Research On the Impact of The Russia-Ukraine Conflict on The Energy Market and The Future Oil Trend

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Abstract. The Russia-Ukraine conflict is a topical political issue in 2022. This study belongs to the analysis and outlook of the unexpected event. After the event, relevant news reports and scholars' analysis mainly focus on the following aspects: 1. The description and analysis of the process of the Russia-Ukraine conflict. 2.The study of analysis on sanctions and counter-sanctions in the Russia-Ukraine conflict. 3. The analysis related to the energy transition in Europe. This study corroborates the law of influence of similar geopolitical events (such as the Gulf War and the Iraq War, etc.) on oil prices proposed by scholars before, and on this basis, the degree and direction of the role of sudden geopolitical events affecting the change of international oil prices is somewhat revised in the light of the actual Russian-Ukrainian conflict. This study aims to analyzes two aspects: first, how the Russian-Ukrainian conflict affects the international energy market, such as the extent of the impact, the continuity of the impact, etc. Second, how the future trend of international oil prices will be affected by the Russia-Ukraine conflict in order to make a reasonable forecast of the trend of international oil price changes in the next 3-5 years. The study found that at present, the strength of the impact of the Russia-Ukraine conflict on the international crude oil market is gradually digested and fully released, and the international energy market reverts to a short-term equilibrium. Looking ahead, with the general recovery of the global economy after the COVID-19 pandemic, the accelerated pace of energy transition in Europe, and the continued recovery of Russian export volume, it is expected that the international oil prices in the next 3-4 years will show a trend of narrow oscillation and slow rise after the superposition of positive and negative factors.

Keywords: Russia-Ukraine Conflict, Russian-Ukrainian War, Energy Market, Energy Supply, International Oil Price, Russia Oil Export, Crude Oil Price

1 Introduction

On February 24, 2022, Russian President Vladimir Putin decided to conduct a special military operation in the Donbas region of Ukraine, aiming to alleviate the deteriorating security environment in Russia. The Russia-Ukraine conflict is the

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inevitable result of NATO's continued eastward expansion, squeezing Russia's strategic and existential space. Ukraine's diplomatic strategy in recent years is one of the reasons contributing to the Russo-Ukraine war, through which Russia hopes to make Ukraine abandon its intention to join NATO and thus gain security guarantees. In the early stages of the conflict, Russia conducted crushing strikes against Ukraine's navy and air force, which completely overwhelmed Ukraine and gave Russia a major advantage. But the Russian-Ukrainian conflict was not simply a game between Russia and Ukraine. As the conflict developed, some Western countries, such as the United States, provided Ukraine with military support in terms of weapons and equipment, food, etc., and the two sides entered a stalemate phase. The reasons are as follows: First, the protracted Russian-Ukrainian conflict, the long Russian front, and the problem of insufficient troops affecting the course of the battle when the local war is tight; second, Russia, in line with the humanitarian principle of trying not to hurt innocent people or civilians, has left room in the battle with the Ukrainian army and has not carried out the large-scale indiscriminate bombing, which has been relatively slow in breaking the living forces of the Ukrainian army; third, the United States and NATO provide a constant flow of military supplies to Ukraine, making it more difficult for Russia to walk in Ukraine. Therefore, it is almost certain that the Russian-Ukrainian conflict will not end in the short term, and the future direction still has variables to a certain extent.

2 The Impact of the Russia Ukraine Conflict on the International

Since the Russia-Ukraine conflict, the situation of continued tension and stalemate has led to cyclical and violent turmoil in the international energy market, reflecting the more obvious strategic attributes of energy products. From the perspective of war, when the war situation is not yet clear, oil prices generally maintain an upward trend; and when the war is in full swing, oil prices tend to show a rapid retreat. From historical experience, war-like geopolitical risks triggered by oil prices are mostly between 20%-30%, reaching a high point will gradually decline to pre-war levels or lower levels to reach a new equilibrium range.

Specifically, as Russia's crude oil exports account for about 10% of global crude oil exports[1], second only to OPEC countries, with a daily export volume of about 5 million barrels[1], so the initial outbreak of the Russia-Ukraine conflict, the market generally expects that a significant reduction in supply from Russia as a major energy exporter will inevitably cause an oversupply situation, leading to an imbalance between supply and demand and changes in the structure of global energy supply[2]. On the one hand, the high dependence of European countries on Russian energy exports and the impact of the forced curtailment of the "Nord Stream 1" gas pipeline to 40% [3], has led to soaring energy prices in Europe; on the other hand, the energy transition in Europe has led to the increasing substitution of natural gas for coal, coupled with the surge in winter energy demand. This has led to an increasingly tight supply and demand for natural gas and a serious imbalance between supply and demand in the market [3]. During this period, the US, and the International Energy Agency (IEA) announced the release of strategic crude oil reserves to cope with the sudden supply gap, but the actual effect did not meet expectations [1], and oil prices remained high and upward, peaking at over $120/barrel.

