The Impact of the US-China Trade War on China's Cotton Industry: A Case Study of the Xinjiang Cotton Controversy

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Abstract. The Sino-US trade conflict has been a prominent issue between China and the United States in recent years. Xinjiang cotton, being the primary producing area of China's cotton industry, has had a significant impact on its competitiveness. This paper provides data and case studies on the impact of global cotton standards, China's cotton import and export, and the supply chain to explain the causes and consequences of the Xinjiang cotton incident, as well as propose countermeasures for China's cotton industry. The study found that China's lack of cotton standard measurement methods has led to a certain setback in the cotton industry. Moreover, the incident has affected the upstream and downstream industries to some extent. Nevertheless, it has not had a significantly negative impact on China's supply chain. However, China needs to take immediate and effective measures to establish its cotton standards. Additionally, China must expand the supply and sales channels of the cotton industry and related industries, while actively developing high-tech solutions to minimize negative impacts and losses as much as possible.

Keywords: Trade conflict, Xinjiang cotton, Cotton supply chain, Cotton standard, Import and export.

1. Introduction

Due to the low labor costs and abundant resources in China, the price of cotton and its derivatives is relatively low, which can be described as high quality and low price. This has created a market for Chinese cotton products in the United States. The huge demand in the U.S. market for products produced by China's cotton industry has also become an important factor in the large trade deficit between the two countries. As a result, the United States has taken certain measures to address China's large trade surplus, including announcing a 25% tariff on $50 billion of goods from China on March 22, 2018. This announcement marked the beginning of the additional tariffs. On March 28, the Office of the United States Trade Representative (USTR) extended the public notice period for tariffs by two months, and the Sino-US trade war began [1].

In order to curb the export surplus of cotton raw materials and reduce China's cotton products' influx into the United States, the United States has imposed strict import restrictions on Xinjiang cotton and its finished products. The "white cotton incident" in Xinjiang in March 2021 is a typical case. In March 2021, the Better Cotton Development Institute (BCI) banned Xinjiang cotton and imposed export restrictions on Xinjiang cotton and its finished products [2]. This ban has severely affected Xinjiang's exports of cotton and its manufactured products.

For industrial development, the decline of an industry will affect the healthy development of the national economy. If the industry is not managed well, it may lead to sustainable development stagnation and even evolve into industrial decline [3]. Therefore, analyzing the impact of the Sino-US trade war on China's cotton industry and finding solutions is of great significance.

China has been a big agricultural country since ancient times, and the key production areas of Chinese cotton are Xinjiang, Gansu, Hebei, and Shandong. The cotton industry in Xinjiang is the mainstay of China's cotton industry, with Xinjiang's cotton planting area and cotton output in an absolute leading position in China [4]. Literature on the "Xinjiang cotton incident" covers research

from various perspectives, including trade and economics. Some literature offers countermeasures and suggestions for the sustainable development of Xinjiang's cotton industry, such as continuously promoting cotton price subsidy policies, strengthening cotton industry integration, and improving industrial chain efficiency. Other literature analyzes the nature of the Xinjiang cotton incident from a legal perspective and proposes that the deep-seated reason for BCI's suspension of Xinjiang cotton certification is threatened by the US withholding order and more potential sanctions. Some literature studies the Xinjiang cotton incident from the perspective of journalism and communication. For example, Wei analyzed the Xinjiang cotton incident's front and back and proposed that the Xinjiang cotton incident is a public opinion war on the surface, but the hidden essence is economic and political warfare [5].

This study will take the Xinjiang cotton incident as a case study to conduct an in-depth analysis, studying the incident's causes from the aspects of cotton standards, supply chains, and changes in cotton imports and exports between China and the United States. At the same time, it will discuss the incident's impact on various aspects of the two countries and provide reasonable suggestions for the survival and development of China's cotton industry.

2. Case Analysis

As the U.S.-China trade war intensifies, the Better Cotton Initiative (BCI) has held Xinjiang cotton, a cotton that meets and exceeds the standards of the Stockholm Convention, to be inconsistent with its standards on the trumped-up charge that "Chinese migrant companies are violating human rights in the Xinjiang Autonomous Region." In October 2020, the BCI claimed that there was "forced labor" and other "human rights violations" in the Xinjiang region, and that it did not meet the BCI's standards [6]. On March 24, 2021, the H&M Group issued a statement refusing to use and boycotting Xinjiang cotton on the "pretext of forced labor." In response, BCI Shanghai immediately conducted a rigorous inspection of the Xinjiang cotton project and found that there was no case of forced labor. BCI Shanghai then once again solemnly affirmed that the project team in China has always strictly followed BCI's audit principles and never had any phenomenon that did not meet the standards of conduct.

