 11: Forecasted shares of major energy sources in global energy consumption

Source: http://www.bp.com/content/dam/bp/pdf/energy-economics/energy-outlook-2015/bp-energy-outlook-2035-booklet.pdf

³⁰ Source: https://www.chinadialogue.net/article/show/single/en/6367-China-s-oil-giants-punished-for-environmental-failings

³¹ Source: http://www.bp.com/content/dam/bp/pdf/energy-economics/energy-outlook-2015/bp-energy-outlook-2035-booklet.pdf

As can be seen from Figure 11 above, the trend for the diminishing share of oil in the global energy market in terms of its use by countries for ensuring their effective economic operation and social activities is expected to persist in the years to come. At the same time, the most rapid growth is expected to be demonstrated by renewable energy sources, which further confirms the data stated above.

Those trends are negative for the price of oil, and overall, they contribute to the decreased effectiveness of companies operating in the global oil market. However, it is also worth noting here that, by 2035, oil is still expected to have the greatest share in global energy consumption in general terms, which highlights the utter importance of the oil market for the development of the global economy.

Overall, it can be stated that the PEST analysis of the global oil market proves that the trends in it are preconditioned by a great number of differently vectored factors, and despite some evidences that negative tendencies may persist in it in the near future, the oil market will still continue playing an essential role in the development of the global economy.

5.1.2 SWOT analysis of the global oil market

Table No. 2: SWOT analysis of the global oil market

Strengths	Weaknesses
 Lack of alternatives to energy sources All countries' need in energy, namely oil Global presence of major vertically-integrated corporations Greatest price/availability/productivity ratio as compared to other energy sources 	 Great harm brought to the environment Great dependence on geopolitical developments Global domination of major oil producers
Opportunities	Threats
 Oil is expected to maintain its greatest share in energy consumption in the mid-term perspective New discoveries of oil deposits allow increasing supply Growing output of the global economy Growing global population 	 Negative economic tendencies in developing states Developed states' programs for the greater use of alternative energy sources Growing global environmental concerns Fluctuating oil prices

Source: own processing

Strengths

1. Lack of alternatives to energy sources

As of today, there are no alternatives to energy resources, and countries may only choose between traditional energy sources or renewables. This strengthens the positions of oil as a major global energy resource.

2. All countries' need in energy, namely oil

Due to the aforesaid lack of alternatives, all countries use oil in relatively smaller or greater amounts, which means the steady availability of target markets for oil producers and exporters to sell their products.

3. Global presence of major vertically-integrated corporations

Vertical integration means that major global oil manufactures also own oil refinement, energy production, petrochemical industry and other similar facilities where oil products are processed in stages for their subsequent supplies around the globe. This means such MNCs' greater opportunities to control the global oil market in general, and the overall global demand for not only crude oil, but also any by-products.³²

4. Greatest price/availability/productivity ratio as compared to other energy sources

As shown earlier in this research, oil is a traditional energy resource, and as of today, it has greater price/availability/productivity ratio as compared to other energy sources, which makes it the most widely used energy resource on the global scale

Weaknesses

1. Great harm brought to the environment

Oil is a traditional energy resource, and one of its inherent characteristics is the great level of emissions to the biosphere, and thus harm brought to both the natural environment and human health. This is oil's drawback as compared to alternative energy sources and renewables which are less harmful to the environment and to human health, and therefore reduces oil's potential as a major global energy resource in the long-term perspective.

2. Great dependence on geopolitical developments

As shown earlier in this thesis, the global oil market conjuncture relies greatly upon the geopolitical developments in states and regions which are major oil manufacturers.

³² Source: https://www.atkearney.com/oil-gas/featured-article/-/asset_publisher/S5UkO0zy0vnu/content/refining-2021-who-will-be-in-the-game-/10192

Therefore, any negative external shocks or events bring great harm to the development of the global oil market, and reduce its opportunities.

3. Global domination of major oil producers

The level of competition in the global oil market is fierce, however it is fully dominated by major MNCs. As a result, pricing in this field is controlled by such companies, as well as the supply of oil is largely regulated by them, and they may even block the development of new technologies for their own commercial goals.³³

Opportunities

1. Oil is expected to maintain its greatest share in energy consumption in the mid-term perspective

As shown earlier in this research, oil is expected to maintain its greatest share in global energy consumption at least by 2035, which means the great opportunities for the subsequent development of the global oil market taking into account oil's utmost importance as a global energy resource.

