

Dmitry Pakhomov, MSc in Global Management

graduate of ZPSB, Steelconst LLC

SARS Cov-2 and Oil Price: Poland in light of Geopolitical Consequences

Summary

This study developed a research problem, which centered on analyzing, assessing and forecasting oil prices in Poland regarding its current geopolitical status and the impact of the ongoing COVID-19 pandemic. The subject of the paper was to discuss any changes in the country's oil regime, oil prices, causes and how they relate to the country's geopolitical relations. The study made use of a research method in the form of a literature review on changes in the country's oil regime and oil prices. Line charts, grouping, and bar charts were applied. Lower prices per barrel of oil were observed since early March 2020, i.e., at the start of the pandemic. 21st April 2020 recorded the lowest price per barrel, i.e., USD 9.12. The average price per barrel between March and June 2020 as USD 40. While Poland's relations with Russia appear to be declining, Poland is a member of the European Union (EU); North Atlantic Treaty Organization (NATO); Organization for Economic Co-operation and Development (OECD); International Monetary Fund (IMF); World Trade Organization (WTO); World Bank; and European Bank for Reconstruction and Development. The implication of these memberships is that Poland is still in a position to forge other lasting relations with other oil suppliers at cost effective prices rather than sticking with Russia, which insist on maintaining a higher price.

Keywords

SARS Cov-2, COVID-19, Poland, Oil Prices, Impact

Introduction

A seminar paper published in 2012 by James A. Robinson and Daren Acemoglu titled Why Nations Fail recognized the Black Death of 1346-53, also known as the Great Mortality or the Pestilence, not just as one of the most devastating calamities in human history, but also one of the most crucial junctures in Europe's political history. Whereas the 14th -century Black Death led to the eventual abolition of feudalism in most parts of Europe, it caused the encouraged the apparent Second Serfdom in Central and Eastern Europe—effects of which can be seen in parts of today's Poland. The Pestilence thus essentially changed Europe's political and social affairs during the Middle Ages, causing implications that reach as far as the 21st century¹. The SARS Cov-2 pandemic also dubbed the COVID-19 pandemic has presumably caused fewer deaths compared to the Black Death, which claimed around 200 million lives², but the ongoing pandemic can also become a crucial stage in human history, with wideranging implications for both states' domestic affairs as well as their international relations.

The COVID-19 pandemic's innumerable implications on the current world system will be particularly wide-ranging for not only for weak states situated in geopolitical gray regions between adversarial defense coalitions, but also in states considered as 'strong' in terms of their military or economic powers because each and every trading block around the globe is at risk of being disrupted by the ongoing pandemic. Poland is considered as great military and economic power globally and it is embedded in relevant security alliances and trading blocs, of which are also at risk of disruption that can be caused by the ongoing pandemic. For Warsaw, the evolving global crisis has the potential of causing more, among others, the unpleasant implications that its country's already stalling integration with other trading blocs is facing³.

¹ J. A. Robinson and D. Acemoglu, *Why nations fail: The origins of power, prosperity and poverty*. London: Profile 2012, p. 16

² P. Klimkin and A. Umland, „Geopolitical Implications and Challenges of the Coronavirus Crisis for Ukraine”, *World Affairs* 183.3 2020, p. 258

³ A. L. Dumitrescu and I. M. Oehler-Şincai, „Poland Facing The Challenges Of The Covid-19 Pandemic. Lessons For Romania”, *Revista de Economie Mondiala/The Journal of Global Economics* 12.1 2020, p. 26

Some preexisting programs in which Poland is one of the members, e.g., EU's Eastern Partnership (EaP) initiative, which was initiated by Poland⁴, and NATO's Individual Partnership Action Plan scheme, of which Poland is considered as the most significant member in Central Europe, will most likely stay in place and might even be strengthened, but with the current state of affairs, experts⁵ believe that most countries will be forced to look inward as national and international instability has the potential of going beyond 2020 and 2021, increasing skepticism that nationals might stop looking towards such agreement as EU and NATO.

