



Horyzonty Polityki  
2017, Vol. 8, N° 25



**AGNIESZKA PACH-GURGUL**

Cracow University of Economics  
Department of International Economics  
apach@uek.krakow.pl

DOI: 10.17399/HP.2017.082506

## **Oil Trade in the Context of Oil Price Fluctuations at the Turn of 2014 and 2015**

### *Abstract*

**RESEARCH OBJECTIVE:** Oil is one of the commodities with the highest global demand and the largest trade volumes. It is useful both as a raw material tapped to produce other goods, and, when processed, as a commodity in its own right. The purpose of the article is to present the directions of impact of oil price changes on its trade and to analyse factors affecting crude oil prices in period 2014-2015 in the context of quick decrease of prices started in 2014. These analyses are crucial since changes of oil prices cannot be only explained by supply and demand.

---

**THE RESEARCH PROBLEM AND METHODS:** Research topics were formulated as questions: Who is responsible for the slump in the prices of the most important global energy source in the international raw material market? What events in the global market caused the slump in oil prices? Did the slump in oil prices increase oil trade in 2014 and 2015? The article is largely conceptual, based on literature surveys, the analysis of sources and statistical data, comparative analysis, and the descriptive method.

---

**THE PROCESS OF ARGUMENTATION:** The argument is composed of four basic parts. The first deals with the chief oil price-shaping mechanisms and their division into long-term and short-term drivers. The second outlines the situation in the global oil market in 2014. The third analyzes the causes of the slump in oil prices in 2014 and 2015. And, lastly, the fourth presents the possible impact of the slump on international oil trade.

---

Suggested citation: Pach-Gurgul, A. (2017). Oil Trade in the Context of Oil Price Fluctuations at the Turn of 2014 and 2015. *Horizons of Politics*, 8(25), 95-110. DOI: 10.17399/HP.2017.082506.

**RESEARCH RESULTS:** Chief price-shaping mechanisms in the oil market include: the supply-demand mechanism, global economic growth, OPEC policy, fluctuations in the US dollar exchange rate, geopolitical events, and the effect of speculation. Even though it is not possible to determine the precise role of each of these factors in shaping the situation in the oil market in 2014/2015, it seems that the slump in prices was primarily caused by a boost in shale oil production in the United States and the OPEC's "price war" strategy.

---

---

**CONCLUSIONS, INNOVATIONS AND RECOMMENDATIONS:** The situation in the global market in 2017 is likely to be influenced by the OPEC's decision to reduce oil extraction taken at the summit in Vienna on 30 November 2016. From January 2017, production is to go down to 32.5 million barrels per day and the move is expected to stop the downward price trend. An increase in oil prices could already be noted the day after the decision; however, analysts doubt that the trend will last.

---

---

**KEYWORDS:**

oil, OPEC, oil shocks, oil price fluctuations, shale revolution, price war

## INTRODUCTION

Oil is a strategic global energy source, with a fundamental importance for a number of other industries as well. Its physical and chemical properties make it easy to extract, transport, store, and process, which results in the availability of a broad assortment of products. It is a rare commodity, to which no economically viable alternative, especially in terms of transport, has been found as of yet. The product has a decisive role to play in determining the potential for economic growth, as well as victory in wars, since an army without fuel is doomed to failure today. Modern economies would be hard pressed to go without large quantities of oil and its shortages carry the risk of a system breakdown.

Oil is one of the commodities with the largest trade volume and the highest demand. Fluctuations in its prices significantly affect the economy of many countries, oil and producers and consumers alike.

Oil prices are extremely important for all countries that use it as part of their energy mix and employ it in industry. From the economic point of view, high prices cause a multiplier growth of the cost of

production and services, which in turn translate into lower profit margins and reduce effective demand.

