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The economic and trade impact of EU anti-dumping
on Chinese textiles

by

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Acknowledgements

As I come to the end of my wonderful experience in MEL, I can't help but reflect on the past one and a half years. It feels like it went by in a moment, and while it was never easy, going through all kinds of challenges and difficulties made me realize that the hardest part is now that I am not ready to say goodbye.

I will never forget my first day at MEL, on October 6th, 2021. It wasn't because of my first class in Erasmus, but because I was caught by the police for holding my phone with my left hand while riding my bike, and I didn't have my residence permit with me. The policeman wouldn't let me go, even if I was fined 109 euros. I didn't want to miss class, so I opened the Zoom meeting while crying and communicating with the policeman. It was like a prelude to a movie, and my master's journey full of challenges began.

The first assignment was MT, and having no relevant shipping background made it hard for us to understand. We stayed in the corridor, tried to share thoughts and help each other until the security asked us to leave. We practiced the data science exercise over and over again and finally cheered for getting a grade of 5.5. Berden's weekly exams always stressed us out, but at the same time, the fulfilling time of study made me feel my long-lost life force. I knew that no pains, no gains, and the more I learned, the higher scores I would get. Though painful, I was making a positive impact, just like what we could see when looking at the lake from the Polak building.

The knowledgeable professors, hardworking companions, and cozy campus environment made my life here in the Netherlands. I would like to express my gratitude especially to my supervisor, Simme Veldman. Thank you for your patience and guidance during the whole procedure. Also, I would like to thank Renee for her timely support and careful guidance, not only in the aspect of my study but also in my daily life. Sometimes, I was sensitive and fragile in facing emergencies because I was alone, but she always encouraged me to think logically and stay strong. From the bottom of my heart, I know I will always benefit from the experience here in Erasmus. It was a pleasure to work and study with all of you.

Let's treasure the moment here and move forward to the future with an ambitious heart. I hope we will meet again in the future at a higher ground, where we have all become our better selves.

Abstract

Currently, the world economy becomes more interconnected and there is an increase in liberalized trade, competition in the international market has reached an unprecedented level. This has led to a rise in global trade protectionism, and anti-dumping measures have become more influential in protecting domestic trade by hindering imports from other countries. Despite being one of the world's largest textile export countries, China is facing significant challenges from anti-dumping measures, particularly from the EU. Over the last few years, the EU has imposed an increasing number of anti-dumping cases on Chinese textile exports, resulting in significant losses for China. In this context, we aim to gain a deeper understanding of anti-dumping measures and their impact on macro and microeconomics. Specifically, we seek to identify the reasons behind the EU's anti-dumping measures against Chinese textile exports, and the resulting trade and economic impact. Finally, we intend to propose effective measures that China can take to address this issue.

After conducting a thorough investigation and research on anti-dumping cases over the past 30 years, we discovered that the EU may have implemented anti-dumping measures against Chinese textiles due to factors such as the EU's economic growth rate, the European textile and apparel manufacturing industry, the unemployment rate, and the exchange rate of RMB against the euro. On the other hand, from China's perspective, the strong competitiveness of Chinese products and the low price competition mode of Chinese textile enterprises may have been the reasons. Regarding the trade and economic impact of the EU's anti-dumping measures on Chinese textile, we anticipate that there will be trade diversion, cascading protection, export restriction, anti-dumping-jumping foreign direct investment (FDI), and industrial upgrading effects.

Finally, we proposed several measures that China could take to address the challenges of anti-dumping. From the perspective of the Chinese government, we suggest improving the early warning mechanism for anti-dumping in the textile industry, providing industry guidance, creating a competitive domestic market environment, establishing a comprehensive anti-dumping response mechanism, and improving the recycling rate of waste textiles. From the perspective of the Chinese textile industry, we recommend focusing on the domestic market to reduce reliance on exports, enhancing quality management, prioritizing brand building, diversifying export markets, and taking a more proactive approach to responding to lawsuits.

Key words: Anti dumping, Chinese textiles, economic impact, countermeasures, reasons.

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List of Abbreviations

AD	Anti Dumping
ASEAN	Association of Southeast Asian Nations
GDP	Gross Domestic Product
GFF	Glass Fibre Fabrics
GVCs	Global Value Chains
RCA	Revealed comparative advantage
RMG	Ready-Made Garments
SMEs	Small and medium-sized enterprises
T&A	Textile and Apparel
UFLPA	The Uyghur Forced Labor Prevention Act
USFIA	US Fashion Industry Association
WTO	World Trade Organization

I. Introduction

A. Background and context

China's export trade has seen a rapid development since implementing an open foreign policy and successfully joining the World Trade Organization. This has led to a transformation from a trading powerhouse to a trading giant. During the last 20 years, China has become a major player in global manufacturing across many industries and has already established itself as the leading exporter by 2010.[1]

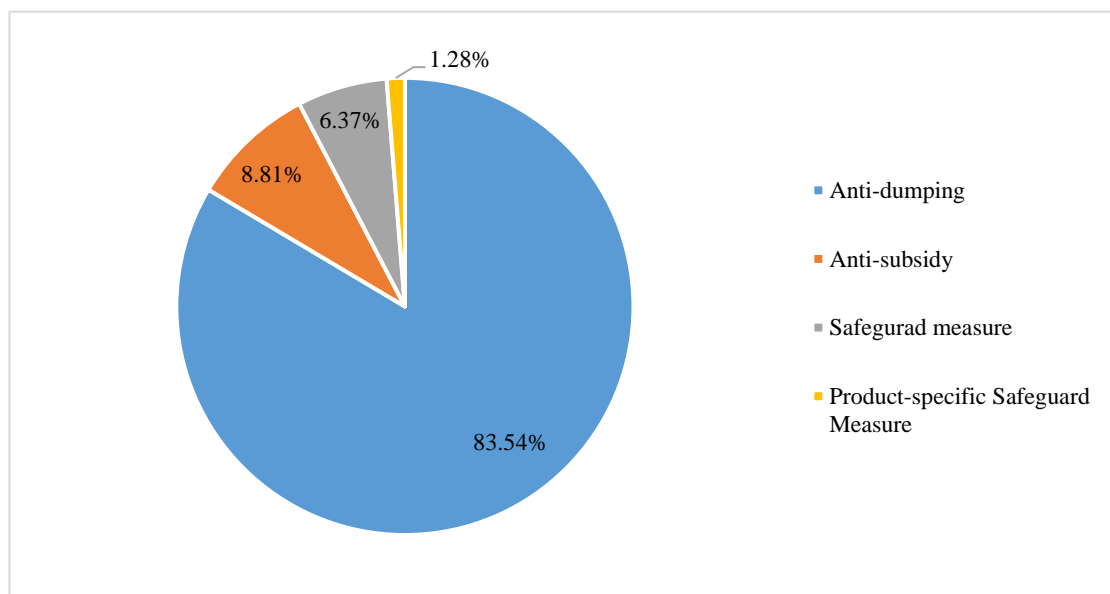
The textile industry worldwide has seen significant changes in recent years, with China emerging as a dominant player in the market. For instance, at the start of the EU-China diplomatic relationship, the trade between the two countries was a meager \$2.4 billion. However, with the rapid expansion of both economies, trade between them reached \$547.9 billion by the end of 2015. During this period, EU countries purchased goods worth \$3,548 from China, an 8% increase from earlier. Simultaneously, the value of China's imports of goods from the EU also increased by 11 percentage points to \$193.2 billion[81]. The aforementioned data highlights that China has a substantial amount of earnings from its exports to the EU. Additionally, in the context of economic globalization, China enjoys advantages such as lower labor and raw material costs compared to other developed countries, which gives it an edge in traditional industries' development. This has had a significant impact on the EU's economy, which has prompted the EU to protect its member states' traditional industries through trade protectionism. Given the significant trade demand for textile products between China and the EU, the scope for further development of their textile trade is vast. China, being the world's largest textile exporter, accounted for almost one-third of global textile exports in 2020[2].

And the rapid growth of China's textile industry has led to concerns about unfair competition and trade practices, particularly in the European Union (EU) market. As a result, the EU has implemented a series of anti-dumping measures against Chinese textiles in order to protect its domestic industry and ensure fair competition. This kind of trade friction wildly exist in our modern international trade and commerce. And

when a country's trade policy over a specified length of time exhibits a strong tendency to defend a specific industry, the trade conflicts may outbreak between the country and its trading partners.

Figure 1 depicts how anti-dumping measures are a common response to trade friction caused by dumping. These measures aim to mitigate the harmful impact of dumping[27], Dumping occurs when a company from one country sells its products at a lower price in a foreign market than it does in its own domestic market. This strategy can negatively impact local businesses since they may struggle to compete with the cheaper imported goods.

Figure 1-Distribution of trade remedy cases worldwide from 1995 to 2020



Source:[27]

The EU has a robust framework for anti-dumping measures, which includes investigations, duties, and surveillance mechanisms, in recent years, the EU has imposed several anti-dumping measures on Chinese textiles[3].

Ever since the European Union launched its initial anti-dumping case in 1979 over China's saccharin exports, numerous countries, especially European developed nations, have used the opportunity to enforce anti-dumping policies against China's

exported goods. By the close of 2000, the EU had launched about 90 anti-dumping actions against China since 1979[5], China was the first country to face anti-dumping investigations, and it has been subjected to the most investigations by various countries and regions. The practice of anti-dumping has been increasing in terms of scope, magnitude, and frequency in recent times[6]

There is a debate on the economic and trade consequences of anti-dumping measures on Chinese textiles. Some people argue that these measures are necessary to protect domestic industries and prevent unfair competition. However, others claim that anti-dumping measures can lead to higher prices for consumers and negatively impact international trade relations.

The objective of this thesis is to provide a comprehensive analysis of the reasons behind the implementation of anti-dumping measures by the European Union (EU) against Chinese textile products. Additionally, this study will investigate the economic and trade impact of these measures on Chinese textile exports to the EU. This research aims to analyze the impact of anti-dumping measures on the EU textile market, and their potential impact on consumers. Furthermore, this study seeks to provide insights into the Chinese textile industry's exporting patterns and formulate strategies to address the anti-dumping policies to ensure the uninterrupted development of Chinese textile exports. The findings of this study can serve as a model for other countries facing anti-dumping measures, helping them to develop more sustainably and contribute to global economic prosperity.

B. Purpose of the study

The purpose of this study is to provide a comprehensive analysis of the reasons why EU put anti-dumping measures on Chinese textile, and economic and trade impact of EU anti-dumping measures on Chinese textiles and come up with some solutions for China to deal with the EU anti-dumping policies to Chinese textile. The study will focus on the following objectives:

To investigate the reasons of EU anti-dumping Chinese textile, we look into this topic

from the aspect of EU, and the aspect of China, this will involve analyzing the disadvantages of EU market and the advantages of China market of textile industry, that force the EU to take the anti dumping measures on Chinese textile.

To evaluate the effects of EU anti-dumping measures on the EU textile market, including the impact on both the EU and China. This will entail an analysis of the economic and trade consequences of the measures, as well as their potential implications for international trade relations.

To explore the potential solutions for China to cope with the impact of EU anti-dumping policies on textiles, the study will analyze the actions that both the government and enterprises in China can take. The objective is to provide a model for other nations facing similar challenges in the global trade arena.

