

China's Belt and Road Initiative: Energy Investment Change after 2020

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Abstract. China's Belt and Road Initiative has been influenced by changes in global political and economic factors. After the COVID-19 pandemic, global energy security and food security became new challenges due to the war between Russia and Ukraine. Meanwhile, China's threat theory has expanded which increased potential barriers to trade and reduced the efficiency of global communication and cooperation. These changes the new regional relationship and trade cooperation between China and Russia, and China and the Middle Asian countries. Against this background, this paper discusses the current new opportunities and challenges faced by the BRI and China's development by using empirical research and past market data on energy. Renewable energy development and small and medium-sized enterprises reform and innovation might be effective solutions to provide new growth direction.

Keywords: Belt and Road Initiative, Energy Security, Investment Opportunity

1. Introduction

The Belt and Road Initiative is one of the most important trade strategies and policies in China in recent years. BRI was from an old story related to the Silk Road, which was a trade and network between the old Roman Empire and large Eastern Asian countries. Today, it is the new connection between Europe and China, the Western world and East Asia, and countries along this trade road. This is the main reason that the Chinese government rethinks its trade policy to build a much wider and more flexible economic region based on the agreement to achieve a “win-win” outcome among countries. It also matches the target for China to build a “Community of Common Density for Mankind” and create a long-lasting, sustainable, and stable community for development.

At the beginning of this strategy, some Western governments and politicians showed negative attitudes and criticism toward it and claimed it was a new type of colonialism and expansionism. China has insisted on the basic principle of peaceful cooperation and openness for the past ten years. The BRI strategy is influenced by complicated global political factors. From 2020 to 2024, there are large events such as the war between Russia and Ukraine which influenced the stability between Asia and Europe. There was the COVID-19 pandemic which brought a shortage in the global supply chain. The conflicts between developed and developing countries became more serious. Food insecurity, energy insecurity, sustainable development, and survival become more severe challenges in the world.

There are some key changes in energy investment, trade, and renewable energy development in China, and in the BRI. In this paper, an empirical review and economic analysis will be done to evaluate the Belt and Road Initiative's potential challenges, changes, and solutions to see the future trends and development of the economy in Asia and Europe.

2. Current new changes

2.1. Increase in energy price

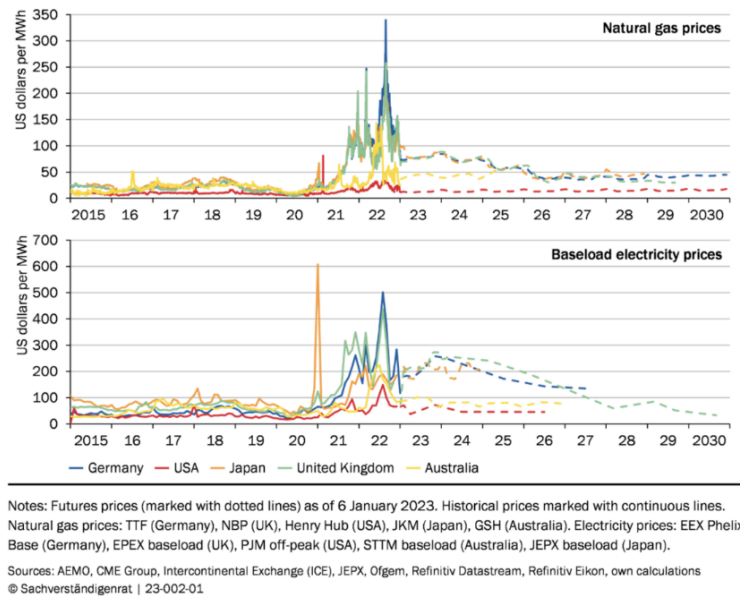


Figure 1. Natural gas prices and electricity price 2015-2030 [1]