The aftermath of the Xinjiang cotton incident had a huge impact on China's cumulative cotton exports, which fell to a ten-year low in 2022. This can be attributed to the unjustified Western boycott of Xinjiang cotton. Unjustified boycotts by downstream buyers such as H&M have had an impact on the domestic cotton industry's supply chain, affecting the cost and price of raw materials as well as finished products. After the Xinjiang cotton incident, in 2021 China's imports were down 10% compared to the previous year, in contrast to the previous two years of steady state. However, China's internal demand for cotton can be met by new direct supply of cotton fields. The domestic supply model basically meets the needs of the industry's own development, so the impact of the trade war on China's cotton supply chain by the direct supply model of cotton fields has basically dissolved.

2.1. Analysis of BCI and China's Cotton Standards

The trigger for the Xinjiang cotton event was the statement by the Better Cotton Initiative (BCI) that the Xinjiang region of China did not meet its standards. BCI has established its "Better Cotton" standards, which include: 1. Minimizing the harmful impact of crop protection measures; 2. Efficient use and protection of water resources; 3. Valuing soil health; 4. Protecting natural habitats; 5. Caring for and protecting fiber quality; 6. Promoting decent work; 7. Implementing effective management systems for cotton farmers [7]. The event revolved around the "decent work" standard. BCI accused the Xinjiang region of persistent forced labor, which violates the principle of decent work. After this incident, China formulated and released the Chinese Cotton Production Management Norms in April 2021 and launched the China Cotton Sustainability Project Development in June of the same year. China attaches great importance to the concept of sustainable development, and its standards include reasonable control and effective use of inputs such as pesticides, protection of water and soil,

biodiversity, reduction of greenhouse gas emissions, protection of workers' rights, and provision of a safe and healthy working environment for them. Based on these standards, the quality of cotton and the production efficiency of farms can be further improved [8].

Comparing these two sets of standards, BCI's defined standards focus on environmental issues but ignore quality issues. Xinjiang cotton not only meets the environmental concept, but its high quality can also make it one of the best cottons in the world. In China's standards, the quality of cotton and the protection of workers' rights are emphasized clearly. The contradictory standard judgments by BCI reflect that this is an act of sanction against China. The root cause of this is the United States. Due to the rapid development of China's cotton industry, cotton has become the only physical commodity that China has pricing power over, which has shaken the US's dominant position in pricing global cotton through ICE. Furthermore, the US imposes sanctions on China's cotton industry by taking advantage of the loophole of the lack of its own comprehensive cotton standards. In addition, due to the long-standing pressure on China's technology sector, the US has further turned to sanctions on agricultural products. Therefore, the US invades Xinjiang cotton farmers and the development of this cotton production area through unfounded accusations against China's cotton, further implementing sanctions to restrict the development foundation of China's cotton industry and limit China's trade and economic development. After the Xinjiang cotton event, China quickly established its own cotton standards, which not only helped to break free from the malicious restrictions imposed by Western countries on China but also maintained the order of the domestic cotton market and further spread the concept of cotton standards and related knowledge [9].

2.2. Analysis on the Changes of China's CottonImport and Export Volume

Although China is a large cotton-producing country, the huge domestic demand cannot be met solely by self-production and sales. Therefore, China has a great demand for imported cotton. The countries from which China mainly imports cotton include the United States, Brazil, and India. Figure 1 shows a steady increase in China's cotton imports from 2018 to 2020, which remained almost flat in 2020 and 2021 but decreased by about 10% in 2022 compared to the imports in 2021. In terms of exports, China only exports 1% of its total cotton production.