By achieving these objectives, this study aims to contribute to the existing literature on the impact of anti-dumping measures on international trade, and provide policymakers with valuable insights into the potential solution for China to deal with the challenge of EU anti-dumping measures.

C. Research questions

This study aims to answer the following research questions:

What is the reasons of EU anti-dumping measures on Chinese textile exports to the EU? From the aspect of EU, what factors make it so defensive to import Chinese textile, and from the aspect of China, what factors make China so easily to get into the whirlpool of anti-dumping from EU?

What are the reasons that EU impose anti dumping policies on Chinese textile?

What is the economic and trade impact of EU anti-dumping measures on Chinese textiles, and how do these measures affect the global textile industry?

What measures could China take to face with the challenge of EU's anti dumping policies and make their way on the international textile market?

By answering these research questions, this study aims to provide a comprehensive analysis of the economic and trade impact of EU anti-dumping measures on Chinese textiles, and contribute to the existing literature on the topic.

D. Significance of the study

This research holds great importance due to several reasons. Primarily, it enhances the knowledge available on the economic and trade effects of anti-dumping measures, which have been of substantial concern among researchers and policymakers in the present times. By examining the influence of EU anti-dumping measures on Chinese textiles, this study adds to our comprehension of the advantages and disadvantages of trade protectionism and offers useful information about the consequences of such measures on global trade relations.

The second reason why this study is significant is that it has practical implications for both the EU and China. It can assist policymakers in both countries to comprehend the potential consequences of anti-dumping measures on their economies. By identifying effective countermeasures that can be adopted to deal with anti-dumping policies from other countries, this study can inform future policy decisions related to trade relations between the EU and China. It can also help to minimize any adverse effects of anti-dumping measures on their economies.

In conclusion, this study has significant implications for the global textile industry due to China's position as one of the largest textile producers and exporters. The potential impact of EU anti-dumping measures on Chinese textiles can extend beyond China and affect other countries that export textiles to the EU. Therefore, by examining the economic and trade impact of these measures, this study can offer valuable insights into the potential implications for the international trade of textiles,

informing future policy decisions related to trade relations and trade protectionism [9].

Overall, this study is significant in contributing to our understanding of the economic and trade impact of EU anti-dumping measures on Chinese textiles, and has important practical and policy implications for both the EU and China, as well as the broader global textile industry.

II. Literature Review

A. International literature review

Dumping in the context of exports can be defined as a practice where a country sells its products to another country at prices below the standard price in the global market. This practice is generally considered to be unfair and inappropriate[25]. To combat dumping practices, anti-dumping measures can be implemented, which often involve levying additional taxes on the imported goods to bring their price up to the normal market price. This can be seen as discriminatory as it favors domestic producers and discriminates against imports from the targeted countries, as well as other import countries globally[26]. Despite its discriminatory nature, anti-dumping measures can gain international consensus because they aim to safeguard the domestic market against adverse effects resulting from unjust trade practices. such as dumping.

Adam Smith, in his book *The Wealth of Nations*, discussed the practice of providing official incentives for export trade, which he referred to as dumping. This was one of the earliest mentions of the concept of dumping in economic literature[10].

In the early 20th century, economist Jacob Viner provided a definition of dumping as the practice of differential pricing of the same product in different international markets. This marked the first time that dumping was differentiated from export incentives of a subsidized nature, and revealed the unfair competitive nature of price discrimination through dumping. Viner's definition is considered a classic economic

definition of dumping[11].And also Viner divided dumping into three categories, which are the accidental dumping, the predatory dumping and the persistent dumping. After that, from an economic point of view, the concerns of dumping and anti-dumping are increasing worldwide.

Currently, anti-dumping measures have evolved and are acknowledged by the World Trade Organization (WTO) as a lawful and efficient tool to promote fair competition worldwide and safeguard the importing countries' industries against unjustified foreign competition[12].In general, the global research of dumping and anti-dumping mainly focus on the aspects below:

1.The rationality of anti-dumping

Paul Krugman and Maurice Obstfeld hold the opinion that one of the most prevalent types of price discrimination is dumping, and dumping is legal from an economic standpoint because it is nothing more than a method for increasing business profits[13]. Also, Martin Theuringer, Pia weib insist that anti-dumping weakens competition, encourages businesses to misuse their market dominance, and lowers customer welfare[14].

But also, some scholars agree with restrict dumping, and they are in favor of anti-dumping policies.For instance, Gandolfo hold the view that accidental dumping and predatory dumping are harmful to the importing country, and if the losses suffered by the producers in the importing country are taken into account, the persistent dumping will also seriously harm imports. For instance, it may result in abnormal development of related industries in the importing country or even complete paralysis in a industry, so the country suffered from dumping usually retaliates, with repeated consequences for international damage to free trade.[15]

2.The legal perspective of anti-dumping

Some scholars such as M.J.Trebilcock,R.Howse criticize the anti-dumping policies for

the reason that there is a lack of economic feasibility in anti-dumping[16]. He considered that the predatory dumping could be rare in real economic life, instead, most of the dumping activities are the legitimate enterprise competition behavior. Also, Gunnar Niels and Adrian ten Kate also agree that it could be inefficient to build a complex legal framework at a great cost just for preventing the unusual predatory dumping.[17]

3.The economic effect of anti-dumping

Krupp, Pollard took a further investigation at the data of US Anti-dumping Against Chemical Products cases from 1976 to 1988, and investigated the diversion effect of trade, found out that in about half of the cases, the amount of imports from the sources of imports accused of dumping has decreased due to the anti-dumping investigation process itself and the ruling's final outcome, while at the same time, the amount of imports from sources of imports not accused of dumping has increased, which can be recognized as the diversion effect of trade[18].

B. Chinese literature review

1.Research of global anti-dumping policies

Renyang Wang compared the different anti-dumping policies of different countries and concluded that Chinese government should take full advantage of WTO Trade dispute settlement mechanism, and also strengthen the government cooperation of different countries. Ling Chen also studied the constitute conditions of EU anti dumping policies, and clarified how the EU anti dumping policies will affect China's positioning as a "non-market economy" country.[19]

Also, Jianyao Du investigated the international anti-dumping regulations and its' anti-circumvention measures, advise that China's export products should use a differentiation strategy to get around external anti-dumping laws.[20]

2.Reason and characteristics of China suffering from anti-dumping

Considering the reasons of China suffering from anti dumping all the time, Shichun Wang, the general of the Office of Fair Trading hold the opinion that (1) Anti dumping has become the main means of trade protection for some countries; (2)Western developed countries have always regarded China as a non-market economy country and therefore carried out discriminatory anti-dumping policies against China; (3)Due to the flaws in the anti-dumping legal system, several domestic businesses do not actively respond to lawsuits; (4)One of the key motivators for anti-dumping is that the export management system has not kept up with the swift development of international trade, leading to repeated construction by some industries and businesses.[21]

Followed by that, Chinese economist Qiuya Yu wrote about the comprehensive deep causes for China's dumping textile at low price[24], it is closely related to China's basic national conditions.As is known, the price of raw materials and human resource on Chinese textile producing market is relatively low compared with other countries around the world, therefore makes it possible for the companies to explore the international market with the low-price strategy, to enhance product competitiveness, and to expand export. Secondly, a lot of Chinese small and medium enterprises didn't pay enough attention to the advanced management and sales philosophy, therefore neglected the brand building.The main principle for Chinese companies to explore the global market is always the low price, which end up in dumping due to the price competition.

Speaking of the characteristics,Jing Zhao insists that there are three patterns of anti dumping to China, that are detrimental to China's economic and trade development: the quantity diffusion, national and regional diffusion, and product diffusion.[22]

Nowadays we are at an age of globalization, the EU has been China's largest trading partner for 16 years in a row makes China and the EU are each others' important trading partners. But from 2010 to 2019, China's trade surplus with the EU exceeded

100 billion US dollars, the long-lasting trade imbalance between China and the EU makes the trade frictions between China and Europe frequent. Which also explain why China suffers from EU's anti-dumping measures time to time.

3.The economic impact of anti dumping

Famous Chinese economist Yu Tang analyzed four economic impact of anti dumping, which are the trade diverting effect, the investment crossing effect, the secondary protection effect of upstream and downstream industries, and the retaliation effects between countries[23]. And he also hold the opinion that public interest issues will become the important part of global anti dumping. Which indicates that when anti dumping measures being taken, public interest should be taken into account to balance the interest between countries, societies, domestic producers and consumers. And there is still a long way to go for Chines legislation to solve the problem.

4.Research of anti dumping forewarning

Danting Hu and Xiaojing Shan initiated a questionnaire survey to compare the effects of anti dumping cases of different economic factors to China, to see which kind of economic factors matters more in anti dumping against China, and then conclude several economic factors as the warning signal of the anti dumping against China[28]. Such as the producing equipment utilization rate, and the Gross Domestic Product(GDP) growth rate factors could have an influence on anti-dumping application against importing enterprises.

5.Evaluation of anti dumping

Yuanzhi Zhang expressed doubt about the rationale behind anti-dumping measures. He believed that only when dumping happens in a monopolistic market, should it be deemed accountable and stopped. In such cases, he suggested that the anti-monopoly law could be used as a substitute for anti-dumping law. He also argued that anti-dumping has transformed into a new type of trade protection measure[29]. Shen,

another renowned economist, contends that the misuse of anti-dumping measures can sometimes have an adverse effect on fair competition. Additionally, he highlights that state power can be employed to safeguard the interests of private manufacturers, and the efficacy of anti-dumping measures is not always guaranteed. Therefore, anti-dumping measures should be held partly responsible.[30].

C. Critical analysis of existing studies and evidence

Overview of existing studies and evidence on the economic and trade impact of EU anti-dumping on Chinese textiles

Numerous research works have investigated the economic and trade consequences of the EU's anti-dumping measures on Chinese textile products. One such study, conducted by Cheong et al., scrutinized the effects of anti-dumping duties on Chinese imports of clothing and textiles in the EU from 1995 to 2010[20]. The research revealed that anti-dumping duties had a marked adverse effect on Chinese textile exports to the EU, particularly in product categories that had higher anti-dumping duties imposed on them.

D. Gaps in the literature and research questions

Based on the current studies and evidence, there are various areas for future research on the economic and trade implications of the EU's anti-dumping measures on Chinese textiles. For instance, upcoming research could delve into potential countermeasures that China could undertake in response to the EU's anti-dumping measures against Chinese textiles. Furthermore, it could analyze the impact of anti-dumping measures on China, as well as other nations and industries.

Hence, this thesis seeks to address the shortcomings in the existing literature by responding to the following research inquiries:

What is the effect of the EU's anti-dumping measures on the economic and trade

aspects of Chinese textile exports to the EU market?

What are the reasons of the EU's anti-dumping measures against Chinese textiles?

What measures China can take to face the challenge of EU anti dumping against Chinese textile?

Through addressing these research inquiries, this thesis aims to enhance comprehension of the economic and trade implications of the EU's anti-dumping measures on Chinese textiles. It will offer valuable insights into the efficacy of various policy alternatives to foster a more stable and equitable trade relationship between China and the EU.