2.1 Western Countries Have Taken the Russian-Ukrainian Conflict As An Opportunity To Introduce A Number Of Sanctions

According to incomplete statistics, the United States, the United Kingdom, and some European countries have taken the opportunity to launch more than 7,000 sanctions against Russia since the Russian-Ukrainian conflict. The U.S. tried to kick some Russian banks out of the Society for Worldwide Interbank Financial Telecommunication (SWIFT) payment system in order to weaken the rouble's influence in international markets [4]. European countries have introduced restrictive policies targeting the volume of Russian energy exports, reducing imports by about 90% by the end of 2022[3], and Germany has suspended the use of the Nord Stream 2 gas pipeline transport [4]. There are also several initiatives around restricting Russia's overseas assets as well as its overseas companies, including the EU freezing $13.8 billion of Russian assets and several international oil companies such as Shell and ExxonMobil announcing the cessation of cooperation with Russian energy companies [2].

In response, Russia has aggressively taken counter-sanction measures to deal with its own fiscal crisis. As a major energy exporter, Russia's crude oil and natural gas exports account for 43% of its average annual government revenue between 2011 and 2020[2], and export sanctions restrictions will put enormous pressure on its government finances. Russia's position in the global energy sector is pivotal, with 19.1%, 11.4% and 17.8% of global exports in gas, oil, and coal in 2020, respectively [3], and Europe's dependence on Russia for gas, oil, and coal at 34.2%, 21.6% and 10% [3]. So, energy, while being a weapon in the Western sanctions against Russia's economy, is also a core component of Russia's counter-sanctions; Russia can bring greater pressure on Europe's energy security by reducing supply [3]. Gas-based electricity generation from natural gas tops the list of fossil energy sources in Europe's electricity mix. The introduction of Russia's "Ruble Settlement Order", which requires unfriendly countries to pay for gas supplies in rouble, has put some European countries at risk of disruptions to Russian gas supplies [3]. Soaring energy prices due to energy supply constraints have had a negative impact on many industries in the EU, making it expensive for people to live [5].

2.2 The Pressure of The Energy Transition Have Greatly Reduced the Substantial Impact of Sanctions

In recent years, Europe actively promote energy green transformation, reduce carbon emissions gradually become the consensus of countries. The sudden conflict between Russia and Ukraine in 2022 has disrupted the pace of energy transformation in Europe as a global environmental pioneer [3]. Europe's indigenous energy resources are quite limited, many countries rely on imports of oil and gas energy for a long time, and Russia, whose oil and gas reserves and production are among the top in the world, has long been the most important energy supplier to the EU, and Europe has a high dependence on Russian energy supply [4]. In 2021, the EU imported about 155 billion cubic meters of natural gas from Russia, accounting for 45% of its total imports [6].

In view of the global market and high mobility of oil and coal supply, if it is feasible for the EU to reduce its dependence on Russian oil and coal, the regional nature of natural gas supply determines that it is difficult for the EU to significantly reduce imports of Russian gas, and it is extremely difficult for the EU to "decouple" from Russian energy in the short term[2]. The significant decline in natural gas imports will inevitably make European countries restart some of the coal power plants [3], which on the European energy transition process and the "double carbon" emission reduction process, undoubtedly played a significant inhibiting effect, and not in the overall interests of the EU. In the long run, the development of renewable energy measures in Europe will indeed promote carbon emission reduction and to a certain extent reduce the dependence on Russian energy [4], but the European energy gap caused by sanctions against Russia is unlikely to rely on clean energy to bridge, the imbalance between energy supply and demand will further push up the level of inflation in European economies.

This shows that the "irreplaceability" of Russian energy in the foreseeable future has put Europe in a difficult position [4], and it is in the EU' s own interest to balance the relationship between Russian and European energy supply and demand. At the same time, the EU member states have their own ideas, it is difficult to reach a real agreement on Russian energy sanctions, for example, Hungary is clearly opposed to the inclusion of Russia in the list of oil sanctions[4], and some EU countries such as Slovakia, the Czech Republic and Bulgaria also said that they cannot stop importing energy from Russia in a short time[4].

2.3 Energy Producing Countries Have Taken Advantage of The Russia-Ukraine Conflict to Pursue Their Own Interests

The Organization of Petroleum Exporting Countries (OPEC) has not been active in filling the oil supply gap caused by the Russia-Ukraine conflict [4], valuing its own financial performance more than its eagerness to seize the market, and the short-term high oil prices are conducive to OPEC taking the opportunity to seek greater benefits [4]. Even as the Russia-Ukraine conflict entered a stalemate and international oil prices began to gradually move lower, OPEC began to act as a further supply reduction actor. on September 5, 2022, OPEC, and non-OPEC oil producers (OPEC+) said that OPEC+ decided to cut oil production by 100,000 barrels per day again. On October 5,2022, the Organization of the Petroleum Exporting Countries (OPEC) and non-OPEC producers such as Russia reached a consensus on future crude oil production, which will be reduced by 2 million barrels per day. On November 21,2022, Saudi Arabia said that the “OPEC +" oil production reduction plan will continue until the end of 2023.