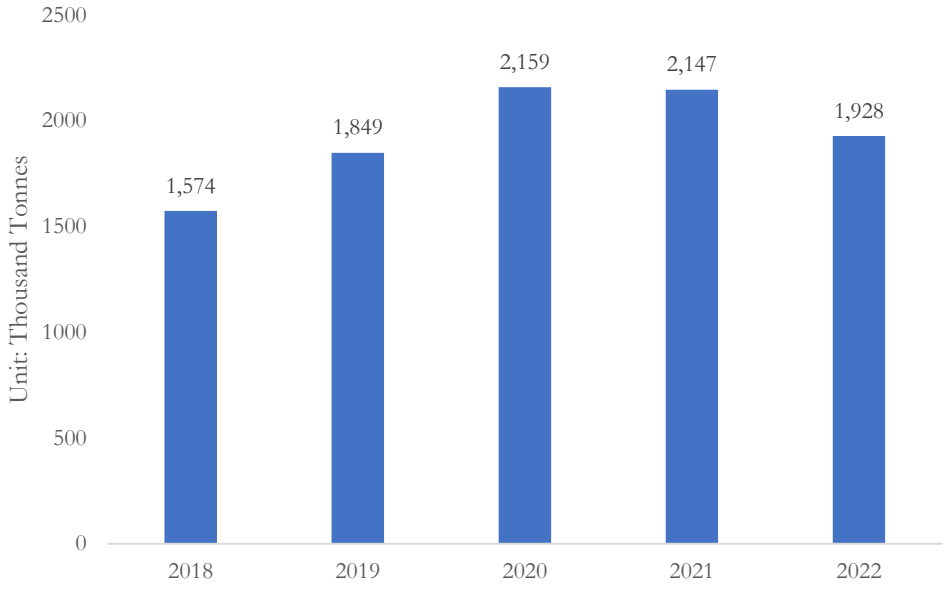


Figure 1 China's Cotton Imports from 2018 to 2022 Data source: China Cotton Association Photo credit: Original

In addition, China's cotton exports have shown a significant year-on-year decline since the US-China trade war in 2019. As shown in Figure 2, the data for 2021 and 2022 show a small positive trend. Summarizing the export data for 2022, the total export volume from January to October was 231.1 kt, which is down 3.95% year-on-year. As shown in the figure, the growth trend is slightly

sluggish. In October of last year, China's total cotton exports showed a slight increase of 0.48% year-on-year but a decrease of 9.84% compared to the same period in the previous year.

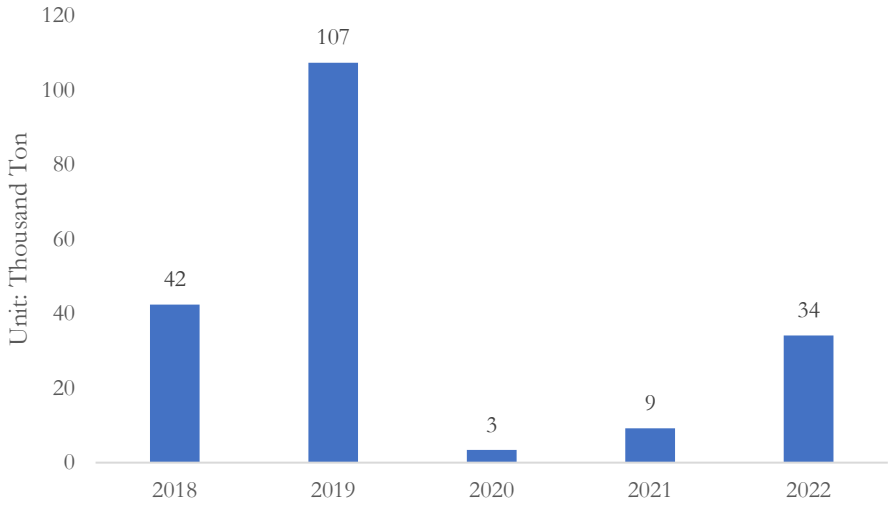


Figure 2 China's Cotton Exports from 2018 to 2022 Data source: China Cotton Association Photo credit: Original