III. Methodology

A. Research design

Drawing upon a literature review, this study will employ a qualitative research design to investigate why the EU would adopt anti-dumping measures on Chinese textiles, the repercussions of such measures on Chinese textile exports to the EU, and the potential effects on the EU textile market. Subsequently, we will conduct a case study on the EU's anti-dumping case against China Chemical Fabric to delve deeper into the economic impact on both China and the EU. Based on these findings, we will develop strategies for China to tackle the challenge of anti-dumping policies in the future, which may also serve as a point of reference for other countries globally.

B. Research method

In terms of research methods, this essay examines the EU anti-dumping against Chinese textiles by using a variety of economic analysis methods, from micro and macro perspectives, including comparative analysis, supply and demand analysis, and case analysis.

IV. Discussion

A.The reasons Why EU anti-dumping on Chinese textile

1.From the perspective of EU

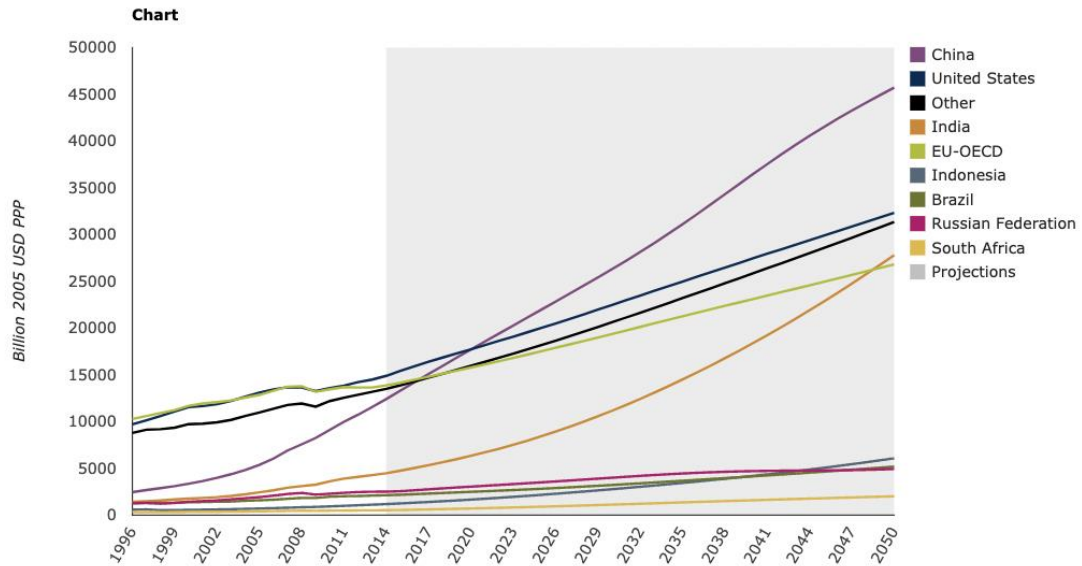
Chinese economist Zhen Cheng discovers that anti-dumping is directly tied to fluctuations, such as ups and downs of the global economic situation, because of the inadequate WTO constraints on the anti-dumping behavior of various countries. Anti-dumping frequently emerges as the top option for governments to undertake trade protection when the global economy is weak[31]. On April 2023, Data on the international trade in products, which were made available by Eurostat, revealed that the EU's trade in goods might have a deficit of up to 432 billion euros in 2022. According to reports, the primary cause of the country's significant trade deficit from the end of 2021 to the present is the steep increase in energy import prices. Due to growing costs, the value of products imported into the EU increased by 41% in 2022 compared to the previous year. In recent years, the European Union put more efforts to step up anti-dumping measures, broaden the scope of anti-dumping inquiries, and raise the anti-dumping tariff threshold with the intention of using anti-dumping to safeguard local industry[32].

The EU was one of the first nations to open an anti-dumping investigation into China, and it is also one of the nations and areas with the most anti-dumping probes open against China. According to statistics from the China Trade Remedy Information Network, from 2001 to 2020, the EU had launched 310 anti-dumping investigations against the world, of which 110 are against China, accounting for 35% of the total investigations and averaging 5.5 cases per year.[33]

According to investigation, we found that, anti-dumping investigations against Chinese textiles are frequently opened by the EU, which is closely tied to the macroeconomic circumstances within the EU, such as the rate of economic growth in the EU, the unemployment rate in EU nations, the RMB/EUR exchange rate, the EU trade deficit, etc.

1.1 The rate of economic growth in the EU

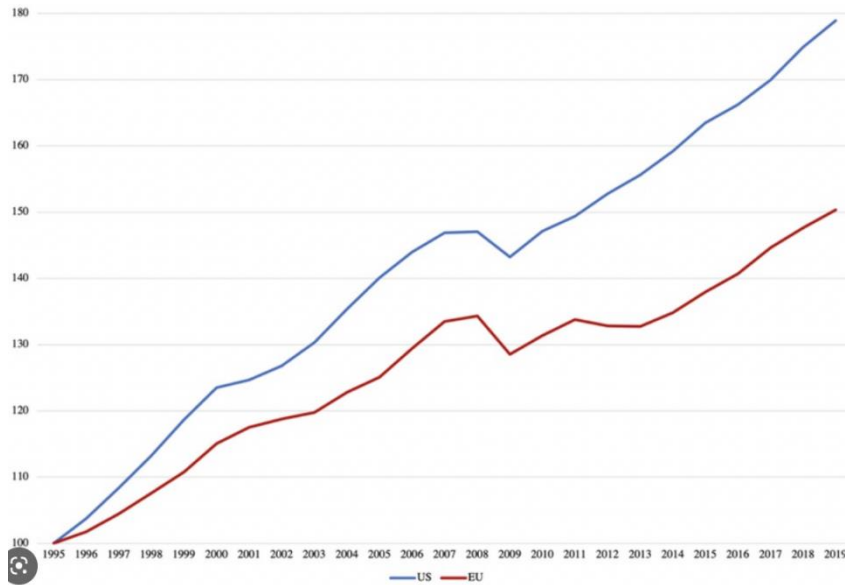
Figure 2-Historic and projected GDP in the EU and other countries



Source[34]

By observing the GDP and economic growth of EU and US, we may get a more comprehensive understanding about anti-dumping. For example, from the figure 2 above[34], we could analyze that EU's gross domestic product(GDP) growth momentum is relatively flat compared with the US, about from 2011, the GDP of United states caught up and surpassed EU. And when compared with China, the gap is even more obvious. China is projected to surpass EU at 2020 and after that it will still have a strong momentum to rise up.

Figure 3-Comparing Economic Growth: United States vs. Europe



Source [35]

As the figure 3 is showed above[35], from 1995 to 2019 the graph provides a stark contrast of US and EU economic growth, though there are similarities showed in the curve shape of US and EU in general, but it is apparent that economic growth situation of US is much better than EU. And in recent years, situation could be even more severe. The European economy will be severely impacted by the extended conflict in Ukraine, high inflation, and strict monetary policy this year. According to UNECE[36], we may see one of the lowest rates in recent decades, global growth is predicted to be only 1.9% in 2023, down from 3% in 2018. And The EU believes that its economic growth is slowing down because of the trade deficit, and also the job outflow, which affects the economic performance of the EU, so it turns to anti-dumping and other measures to prevent the large inflow of foreign goods, in order to balance its international balance and promote economic growth.

1.2 European textile and apparel manufacturing industry and the unemployment rate

The EU textile and apparel (T&A) manufacturing sector is not exempt from the global economic downturn brought on by the Covid-19 outbreak. The epidemic has already had severe effects on the sector in demand and supply, firstly, China is a significant

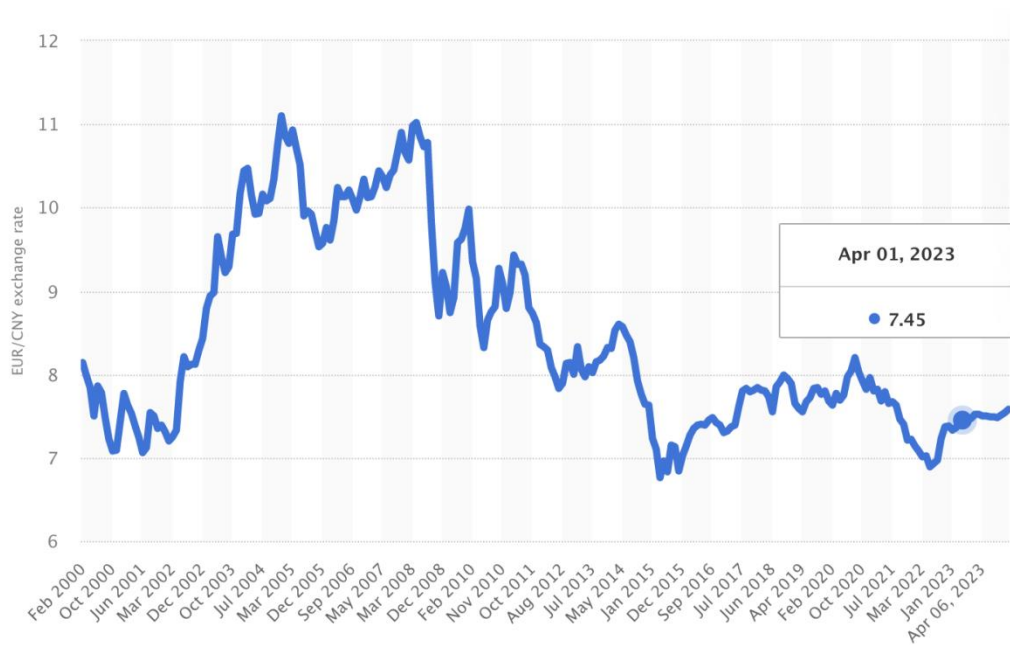
exporter of fibers and fabric for European manufacturers and a major destination for European garment exporters, but China entered a protracted and severe lock down phase beginning in February 2020, without a doubt the EU T&A manufacturing industry suffered a heavy loss. Secondly, with EU's three client sectors (local businesses, export markets, and sellers of clothes locally) operating at low capacity in order to prevent the accumulation of inventory and maintain their cash situations. The April of 2020 was likewise the lowest month for specialist retail, with year-over-year decreases ranging from -65% for the UK to -90% for Spain[37].

Through industry consolation, the textile and apparel sector lost 22,000 businesses and 600,000 jobs between 2008 and 2019, and this trend is expected to pick up speed. Based on historical data, that total sector employment may fall by as much as -8% (or about 158,000 jobs), and firm count may fall by as much as -6% (or about 13,000 companies), compared to -13% and -7%, respectively, in 2009.[37]

The dim situation of T&A of these years will inevitably lead to discontent among unemployed workers, thus puts pressure on governments and influences the decision-making. Therefore, it is a natural policy choice for each country to limit the inflow of textiles from outside the union and increase the employment rate of the textile industry. Among the many restrictive measures, there are measures such as quota restriction, licensing system, and anti-dumping measures. Anti-dumping has developed into a crucial tool for limiting textile imports. In light of this, it is not difficult to comprehend why the EU often opens anti-dumping investigations into Chinese textiles.

1.3 Exchange rate of RMB against euro

Figure 4-Exchange rate of RMB against euro



Source[38]

According to the data of Statista[38], we found the figure 4 above, which indicates that from 2020 to 2023, the overall trend of Chinese RMB is going upward against Euro, which will cause a negative influence on Chinese textile export.