In the history of oil trade, three main periods can be distinguished in terms of changes in oil prices – the first period, before 1973, was characterized by low fluctuations, low nominal prices per barrel, and the dominance of Western oil companies. The second period followed the first oil crisis (1973-1974), which brought about a sudden increase in prices, the dominance of OPEC exporting countries, and general uncertainty in global energy markets.

### MAIN OIL PRICE-SHAPING FACTORS

Oil prices are subject to similar changes as the prices of other goods and in periods of surplus or shortage, as well as potential economic and political threats, such as wars, tend to undergo considerable fluctuations. Factors that affect oil prices can be roughly divided into two main groups (Global Economic Prospects, 2015, p. 9-12):

1. those that affect oil price trends in the long term (referred to as long-term drivers): oil supply in the global market and the associated demand, as well as global economic growth,
2. those that affect oil price trends in the short term (referred to as short-term drivers): investor mood, geopolitical events, OPEC's decisions, dollar exchange rate, economic forecasts, terrorist attacks.

It must be noted that prices remained relatively stable for a long time since oil was first extracted in Pennsylvania in 1861. It was a cheap and readily available resource for the entire world. Between the end of the war and the close of the 1960s, oil prices fluctuated between 2.5 and 3 USD per barrel (nominal prices) and stabilized at around 3 USD per barrel between 1958 and 1970 (BP, 2015).

In 1960, Saudi Arabia, Iran, Iraq, Kuwait, and Venezuela established the OPEC (Organization of the Petroleum Exporting Countries). Before the end of 1971, the organization expanded to include six more countries: Qatar, Indonesia, Libya, United Arab Emirates, Algeria, and Nigeria. In 1972, oil was sold at 3 USD per barrel. In October 1973, Syria and Egypt attacked Israel, sparking off the Yom Kippur war. The United States and other Western countries threw

their weight behind Israel, which caused a strong backlash from Arab states. The OPEC decided to reduce oil production by 5 million b/d (barrels per day) in order to induce its shortage in the global market. As a consequence of the conflict, the price of oil rose to 12 USD per barrel, an evidence that the organization took over the control of global oil prices (Kosowski, Rychlicki, & Stopa, 2008, p. 389-391).

The first oil crisis caused a serious economic downturn in the richest countries of the world, because highly industrialized countries heavily relied on their suppliers and fuel and energy shortages could not be replenished by searching for alternative contractors. The crisis of 1973 was not the only oil shock; another crisis began soon after and lasted from 1979 to 1982. The Iranian revolution caused production in the country to plummet by 2-2.5 million barrels per day and the situation continued until June 1979. The impact of Iranian events was of relatively short duration; shortly after the revolution, production went back to c. 4 million b/d.

However, Iraq exploited the weakness of post-revolutionary Iran to invade it in 1980. Before November the same year, production in both countries decreased by 6.5 million barrels, bringing the world total down by 10%. The combination of these two events caused the price of oil to rise from 14 USD per barrel in 1978 to 35 USD three years later.

Such sudden and violent spikes in oil prices compelled producers and consumers to make a more effective use of energy by implementing more efficient industrial processes, introducing energy-saving means of transportation, reducing use of fuel in cars, etc. Combined with worldwide recession, these measures caused demand for oil to decrease and, as a consequence, its prices dropped (Noreng, 2006, p. 33-35).

At the same time, high oil prices during oil shocks led to increased extraction in countries from outside the OPEC. Between 1980 and 1986, they increased their production to the level of 10 million barrels per day; for OPEC member states, this spelled a lower demand and greater supply from outside the organization (Parra, 2004, p. 33)

Between 1982 and 1985, in order to stabilize the prices of oil, OPEC countries tried to fix low production quotas. These measures usually ended in failure, because some member states extracted more oil than their quotas allowed. Throughout the period, Saudi Arabia

acted as the price controller (referred to as the *swing producer*), alternately increasing and decreasing oil production and thus affecting its prices (Cordesman & Al-Rodhan, 2006, p. 56). In 1986, Saudi Arabia increased production from 2 million to 5 million b/d, which caused oil prices to drop below 10 dollars per barrel.