The significant reduction in the volume of Chinese cotton exports can be attributed to two external factors. The first is the increase in tariffs by the United States, one of the major buyers of Chinese cotton, to 25% on $200 billion of annual imports from China, and the announcement of retaliatory tariffs by China. The trade barriers created by high tariffs can directly affect the behavior of international trade between the two countries and their trading partners [1]. From a globalization perspective, the impact of the new tariff increases between China and the United States could extend to all trade between China and the United States. Secondly, BCI excludes Chinese Xinjiang cotton from the standards on the grounds of human rights oppression, not quality. Because quality standards are set by BCI, even some garment manufacturers use their certified products as a promotional point because of BCI's high standards. Xinjiang cotton lost the "certification" after. Many companies believe that the quality of Xinjiang cotton is also in doubt. The lack of promotional points and "non-compliant" Xinjiang cotton sales have been hit hard. The double pressure of tariffs and the so-called certification cancellation caused the Chinese cotton market to decline. The Xinjiang cotton incident had a greater impact on US cotton exports. Before the trade war, US cotton exports were showing an upward trend, but after the Xinjiang cotton incident, US cotton exports reversed to a downward trend, meaning that the trade war changed the original trend of US cotton exports for the better and even caused its exports to fall to the level of two years ago [2]. Based on the Sino-US trade friction, the Xinjiang cotton incident had a great impact on China's cotton exports in that year, but as China actively established its own cotton standards after this [10], China's cotton exports have steadily warmed up.

In summary, the Xinjiang cotton event had a large impact on China's export volume, which dropped sharply after the start of the trade war in 2019, but due to the positive measures taken by China, the export volume of Chinese cotton showed a slow upward trend, while reducing China's demand for cotton imports. According to the trend of simultaneous changes in the volume of Chinese cotton imports and exports of the two, it can be seen that some of China's cotton exports shifted to domestic sales to alleviate the impact of the trade war and to achieve a structural transformation within the industry.

In addition, the trade war affects the two markets and causes inflation at the same time, but its positive impact cannot be ignored. To some extent, the trade war has forced the restructuring of China's industry, for example, the production of cotton in agriculture has been adjusted. The trade war has also ensured that countries' tariffs do not rise quickly, but rather with a certain restraint in raising them. Since the trade war, the US import tariff barriers have remained almost stable at 25%,

which is a sign of respect for tariffs [11]. Trade wars are known for increasing the productivity of the country fighting the trade war in order to improve the production relations and output of the country compared to other countries, which is a positive and more superficial effect of trade wars.

2.3. Analysis of the Event's Impact on China's Cotton Supply Chain

The Xinjiang cotton incident involves raw material suppliers in the supply chain link. Suppliers are crucial in the whole supply chain, and the situation of suppliers largely determines the price changes of raw materials and finished products. The ban on Xinjiang cotton essentially amounts to a rejection of the Chinese supply chain, even the Chinese textile supply chain. China has established its own cotton standards, using a supply chain management model based on the balance of the total amount of quota. Among the models certified by the supply chain are: direct supply from cotton fields, separation and total balance, which has attracted many companies to join as supply chain members [10]. For example, China Cotton Group Limited, China Textile Cotton Import and Export Limited, and Weiqiao Textile Company Limited [8]. This has effectively reduced the demand for foreign cotton in China.