Chinese economist Jianguang Shen writes that China's share of global textile and garment trade reached 40%, higher than its share of global trade (24%), from 2000 to 2014, the proportion of China's exports in the global textile and garment trade (HS50-HS63) even had increased from 13.5% to 41.0 year by year[39]. It is clear that textile industry has always been Chinese pillar industry of export earning, and the industry has a high dependency on export. From the aspect of Chinese importers, When the value of RMB required to purchase one euro worth of foreign goods decreases, it results in a decrease in import costs, causing an increase in the scale of Chinese imports within a given budget. As a result, commodity export prices in the EU market decrease, increasing the likelihood of anti-dumping investigations on Chinese goods.

2.From the aspect of Chinese

The EU's anti-dumping measures against Chinese textiles are partly attributed to China, with three reasons being identified: Firstly, the strong competition from Chinese products has resulted in a significant impact on Chinese textiles in the EU textile market. Secondly, to some extent, the anti-dumping of Chinese textiles is supported by the low-price competition strategy employed by Chinese enterprises. Lastly, some Chinese middle and low-level enterprises lack marketing expertise in the EU market, and their lack of market sensitivity has led to the imposition of anti-dumping measures against China.

2.1.The strong competitiveness of Chinese products

The rapid growth of Chinese textile exports to EU is due to the strong competitive advantage of Chinese textiles. This competitive advantage can play a great role in the fierce market competition in the EU. And this kind of strong Chinese textile competitive advantage can result from the comparative advantage of Chinese textile. According to David Ricardo[40], the theory of comparative advantage states that international trade is founded on relative disparities in production methods and the consequent relative costs, rather than absolute differences. Therefore, each country should specialize in producing and exporting products that they have a "comparative advantage" in, and import products that they have a "comparative disadvantage" in, based on the principle of balancing the pros and cons.

In the aspect of quantitative analysis, when we conduct the international research on the comparative advantage of an industry, we commonly use the index of revealed comparative advantage(RCA).

The index of revealed comparative advantage simply refers to the proportion of a country's export value of a certain commodity in the total value of all its exports to the world's export value of that commodity in the total value of all its exports. The formula for calculating the index of revealed comparative advantage could be described as follows:

$$RCA_{ij} = \frac{X_{ij}/X_{it}}{X_{wj}/X_{wt}}$$

In this formula, RCA_{ij} represent the RCA of the commodity j in the country i ; X_{ij} represents the export value of commodity j in country i , and X_{it} represents the total export value of this specific commodity in country i ; X_{wj} represents the export of commodity j all over the world, while X_{wt} represents the total export value of the specific commodity in the world. When the $RCA_{ij} > 1$, we can say that the commodity j in the country i has the comparative advantage, and if the $RCA_{ij} < 1$, then the country does not have the comparative advantage in producing the commodity j . Generally speaking, when RCA is greater than 2.5, then it can be asserted that the country possesses a robust comparative advantage in the production of the particular commodity, but when the RCA is less than 0.8, the country lacks a comparative advantage in manufacturing the commodity, last, when the RCA is around 1.5 to 2.5, then it can be said that the country holds a comparatively robust advantage in the production of the particular commodity.[41].

Table 1-Comparative analysis of textile trade competitiveness of BRICS

年份	中国	印度	巴西	南非	俄罗斯
2008	3.3053	3.2842	0.3184	0.2500	0.0237
2009	3.1876	2.9430	0.2945	0.2637	0.0309
2010	3.1919	3.1061	0.2803	0.3359	0.0202
2011	3.2655	2.8557	0.3015	0.3093	0.0206
2012	3.0814	2.9633	0.3675	0.3438	0.0289
2013	3.0693	2.9480	0.2450	0.3391	0.0371
2014	2.9267	2.8747	0.2624	0.3381	0.0426
2015	2.6644	3.1267	0.2800	0.3200	0.0444
2016	2.6411	2.9759	0.2604	0.3239	0.0547

Source:[42]

Table 1 above displays the RCA values for China, India, Brazil, South Africa, and Russia from 2008 to 2016. It can be observed that during this 9-year period, China's RCA values were distinct from those of the other countries. Along with India, China possessed a strong comparative advantage in the textile industry, and even though China's RCA trend showed a decline, it consistently remained above 2.5, making it one of the top countries with a strong comparative advantage. China's textile industry has a remarkable global competitiveness, making it easier for China to access the EU market and increase its share in the EU textile market. However, the rapid increase in the share of Chinese textiles attracts the attention of the EU, which then takes anti-dumping measures to restrict the quantity of Chinese textiles exported to Europe.

The comparative advantage of China and India in the textile industry is primarily derived from their low labor costs. USNews reports that these countries have the lowest manufacturing costs globally, with India being ranked first and China second[43].

Table 2-China's Textile Industry International Competitive Advantage1

Country	1990	1995	1999	2000	2001	2002	2003	2004
China	3.838	3.186	2.584	2.701	2.660	2.653	2.687	2.648
U.S.	0.423	0.429	0.528	0.583	0.605	0.646	0.658	0.688
Canada	0.178	0.244	0.329	0.332	0.350	0.363	0.363	0.361
Japan	0.697	0.552	0.609	0.611	0.645	0.608	0.597	0.593
Australia	0.147	0.246	1.055	0.227	0.192	0.183	0.189	0.178
EU	1.110	1.016	0.956	0.953	0.917	0.887	0.882	0.902

Source: Calculated based on the data from WTO website: http://www.wto.org/english/res_e/statis_e/statis_e.htm.

Source:[44]

Table 2 shows that, compared to other major developed economies, China maintained a significant advantage in the textile trade from 1990 to 2004, as indicated by its RCA value. Despite a decline during that period, China's RCA in the textile sector remained significantly higher than that of industrialized nations such as the United States, Japan, the EU, and Canada. Hence, it can be concluded that China's textile industry still possesses a competitive edge that is likely to persist for some time[44].

Table 3-China's Textile Industry International Competitive Advantage2

Textiles					Apparel products				
Country / region	1980	1990	2000	2004	Country / region	1980	1990	2000	2004
European Union (25)	-	-	36.5	36.6	European Union (25)	-	-	27.0	29.0
extra-EU (25) exports	-	-	11.2	12.5	extra-EU (25) exports	-	-	6.9	7.4
China	4.6	6.9	10.4	17.2	China	4.0	8.9	18.3	24.0
Hong Kong, China	1.7	2.1	0.8	0.4	Hong Kong, China	11.5	8.6	5.0	3.2
United States	6.8	4.8	7.1	6.2	Turkey	0.3	3.1	3.3	4.3
Korea,	4.0	5.8	8.2	5.6	Mexico	0.0	0.5	4.4	2.8
Taipei, Chinese	3.2	5.9	7.7	5.2	India	1.7	2.3	3.1	2.8
Japan	9.3	5.6	4.5	3.7	United States	3.1	2.4	4.4	2.0
India	2.4	2.1	3.9	4.0	Romania	...	0.3	1.2	1.8
Turkey	0.6	1.4	2.4	3.3	Indonesia	0.2	1.5	2.4	1.7
Pakistan	1.6	2.6	2.9	3.1	Bangladesh	0.0	0.6	2.0	1.7
Indonesia	0.1	1.2	2.3	1.6	Thailand	0.7	2.6	1.9	1.6
Thailand	0.6	0.9	1.3	1.3	Viet Nam	0.9	1.5
Canada	0.6	0.7	1.4	1.2	Korea, RP	7.3	7.3	2.5	1.3
Mexico	0.2	0.7	1.7	1.1	Tunisia	0.8	1.0	1.1	1.3
Switzerland	2.8	2.5	1.0	0.8	Pakistan	0.3	0.9	1.1	1.2
Total			92.1	91.3	Total			78.6	80.3

Source:[44]

Upon examining Table 3, it becomes evident that China is increasing its textile exports at a faster rate than other developed economies. As indicated in the table, China's share of textile exports grew from 4.6% in 1980 to 17.2% in 2004, and its clothing export share increased from 4% to 24%. In contrast, industrialized economies had much lower numbers. For instance, in 2004, the U.S. exported only 6.2% of textiles and 4.3% of apparel products, while Japan exported 3.7% and 2% of those same products[44].



In terms of textile trade patterns, China has a significantly larger ratio of clothing exports to textile product exports compared to industrialized nations. As shown in Table 3, China's ratio is higher than that of developed economies and has a faster growth rate for this ratio. This indicates that China has a comparative advantage in producing and exporting labor-intensive clothing rather than capital- and technology-intensive textile goods. Despite a decrease in RCA over time, China's

textile sector still retains certain competitive advantages over other industrialized economies.

The competitive advantage of Chinese textiles can be attributed to the scale effect resulting from China's abundant natural resources and human resources. These factors contribute to the strong comparative advantage of Chinese textiles.

1) The abundant natural resources

Table 4-Ranked: The World's Top Cotton Producers

Top Cotton Producers	2020/2021 (metric tons)	2021/2022 (metric tons)
 China	6,445,000	5,835,000
 India	6,009,000	5,334,000
 United States	3,181,000	3,815,000
 Brazil	2,356,000	2,504,000
 Australia	610,000	1,252,000
 Pakistan	980,000	1,306,000
 Turkey	631,000	827,000
 Other	4,059,000	4,282,000
Total	24,271,000	25,155,000

Source:[45]

Sam Parker in November 2022 wrote that five nations currently produce about 75% of the world's cotton, with China being the largest producer. With over 89 million cotton farmers and part-time laborers, the nation produces more than 23% of the cotton used in the world's clothing. Cotton is crucial since it serves as the main raw material for the textile industries of many other countries, including China[45]. Sam Parker's article provides detailed information about cotton production in various countries worldwide from 2020-2022, as shown in Table 4. Additionally, according to Atlasbig, China is the world's largest producer of silk, with an annual production of 403,021 tonnes, accounting for over 60% of global silk production[46].

2) Human resource advantage

China possesses a vast pool of human resources, allowing for the employment of skilled workers at relatively low wage costs. In the current era of economic globalization, various resources are permitted to flow across borders under the free trade system. However, labor resources are still subject to restrictions. As a result, labor quality and wage costs remain significant factors in global textile trade competition. Due to its status as a developing country with abundant labor resources, China holds a considerable advantage in labor costs when compared to developed nations.

2.2 The low price competition mode of Chinese textile enterprises

The textile manufacturing industry in China is mainly comprised of small and medium-sized enterprises (SMEs). It is revealed by the China National Textile Industry Council, SMEs make up approximately 99% of the industry, and account for around 87% of employment in 2021. These enterprises are spread throughout the entire industry chain, including the upper, middle, and lower segments, and play a significant role in increasing employment opportunities, raising living standards, and promoting innovation and entrepreneurship[47].

Consequently, the majority of Chinese textile firms are relatively small in size, which significantly limits their research and development capabilities and technological innovation. Additionally, outdated production equipment, a lack of new textile fabrics, and the absence of fashion trend guidance further exacerbate this situation. Thus, the Chinese textile industry is primarily reliant on raw materials and primary product processing, with few companies having their own brand. As a result, the quality and grade of exported textile products are generally low, with low added value and meager profits from raw material processing[48]. The absence of innovation capability and branding leads the companies to engage in a price war, forcing them to rely on a low-price strategy to increase their market share and remain competitive.