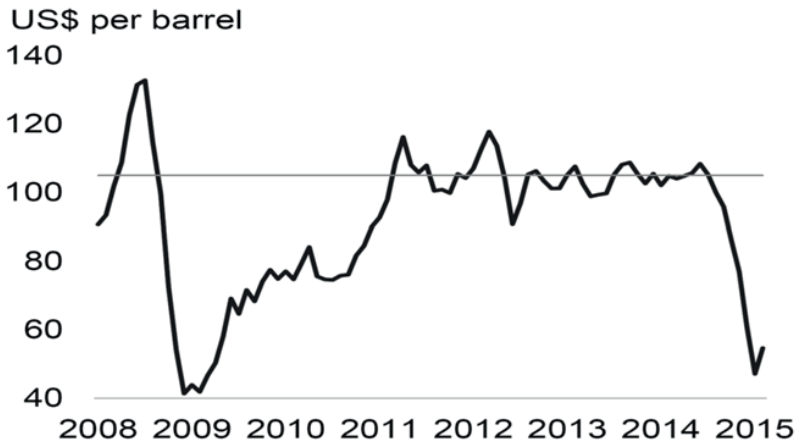
After these occurrences, large fluctuations in oil prices became the rule; oil prices would change from very low to very high due to a combination of various factors over the years.

### SITUATION IN THE OIL MARKET IN 2014

The OPEC is the largest actor in the current oil market, bringing together 12 countries, primarily from the Middle East and Africa, but also from South America (Ecuador and Venezuela). In 2014, OPEC member states accounted for c. 40% of global oil production and nearly 60% of global exports. As a consequence, their decisions have had a considerable impact on oil prices (BP, 2015, p. 7).

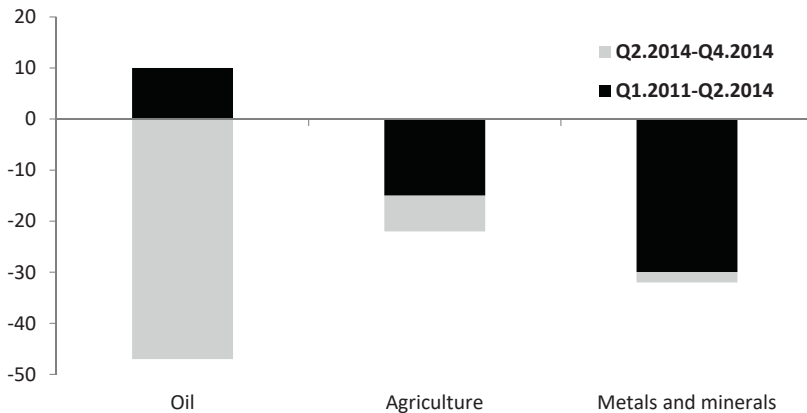
However, analysis shows that the group is headed by three strong leaders. In 2014, Saudi Arabia led the fray with 543.3 million tons of oil, which represented 12.9% of the global output. Russia ranked second with 534.1 million tons, i.e. 12.7% of the world production, followed by the United States, which accounted for a further 12.3%. The competition for the leadership in the international oil market between these three countries has been rather tight, a subject we shall return to shortly. It should be pointed out, however, that Saudi Arabia stands in a privileged position, as it is a member of OPEC and enjoys its full support. Oil extraction in the country is also very cheap in comparison to the costly extraction of shale oil in the United States.

In the second half of 2014, oil prices plummeted, putting an end to four years of stability, during which they hovered around 105 dollars per barrel (between the beginning of 2011 and the end of June 2014, the price of Brent oil stayed within the range of 95-125 dollar per barrel), and went down to 59 USD per barrel (cf. graph 1).



Graph 1. Oil prices in 2008-2014 (USD/barrel).  
Source: Global Economic Prospects, 2015, p. 10.