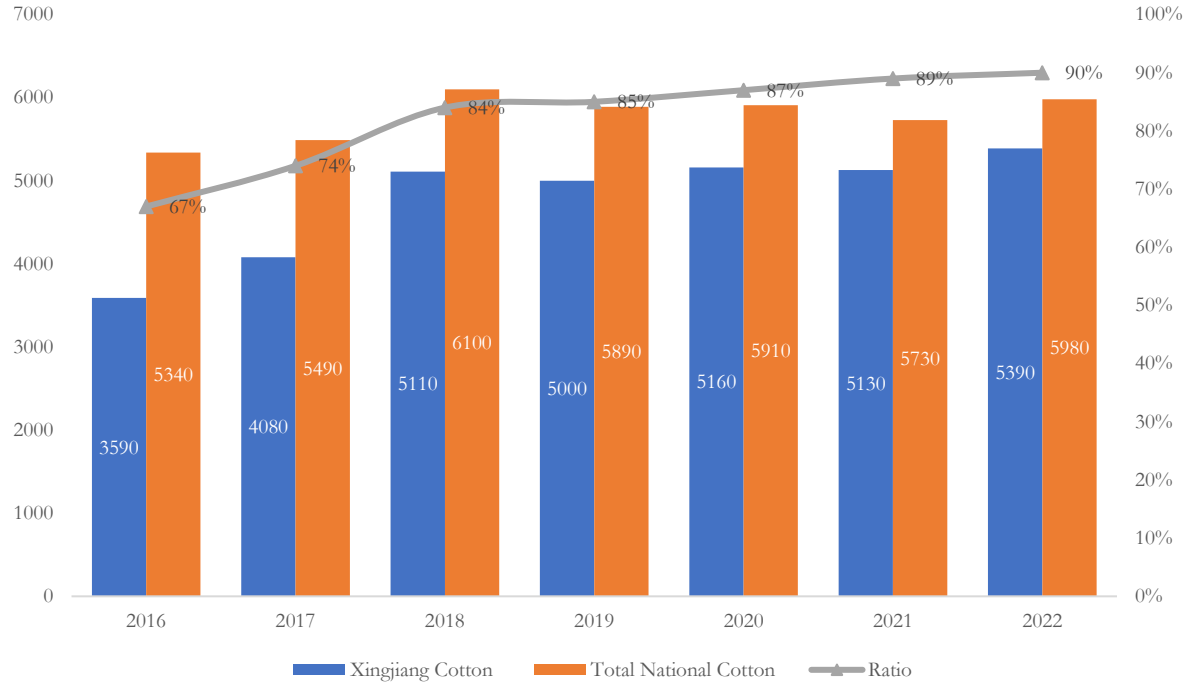


Figure 3 Xinjiang Cotton Production and National Cotton Production in 2016-2022 Data source National Bureau of Statistics (NBS) Photo credit: Original

In addition, it can be seen from Figure 3 that China's cotton production has been steadily increasing year by year, with the share of Xinjiang cotton increasing as well, reaching a maximum of about 90% of the total national cotton production in 2020. This shows the increasing importance of Xinjiang cotton in China. The Xinjiang cotton incident has also had a certain promotional effect on China's cotton industry, gradually improving the status of Xinjiang cotton in the supply chain. Given the high demand for Xinjiang cotton from many Chinese textile and other enterprises, this optimistic trend has also contributed to the development of Chinese garment and other industries. Due to the overall rapid development and stability of China's cotton industry supply chain system, which has touched the interests of textile and other industries in the United States and European countries, this is one of the factors that caused the incident, as analyzed.

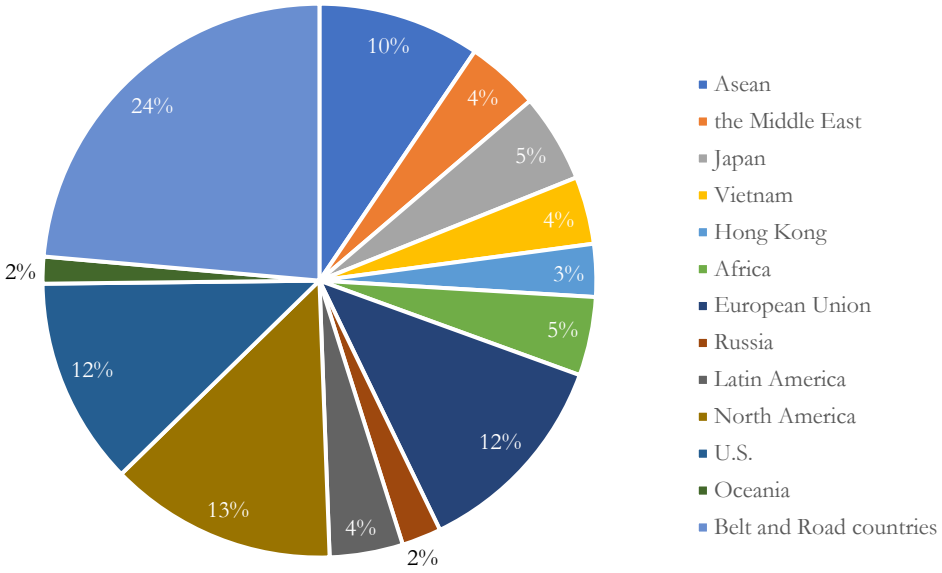


Figure 4 Distribution of Xinjiang Cotton Export Market in 2018 Data source: China Customs Photo credit: Original