This study develops a research problem, which centers on analyzing, assessing and forecasting oil prices in Poland regarding its current geopolitical status and the impact of the ongoing COVID-19 pandemic. The subject of the paper will be a discussion of any changes in the country's oil regime, oil prices, causes and how they relate to the country's geopolitical relations. The study will make use of a research method in the form of a literature review on changes in the country's oil regime and oil prices. Line charts, grouping, and bar charts will be applied.

Overview of Impacts of SARS-Cov-2 on Global Oil Prices

The main problem facing the global economy since March 2020 has been the COVID-19 pandemic. Recent studies show that the pandemic has to a great extent affected advanced economies such as EU Member States⁶. Just before the World Health Organization (WHO) released the first COVID-19 monitoring report, the reaction of oil prices to the pandemic had gradually been accommodated until March 9 2020. However, after Russia and OPEC failed to agree in oil production cuts, Saudi Arabia (the de facto leader of OPEC) flooded the market with oil, the consequence of which was a drop of more than 20% of international oil prices in a single day. As the pandemic continued throughout 2020, oil prices dropped not only because of the failed agreements on production cuts but also travel restrictions, industrial slow-downs, and the reduced demand for chemicals and refined oil products. On one hand, studies have used the Autoregressive Distributed Lag (ARDL) estimation and found that the daily reported new cases of COVID-19 have marginal negative impacts on the prices of crude oil in the long run⁷. However, it has also been demonstrated that, by amplifying the volatility of financial markets, the pandemic also has an indirect impact on the dynamics of crude oil prices across the world. As a consequence, the short-term to medium-term outlook for companies with high levels of debt, high-cost producers, and smaller operators appears more challenging than during the 2007-08 economic crisis.

Economy scholars have pointed out that large companies responded by significantly cutting down on capital and operational expenditures which, ultimately, filtered down to oilfield services companies and suppliers⁸. Potential outcomes of such measures in the long run could imply that highly leveraged and inefficient companies could face liquidity crises and be driven out of business. Further, the larger and financially healthy companies may re-strategize by diversifying into other energy segments, initiating changes in business models⁹.

However, studies also reveal that Poland's economy remained relatively resilient in the first quarter of 2020 and this was mainly attributed to the country's diversified economic structure and low expo-

⁴ European Union (EU). *Eastern Partnership*. N.p., 2016. Web. <https://eeas.europa.eu/diplomatic-network/easternpartnership/419/eastern-partnership_en> [date of access 08/02/2021]

⁵ N. K. Gvosdev, *The Effect of COVID-19 on the NATO Alliance*. Foreign Policy Research Institute, 2020. Web. <<https://www.fpri.org/article/2020/03/the-effect-of-covid-19-on-the-nato-alliance/>> 6 R. Roloff, "COVID-19 and No One's World", *Connections* 19.2 2020, p. 25

⁶ H. Mzoughi, et al. „The effects of COVID-19 pandemic on oil prices, CO2 emissions and the stock market: Evidence from a VAR model”, *CO2 Emissions and the Stock Market: Evidence from a VAR Model (April 28, 2020)* (2020), p. 5. 8 p. 6.

⁷ I. Mubarak, et al. „Impact of SARS-CoV-2 in the World: Recent Advances and Future Prospective”, N.p., 2020. Web. <https://www.researchgate.net/profile/Mayadhar_Barik2/publication/343577554_A_TEXT_BOOK_OF_THE_SARS-CoV2_426/links/5f327d54a6fdcccc43bf48e0/A-TEXT-BOOK-OF-THE-SARS-CoV-2-426.pdf> 11 [date of access: 08/02/2021]

⁸ P. K. Ozili and T. Arun, „Spillover of COVID-19: impact on the Global Economy”, *Available at SSRN 3562570* (2020), p. 7

⁹ M. Bildirici, N. G. Bayazit, and Y. Ucan, „Analyzing crude oil prices under the impact of covid-19 by using IstargarchIstm.” *Energies* 13.11 2020, p. 2980 Access: 08/02/2021

sure to hard-hit sectors¹⁰. Moving forward, the oil sector in Poland is expected to face a two-pronged problem: addressing the health emergency issues that all other sectors are facing and, simultaneously, managing the low oil price scenario, diminished demand, and the need to shore up revenue and meet debt obligations.