The strategy of offering low prices can result in anti-dumping investigations against Chinese textile products. The EU's anti-dumping investigations against Chinese textiles are partially due to their low prices. Additionally, Chinese companies tend to rely on this strategy to retain their market share, indicating a lack of core competitiveness and independent branding. This further highlights that Chinese textiles are mainly focused on low value-added fields.

2.3.Lack of international marketing experience

There are multiple reasons why Chinese textile companies tend to set their production price lower than their target import country. Firstly, some Chinese export companies are eager to close the deal and may not be familiar with the market conditions and price levels of the import country, leading them to offer a relatively low price that could give the impression that "cheap buyers get bad quality products." Secondly, Chinese textile enterprises generally lack investigation and research on the customs and habits of EU consumers, leading to a lack of improvement and innovation in styles, packaging, and other aspects, resulting in some high-quality products being sold at a low price. Additionally, some enterprises cannot accurately grasp changes in the EU market information and adjust the price and quantity of their export commodities accordingly, leading to a large number of products flooding into importing countries, increasing the probability of EU anti-dumping investigations against China. In summary, the lack of international experience among small and medium-sized companies will have a detrimental impact on Chinese textile exports due to the resulting information gap.

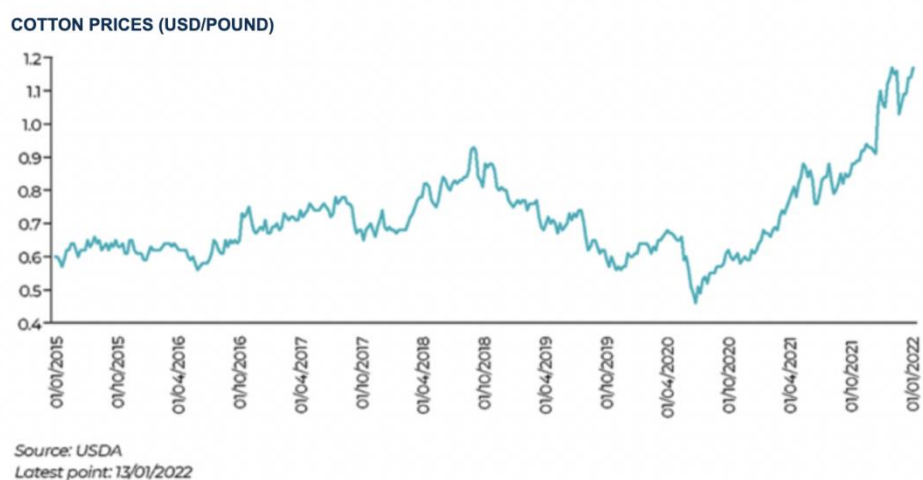
B.The economic and trade impact of EU anti dumping on Chinese textile

1.From the aspect of EU

According to Chinese journalist Kai Zhou, the EU's anti-dumping measures against Chinese textiles could have a significant negative impact on Chinese textile exports. In 2006, the growth rate of Chinese textile exports to the EU fell by 45 percentage points, and exports of the 10 categories of products that were subject to restrictions

decreased by 29.69%. Similarly, exports to the US fell by 70 percentage points, and exports of the 21 categories of products that were subject to restrictions fell by 31.71%. Overall, exports of the 31 categories of products that were subject to restrictions fell by 30% due to the anti-dumping policies of both the EU and US. Meanwhile, during the same period, exports of Chinese textiles to non-restricted areas reached \$45.357 billion, an increase of 34.18%[50].

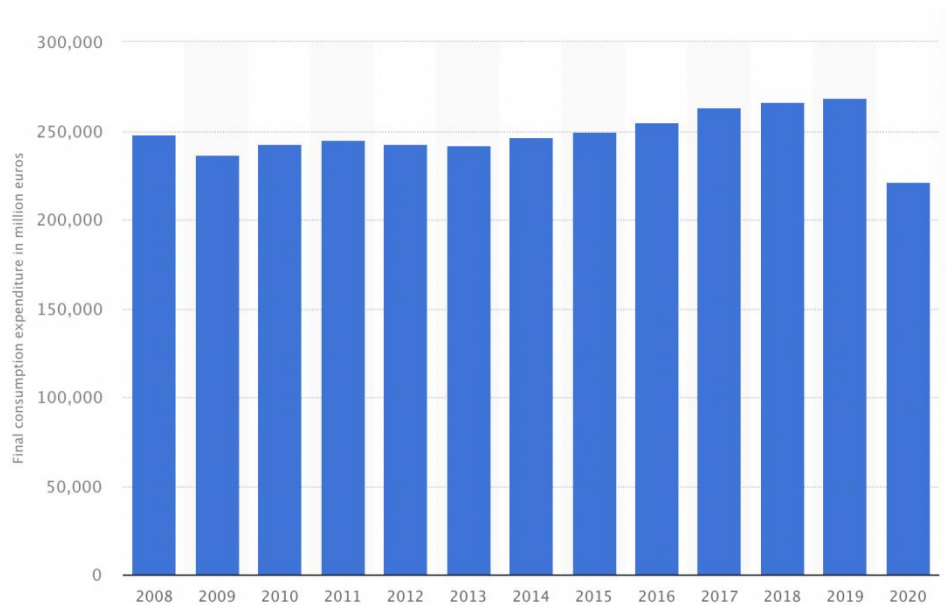
Figure 5-Cotton prices during 2015-2022



Source:[51]

But however, the price elasticity of EU textile demand is relatively low. Cotton, as one of the main raw materials of textile manufacturing, has a close relationship with the textile price. Basically speaking, price and demand are inversely proportional, so the higher the cotton is, the lower demand of textile will be. As we can tell from the figure 5 above[51], from 2015 to 2022, the cotton price fluctuated all the time, during the period 2015 to 2018, it shows an upward price trend, but during the period of 2018 to 2020, the price went through a sharp decline, after that, from 2020 to 2022 the cotton price increased significantly.

Figure 6-Household consumption expenditure on clothing in the EU



Source:[52]

When we look into the clothing consumption of EU according to the data of Statista in Figure 6[52], It is evident that the yearly clothing consumption has remained stable from 2008 to 2020. However, between 2013 and 2019, clothing consumption experienced a slight increase, except in 2020, where consumption decreased due to the pandemic. This decline in consumption in 2020 coincided with a rise in cotton prices.

According to the price elasticity of demand theory[53], in the EU clothing market, the price elasticity of demand for textiles is low, meaning that changes in cotton prices do not significantly affect the quantity demanded. However, anti-dumping policies against China's textile exports to the EU have a significant impact. If China's textile supply to the EU declines, other countries within the EU, such as Italy and Switzerland, or other supplier countries, will likely fill the gap. This situation is known as trade diversion, according to Jacob Viner.[54].

When the EU implements anti-dumping measures that increase the prices of Chinese textiles, it can be seen as a way to protect the domestic textile industry in the EU.

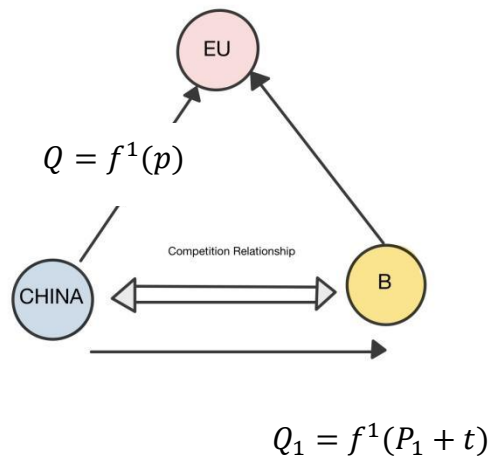
Additionally, this can provide an advantage for EU textile industries to increase their market share.

1.1 Trade diversion effect

Yu Tang, a Chinese researcher from the Graduate School of the Chinese Academy of Social Sciences, explained that anti-dumping measures are unique among other trade measures because they specifically target the source of imports, and are an exception to the non-discriminatory principle of the World Trade Organization (WTO) multilateral trading system. Anti-dumping measures focus on "unfair" trade practices and impose different levels of duties based on the dumping margin of various enterprises. This differential treatment of anti-dumping measures can lead to trade diversion[55].

Trade diversion occurs when a customs union integrates external tariffs but does not impose internal tariffs, causing some members to switch from importing from third parties to importing from other members. However, trade diversion can occur whenever an importing country has inconsistent external tariffs on a particular commodity. Therefore, anti-dumping measures against specific exporting countries are bound to result in trade diversion effects. This is because only some of the export enterprises will be subjected to high anti-dumping duties, while other non-target enterprises will face relatively lower tariffs, leading to trade diversion for the non-target enterprises. Additionally, anti-dumping measures can cause import and domestic prices to rise, stimulating the export of non-target potential exporters.

Figure 7-Trade diversion



Source: Own illustration

Assuming a market for textiles in the EU with only two suppliers - China and Country B - and competition between the two, we can observe from figure 7 that the EU demand function for Chinese textiles can be expressed as:

$$P=f(Q)$$

the P denotes the price, the Q denotes the quantity, the function is monotonically decreasing.

Suppose that the EU imposes anti-dumping duties at rate t on Chinese textiles, the textile price on EU market before the anti dumping duties is P_1 , then the demand can be described as:

$$Q_1=f^1(P_1)$$

After the EU imposes anti dumping duties, we have the Chinese textile export price P_1+t , $Q_1>f^1(P_1+t)$

If the EU reduces the import from Chinese textile, then the quantity of reduction can

be described as :

$$Q_1 - f^1(P_1+t)$$

If the demand for textiles in the EU is constant, EU consumers will turn to the equivalent products from Country B, which are substitutes for textiles. Then the export of country B to EU will increase as:

$$Q_1 - f^1(P_1+t)$$

Which means due to the EU anti-dumping policies, this part of demand changed from import from China to import from Country B. The discussion above can be described as the trade diversion due to the EU anti dumping on Chinese textile[56].

Here we could take the case of China anti dumping on Acrylates and Catechol from 1999 to 2005 as an example. It is a special case that China has filed anti-dumping charges against the product of the same tariff number twice, which can confirm the trade diversion effect of anti-dumping(Table 5). Since China first imposed anti-dumping measures (1999), there has been a rapid shift in the volume share of imports from the accused countries, Germany, the United States and Japan, to other non-accused countries, especially South Korea, Malaysia, Singapore and India (see Figure 8). Which implies that, the import share of Germany, the United States and Japan fell sharply, while the import share of South Korea, Malaysia, Singapore and India increased sharply and reached a peak in 2001 when the second investigation was launched, before falling due to anti-dumping measures. In the case of catechol, the import quantity also shifted from the EU to other non-accusatory countries such as the United States and Japan.