At the beginning of 2021, energy prices, especially natural gas global price fluctuated and increased significantly due to the war between Russia and Ukraine. Due to the crisis, the United States and European countries have applied the highest level of sanctions against the Russian government. The cut and ban on Russian energy have pushed the global price of natural gas to reach a new peak as shown in Figure 1 above in 2022. An increase in the traditional energy source brings several severe problems for the global economy. Firstly, traditional manufacturing industries in Europe that rely on the supply of Russian natural gas face a sharp increase in manufacturing and operating costs which destroy their development. Coming with the significant increase in cost of energy, in the first half of 2022, the electricity price also increased by about 30% [1]. The wholesale electricity price in Germany has increased more than 200% in the past several years [1]. The increasing price of energy destroys the manufacturing firms firstly forcing them to move their factories to countries with cheaper energy prices such as the United States and Southeast Asian countries [2]. With the declining manufacturing sectors, the failure in retail, restaurant, and entertainment industries rose due to the decline in income and continuous increase in cost of living.

On the other hand, China has a more flexible policy in its foreign energy plan and domestic energy consumption. Umbach in 2019 claimed that domestic consumption in China has reduced the old coal consumption and moved to a new direction by combining multiple green energy plans [3]. It can solve the environmental problems that have been caused by high-speed economic development and provide a new development direction for practical innovation in clean and

renewable energy. In the past three years, the green electricity generated from nuclear power stations and hyperpower stations has played more and more important roles in the creation of China's energy.

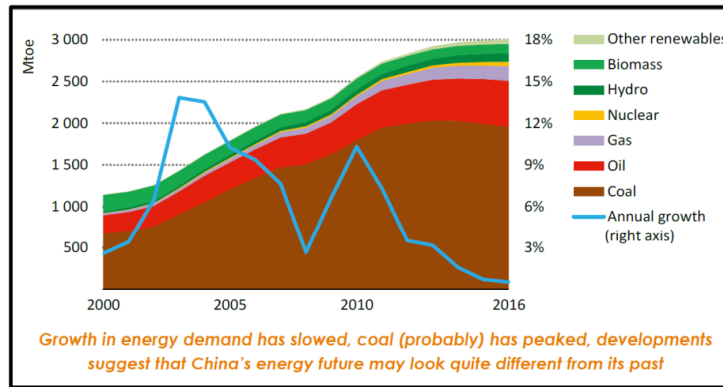


Figure 2. China's energy demand change in past years [3]

On the above picture, China's coal consumption has reached a peak and shown a clear declining trend. Meanwhile, solar panels and other renewable energy such as biomass energy programs investment in China grows quickly with the policy support and economic subsidies. It causes the increase in the traditional natural gas price does not influence China's industry development because it focuses on renovation and reforming its energy structure. China also gained many profits from its exports because increasing energy prices can be transferred into product value via trade through the BRI. The increase in energy prices did not kill China's global supply chain and role, as it also had a closer relationship with Russia.

2.2. Regional relationship and energy security

On the other hand, the BRI provides significant cooperation between China and other countries in the traditional fossil energy trade. The BRI improves the energy security in China, especially with the relationship between Russia, and West Asia which have more than 52.27% of the total resources [4]. According to Zhao and his team's analysis in 2019, China has imported more than 437.21 million tons of standard coal from these countries which helps to create a guaranteed degree of energy security of 58.42% [4]. The relationship between China and Russia became closer after 2022. The improvement in the cooperation and manipulated strategic partnership also influenced the stability and regional security which protect the benefits of China and Russia in Central Asia [5].

Before the war between Russia and Ukraine, Russia kept a more conservative attitude to maintaining the trade relationship with China, even though it had a positive role in joining the BRI. However, after the war, Russia had a more concentrated attitude to improve its relationship with China, especially in energy security and energy export. It comes from the change of the Western society about sanctions from the United States and the European countries. Russia must choose some large and positive players which can keep a relatively stable and independent economic position on the global scale. This is also the main reason that China has become more and more positive after Russia provided the trade benefits. According to Zaheer's research, choosing China which has a global close connection in trade can help to reduce the potential cost of a new round of cold war in Russia in the war [5]. It also reduced the old view in Moscow about the European central idea which concerns more benefits in Europe for Russia rather than bringing benefits in east

Asia. In fact, it might bring new opportunities for Russia to build a real new round of growth in the Far East region which can connect the relationship between China and the North Korea [6].