Table 1 below shows the V-shaped movement in the prices between January 2020 and August 2020 of crude petroleum for both domestic producers and importers in the U.S. only. For both groups, the data provided by the U.S. Bureau of Labor Statistics show that prices fell sharply between February and April 2020, but experienced an increase in May and June. Nonetheless, the movement in the price index for both groups diverged later in July¹¹. Having experienced greater increases in percentage in May, the domestic producer prices for crude petroleum dropped 13.7% in July compared to import prices. Importation price index increased to 21.2% in August. During the month of August, domestic producer petroleum prices increased by 11.4% whereas the import crude petroleum price increased by 3.1%. Domestic producer prices decreased a whole 71% between January and April and increased by 104.2\$ between April and July. Import prices, on the other hand, dropped by 62.8% between January and April, and increased by 92% between April and July.

Table 1. Changes in Domestic and Import Price Index of Oil Prices Between January and August 2020

Category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	3- Month Change (Jan – Apr)	3- Month Change (Apr – Jul)
PPI for Crude petroleum	-2.5	-14.3	-30	-48.8	35.9	74.0	-17.7	11.4	-71	104.2
IPI for Crude Petroleum	-0.3	-10.9	-34.1	36.6	18.9	33.3	21.2	3.1	-62.8	92

NB: PPI – Producer Price Index; IPI – Import Price Index

Source: <https://www.bls.gov/opub/mlr/2020/article/from-the-barrel-to-the-pump.htm> [date of access: 08/02/2021]

Fig. 1, on the other hand, shows the domestic producer and import price indexes for oil between December 2019 and August 2020. Regardless of the short recovery, the prices remained low.

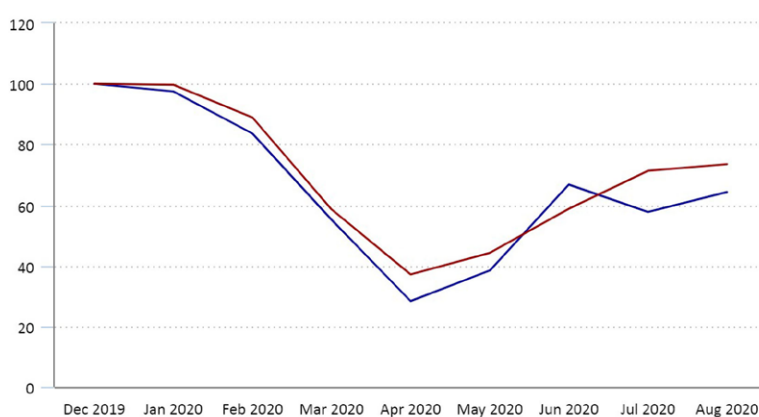


Figure 1. Domestic Producer and Import Price Indexes

Source: <https://www.bls.gov/opub/mlr/2020/article/from-the-barrel-to-the-pump.htm> [date of access: 08/02/2021]

¹⁰ A. Sharif, Ch. Aloui, and L. Yarovaya, „COVID-19 pandemic, oil prices, stock market, geopolitical risk and policy uncertainty nexus in the US economy: Fresh evidence from the wavelet-based approach”, *International Review of Financial Analysis* 70 2020, p. 101496

¹¹ U.S. Bureau of Labor Statistics. From the barrel to the pump: the impact of the COVID-19 pandemic on prices for petroleum products. N. p., 2020. Web. <<https://www.bls.gov/opub/mlr/2020/article/from-the-barrel-to-the-pump.htm>> [date of access: 08/02/2021]