The decrease in the prices, as compared to the “peak prices” of 2011, was much greater for oil than other raw materials (cf. graph 2).

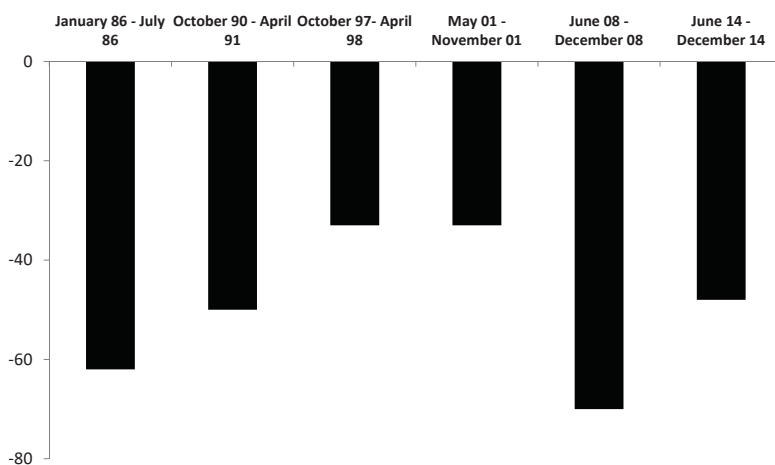


Graph 2. Fluctuations in the prices of various raw materials between the first quarter of 2011 and the second quarter of 2014.  
Source: own work based on Global Economic Prospects, 2015, p. 6.

Oil prices dropped by nearly 50% in the space of less than six months. Over the same time period, prices of agricultural products and mineral materials (other than oil) fell by as little as 7 and 3%, respectively.

Between 1984 and 2013, there were five instances when oil prices dropped by at least 30% and the situation lasted for at least 6 months (cf. Graph 3). These were related to:

- an increase in oil supply and changes in OPEC policy (1985/86),
- the economic recession in the United States in 1990/91,
- the economic recession in the United States in 2001,
- the Asian crisis of 1997/98,
- the global financial crisis (2007-2009).



Graph 3. Oil price slumps between 1986-2014 (in %).

Source: own work based on Global Economic Prospects, 2015, p. 6.

The slump in oil prices that began in 2014 and continues until the present moment represents the largest and the longest downward trend in the oil market since 2008. The last time prices dropped so fast was the second half of 2008, when they plummeted from a record high of 148 USD to just 37 USD per Brent barrel. But the 75% decrease presaged the breakdown of the global economy and was a symptom of the first global recession since 1945.

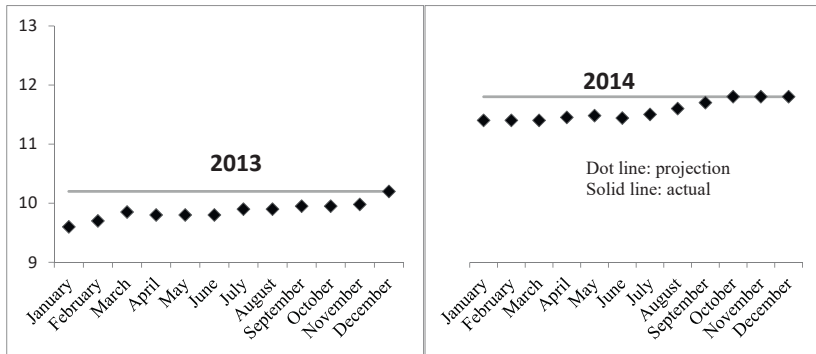
Analysts, however, have emphasized that the current situation in the market bears several analogies to the crisis of 1985/86 (Shojai & Katz, 1992, p. 56). Following a very rapid rise in oil prices in 1973, technological progress allowed to reduce the use of oil and tap a number of new sources, such as sea deposits in Alaska and the North Sea. Between January and July 1986, the price of oil dropped

by 61%, going down from 24.68 USD to just 9.62 USD per barrel. Surprisingly, despite slump in prices, Saudi Arabia continued to increase its production rather than to curb it. In retrospect, experts consider it to have been a conscious strategy designed to contradict its role as a “swing producer;” Saudi Arabia only wanted to preserve its status as the market leader and keep competition at bay (Global Economic Prospects, 2015, p. 13).