2.3. China threat theory expansion

China has performed as the traditional and important ally of Russia, but also a strong competitor against Russia in the energy and food market. However, due to the war between Russia and Ukraine, China chose to keep the neutrality opinion and cooperated more closely with Russia with a strong strategic role [7]. With such an attitude, the rise of China and China's Threat Theory became more and more popular in Europe. There are two main reasons, one is that China stands for the side of Russia against the whole of Europe. The other reason is that China keeps strong growth during the war and after the COVID-19 pandemic. It provides both the military threat and economic pressure to the European Union when it faces the problem of illegal migrants and economic recession.

Additionally, Jakimów in 2019 discussed that China's development of the BRI showed its ambition to go into the core of Europe and expand its soft power in both economic and political influence in Europe [8]. As discussed, the failure in energy security in the main countries in the European Union, with the target of political stability, expansion of the China Threat Theory is one potential solution to transfer domestic political conflicts and economic difficulties to the international relationship problem. It can reduce domestic disputes between different parties but create a significant problem in global trade when more trade barriers are added to its policies. However, Brown's research in 2018 has discussed one positive idea that other countries, especially the Western Countries should try to accept the fact about China's rise because it is a much milder process by considering development and sustainable growth, security, and stability in the first place [9]. The BRI should be used as a double-sided route to connect China and the world. China has accepted the Western idea and rules after 1978 and now the world should accept China's new idea as the common interest connection and exchange.

3. Discussion

These changes provide a new round of focus on renewable energy development and provide China with a new opportunity to refine the manufacturing and industrial sectors. During the COVID-19 pandemic, China became the global head supplier, even though it operated the strictest disease control and public medical management policy. It caused the group of developed countries such as the US, the UK, Australia, and Japan to target China which tried to beat down China's global supply chain. They developed different tariffs and barriers in international trade to increase the cost of trade. They also limited the regulation rules to limit the development of China's high technology development and innovation. There are two main points that might bring the future development trend for China to find new chances for its future development.

3.1. Renewable energy sector development chance in China

The electric motor industry experienced significant development, especially with the development of green electricity and environmentally friendly industry development. China currently holds the dominant highest level of technology in ultra-high-voltage power transmission and Photovoltaic systems which brings the strong base and support for the development of the renewable energy industry. Compared to the difficulties faced by the western developed countries in the European countries in energy, the Chinese government wants to find a new way to open the global market.

Japan, Germany, and the United States in the past fifty years played as the top gamers in the global vehicle market. When China tried to enter these developed countries, trade tariffs to beat these newest electric vehicles from China became one of the largest challenges. From research of Silva in 2024, the European Union had increased the tariffs on Chinese electric vehicles from 17.4% to 37.6% [10]. It means that a consumer in the European Union country must bear more than 20% of the overall cost to pay for a new Chinese electric motor. This policy aims to protect the development of the European traditional automotive sectors and helps to develop their own electric vehicle technique.

It is interesting to see the conversion of the new global trade principle. In the past fifty years, developed countries such as the United States, Germany, and Japan exported their vehicles and built global factories. They use their patents and techniques to build their own rule in the free trade and open factories in developing countries. At that moment, they believe that free trade helps them to maximize the benefits and national wealth. They believe in the rule of comparative advantages. This globalization brings factories in China with different levels of parts in the automotive sector. However, when China has its own comparative advantages in electric vehicles, these developed countries tend to protect their own benefits and refuse free trade now. The development of trade barriers comes quickly and seriously.