Impacts of SARS-Cov-2 on Oil Prices in Poland

The assessment began with a multidimensional comparative analysis of five currency exchange rates (the U.S. dollar, the euro, yuan, Russian ruble, and the Polish zloty) and the crude oil prices in U.S. dollars per barrel from August 2019 to August 2020. This move was aimed at observing the trends as the world moved from a state of no Corona Virus into a pandemic. The information presented in Fig. 2 below allows the reader to notice considerable changes in the exchange rate quotations from March 2020, and it is important to take note of the fact that SARS Cov-2 was declared as a global pandemic by the World Health Organization on 11th March, 2020. As from 11th March, 2020, there was a rise in the exchange rates of the dollar, euro, and the yuan, and a notable drop in the ruble, which was due to a fall in oil prices. When COVID-19 was being proclaimed as a global pandemic, the price of the U.S. dollar was zloty 3.82, whereas the price of the euro was zloty 4.18. The price of the yuan was zloty 0.55. Also, the price of the ruble was zloty reported the largest drop against the zloty after the world went into a pandemic (from 4.44 to 0.0558)¹².

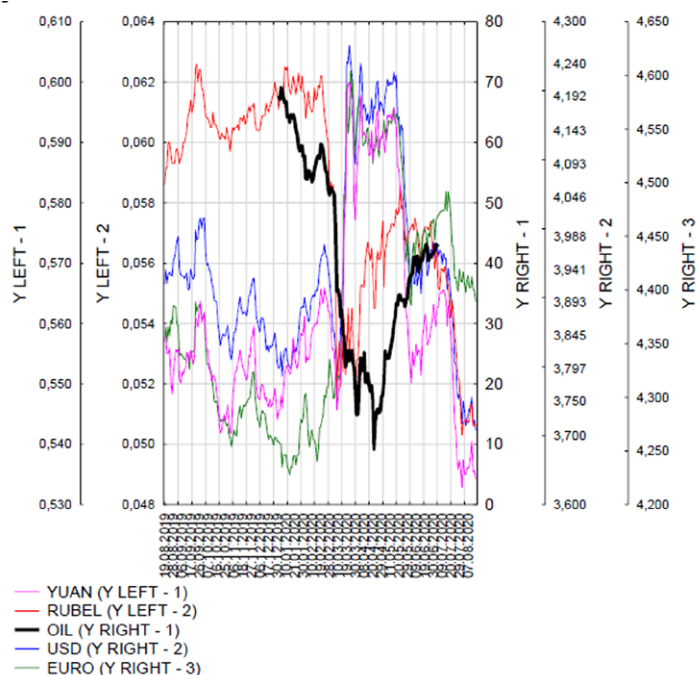


Figure 2. Exchanges Rates of USD, Euro, Ruble, Yuan Against the Zloty and Oil Prices in USD per Barrel

Source: <https://www.ersj.eu/journal/1861/download> [date of access as 08/02/2021]

Also, the price of the ruble was zloty reported the largest drop against the zloty after the world went into a pandemic (from 4.44 to 0.0558). It should be noted that before the pandemic, Russia was Poland's leading importer of crude oil using the Yamal-Europe pipeline that crosses from Russia to Poland, but it stopped on 26th March, 2020, after a 2.5-decade-old deal between the two countries expired that the two countries failed to renew the deal because of the reduced gas demand in Europe¹³. The ruble exchange rate decreased due to the fall in oil prices. Lower prices per barrel of oil were observed since early March 2020, i.e., at the start of the pandemic. 21st April 2020 recorded the lowest price per barrel, i.e., USD 9.12. The average price per barrel between March and June 2020 as USD 40.20.