As the most active participant in the Russia-Ukraine conflict and in the sanctions against Russia, the United States has undoubtedly interested in addition to the needs of the political game [4]. After the "shale revolution," the United States has transformed itself from a net importer of liquefied natural gas (LNG) to a major supplier. The global energy crisis triggered by the Russia-Ukraine conflict and reduced reliance on Russian pipeline gas has increased demand for U.S. LNG [5], which has not only supported the construction of several new export projects in the Bay Area, but also allowed the U.S. to tie Qatar as the world's largest LNG exporter. The data shows that both the U.S. and Qatar exported 81.2 million tons of LNG throughout 2022, a figure that represents only a slight increase for Qatar but a huge leap for the U.S., which has become a landmark event in the country's meteoric rise as a major supplier of natural gas. In addition, the U.S. has reached long-term supply agreements with several countries, including Japan, the U.K. and the EU, an important step in securing fuel supplies to avoid future shortages, and the restrictive situation with Russian gas exports will keep global LNG supplies tight for years to come. What can be seen is that behind the increase in oil and gas supply from the U.S. to the European market with the help of the Russian-Ukrainian conflict to earn a lot of money, is to increase inflation in Europe. At the same time, the U.S. also hopes to return oil prices to a reasonable level by increasing exports, because it can hardly afford a sustained environment of high oil prices. First, the U.S. CPI reached the highest level since 1982, high inflation has formed greater pressure on Biden's support, Biden spared no effort to control the impact of rising oil prices on inflation; second, in the context of the expected decline in U.S. economic growth, high oil prices raise inflationary pressures, or lead to the Federal Reserve was tightening policy, which is not conducive to the U.S. economic repair.

3 Analysis of Changes in International Oil Price in the Russia-Ukraine Conflict

3.1 The Phase of Ascending Oil Prices

Prior to the outbreak of the Russia-Ukraine conflict, international oil prices continued to grow from $70/barrel and exceeded $90/barrel in February 2022 before the special military operation due to the gradual scorching of Russia-NATO relations and instability in the Donbas region since November 2021, causing uncertainty and fear in the international crude oil market. On February 22,2022, Russian President Vladimir Putin officially announced a special military operation in the Donbas region, which led to the continued high international oil prices and reached the highest monthly average price in the last two years of $114.34/barrel in June 2022, with the highest value over $120/barrel.

3.2 The Phase of Falling Oil Prices

As the Russia-Ukraine conflict entered a stalemate phase, the stimulus of the event on the international energy market was quickly released, and the impact on international oil prices was gradually digested, the supply and demand structure of the international energy market gradually underwent restructuring changes, and international oil prices basically returned to a new equilibrium state. The international oil price started to gradually move downward since June 2022, and basically fell back to the level before the start of the Russia-Ukraine conflict by September (see Figure 1), and the international oil price continued to hover in the range of $ 80-90 / barrel in the subsequent months. Especially after November 2022 until January 2023, the international oil price enters a very stable and slightly fluctuating equilibrium state, continuously maintaining a price around $ 80/barrel.

Fig. 1. WTI Monthly Average Crude Oil Price Chart

3.3 Two-Stage Comparative Analysis

From the change of international oil prices triggered by the Russia-Ukraine conflict: the rising phase lasted about 3 and a half months, since the outbreak of the conflict until early June 2022, during which international oil prices rose from about $92/barrel to a maximum of about $122/barrel, an increase of 33%; the falling phase to a more stable equilibrium state lasted about 5 months, from mid-June to November 2022 Mid-November, during which the international oil price fell from about $122/barrel to about $80/barrel, down 34%, of which oil prices in August repeatedly dipped below $90/barrel, repeatedly dipped below $80/barrel in September, and continued to fluctuate above and below $80/barrel after late November, basically entering a more reasonable equilibrium range.

4 Conclusion

Currently, the impact of the Russian-Ukrainian conflict on the international crude oil market is now being gradually absorbed and fully released, and the international energy market is returning to short-term equilibrium. Factual data also shows that Russian crude oil exports did not decline in 2022 but increased by 7%. Looking ahead, With the general recovery of the global economy after the COVID-19 pandemic, the acceleration of the pace of energy transition in Europe, and the continued recovery of Russian export volumes, it is expected that after the combination of positive and negative factors, the international oil prices in the next 3-4 years will show a narrow oscillation and a slow upward trend, with prices fluctuating in the range of $74-82. It is expected that the average annual price will be around $ 76 / barrel in 2023, $ 78 / barrel in 2024, $ 79 / barrel in 2025, and $ 81 / barrel in 2026.

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