The Chinese government does not show any fear of the tariff. The first strategy is to supply the domestic market to avoid excess supply in the market. The second strategy is to develop the global market in the other developing countries. For example, China now sold many electric motors in Russia and in the Middle Asia. Especially, the BRI helps to open the market in Kazakhstan, Uzbekistan, Tajikistan, Kyrgyzstan, and Turkmenistan. Murataliyeva and Ismailkhodjaev in 2023 reported that more than 90% of the electric vehicles sold in Uzbekistan were from China [11]. The local market likes brands such as BYD much with continuously increasing demand. It also brings a higher demand for the electric charging station infrastructure in these countries. Moreover, China can help to build the infrastructure development plan and electric motor factories as well. In September 2023, BYD agreed to build an electric vehicle factory in Uzbekistan which solved the local charging station shortage and provided the local market with more new jobs, extra tax revenue, and growth in the economy [11].

This application provided a sample and a model for the future development of the renewable energy trade. One of the most important parts of the BRI is to provide foreign investment in infrastructure projects in Middle Asia, Middle East Asia, and Africa. After the pandemic, the strong growth in the economy is one large challenge for China. Investment in the BRI, factories of electric vehicles in the BRI member countries, and the export of technologies such as the green electricity system and information security system would be one strong solution that increases China's national income and support its plan for sustainable development. However, there would be some future challenges for such a type of investment. Firstly, cultural and social value differences might bring conflicts in management and interest conflicts with the local industry sector. Communication barrier is also one challenge in the daily management and operation. Secondly, long-term return and long-term repayment, especially in the investment of energy stations, artificial canals, and railway construction might be a question for other developing countries. The third challenge comes from the challenges of regional security and stability. These projects, constructions, and investments in factories require a long-term stable political environment. Changes in government leaders and changes in international relationships will both generate uncertainties for the future repayment of these programs.

3.2. Focus on specialized, refined, unique, and innovative SME

At the beginning of the 2000s, China became the global factory that produced goods, especially goods from foreign brands. In these factories, workers earned a low income to make normal and necessary commercial goods and assemble mobile phones and cars to support the Western countries' rule of free trade. In the past two years, the Chinese government has provided a new policy to stimulate research and innovation. It focuses on specialized, refined, unique, and innovative small and medium-sized enterprises. Shao in 2024 claimed that China aims to break up the traditional industrial bottleneck which is controlled by the American and European countries, especially the top technology and expensive patents [12]. One of the most important targets of this policy is to improve independence for China's technology and economic development. The objective of this policy is the key that Chinese government does not want to create the dominated monopoly power for the large firms. They try to give chances to small and medium-sized enterprises.

The first advantage of this objective is that it could improve the competition in the industries which pushes the research and innovation in different directions. A monopoly might only control the key direction to maximize their benefits from patents, but small and medium-sized enterprises tend to create a whole coverage for different directions and parts of the research to find the optimal solution. Secondly, the government aims to spread the subsidies to encourage more young generations, graduates, and postgraduates to participate in this technology competition. The government works as the angel investor for the newest small business owners and encourages them to find new ways in their sectors. It also encourages the conversion of the high education investment to the industry and builds a long-term sustainable development from the university to the enterprises.

With financial support such as low-interest business loans, policy support in building small businesses, and subsidies to support research and innovation, one potential outcome of this new policy is to provide more innovative products and services from high technology in different industries which try to reduce the limit from the developed countries and build core competitive power for the country. The application of this policy can be a technical support for the future development of the BRI to provide the future investment direction, global new network platform construction, and improve efficiency and effectiveness in trade.

4. Conclusion

In conclusion, in the past five years, the global market experienced a series of significant events that almost slowed down the whole world's economy. China experienced a significant increase in its China Threat Theory expansion and faces the limits and tariffs in trade from the developed countries. Global food and energy insecurity increased sharply after the beginning of the war between Russia and Ukraine. Under all these uncertain events, China is given a new round of chances to refine and review its future, with the combination of the BRI development. The first chance is to expand its renewable energy sector and electric motor business in a new model, beat the tariffs of Western countries, and expand markets in developing countries. The second solution is to focus on the development of specialized, refined, unique, and innovative small and medium-sized enterprises. This policy can provide sustainable development in research and innovation and provide new technology support to the development of the BRI.

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