2. New discoveries of oil deposits allow increasing supply

New oil deposits are discovered around the globe every year, and the raising aggregate amount of oil resources over the world increases the opportunities of the global oil market's development in the mid- and long-term perspectives.³⁴

3. Growing output of the global economy

The real global GDP is expected to maintain its growth tendencies in the near-term perspective, even despite the contraction of economic growth in developing states.³⁵ This provides additional opportunities for the development of the global oil market, as the expanding global economy would require greater energy consumption.

/asset_publisher/S5UkO0zy0vnu/content/refining-2021-who-will-be-in-the-game-/10192

³³ Source: https://www.atkearney.com/oil-gas/featured-article/-

³⁴ Source: http://instituteforenergyresearch.org/studies/new-oil-finds-around-the-globe-will-the-u-s-capitalize-on-its-oil-resources/

³⁵ Source: http://www.worldbank.org/en/publication/global-economic-prospects/summary-table

4. Growing global population

Similarly, as shown earlier in this research, the global population is expected to continue steadily growing in the years to come, which would require overall greater energy consumption by the global social sector, and thus greater global demand for oil.

Threats

1. Negative economic tendencies in developing states

Due to the global oil market's great dependence on the trends in the economic development of major oil producing countries and regions, the expected slowdown in the economic growth of developing countries, and the anticipated economic recession of China as shown earlier in this research would have negative impact on the global oil market, and would lead to contracted global demand for oil.

2. Developed states' programs for the greater use of alternative energy sources

Developed countries' programs aimed at increasing the share of alternative and renewable energy sources in their total energy consumption lead to the decreasing importance of oil, and therefore contribute negatively to the prospects of the global oil market.

3. Growing global environmental concerns

In a similar way, the growing environmental concerns on the global scale make companies reduce their use of traditional energy sources, and namely of oil, with the aim of preserving the natural environment through the use of more eco-friendly energy sources.

4. Fluctuating oil prices

Finally, as shown earlier in this research, the global oil market's great vulnerability to any external shocks gives birth to the great fluctuations of the global oil market, and thus impose significant threats on its subsequent development.

Thus, overall, the SWOT analysis of the global oil market allows stating that there are both strong advantages favoring its development and major factors which limit its growth opportunities. Taking into account those facts, in the next chapter of the research, the focus will be put on the investigation of the PEST and SWOT analysis for the Russian oil market.

5.1.3 PEST and SWOT analysis of the Russian oil market

5.1.3.1 PEST analysis of the Russian oil market

Political factors

Russia is currently under the impact of sanctions imposed by Western states as a result of the Russian Federation's annexation of Crimea from Ukraine. ³⁶ As a result, there are growing tensions between Russia and its Western counterparties, which significantly impairs the prospects of Russia's economic development in general, and of the Russian oil market in particular.

Economic factors

Although Russia's economy is in a state of recession, and suffers from the Western countries' sanctions described above, the country's oil market benefits from its dominating position in the European region. Even despite the constant attempts to diversify the supplies of energy to the European Union, the EU is still much dependent on Russia's oil and natural gas, which contributes to the favorable influence on the Russian oil market.³⁷ However, at the same time, the global negative fluctuations in oil prices bring harm to the Russian Federation, and make its national economy significantly shrink.

Social factors

The social factors are less important for the Russian oil market, as the main direction of Russia's oil supplies is its exports, while the internal market of oil in Russia is much less developed. However, given the expected growth in the global population volume as shown earlier in this research, it can be stated that the benefits for Russia's greater profits from oil sales can be expected to grow due to those global demographic tendencies.

Technological factors

The level of Russia's technological development is much lower as compared to Western states, including in the energy sector. As a result, Russia loses to its major global competitors

³⁶ Source: http://www.bbc.com/news/world-europe-28400218

³⁷ Source: http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_production_and_imports

in the oil market in terms of the technologies and up-to-date equipment available, which limits the Russian oil market's growth opportunities on the global scale.³⁸

Thus, overall, a conclusion can be drawn that as of today, the main factor within PEST contributing to the dominating global position of Russia's oil market is its winning geographic position in Europe, and the great availability of energy resources. Otherwise, the factors affecting the development of Russia's oil market are rather negative, and this might impose significant limitations not only on the country's energy sector, but also on its overall development in the future.