### CAUSES OF THE SLUMP IN OIL PRICES IN 2014 AND 2015

The above comparison between the oil market of 2014/2015 and that of 1986 has come under fire from experts who see its roots in a combination of various factors.

In terms of long-term and short-term drivers and their effect on oil prices in 2014/2015, supply and demand factors can be said to have played an important role in the situation. As early as 2013, supply forecasts were already significantly lower than actual production levels. The trend continued throughout 2014 and, as evidenced by macroeconomic data, throughout the following year as well.



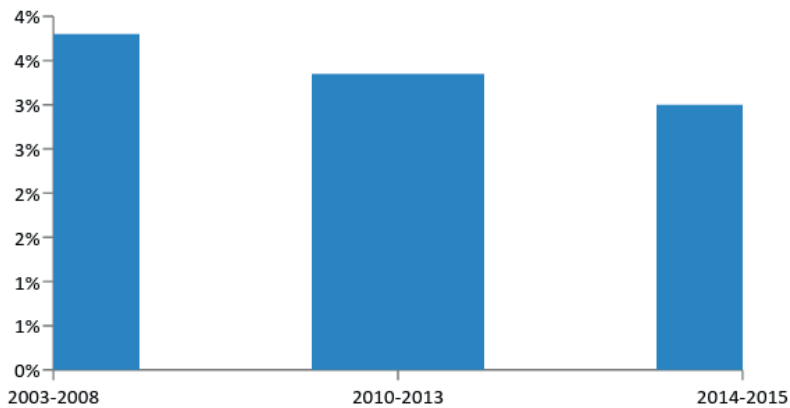
Graph 4. U.S. oil supply in 2013 and 2014 (in millions of barrels per day).  
Source: own work based on Global Economic Prospects, 2015, p. 12.

The growth of oil supply in the global market is partly a consequence of the increasing production of shale oil in the USA since 2011 (cf. Graph 4). In March 2015, it was announced that oil storage



space is running out in containers that form the Strategic Petroleum Reserves created in response to the fuel crisis of 1973-1974.

The OPEC was also to blame for the oversupply; the organization ignored the low prices (30 USD per barrel) and continued to increase its production all the way until 30 November 2016, even though the global market was unable to absorb such large quantities of oil. Until 2014, thanks to optimistic economic forecasts, no serious issues occurred as a consequence of the surplus. After 2014, however, the situation took a sudden turn for the worse. Inflated demand forecasts were repeatedly revised and decreased, but global demand still fell far short of predicted levels. Low demand was also linked to low economic growth throughout 2014 and 2015 (cf. graph 5).



Graph 5. Global economic growth in 2003-2008, 2010-2013, 2014-2015 (in %).  
Source: own work based on Global Economic Prospects, 2015, p. 12.

Analysts have also noted the considerable impact of short-term drivers on the current situation in the oil market, focusing in particular on factors related to:

- a) OPEC's decisions,
- b) geopolitical events,
- c) dollar appreciation,
- d) speculation.

