Analysis and identification of destabilizing factors in the oil and gas industry

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Abstract. This paper analyzes the destabilizing factors identified based on global trends. *Keywords: oil, gas, world market, energy, transformation, trends.*

Introduction

Energy is fundamental to our civilization and its prosperity. This production, distribution and use are deeply rooted in the fabric of our economy and have become central to relations between states.

At this point, the situation on the energy market continues to aggravate, so there is a need to analyze both the geopolitical consequences of world energy and environmental factors.

The oil and gas industry plays one of the key roles in the global energy market, so the question arises about situations that could destabilize the position of the industry in the world.

Purpose of the study – identification of destabilizing factors in the oil and gas industry.

Materials and methods

The work used the horizontal method of analysis and the method of graphical and tabular display of data, the method of comparing the data of various market participants. Scientific articles on this or related topics, information from open resources were used as material.

Results and discussion

Nowadays, some of the factors affecting the oil and gas industry are very obvious and studied. The analytical centre under the government of the Russian Federation identifies two main factors, political and economic. Political risks such as sending gas through Afghanistan and imposing sanctions can be considered as an example [11].

The ability to transport oil or gas can also be considered as a separate factor. The emergence of new branches, spreading or abandoning them, can greatly shake the position of some companies, which will lead to re-forming and changing strategies, the results of which are unpredictable. An interesting example is the former union republic of the USSR. Azerbaijan has started commercial gas supplies to Europe via the Trans Adriatic Pipeline (TAP). This was confirmed on Thursday, December 31, 2020, in the country's Ministry of Energy [12]. This is one reason why Russian gas weakened its position in the market, which affected the oil and gas sector of the country since the EU and Turkey are one of the main consumers. We know at what speed scientific trends are changing now, which are being introduced into our everyday life faster and faster, so we can confidently say that the technological factor has a significant impact. New technologies require new energy resources - environmentally friendly, energy-intensive, easy to extract. Many leading countries are developing strategies for the next 10 years to transition to renewable energy sources.

Based on Hubert's law, one can single out the so-called resource factor. This factor can determine the end of a whole era of industrial raw materials direction.

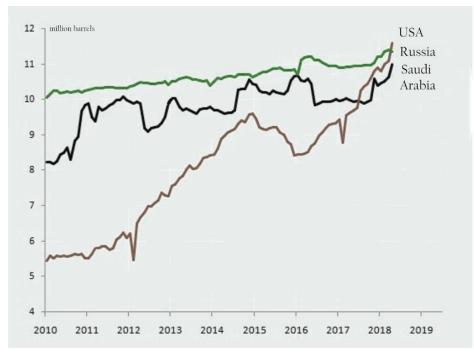


Figure 1. Schedule of oil production from 2010-2019.

Having studied the data on the oil produced and its reserves in Russia and the leading countries, one can notice a tendency to an increase in producing oil and the static data on reserves in these countries, which may indicate a possible, quick, by historical standards, reaching the maximum oil production.

During the period of acute coronavirus infection, there was a sharp drop in oil prices due to a decrease in demand, as well as as a result of geopolitical restrictions imposed during this period.

In general, the following trends in the decisions made were observed in the companies:

- attempts to maintain production capacity and labour opportunities for their employees, despite breaking contracts with contractors;

- making decisions, avoiding consultation of trade unions;

A good example is the Russian companies Lukoil and Rosneft, where possible, work in them was transferred to remote work to the maximum, employees are provided with additional personal protective equipment. Back in March, they officially announced that the filling stations would continue as usual. Taking into account the fact that now the companies are actively returning to their previous level, we can assume that the chosen strategies were successful.

With this information, we can identify one more factor that has not previously had such a strong impact on the energy component in the world - this is a situational factor. This factor can, either include segments of other situations or be something completely new and unpredictable.

Conclusion

The main factors identified in the work are political, economic, transport, technological, resource and situational factors. Knowing this, it is possible to determine the direction of development of the oil and gas sector of the energy industry, as well as to avoid possible shocks associated with them.

References

1. Bodrova E.V. State policy in the oil and gas sector in the context of Russian modernization. Moscow, MAORI, 2014. 813 p.

2. Chernyaev M.V. Fundamentals of the economy of the fuel and energy complex. Moscow. Dashkov and K, 2017. 80 p.

3. Hannanova A.I., Nizamova G.Z., Kantor O.G. OPEC in the face of declining oil prices. *FGBOU VPO "Ufa State Petroleum Technical University"*, 2015. no. 3, pp.590-611. (in Russian)

4. Khlopov O.A. Features of OPEC's influence on international energy security/ CYBERLENINKA, 2014. no 10, pp.79-83. (in Russian)

5. Giordio Biscardi, Reed Morrison Trends in the development of the oil and gas industry in 2018-2019 [strategy &], 2018, no. 10, pp 15-16.

6. OPEC launches 2020 edition of the World Oil Outlook. Available at: https://www.opec.org/opec_web/en/press_room/6147.htm (accessed 7 April 2021).

7. A New World "The Geopolitics of the Energy Transformation". Available at: https://www.irena.org/media/Files/IRENA/Agency/Publication/2019/Jan/Global_commissio n_geopolitics_new_world_2019.pdf (accessed 26 March 2021).

8. Energy in the modern world and international energy policy. Available at: https://journals.kantiana.ru/upload/iblock/085/ufbcrsglbyef.pdf (accessed 23 March 2021).

9. Energy of China: results of 2019. Available at: https://renen.ru/china-s-power-industry-2019-results/ (accessed 16 March 2021).

10. Modernization of plants in India. Available at: https://cea.nic.in/wp-content/uploads/notification/2020/12/R_AmpGuideline.pdf (accessed 11 March 2021).

11. Energy, Electricity and Nuclear Power Estimates for the Period up to 2050. Available at: https://www.iaea.org/publications/13591/energy-electricity-and-nuclear-power-estimates-for-the-period-up-to-2050 (accessed 17 March 2021).

12. Factors constraining the development of the oil and gas industry in countries. Available at: https://ac.gov.ru/news/page/susestvuut-faktory-sderzivausie-razvitie-neftegazovojotrasli-v-stranah-sng-8968 (accessed 23 March 2021).

 Azerbaijan starts gas supplies to Europe. Available at: https://www.dw.com/ru/azerbajdzhan-nachal-kommercheskie-postavki-gaza-v-evropu/a-56104445 (accessed 19 March 2021).

14. 4 new oil and gas fields discovered in Saudi Arabia. Available at: https://neftegaz.ru/news/Geological-exploration/657321-v-saudovskoy-aravii-otkryty-4-novykh-mestorozhdeniya-nefti-i-gaza-v-osnovnom-s-netraditsionnymi-zapa/ (accessed 23 March 2021).