5.1.3.2 SWOT analysis of the Russian oil market

Table No. 3: SWOT analysis of the Russian oil market

Strengths	Weaknesses
1. Dominating position in Europe	1. Lack of developed technologies
2. Great availability of oil resources	2. Orientation on raw material exports
3 Great geopolitical impact on the global scale	3. Lower integration in global production as compared to developed states
Opportunities	Threats
1. Growing global need in energy	1. Negative oil price fluctuations
2. Lower prices for oil may trigger greater global demand for it	2. Western sanctions against Russia's economy
	3. Growing share of alternative energy sources in global energy consumption

Source: own processing

³⁸ Source: https://www.wilsoncenter.org/publication/the-future-technology-development-russia

Strengths

1. Dominating position in Europe

The current lack of effective energy supply alternatives in Europe makes the EU much dependent on energy imports from Russia.

2. Great availability of oil resources

Russia's great availability of oil resources allows the country exporting great amounts of oil abroad over the near- and mid-term perspectives.³⁹

3. Great geopolitical impact on the global scale

As shown earlier in this research, Russia may use effectively its geopolitical levers of tensions on the global scale for favoring the development of its national oil market.

Weaknesses

1. Lack of developed technologies

Russia's lower technological development as compared to Western states and developing Asian countries limits the growth opportunities of the Russian oil market.

2. Orientation on raw material exports

The predominant export of raw materials instead of processed oil materials makes the Russian oil market more vulnerable on the global scale.

3. Lower integration in global production as compared to developed states

Similarly, Russia's lower integration in the system of international economic relations as compared to Western states makes its energy sector, and namely oil market less competitive.

³⁹ Source: http://www.forbes.com/sites/judeclemente/2015/03/25/how-much-energy-does-russia-have-anyways/#cc9a0f82daa3

Opportunities

1. Growing global need in energy

The growing global need in energy contributes to Russia's steady oil export opportunities.

2. Lower prices for oil may trigger greater global demand for it

The negative oil price fluctuations strike hard the Russian economy, but they might also contribute to greater demand for oil thanks to it cheaper cost.

Threats

1. Negative oil price fluctuations

The dropping prices for oil significantly reduce the income generated by the Russian oil market, which in its turns limits the subsequent growth opportunities of this segment.

2. Western sanctions against Russia's economy

The Western sanctions against the Russian Federation's economy as shown earlier in this research strike hard the Russian economy, and limit the growth potential of its oil market.

3. Growing share of alternative energy sources in global energy consumption

The EU's and other developed states' strategy toward the reduced share of oil consumption in the aggregate energy consumption brings harm to Russia's oil export opportunities.

Thus, the results of the SWOT analysis of Russia's oil market allow stating that, despite the current dominating position in the European energy sector, Russia's oil industry is subject to a great number of threats and risks, and this might hinder its development in the future.

Taking into account the findings of this research, in the next chapter the possible trends in the development of the global and Russian oil markets will be investigated more in detail.

5.2 Possible trends in the Russian and global oil market in the future

Taking into account the current dynamics of the global oil market, and the Russian oil market as its part, it can be stated that the subsequent trends in the development of the global oil sector will be preconditioned by a great number of differently vectored factors. In my

opinion, the findings of this research allow drawing a conclusion that the most important factors in that context will be the oil price dynamics on the one hand, and the global geopolitical situation on the other hand. Namely, the oil price will affect the economic side of the market, while the geopolitical tendencies will shape the overall opportunities of the oil market's development, and its particular trends in geographic regions around the globe.

The forecasts regarding oil price dynamics may significantly differ. As shown earlier in this research, the prices for oil will be preconditioned by the global oil supply, and namely by whether the main oil producers will agree upon the freezing of their oil production levels. In my opinion, the Russian Federation will be trying to apply all its levers available, including both economic and geopolitical, with the aim of persuading the OPEC member states and other countries having an overall great impact on global oil production to freeze their production volumes. For Russia, this is the only way to stop further deterioration of its budget indicators in the short- and mid-term perspectives, as the dropping prices for oil not only strike hard the Russian economy, but also make its entire national economy much less competitive on the global scale.