As shown in Figure 4, in 2018, the U.S. was the largest importer of Chinese cotton, accounting for 17.66% of the imports, which is about six times more than the smallest single importer, Russia. The EU accounted for 17.89%. The impact of the trade war on China's textile supply chain may be long-term and far-reaching, with countries importing Xinjiang cotton experiencing a shrinkage in volume compared to 2018 after the trade war, but the proportional change is small. After the outbreak of the trade war, the largest import monolith, the United States, lifted the agreement, and subsequently, the United Kingdom decided on January 11, 2021, to ban imports of products related to cotton from China's Xinjiang Autonomous Region. France and Germany also passed bills, requiring comprehensive due diligence related to human rights violations in the supply chain of imported goods represented by Xinjiang cotton. Although Xinjiang cotton cannot dominate the international cotton market, it is still heavily impacted by the trade war, with the U.S. and its trading partners accounting for about 50% of China's total cotton exports.

The aforementioned areas are important markets for China's textile industry. With the loss of international orders, the Chinese textile industry may face the risk of disengagement from the international market. About 50% of textile and apparel exporters and about 25% of textile and apparel manufacturing companies may face the potential risk of having no orders from 2023 to 2025. This paper expects that this will lead to a sharp contraction of the Chinese textile and apparel export market with Xinjiang cotton as the core product. The textile and apparel industry is a low-skilled labor-intensive industry with high substitutability. Therefore, when European, American, and Japanese orders once leave China, they will be quickly replaced by other suppliers in the market [12]. The possibility of recovering the textile industry again will be minimal. On the contrary, in recent years, after China lost orders from trade organizations led by the United States, it developed a new standard for its own cotton, quickly shifted its supply targets, and increased its exports, largely reducing the impact of the U.S. sanctions. This has put China's cotton industry into the recovery phase.

3. Solutions

This article suggests that China should further improve its independent cotton standards, continue to produce sustainable cotton, and promote its consumption. Based on the important fact that China's cotton exports account for only 1% of its production, it is necessary not only to expand the cotton planting area but also to strengthen publicity and actively expand export markets so that more countries can truly understand the true quality of Chinese cotton and create a well-known sustainable brand system for Chinese cotton at home and abroad. Secondly, China needs to optimize its domestic

cotton subsidy policy, as the newly established standards may make Chinese cotton manufacturers previously applicable to BCI and international standards unable to adapt to development quickly. Reasonable subsidies can help them adjust quickly and make the economy recover faster. Furthermore, subsidies can also accelerate the transformation and upgrading of some enterprises to meet the needs of the current national situation, as trade frictions not only pose challenges but also bring many opportunities [13].

At the same time, China should also actively broaden the supply and sales channels of the cotton industry and its related industries, and actively explore more export markets. The quantity of cotton raw materials and products imported from China to the United States is huge, making the United States a major trading partner of China. After the US-China trade war, the United States restricted the import of Chinese cotton industry products, and China needs to seek additional trade markets to maintain export volume. Broadening supply and sales channels can also provide more guarantees for China's cotton industry, avoiding heavy damage due to US restrictions.

In addition, China should further promote the high-tech and modernization of cotton in the supply chain and industry chain process. China has already achieved significant technological achievements in cultivation technology, such as seedling transplanting, chemical regulation, and cotton field mechanization, which has contributed to the success of China's cotton industry. Strengthening technological innovation requires talent training, active academic exchanges, and so on [14]. Overall, the US-China trade war is beneficial to both countries and the world. Behind this trade conflict, China needs to negotiate with the United States to minimize losses. Secondly, China should achieve global trade diversification and engage in more comprehensive trade exchanges with more countries, expanding trade dimensions, which can provide more guarantees for itself in the uncertain international trade environment in the future.

4. Conclusion

This paper finds that the essence of the Xinjiang cotton incident is that in the Sino-US trade war, the United States suppressed and restricted China's cotton industry due to its huge trade deficit with China. The reason for this incident has a great deal to do with the lack of cotton standard measurement methods in China itself. China's lack of cotton standards caused a certain blow to China's cotton industry in this incident, but it did not have a large negative impact on China's supply chain. However, the cotton textile industry, which is closely related to the cotton industry, has been affected to a certain extent, and orders from China's cotton textile industry have declined. To this end, China can respond to the Sino-US trade conflict in the cotton industry by establishing its own cotton standards and actively expanding the scope of cotton supply chain services, so as to mitigate the adverse impact of the trade war on China's cotton industry and even related industries such as cotton textile and garment industries. At the same time, this paper finds that the Xinjiang cotton incident has also had a certain impact on American enterprises. U.S. farmers have borne most of the brunt of China's counter-tariffs, and U.S. consumers have suffered from the trade conflict.