¹² B. Kozicki and M. Gornikiewicz, „Unemployment Rate in Poland and USA during COVID-19 Pandemic: A Case Study.” *European Research Studies Journal* 23. Special 3 (2020): 191

¹³ T. Paraskova, *Russian Gas Flow To Europe Drops As Poland Transit Deal Expires*. N. p., 2020. Web. <<https://oilprice.com/Latest-Energy-News/World-News/Russian-Gas-Flow-To-Europe-Drops-As-Poland-Transit-Deal-Expires.html>> [date of access: 08/02/2021]

Another figure was presented by Kozicki and Gornikiewicz¹⁴ compared how the SARS outbreak in the early 2000s affected arithmetical average prices per barrel of oil to the ongoing COVID-19 pandemic. Their findings are presented in Fig. 3 below. In essence, according to the researchers, the arithmetical averages are way lower for the current pandemic compared to the previous SARS outbreak in the early 2000s, especially for the months when the pandemic was proclaimed. These low oil prices in Poland were as a result of Poland closing its borders and stopping foreign transport.

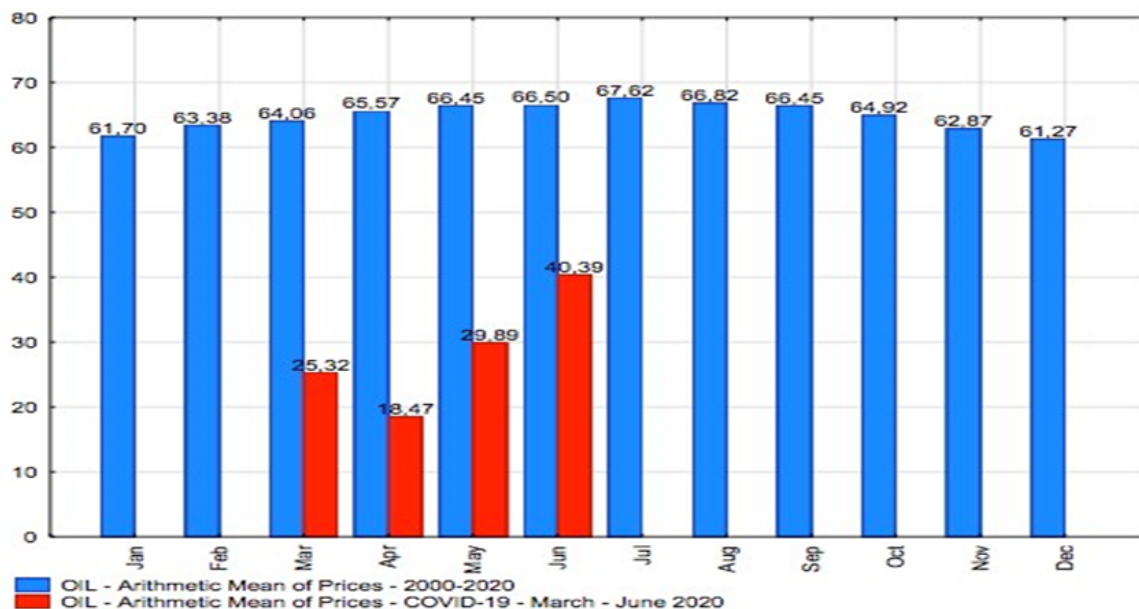


Figure 3. Comparison of Arithmetical Averages in 2000 and 2020

Source: <https://www.ersj.eu/journal/1861/download> [date of access: 08/02/2021]

Geopolitical Issues and Oil Prices in Poland

Not all commentators believe that Poland is doomed because of the ongoing COVID-19 pandemic. First and foremost, as earlier report, Russia is Poland's biggest supplier of gas and crude oil¹⁵. Klimkin and Umland¹⁶ suppose that the ongoing economic and social repercussions of the COVID-19 pandemic for Russia can dampen the Kremlin's traditional foreign adventurism. Russia made an ill-judged try to push back against producers or shale oil, especially American ones. Also, Russia's non-agreement to OPEC's proposal to reduce the extraction of oil in order to hold up prices might have also been a sign of Moscow's rebuttal to U.S.'s sanctioning of Gazprom's highly-debated Nord Stream 2 gas pipeline project that passes through the Baltic Sea.