Moreover, I believe that geopolitics will be playing an even further greater role in the development of the oil market on the global level. Namely, the war in Syria is characterized by the collision of interests of the main global oil producers, and as shown earlier in this thesis, experts believe that the ability to control the global prices for oil is one of the key reasons for which the Russian Federation runs its military activities in the region. Therefore, I believe that the conflict in the Middle East will be used by all main stakeholders of the global oil market for driving the promotion of their own interests.

Similarly, I believe that the United States may trigger further negative global oil market dynamics with the aim of overcoming the Russian Federation as the main opposing power on the global scale. The US has already lifted the ban on oil exports, and has lifted the sanctions from Iran, which steps have given birth to further coils of dropping oil prices. Therefore, in my opinion, the current situation with the global oil market provides the United States with the subsequent opportunities to strike the Russian economy with negative oil price dynamics.

Therefore, based on the aforesaid, I believe that the trends in the global oil market in the future will be shaped by the geopolitical struggle between global superpowers and regional

leaders, and the outcome of this struggle will precondition the actual trends and patterns in the global oil market dynamics. All in all, I believe that as of today, there are preconditions for movements of the oil prices in upward and downward directions within certain limits, but the restoration of the market to its values demonstrated two years ago shouldn't be expected. While the situation may be less harmful for the OPEC countries where the cost of oil production is lower, for the Russian Federation, the current trends and dynamics will continue playing a much negative role, and therefore the country's authorities will be forced to run the diversification of the national economy for reducing Russia's dependence on energy exports.

6 Conclusion

In the current conditions of global development, the energy sector plays an essential role for any country's steady economic growth, and for its overall ability to ensure the sufficient level of national security in all respects. This is preconditioned by the fact that all economic fields require power in order to function, and the social sector requires energy resources for satisfying basic human needs.

Although as of today, the global oil sector is driven by the rends for the growing use of alternative energy sources in order to ensure the minimization of costs and harm brought to the natural environment, traditional energy resources still account for the greatest share in global oil consumption. Among such resources, the most prominent role is played by oil, which is predefined by its availability and the effective technologies developed for its exploration and production.

Different states have different provision with oil resources, and thus different abilities of satisfying the needs of their own national economies in energy and the export capacities of oil resources. The Middle Eastern countries making part of OPEC and the Russian Federation are among the world's major producers and exporters of oil. Those countries largely shape the overall dynamics and vectors of the global oil market's development, and their activities precondition the prospects of the global oil market.

Due to the aforesaid importance of energy as a strategic resource on the international scale, major oil producers tend to use geopolitical levers for controlling and affecting the development of the global oil market, and those activities run by them in the field of international geopolitics may include a wide range of different tools and approaches.

As the research within the framework of this thesis testifies, the development dynamics of the global oil market have remained negative in recent years, which is due to the effects of a great number of factors. Among such factors, the most important were the ignition of military conflicts in Iraq and Syria, and the involvement of the world's major superpowers in that military opposition, as well as changes in the structure of international relations, namely the lifting of the ban on oil exports in the US, and the elimination of sanctions previously imposed on Iran.

For the Russian Federation, those negative dynamics of the global oil market are particularly harmful due to the fact that the cost of oil production in Russia is higher as compared to other major oil producers, and the Russian economy is much dependent on energy exports, and therefore vulnerable in terms of its competitiveness on the global scale. As a result, the Russian Federation is forced to seek applying some countermeasures for opposing the current negative global oil market dynamics. According to experts, the country seeks its own benefits in the Syrian War, and aims to establish control over oil production in the Middle Eastern region. Moreover, Russia is one of the initiators of the freezing of global oil production.

The future trends in the development of the global oil market will be preconditioned by a great number of factors, in which major global powers' ability to achieve their geopolitical goals will be playing a decisive role. However, taking into account the current situation in the market, no positive global dynamics should be expected in the near-term perspective. Moreover, the struggle over the global oil market may also bring major negative consequences to the global community, such as the protracted military opposition in the Middle East. Still, oil will definitely continue playing an essential role in global development, and countries producing it will be able to get substantial economic benefits.

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