### a. OPEC's decisions

The low prices of oil today can give the impression that the OPEC has redefined its objectives. Saudi Arabia, the traditional swing producer of the group, used to harness the free production capabilities of the organization to increase or decrease global oil supply and stabilize prices within a desired range. This strategy seems to have changed towards the end of 2014. In October, the group produced 30.974 millions of barrels per day, the greatest amount since August 2013, even though the official OPEC quota was 30 mln b/d. This led experts to believe that, at the Vienna summit in November 2014, the OPEC would decide to curb its oil production. Saudi Arabia and Kuwait, however, flatly rejected this as an option and instead decided to maintain their production levels despite the global slump in oil prices, which stood at 40 USD per barrel at the time. The decision seemed to signal a move away from the strategy of manipulating oil prices; instead, the OPEC chose to focus on maintaining a constant share in the global oil market. The strategy seems to have been confirmed by later actions; in December 2011, the organization decided to change the daily limit of oil supply, which until then restricted the production of oil by its member states to 30 mln barrels per day and set the new ceiling at 31.5 mln barrels (Torchała, 2015).

### b. Geopolitical events

Since oil is a strategic resource in almost every economy, its price is very strongly affected by armed conflicts, especially those occurring in oil-extracting countries. The Middle East is the most turbulent region. Whenever fears of an impending escalation grow, so does the price of oil, as there is always a possibility that its extraction in one of the parties involved in hostilities will be reduced or halted.

In 2014, the oil market held its breath as it watched the unfolding situation in Libya; there was a risk that the country might decrease its oil production. In the second half of that year, however, conflicts in the Middle East proved not to have a significant impact on the production of oil by OPEC member states. In the third quarter of 2014, despite the conflict, oil production in Libya went back to the

level of 0.5 million barrels per day (around half of the half percent of global output).

After ISIS took over the oil industry in Iraq in 2014, the oil market entered a period of uncertainty. Forecasts predicted a radical slump in oil production in the country. However, it turned out that the supply remained stable at previous levels.

In 2014, experts also feared that the economic sanctions that the EU imposed on Russia as a punishment for the Ukrainian conflict will bring down Russian oil production. However, despite the economic consequences of the sanctions, Russia continues to consider the production and export of oil as key to its state budget.

### c. Dollar appreciation

Fluctuations in the American dollar exchange rate have a direct impact on oil indices because the currency is the basic unit of account in global oil trade. This means that its appreciation should have a halting effect on the growth of prices and, conversely, its depreciation should be accompanied by an increase in the prices of “black gold.”

Analysts have emphasized that the phenomenon can be observed since the middle of July 2014, when the dollar grew in strength and the price per barrel began to go down.

### d. Speculation – the oil war between the US and the OPEC

Experts note that the price of oil could also have been influenced by the fact that Saudi Arabia, which extracts oil at a very low cost, has waged a price war on shale oil produced by the United States. Shale gas revolution and related hydraulic fracking drove American boom during last years. Thanks to development of this technology domestic production of crude oil in the USA increased by 66% since 2008. However, experts point out that the usage of this technology is profitable with prices at about 60 USD per barrel (Global Economic Prospects, 2015). It can be therefore concluded that Saudi Arabia hoped the Persian Gulf countries would be able to survive a period

of low revenues and also American investors would be discouraged by low prices.

## INTERNATIONAL OIL TRADE IN 2014-2015

OPEC member states account for c. 40% of the global oil output (OPEC, 2015). However, the recent increase in the production of shale oil in the United States began to eat away at the group's share in the market. The American strategy led to a surplus of oil and caused a sudden slump in prices; the thrust of the Saudi response was directed against US producers. The American oil boom was fueled by the shale revolution and the related development of fracking technology (Pach-Gurgul, 2013, p. 67). Thanks to these advancements, domestic oil production in the US grew by 66% after 2008. However, experts emphasize that the new technology is only profitable at prices of 60 USD per barrel (Global Economic Prospects, 2015, p. 10-12). It is well possible that Saudi Arabia hoped the Gulf countries would be able to wait out the period of decreased revenues. The price war could thus escalate even further, bringing the price of oil down to as little as 20 USD per barrel. This could happen, experts predicted, once the ban on oil exports from the US, introduced in response to the oil crisis of early 1970s, was lifted. The ban had helped to control the price of oil and fuel in the country, and had been introduced to prevent inflation and for fear that newly discovered Alaskan oil would be sold to Japan.