Nonetheless, the declining of world market prices for crude oil as from late April 2020 makes it look like the attempted Russian manipulation is failing. Going by the recent research on the casual link between economic well-being in Russian determined largely by world energy prices and the country's inclination towards foreign adventurism¹⁷, this ought to be positive news for nations such as Poland. Furthermore, due to the deep impact of the decrease in oil prices and the ongoing pandemic on Russia's economic and social life, there is now a growing probability that a disruption of Putin's government might happen at some point¹⁸. De-

¹⁴ B. Kozicki and M. Gornikiewicz, „Unemployment... op. cit., p. 193

¹⁵ T. Paraskova, Russian Gas Flow To Europe Drops As Poland Transit Deal Expires. N.p., 2020. Web <<https://oilprice.com/Latest-Energy-News/World-News/Russian-Gas-Flow-To-Europe-Drops-As-Poland-Transit-Deal-Expires.html>> [date of access as 08/02/2021]

¹⁶ P. Klimkin and A. Umland, „Geopolitical Implications and Challenges of the Coronavirus Crisis for Ukraine”, *World Affairs* 183.3 2020, p. 259

¹⁷ M. Snegovaya, „What factors contribute to the aggressive foreign policy of Russian leaders?.” *Problems of Post-Communism* 67.1 2020, p. 93

¹⁸ H. Mzoughi et al., „The effects of COVID-19 pandemic on oil prices, CO2 emissions and the stock market: Evidence from a VAR model.” *CO2 Emissions and the Stock Market: Evidence from a VAR Model (April 28, 2020)* 2020, p. 5–6

batably, such a scenario might have more positive than negative implications for nations like Poland. It gives them to opportunity to reboot important relationships with such countries as the U.S. or Saudi Arabia which are also major suppliers of energy globally.

Although Poland is not a member of Organization of the Petroleum Exporting Countries (OPEC), it has 137,752,000 barrels of oil reserves (see Fig. 4), ranking 65th among oil producing countries in the world¹⁹.

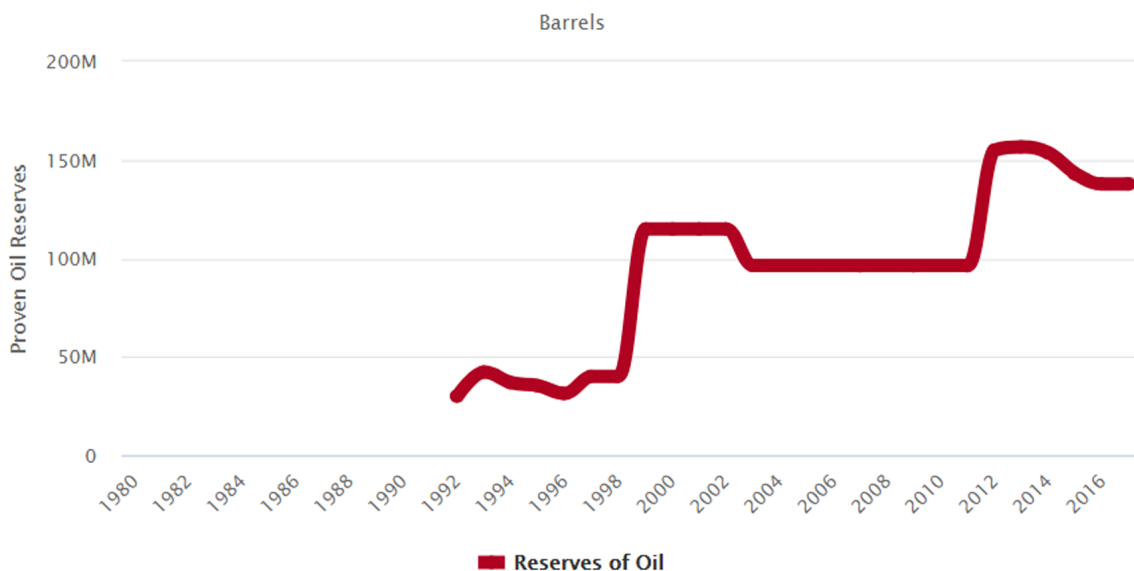


Figure 4. Poland's Proven Oil Reserves

Source: <https://www.worldometers.info/oil/poland-oil/> [date of access: 08/02/2021]