The existence of trade diversion is rooted in the country discrimination of anti-dumping, that is, it is impossible for an anti-dumping case to investigate all the countries of import origin, hence, anti-dumping duties are levied only on those countries specifically targeted by anti-dumping charges. For this reason, it is particularly important to distinguish between the named country and the non-named

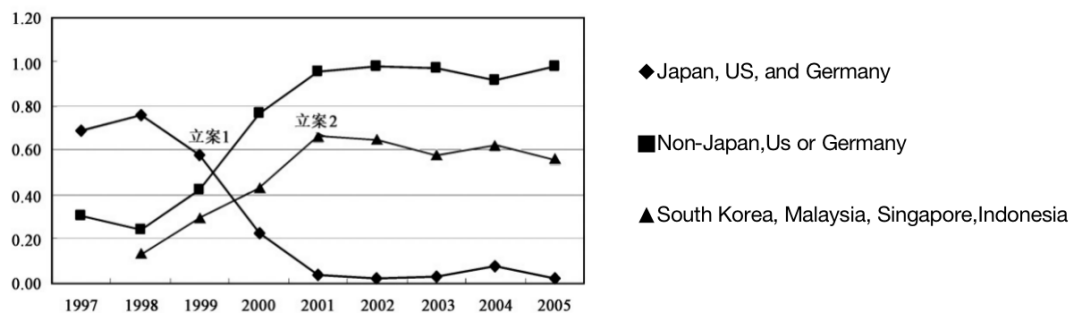
country. Although anti-dumping protects domestic industry by restricting imports from the target country, the non-target country can partly counterbalance this safeguarding measure by boosting their sales to the market. If trade diversion effects are significant, anti-dumping duties are less restrictive on imports than the domestic industry would expect. Because it is not only domestic import competitors that are the beneficiaries of anti-dumping measures, the non-accusatory country also gains net at the expense of its competitors (named country)[57].

Table 5-Cases of products with the same tariff number been filed twice

Acrylate	Named country	Initiation	Preliminary levy	Final levy
First anti-dumping	German, US, Japan	1999/12/10	2000/11/23	2001/6/9
Second anti-dumping	South Korea, Malaysia, Singapore, Indonesia	2001/10/10	2002/12/5	2003/4/10
Catechol	Named country	Initiation	Preliminary levy	Final levy
First anti-dumping	EU	2002/3/1	2002/11/4	2003/8/27
Second anti-dumping	US, Japan	2005/5/31	2005/12/2	2006/5/22

Source:[57]

Figure 8-The market share change of the imports volumes in the acrylate case



Source:[57]

As a result of anti-dumping, the import volume of China's products involved in the case has "trade diversion" between the accused country and the non-accused country. So we could conclude that, as EU take anti dumping measures on Chinese textile, similar situations may happen, there will be the trade impact that the amount of Chinese textile export to EU will decrease , while China is losing the textile market share in EU, the non-target country will increase their textile export to EU, which

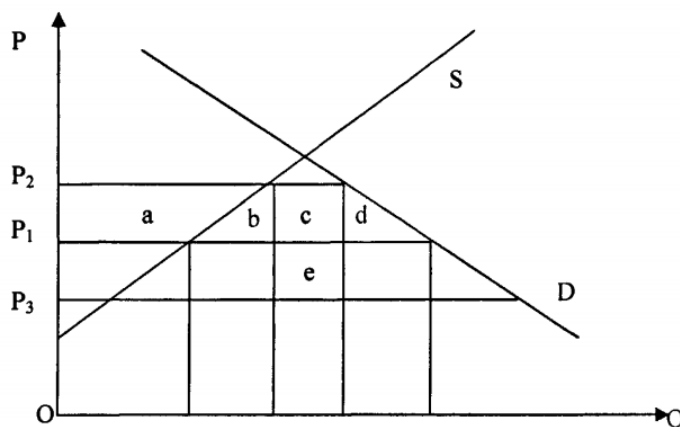
indicates that, the other countries will benefit from the sacrifice of Chinese textile export.

1.2 Protective effect on EU textile industry

Anti-dumping duties, similar to other tariffs, have the objective of increasing the price of imported textiles within the European Union. Once these duties are implemented, the price of textiles that are imported from China rises, leading to a decrease in demand within the EU. As a result, there is an oversupply, causing the global textile price to decrease. Although the duties are specifically imposed on Chinese textiles, ultimately the Chinese textile industries and EU consumers will share the burden of these duties. Conversely, the EU government and producers will benefit from them.

The diagram shown in Figure 9 depicts the relationship between price (P) and quantity (Q) of textiles, with the supply curve represented by S and the demand curve by D. When the EU imposes anti-dumping duties (t) on China's textile exports, it results in an increase in price from P₁ to P₂. However, the export price of China's textiles (excluding t) decreases from P₁ to P₃, which is the international market price at that time. Consequently, EU industries will increase their supply while consumers will have to reduce their purchasing quantity and may switch to alternative products or reduce consumption of other commodities[58].

Figure 9-Influence of anti dumping duties



Source: Self illustration based on Harberger Triangle

When the EU imposes a higher anti-dumping duty at P2, domestic producers can increase their production from S1 to S2 to offset the marginal cost increase caused by the increase in output and to compensate for the reduction in imported goods. This also increases the income of domestic producers and protects them, which is referred to as the "protective effect." Prior to the tax, the producer surplus is represented by the region that lies above the supply curve and beneath the equilibrium price P1. After the price rises to P2, the producer surplus increases, as shown by a in the figure.

Although EU producers are protected, consumers' interests are harmed. Before the tax, EU consumer surplus is the area below the demand line above P1. After the tax, the price rises and the consumer surplus decreases (a+b+c+d). Although government revenues have increased as a consequence of the imposition of anti-dumping duties, which is (c+e). Overall, the losses to consumers from anti-dumping may be greater than the protection gains to producers and the tax gains to governments, so the welfare of the European Union as a whole may be harmed by anti-dumping.

Here we could take the case of EU anti-dumping against China Chemical Fabric as an example. In June 2006, The European Commission decided to initiate anti-dumping investigations against 35 types of chemical fabrics exported from China. The anti-dumping case, involving about 1,000 companies across China and valued at \$487 million according to Chinese customs statistics. In this case, the imposition of anti-dumping measures caused an increase in the prices of chemical fabrics in the EU market. During the investigation period, the average price of chemical fiber cloth in the EU was 5.895 USD/kg in the previous year. After one year, the average price of chemical fiber cloth in the EU increased to 11.3 USD/kg, nearly double the price. This price surge resulted in Italy's increased market share of bulk supplies of chemical fiber in the EU. During the EU's investigation into Chinese chemical fibers, Italy's portion of the market grew by 1.2 % to 11.37 %. Italy's market share saw a slight

increase due to the reasons of Turkey. The price of Turkey's chemical fabric was relatively high during the anti-dumping investigation. The price increase caused by the anti-dumping investigation did not affect Turkey's export volume significantly. As a result, Turkey's market share (in dollar amount) increased by 4.71 percentage points instead of decreasing. Therefore, we see that the anti-dumping measures had limited protective effects on Italian companies. Additionally, due to the rising price of chemical fabric, there was a decrease in the surplus for EU consumers. At last, the implementation of anti-dumping measures led to an approximate increase of \$139 million in EU producer surplus and a government tax of around \$78 million. However, the consumer surplus decreased by approximately \$24 million. As a result, the anti-dumping measures did not enhance the overall welfare of the EU. Instead, they caused a reduction of \$23 million in welfare[90].

In conclusion, the protective effect on the EU textile industry due to the anti-dumping duty may lead to a decrease in the consumer surplus of EU, resulting in an overall decrease in the welfare of the EU.

1.3 Cascading Protection Effect

The EU anti-dumping against Chinese textiles will also lead to cascading protection effects in upstream and downstream industries. Generally speaking, anti dumping protection can be divided into anti-dumping protection for upstream products and anti dumping protection for downstream products according to the different objects targeted at. The cascading protection effect of anti-dumping refers to that when the upstream industry is protected by anti-dumping, the protection will extend from the upstream industry to the downstream industry associated with it, to ensure the upstream's net gain from protection. Which means, the protection of upstream industry leads to the increase of the cost of downstream industry. Therefore, under certain conditions, the downstream industry will also lodge anti-dumping complaints. When such protection is implemented, the anti-dumping filed by the upstream industry initially has a cascading protection effect[55]. Hoekman states that when an

upstream industry is protected by a duty, the downstream sector that purchases the input may face high prices and limited competition. As a result, they may be inclined to seek further protective measures. This could lead to cartel formation along the supply chain or negatively impact other companies that need to purchase the protected component, thereby increasing costs for consumers[61].

After the upstream industry obtains anti dumping protection, the downstream industry is also required to carry out anti dumping protection objectively, so as to ensure the former's net income from anti dumping protection. A decrease in the output of downstream industries will have a negative impact on the demand for upstream products. This can offset the effect of importing countries taking anti-dumping actions against upstream products to some extent, and limit the benefits of upstream industries from anti-dumping protection. At this time, if the net downstream industry also take anti-dumping protection steps to sustain the competitiveness of the downstream industry and its output, thus, it is possible to mitigate or eliminate this adverse impact. Then the upstream industry to the downstream industry seeking anti-dumping protection will generally take a supportive attitude[55].

To put it differently, when the EU implements anti-dumping measures on Chinese textiles, it can trigger investigations on downstream textile products such as clothing and hats, which could affect the export of these related products to Europe. It's worth noting that these downstream product manufacturers may not necessarily be Chinese companies, as other countries may be the primary suppliers in the EU market. For example, the Textile Value Chain report shows that in 2022, the EU imported clothing worth USD 22.89 billion from Bangladesh, making Bangladesh the second-largest supplier of apparel imports after China, accounting for 22.20% of all ready-made garment imports[59].

In 2006, the European Union's 16.8 per cent anti-dumping duty on Vietnamese shoes and hats in 2006 is one such case[60]. Since 2000, the EU textile industry has been

severely impacted by exports from China and Turkey, which indirectly leads to the weak growth of the EU footwear and hat industry. Maria Ahren indicated that, in 2005, the market for shoes in the EU was predicted to reach 2.5 billion pairs, with leather shoes accounting for 35% of that market. And 206 million pairs of leather shoes were imported from China, whereas 119 million pairs came from Vietnam. In 2005, imports of leather shoes from China and Vietnam accounted for roughly 13% of the whole EU shoe market. Given that it accounts for 52% of the EU's overall leather shoe market, this is thought to be a significant enough percentage to have an impact on the domestic market[62].

EU shoe and hat companies have lobbied national governments for anti dumping protection similar to that offered to the EU textile industry, asking for an anti dumping probe into imports of shoes and hats from abroad. In September 2006, the EU imposed a 16.8 per cent anti-dumping duty on Vietnamese hat and shoe products, which caused a significant impact on Vietnam shoes and hats export, resulted in a significant reduction in foreign orders. According to Vietnamese statistics, orders in the first quarter of 2006 decreased by 20.30% compared with the same period last year. [62]

In summary, it can be inferred that anti-dumping measures have a cascading effect from upstream to downstream industries. While the EU imposes anti-dumping measures against Chinese textiles upstream, downstream industries such as clothing or shoes from countries like Vietnam will also be affected. This implies that other countries producing downstream products will suffer from anti-dumping measures as well, resulting in a trade impact.

1.4 Anti dumping Retaliation Effect

Aryashree discovered that many countries tend to impose the anti dumping measures back on the countries once imposed anti dumping polices on them[7]. Prusa also indicated that the countries take the anti dumping polices may set up a club, and the

club members tend to impose anti dumping measures with each other instead of against the countries outside the club[4], This suggests that there is a potential for a retaliatory response resulting from the implementation of anti-dumping measures.