In addition, the global oil market has recently witnessed the comeback of one of the largest oil exporters, Iran, which has declared its readiness to release 30 mln of oil reserves into the market; it also intends to raise domestic oil production to 3.8 mln barrels per day, i.e. up to the level produced before sanctions were imposed on the country (because of its controversial nuclear program).

According to fuel industry experts, the global economy stands to gain more than lose as oil prices slump. Of course, the effects will not be uniform. Large oil producers, such as Saudi Arabia, Russia, the US, and Norway, are likely to sustain losses. Profits, in turn, can be made by countries which do not extract oil but use its large quantities, relying on industries largely based on old, energy-consuming technologies with no alternative raw materials.

## Oil Trade in the Context of Oil Price Fluctuations at the Turn

A comparison between oil trade in 2014 and 2015 allows to observe a growth from 1904.4 mln tons in 2014 to 1977.2 mln tons (cf. table 1) a year later. Even though exporters could not hope for profits quite as high as in previous years, they decided, as mentioned above, not to decrease their oil supply. Oil-importing countries, in turn, eagerly purchased low-priced oil.

Table 1  
*Oil trade in 2014 and 2015 (million tonnes)*

Million tonnes	2014		2015	
	Crude Imports	Crude Exports	Crude Imports	Crude Exports
US	365.67	17.79	366.02	24.46
Canada	28.97	148.55	32.72	159.36
Mexico	–	56.54	–	59.81
S. & Cent. America	23.39	162.52	20.13	172.42
Europe	449.72	10.14	488.06	10.16
Russia	1.48	241.17	2.86	254.68
Other CIS	23.16	80.66	23.17	80.97
Middle East	10.87	851.96	7.87	879.61
North Africa	9.65	61.81	8.07	61.52
West Africa	0.48	216.93	0.46	215.47
East & S. Africa	11.14	9.31	6.65	8.45
Australasia	26.77	11.43	24.45	9.17
China	309.18	0.60	335.77	2.83
India	188.37	–	195.13	0.15
Japan	168.51	–	167.82	0.32
Singapore	45.49	–	45.71	0.06
Other Asia Pacific	241.59	34.96	252.33	37.78
<b>Total World</b>	<b>1904.44</b>	<b>1904.44</b>	<b>1977.22</b>	<b>1977.22</b>

Source: own work based on BP, 2016, p. 19.

The analysis of the situation in the oil market in 2016 shows that the “price war” waged by Saudi Arabia on shale oil producers has not been effective. At the end of 2015, despite the continuing low prices per barrel, the United States had produced 567.2 million tons of oil, overtook Russia, and caught up with Saudi Arabia, which currently has a 13% share in the global oil output (IEA, 2016a, p. 41-42).

The trade situation, however, may change, since on 30 November 2016 in Vienna, OPEC member states agreed to reduce their oil extraction by 1.2 mln b/d, i.e. bring it down to a total of 32.5 mln b/d for all members. The agreement was also accepted by Russia, which decided to curb its extraction by 0.3 mln b/d, and by other oil producers (a promised reduction by a total of 0.3 mln b/d).

At the beginning of 2016, oil prices still stood at 30 USD per barrel. In March 2016, after the talks between the OPEC and Russia to reduce oil extraction began, they shot up to over 40 USD, only to spike at 54-55 USD at the beginning of December, when the agreement was concluded. Any further price increase is likely to decrease oil trade in 2017 (IEA, 2016b, p.9).

## CONCLUSIONS

The chief price-shaping factors active in the oil market include: the supply-demand mechanism, global economic growth, OPEC policy, dollar rate fluctuations, the geopolitical situation, and speculation. Some affect oil prices in the long term (oil supply and demand, as well as global economic growth), while others act in the short term.

This is an important limitation in drawing conclusions related to development of oil prices, their changes and their impact on crude oil trade volumes.