The Xinjiang cotton incident is actually a representative event of the Sino-US trade conflict. It can also be seen from the incident that the Sino-US trade conflict has had a certain negative impact on China's cotton industry. More broadly, not only the cotton industry but also many more industries have been affected and hit by the trade conflict to a greater or lesser extent, such as the chip industry, agricultural products, light industry, and even the Chinese stock market. Therefore, if China wants to minimize the blows and sanctions of the Sino-US trade conflict against China, it must find appropriate and effective countermeasures as soon as possible. At the same time, China should actively develop new and high technologies to minimize losses as much as possible. Similarly, the Sino-US trade conflict has also had a certain impact on the United States. U.S. consumers have paid a price for the trade conflict, such as reducing imports of low-quality Chinese cotton textile products and cotton, and making related companies need to change their supply locations which causes certain economic losses.

References

[1] He Miao. Research on the Trade Effect of Sino-US Trade War on Chinese Exports[D]. Donghua University,2022.

[2] Liu Xinya, Huang Fujiang. The International Competitiveness and Suggestions of Xingjiang Cotton Industry based on the "Diamond" Theory[J]. Cotton Science, 2022, 44(05): 50-56.

[3] Zhu Aikong, Gu Jialu, Wei Meijuan, Song Xiangyuan, Yi Taole, Wei Yufen, Huang Sanmei, Chen Xiaofeng, Xue Yanyan, Han Xiaoxiao. Research on Risk Coping Strategy of Xinjiang Cotton Industry from the Perspective of Crisis Management[J]. Chinese Cotton Processing,2022(04):4-9.

[4] Chen Jia, Wang Yan, Bai Yulan. Current Situation and Output Efficiency Analysis and Countermeasures of Chinese Cotton Industry[J]. Cotton Science, 2022, 44(05):3-10.

[5] Wei Chengjie. An analysis of the Counter-discourse Framework of the Xingjiang Cotton Incident on China Daily in the Context of Intercultural Communication[D]. Chongqing Technology and Business University,2022.

[6] Murphy L, Elima N, Tobin D. Until nothing is left: China's settler corporation and its human rights violations in the Uyghur region[M]. Sheffield Hallam University, 2022.

[7] Better Cotton Initiative. Defining 'Better': Our Principles & Criteria [EB/OL]. (2019) [2023-02-07]. https://bettercotton.org/zh-CN/what-we-do/defining-better-our-standard/.

[8] China Cotton Association. China Cotton Sustainable Development Project Introduction [EB/OL]. (2022) [2023-02-07]. https://www.china-cotton.org/special_topic/index.

[9] Zhu Xuanzhi. Analysis on the Development Status of Xinjiang Cotton Standards [J]. China Fiber Inspection, 2022, 564(09):102-103.

[10] Shao L, Gong J, Fan W, et.al. Cost Comparison between Digital Management and Traditional Management of Cotton Fields—Evidence from Cotton Fields in Xinjiang, China [J]. Agriculture (Basel), Basel: MDPI AG, 2022, 12(8): 1105-.

[11] Archana V. Who will win from the trade war? Analysis of the US-China trade war from a micro perspective [J]. China economic journal, Beijing: Routledge, 2020, 13(3): 376–393.

[12] Pangestu M. China-US trade War: An Indonesian perspective [J]. China economic journal, Beijing: Routledge, 2019, 12(2): 208–230.

[13] Gao Mingyu, Huang Fujiang. The Influence of Sino-US Trade Friction on my country's Cotton Industry [J]. Cooperative Economy and International, 2021, 669(22): 68-69.

[14] Li Fuguang. "Bu Wang Chu Xin, Di Li Qian Xing", making new contributions to the development of cotton science and technology——Speech at the 40th Anniversary Review Conference of the Cotton Branch of the Chinese Agricultural Society [J]. China Cotton, 2019, 46(08): 43-46.