Nonetheless, Poland is a member of the European Union (EU); North Atlantic Treaty Organization (NATO); Organization for Economic Co-operation and Development (OECD);

International Monetary Fund (IMF); World Trade Organization (WTO); World Bank; and European Bank for Reconstruction and Development²⁰. The implication of these memberships is that Poland is still in a position to forge other lasting relations with other oil suppliers at cost effective prices rather than sticking with Russia, which insist on maintaining a higher price.

Conclusion

The Covid-19 pandemic has definitely slowed down the economies of most countries. The impact of the pandemic has been manifested by the instability of exchange rate quotations and the decrease in oil prices. An increase in the exchange rates of the euro, dollar, and yuan and a sharp decrease in the Russian ruble price led to the fall in oil prices. Lower prices per barrel of oil started to be observed in early March 2020 after Covid-19 was declared a global pandemic. These prices have been a serious threat to Russia's economy, of which more than 50% is derived from oil sales. At the same time, Poland also reported an increase in their interest rates to 6.1%. The increase in interest rates essentially means that Poland will potentially cut back on spending (and that includes spending on oil products) because the cost of borrowing will become more expensive. Stabilizing world economies following the changes brought about by this pandemic is not going

¹⁹ D. A. Ligia and I. M. Oehler-Şincai, „Poland Facing The Challenges Of The Covid-19 Pandemic. Lessons For Romania”, *Revista de Economie Mondiala/The Journal of Global Economics* 12.1 2020, p. 29

²⁰ M. Bildirici, N. G. Bayazit and Y. Ucan, „Analyzing crude oil prices under the impact of covid-19 by using IstargarchIstm”, *Energies* 13.11 2020, p. 2980

to be a short-term process. The effects of the pandemic have been demonstrated by the long-term fall in oil prices and constant fluctuations in exchange rates globally.

One can assume that decisions made by the U.S. will mainly focus returning to the top of the world economy ranking before the pandemic outbreak. This, on the other hand, might force Russia to escalate its military tensions in order for the U.S. to negotiate and make concerted efforts to increase oil prices. Concurrently, the parallel activities conducted by China (to grow above the U.S. economically) might cause an outbreak of real conflict that might cause the crystallization of divisions among different societies into one of the abovementioned spheres of influence controlled by China, Russia, and the U.S. Such countries as Poland should not be forgotten in this context either, because, depending on their potential, they might seek to ensure their own strategic interests are considered by passing totally different policies or in line with either of the abovementioned superpowers.