Regarding the anti-dumping game adopted by different governments, the initiation of anti dumping(AD) measures by one country and the resulting retaliatory effect can create a situation similar to the prisoner's dilemma[8]. Therefore, we can assume that two countries, A and B, have two options to maximize their benefits: firstly, they can choose not to impose anti-dumping measures and minimize trade interference, and secondly, they can initiate anti-dumping measures to protect their domestic industries. It is assumed that both countries' anti-dumping authorities have complete information and can accurately quantify the advantages and disadvantages of their anti-dumping measures. In this context, we have the following scenarios:

Scenario 1: For each of the two countries, if country A take the anti dumping measures while country B does not, then A will get the maximum profit.

Scenario 2: For each of the two countries, country A take the anti dumping measures first, so country B does too, then country B will cut off the potential loss.

Table 6- Standard prisoner's dilemma for A and B

	B does not impose AD	B impose AD
A		
B		
B		
A does not impose AD	10	-10
	10	20

A impose AD	20	-5
	-10	-5

Source: Self illustration according to game theory

It is apparently that the (10,10) is much better than the (-5,-5), but both of them may take the AD measures in order to optimize their own decisions. And then the anti dumping retaliation effect happens, which is the result of (-5,-5). As retaliation means a loss of -5, otherwise the loss will be -10.

From the previous analysis, it can be deduced that there exists a distinct clash of interests between the dumping country and the country implementing anti-dumping measures. In case one country imposes AD measures, there is a high likelihood that the target country will respond by taking retaliatory measures, such as initiating AD measures of their own. This trade dispute can have adverse effects on the economic relations between the two countries.

2.From the aspect of China

From China's point of view, the EU anti-dumping action against Chinese textiles will lead to a sharp drop in exports of relevant Chinese enterprises. In order to keep the EU as an important textile market, Chinese enterprises will invest heavily in Southeast Asian countries by transferring their investment direction as according to ASEAN Briefing, the majority of Association of Southeast Asian Nations(ASEAN) nations still have much lower minimum wages than the industrialized economies of the globe[63], Another advantage that China has is its abundance of labor resources, which can be utilized to bypass anti-dumping barriers. Alternatively, China may opt to increase its investment in research and development in order to improve the competitiveness of its products. This will lead to product upgrades at the company level and promote overall industrial upgrading in the Chinese textile industry.

2.1 Export restriction effect

A direct consequence of EU anti-dumping on Chinese textiles is that the export of Chinese textiles to Europe will fall sharply. The decline of export can be analyzed from two aspects:

1) For the enterprises subject to anti-dumping investigation and anti-dumping duty, the imposition of anti-dumping duty will greatly increase the export cost and reduce the competitiveness of their products, so the export will be greatly reduced.

Take the EU anti-dumping case against China chemical fabric as an example.

In 2005 the anti-dumping duty of 14.1% ~ 56.2% was imposed on chemical fabrics originating in China. The sums involved were \$480m, after that in 2006, the export of Chinese chemical fiber fabric to the EU decreased by 13%, and the market share of chemical fiber fabric in the EU dropped sharply from 55% in 2005 to 6.5% in 2006, which was 22.15% lower than the same period of the previous year[64].

2) For the other enterprises not subject to anti-dumping investigation, although anti-dumping has no direct impact, anti-dumping will cause the textile price in the EU market to rise, thus reducing the total market demand of the EU. Moreover, these enterprises may be also worried that the export price is too low and they will be subjected to anti-dumping investigation. Therefore, they have to raise the price to export to the EU or change the direction of trade. Instead, they sell at home or export to other countries or regions to avoid export risks and improve the operating efficiency of enterprises[65].

Therefore, we can conclude that imposing anti-dumping measures on Chinese textiles will result in an export restriction effect, causing a significant reduction in the amount of Chinese textile exports to Europe. Despite this, Chinese textile enterprises will remain profitable and may choose to export to other regions or sell their products domestically to avoid potential risks.

2.2 Antidumping-jumping foreign direct investment (FDI) Effect

The realm of anti-dumping policies highlights the intimate interrelationship between foreign direct investment and global commerce. Nations categorize international direct investment into types such as resource-seeking, market-seeking, and efficiency-seeking[66]. As the efficiency seeking type is quite typical as it happens when a company considers investing because the host nation has lower costs or superior production methods. So the investment aims to break through trade barriers type is one of the efficiency seeking type, which denotes the foreign direct investment by multinational corporations, aimed at penetrating tariff and non-tariff barriers erected by the host country to limit the inflow of their goods. Such investments, which replace the exports by domestic companies to the host country, seek to overcome trade barriers

Anti-dumping protectionism in an importing country is a type of trade barrier for the exporting country. This barrier may prompt exporting enterprises to invest in the importing country or other third-party countries that are not subject to anti-dumping accusations and then export their products again. As a result, an investment spillover effect is generated from anti-dumping protectionism.

Haaland and Wooton demonstrated that anti-dumping measures can incentivize foreign firms to pursue direct investments that overcome trade barriers. Such measures prompt the companies to establish production and sales facilities within the country to evade the anti-dumping duties. As a result, domestic competition in importing countries will increase, potentially making the situation worse for domestic producers[67].Blonigen and Feenstra indicated that even when anti-dumping cases do not result in anti-dumping duties being imposed, the mere threat of anti-dumping protection partly encourages foreign companies to invest directly in the US[68]. Belderbos and Sleuwaegen examined the anti dumping-jumping FDI effect by Japanese electronics companies in response to EU and US anti-dumping measures. The result shows that the probability of Japanese electronics companies making direct

investment in EU increases from 19.6% to 71.8% due to the affirmative anti-dumping ruling. The probability of direct investment in the U.S. increased from 19.7 percent to 35.95 percent[69].

Here we have an instance of China exporting glass fiber fabrics (GFF) to the EU, which exemplifies the investment diversion effect where China invests in a third country not facing anti-dumping duties to circumvent the tariff.

Glass fiber fabrics (GFF) find wide application in the composite industry, including the manufacture of wind turbine blades, making it a crucial input for the EU manufacturing sector. With an annual consumption of € 300 million and employing over 2,000 workers, GFF holds significant importance for the region's economy. To address cost and trade barriers, the EU imposed anti-dumping measures on Chinese GFF in April 2020. In response, a Chinese GFF manufacturer established a company in Morocco to import fiberglass roving, the primary input material for GFF, from China and process it in Morocco to export GFF to the EU, bypassing trade protection tax. Consequently, in February 2022, the EU decided to curb the use of Moroccan territory for evading tariffs on Chinese textiles by extending anti-dumping and anti-subsidy duties to GFF shipped from Morocco, safeguarding the EU GFF manufacturers from unfair competition arising from such evasion[70].

Chinese companies are mostly reluctant to bypass anti-dumping barriers by increasing direct investment in the EU, because high production costs for companies within the EU make textile production not profitable enough. Therefore, Chinese enterprises are not inclined to set up factories in the EU directly. Instead, they invest and set up factories in those countries that are not subject to anti-dumping investigations by the EU, so it can avoid anti-dumping charges.

The above analysis shows that the anti-dumping-jumping FDI effect of anti-dumping administrative procedures, as well as the imposition of specific anti-dumping duties,

have greatly promoted the export enterprises to make direct investment in the importing country implementing anti-dumping , or the third country free from the anti dumping polices,in order to circumvent its anti-dumping protection. This kind of effect not only weakens the effect of anti-dumping to protect the EU domestic industry, but also may bring more intense domestic competition to the importing market. This completely deviates from the purpose of anti-dumping protection and increases the cost of anti-dumping protection.

We know that, the anti dumping policies have the trade and economic impact of anti dumping-jumping FDI effect, encourage China textile enterprises to invest in the third country to avoid the tariff, which will inevitably promote economy of the third country as well.

2.3 Industrial upgrading effect

Chinese textile companies have historically shown little regard for research and development investments or the development of their own brands, especially when compared to foreign enterprises, the competitiveness of Chinese textile trade originates from price and quantity advantage and the extensive management phenomenon is widespread. Brand as intangible assets is an important source of enterprise competitiveness. The lack of international big brands makes our country lack of discourse power in textile international market, which makes enterprises can only be at the low end of the industrial chain in international competition, in a disadvantageous position in the competition[42].

Yao Lu and Elena Karpova investigated the Chinese textile firms' R&D performance in 2012, they found out that Chinese textile companies invest very little in R&D; for instance, about 64% of the surveyed companies allocated less than 2.0% of their total sales for research and development activities. Additionally, a vast majority of firms (96%) pursued external R&D collaborations in some capacity, most of them made the choice of buying the equipment and technology (46%), followed by the imitation of

goods and procedures (23%). Less textile companies (75%) used internal R&D compared to the rate of companies involved in external R&D. Cooperation with partners or suppliers was the R&D partnership strategy used by Chinese textile companies the most often (15%). Collaborating with research institutes was the least preferred option among Chinese firms, with only 4% opting for this type of partnership. Moreover, the Chinese textile sector lags significantly behind more advanced textile industries in terms of research and development initiatives[71].

The great influence of anti-dumping on Chinese textile export enterprises, as well as the frequent friction of anti-dumping between China and Europe, make Chinese textile enterprises and the government realize the important role of industrial upgrading in coping with anti-dumping, and urge them to take active measures to upgrade the industry.

1)From the aspect of Chinese government, in 2009, the General Office of the State Council of China proposed the Textile industry adjustment and revitalization plan. Which suggested that China will continue to combine independent innovation and technological upgrading with the elimination of underdeveloped technology. They should seize the key links and important fields that obviously drive the scientific and technological progress of the industry, accelerate the pace of technological research and development and industrialization, promote the technological transformation of cotton spinning, printing and dyeing, chemical fiber, knitting and other industries, at the same time they should speed up the elimination of underdeveloped technology and production capacity, to promote standardization in the textile industry [72].

Furthermore, in 2006, to accelerate the transformation of domestic textile industry economic growth mode, Chinese government set up The Special Fund for Structural Adjustment and Transformation of Growth Mode of the Textile Industry (hereinafter referred to as the "Textile Special Fund") with a total scale of 1.36 billion RMB.

Li Zhang, the member of Chinese national development and reform commission

indicated that, in 2006, a total of 1.36 billion RMB was collected due to additional tariffs on textiles. Given the intensified international trade disputes and the need for transformation of the textile industry, the government has allocated special funds to support textile enterprises. Some of this funding will help these enterprises to expand their global presence and establish textile industrial parks, while the rest will be used to support innovation and structural adjustments in the industry. The total amount of the special fund is 1.36 billion yuan, with 800 million yuan earmarked for global expansion and 560 million yuan for innovation in the textile industry.

Li Zhang revealed that in order to support the restructuring of the textile industry, the state set up the special fund for textile. Financial support will be given to promote the transformation of economic growth pattern in the fields of "research and development and innovation of key textile technologies and equipment, environmental protection and energy saving and consumption reduction, research and development and industrialization of new textile fibers, construction of public service platform for industry innovation, basic application research and generic technology research"[73].

Same year in 2006, China National Institute of Textile Science established a strategic alliance of industry-university-research in the textile industry, to bring together high-level textile science and technology research and development talents at home and abroad, and conduct industry-university-research cooperation on key technologies and equipment related to the development of textile industry. And the institute also build up a dyeing technology development center of 1200 square meters, and a industrialization base of China Textile Science Research Institute with an investment of 200 million yuan[74].