While it is not possible to determine the precise impact of each factor on the situation in oil markets in 2014/2015, it seems that the slump in prices was primarily brought about by the spike in shale oil production in the United States and the strategy adopted by the OPEC. In 2014, it seemed that the price war waged by the OPEC would not come to a quick end. The decisions of November 2014 and December 2015, i.e. the refusal to lower production limits in the face of low global oil prices were perceived as an element of an aggressive plan designed to increase oil sales and invest in future extraction. In the assessment of the International Energy Agency, OPEC member states decided to "tighten their belt and flood the market with oil" in order to crush the competition, especially the United States (IEA, 2015).

The Saudi strategy has not done any significant damage to American producers thus far; companies that exploit American shale

deposits have learned to drastically cut down on production costs and remained the market despite all expectations to the contrary. At the end of 2015, in spite of low prices, the United States raised its share in the market to 13% and caught up with Saudi Arabia. Together with Russia, the two countries continue to rank as the largest oil exporters.

Oil trade may be significantly influenced by the decision taken at the OPEC summit of 30 November 2016 in Vienna, where member states agreed to reduce their oil extraction by 1.2 b/d, i.e. bring it down to a total of 32.5 mln b/d for all members. The move is expected to cause an increase in oil prices and suggests that the OPEC has now returned to its old strategy of price regulation.

### BIBLIOGRAPHY

- BP. (2016). *Statistical Review of World Energy*.
- BP. (2015). *Statistical Review of World Energy*.
- Cordesman, A.H. & Al-Rodhan, K.R. (2006). *The Global Oil Market: Risks and Uncertainties*. THE CSIS PRESS.
- Global Economic Prospects. (2015). *Understanding the Plunge in Oil Prices: Sources and Implications. Having Fiscal Space and Using It*. International Bank for Reconstruction and Development / The World Bank, January, Washington.
- IEA. (2015). *Medium Term Oil Market Report*.
- IEA. (2016a). *Medium-Term Oil Market Report. Market Analysis and Forecasts to 2021*.
- IEA. (2016b). Excerpt from: *Oil Information. Statistics*.
- Kosowski, P., Rychlicki, S., & Stopa, J. (2008). Transakcje na rynku „spot” i „futures” na rynku ropy naftowej. *Wiertnictwo, Nafta, Gaz*, 25/2.
- Kowalski, W. (2009). *Wszystko o rynku ropy naftowej*. Poznań: EFIX Dom Maklerski.
- Maugeri, L. (2006). *The Age of Oil: The Mythology, History, and Future of the World's Most Controversial Resource*. Westport, Connecticut. London: Praeger.
- Noreng, O. (2006). *Crude Power: Politics and the Oil Market*. London – New York: I.B Tauris.
- OPEC. (2015). *World Oil Outlook*. Vienna, Austria.
- Pach-Gurgul, A. (2013). Perspektywy wykorzystania gazu łupkowego w energetyce Unii Europejskiej. *Prace Komisji Geografii Przemysłu Polskiego Towarzystwa Geograficznego*, 21/2013.

- Parra, F. (2004). *Oil Politics: A Modern History of Petroleum*. London – New York: I.B Tauris.
- Shojai, S. & Katz, B. (1992). *The Oil Market in the 1980's: A Decade of Decline*. New York – London: Praeger.
- Socha, R. (2013). Analiza relacji wybranych cen gatunków ropy naftowej. *Polityka Energetyczna*, 16/2.
- Torchała, A. (2015). *Ropa naftowa najtańsza od sześciu lat*. Retrieved from: <http://www.bankier.pl/wiadomosc/Ropa-naftowa-najtansza-od-szesciu-lat-7289519.html>.

### Copyright and License



This article is published under the terms of the Creative Commons Attribution – NoDerivs (CC BY- ND 4.0) License <http://creativecommons.org/licenses/by-nd/4.0/>