References

- Bildirici, Melike, Nilgun Guler Bayazit, and Yasemen Ucan. "Analyzing crude oil prices under the impact of covid-19 by using IstargarchIstm." *Energies* 13.11 (2020): 2980. <https://www.mdpi.com/1996-1073/13/11/2980/htm>
- Dumitrescu, Alina Ligia, and Iulia Monica Oehler-Şincai. "Poland Facing The Challenges Of The Covid-19 Pandemic. Lessons For Romania." *Revista de Economie Mondiala/The Journal of Global Economics* 12.1 (2020): 26-39. <https://ideas.repec.org/a/iem/journal/v12y2020i1p26-39.html>
- European Union (EU). Eastern Partnership. N.p., 2016. https://eeas.europa.eu/diplomatic-network/eastern-partnership/419/easternpartnership_en
- Gvosdev, Nikolas K. The Effect of COVID-19 on the NATO Alliance. Foreign Policy Research Institute, 2020. <https://www.fpri.org/article/2020/03/the-effect-ofcovid-19-on-the-nato-alliance/>
- Ismail, Mubarak, et al. "Impact of SARS-CoV-2 in the World: Recent Advances and Future Prospective." N.p., 2020. https://www.researchgate.net/profile/Mayadhar_Barik2/publication/343577554_A_TEXT_BOOK_OF_THE_SARS-CoV-2_426/links/5f327d54a6fdccccc43bf48e0/ATEXT-BOOK-OF-THE-SARS-CoV-2-426.pdf
- Klimkin, Pavlo, and Andreas Umland. "Geopolitical Implications and Challenges of the Coronavirus Crisis for Ukraine." *World Affairs* 183.3 (2020): 256-269. <https://journals.sagepub.com/doi/pdf/10.1177/0043820020942493>
- Kozicki, Bartosz, and Marcin Gornikiewicz. "Unemployment Rate in Poland and USA during COVID-19 Pandemic: A Case Study." *European Research Studies Journal* 23.Special 3 (2020): 187-200. <https://www.ersj.eu/journal/1861/download>
- Mensi, Walid, et al. "Impact of COVID-19 outbreak on asymmetric multifractality of gold and oil prices." *Resources Policy* 69 (2020): 101829. https://www.researchgate.net/publication/343606752_Impact_of_COVID-19_outbreak_on_asymmetric_multifractality_of_gold_and_oil_prices
- Mzoughi, Hela, et al. "The effects of COVID-19 pandemic on oil prices, CO2 emissions and the stock market: Evidence from a VAR model." *CO2 Emissions and the Stock Market: Evidence from a VAR Model (April 28, 2020)* (2020). <https://www.sciencedirect.com/science/article/abs/pii/S0301420720308618#abs0015>, last access 28/01/2021
- Ozili, Peterson K., and Thankom Arun. "Spillover of COVID-19: impact on the Global Economy." Available at SSRN 3562570 (2020). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3562570&download=yes
- Paraskova, Tsvetana. Russian Gas Flow To Europe Drops As Poland Transit Deal Expires. <https://oilprice.com/Latest-Energy-News/World-News/Russian-Gas-Flow-To-Europe-Drops-As-Poland-Transit-Deal-Expires.html>
- Robinson, James A., and Daron Acemoglu. *Why nations fail: The origins of power, prosperity and poverty*. London: Profile, 2012. https://www.researchgate.net/publication/270185486_Book_review_Why_Nations_Fail_The_Origins_of_Power_Prosperty_and_Poverty_Daron_Acemoglu_and_James_A_Robinson_London_Profile_Books_2012/link/568b94f508ae1975839f5d7e/download
- Roloff, Ralf. "COVID-19 and No One's World." *Connections* 19.2 (2020): 25-37. <https://connections-qj.org/article/covid-19-and-no-ones-world-what-impact-european-union>

- U.S. Bureau of Labor Statistics. From the barrel to the pump: the impact of the COVID-19 pandemic on prices for petroleum products. N.p., 2020. <https://www.bls.gov/opub/mlr/2020/article/from-the-barrel-to-the-pump.htm>

SARS Cov-2 i cena ropy: Polska w świetle konsekwencji geopolitycznych

Streszczenie

W badaniu tym opracowano problem badawczy, który koncentrował się na analizie, ocenie i prognozowaniu cen ropy naftowej w Polsce pod kątem jej aktualnego stanu geopolitycznego oraz wpływu trwającej pandemii COVID-19. Tematem artykułu było omówienie wszelkich zmian w reżimie naftowym kraju, cen ropy naftowej, przyczyn i jak odnoszą się one do stosunków geopolitycznych kraju. W badaniu wykorzystano metodę badawczą w postaci przeglądu literatury na temat zmian w reżimie naftowym kraju i cen ropy naftowej.

Słowa kluczowe

SARS Cov - 2, COVID-19, Polska, Ceny ropy, wpływ