2) Chinese textile companies have been investing in high-end, intelligent, and eco-friendly projects in recent years, reflecting the new direction of the industry. Key enterprises will continue to invest in complete equipment projects like high-speed spunfused composite production lines, two-component spunbonded nonwovens

production lines, and wood pulp composite spunlaced nonwovens production lines in 2022. Investment in high-quality personal care products, high-end geosynthetics, high-performance filtration materials, and safety protection industry chains is also a focus of the industry. A survey conducted by the China Industrial Textile Industry Association of nearly 300 sample enterprises shows that 66.2% of companies with investment intentions in 2023 plan to invest in existing equipment upgrades, plant construction, intelligent and green transformation, indicating that the industry will continue to prioritize high-quality investments[75].

Above all, the industrial upgrading effect can be concluded as below in Figure 10:

Figure 101-Anti dumping measures accelerate industries upgrading



Source: Self illustration

Thus, the Chinese textile industry can derive some benefits from the EU's anti-dumping measures, as it will prompt the industry to upgrade itself in order to improve its competitiveness. This move will not only help the industry increase its presence in the EU market but also enhance its global competitiveness in the textile sector.

V.Countermeasure analysis of EU Anti-dumping on Chinese textile

Although China-European textile trade has experienced a long period of rapid

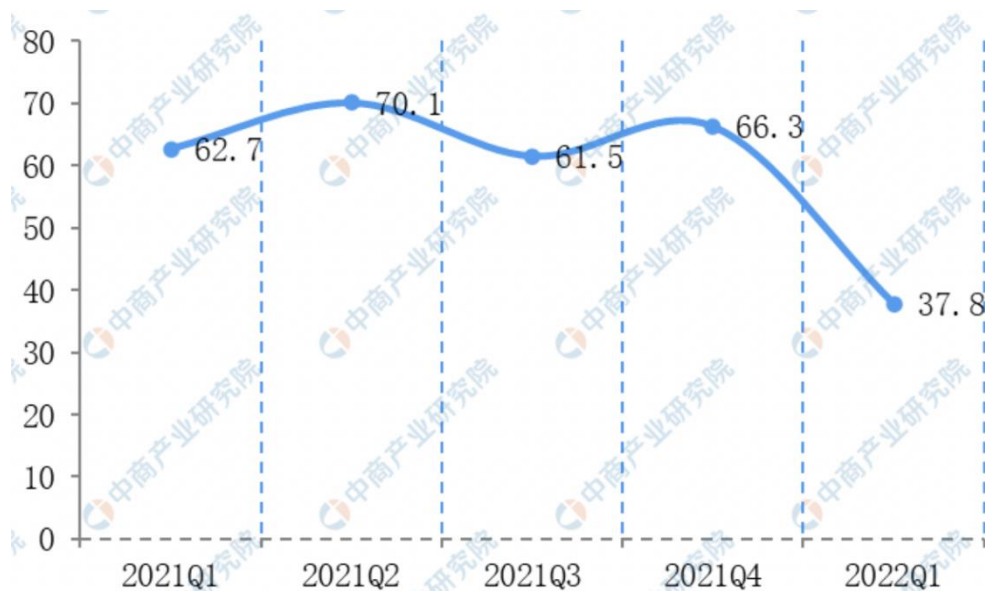
development, the potential obstacles to China-European trade still cannot be ignored. In recent years, the EU has intensified the restrictions on Chinese textiles, which is related to the rapid growth of Chinese textile exports to Europe. It is expected that trade frictions such as anti-dumping will continue in the future. And China's textile industry is facing a future labor price increase which will put further pressure on Chinese textile production. As China is no longer among the cheapest countries to manufacture clothing, China's minimum monthly salaries are significantly higher than those in Bangladesh, India, and Cambodia[76]. In order to win the global textile competition, Chinese textile industry still needs to adjust its industrial structure, upgrade its product grade, increase the technological content of products, and build its own well-known brand.

According to European Environment agency, the textile industry plays a critical role in the economy of the European Union, as it generated revenue of EUR 162 billion in 2019 and provided employment to over 1.5 million individuals across 160,000 companies. Given the high level of globalization within the textile sector, Europe is a big importer and exporter. 8.7 million tonnes of completed textile goods worth 125 billion euros were imported into the EU-27 in 2020. In terms of volume, footwear comes in third, followed by other textiles, domestic textiles, and clothing. The EU sells its textile products to the United Kingdom, Switzerland, and the United States and imports primarily from China, Bangladesh, and Turkey. Also, in terms of consumption, European households accounts for a large part of textile products consumption. In 2019, as in 2018, it is investigated that almost every European spent EUR600 on clothing, EUR150 on footwear and EUR70 on household textiles, which indicates the level of European's consumption of textile[77]. In conclusion, the textile industry holds significant importance for the EU.

In China, the textile industry is an important sector for the country's economic growth. However, in recent years, the industry has been adversely affected by the COVID-19 pandemic. During the outbreak, the Chinese government imposed widespread

lockdown measures, which resulted in many textile factories in key production areas like Zhejiang and Guangdong suspending operations and slowing down market sales. On the consumer side, people's willingness to spend also decreased due to the pandemic. According to the National Bureau of Statistics, in the first quarter of 2022, only 7.1% of Chinese people's consumption expenditure was spent on clothing. As a result, the new order index for the Chinese textile industry in 2022 dropped significantly compared to previous years. Figure 11 below shows the decline in the new order index of the Chinese textile industry from 2021 to 2022[78].

Figure 11- New order index of Chinese textile industry



Source:[78]

And this year in 2023, after three years of implementing its “zero-COVID” strategy, China dropped all COVID restrictions, China's economy recovered, China's National Bureau of Statistics reported on Tuesday that during the first quarter of the current year, the nation's economy grew by 4.5% in comparison to the corresponding period of the preceding year.beating economists' expectations of a 4.0% growth rate[79].Official statistics indicate that the gross domestic product (GDP) rose by 4.5% compared to the corresponding period of the previous year. The primary

contributors to this key economic indicator were elevated consumer spending and increased industrial activity[80]. The data indicates that as the economy and supply chain recover and factories resume operation, there will be an increase in new orders for the Chinese textile industry, leading to further development in the industry.

In the years ahead, it is likely that the competition in textile trade between China and the EU will intensify, therefore it is crucial to adopt appropriate measures and strategies to confront the upcoming challenge of the EU's anti-dumping measures on Chinese textiles.

Here, We will discuss countermeasures in three areas: the national level, the industry level, and the enterprise level.

A. The aspect of country

1.Improve the anti dumping early warning mechanism for textile

The Chinese government needs to enhance its textile export early warning system to monitor global anti-dumping trends, including the quantity, price, export destination, and local market conditions of Chinese textile products. It should report any foreign anti-dumping actions promptly and take appropriate countermeasures to establish safety valves for textile export trade.

Furthermore, it is possible to create a national "database" or website for anti-dumping purposes that can aid exporting businesses in avoiding anti-dumping charges through prior analysis.

The government can establish a nationwide anti-dumping database using administrative methods. This database will not only disseminate timely information on anti-dumping laws, regulations, and policies of different countries but also reveal the prices, calculation data, and cost information of each "surrogate country." This includes details such as production scale and technology similarity, access to raw

materials, domestic market price rationality, and protection levels for domestic industries in surrogate countries. Additionally, the database can collect and reveal anti-dumping cases from various countries, particularly precedent-setting cases, along with related materials and comments from domestic anti-dumping and anti-dumping enterprise responses. Relevant review procedures and techniques can also be specified. Also, the users are allowed to post ideas, in this way successful experience could be shared, and it is also a platform for enterprises asking for help and guidance.

2.Strengthen industry guidance and improve the domestic market competition atmosphere

The irregular operation of enterprises in the labor market leads to continuous labor disputes.Which may cause a serious influence of EU taking anti dumping measures against Chinese textile.

For example, the United States announced that it would ban imports from China's Xinjiang region, as according to human rights organizations, the Uighur minority in Xinjiang (also spelled "Uyghur") is facing persecution and being forced into labor. BBC has been presented with evidence that indicates more than 500,000 Uighur workers are being compelled to engage in seasonal cotton picking in conditions that seem to have a significant potential for coercion, therefore multiple western countries imposed sanctions on China[89]. After being signed into law by President Biden on December 23, 2021, the Uyghur Forced Labor Prevention Act (UFLPA) became operational on June 21.. According to the act, any product that is produced in part or whole in Xinjiang is assumed to be associated with the alleged "forced labor" claims and could be prohibited from being imported into the US. And according to the US Fashion Industry Association(USFIA) conducted the survey the ninth annual Fashion Industry Benchmarking Study, which indicates that more than 95% of the respondents considers the UFLPA to have an impact on their sourcing.But Chinese officials denied the charges[90].

The recent Xinjiang cotton case has shown that despite the Chinese government denying any wrongdoing, the global textile market has been impacted by the allegations made by the UFLPA. The reputation of Chinese cotton has been severely damaged as a result. It is clear that labor disputes can have a negative impact on the textile industry, and it is important for the government to provide strong industry guidance to prevent similar situations from arising in the future.

3.Establish a sound anti-dumping response mechanism

The process of anti-dumping litigation requires a significant investment of resources, including manpower, materials, and finances. Typically, anti-dumping investigations can last for at least one year, during which time companies are required to complete extensive questionnaires and engage experienced lawyers. These legal fees can amount to hundreds of thousands of dollars, making it challenging for many companies to afford. As a result, some companies may opt to forego exporting the products in question rather than undergoing the costly process of responding to the lawsuit[49].

To achieve this goal, government can take measures as below:

3.1 Anti dumping response fund

To set up anti dumping response fund. Due to the high cost of responding to anti-dumping litigation, some export enterprises may be unable to bear the cost of responding to litigation,sometimes the ineffective response to litigation or refuse to respond to litigation happens. Then the government can decide on a certain proportion of the share of expenses according to the export volume of each enterprises, and designate special agencies or customs to collect, to the establish the special fund for anti dumping response.

3.2 Encouraging answers the lawsuit

Companies that take proactive measures and succeed in winning the lawsuit will

receive incentives and subsidies in the form of export licenses and customs price reviews. On the other hand, companies that fail to respond to the lawsuit or perform poorly in their response will face punishment. This creates an effective system of incentives and constraints.

Implementing the aforementioned measures is expected to incentivize enterprises to actively respond to anti-dumping lawsuits, which is crucial in effectively addressing the EU's anti-dumping measures.

4.Improve the recycling rate of waste textiles

According to a report in the Chinese Business Daily in 2022, China is a major global producer of textiles and clothing, with an annual total fiber consumption of approximately 30 million tons and per capita fiber consumption of about 22.4 kg. Due to this, a significant amount of textile waste is generated each year, with an annual growth rate exceeding 10%[87].

The recycling of these waste textile is of great importance as it is an important measure to alleviate the pressure of resource and environment, also it supplement the supply of raw materials in the textile industries. According to Chinese business daily, The utilization of 1000 grams of waste textiles can lead to a reduction of 3600 grams of carbon dioxide emissions, save 6000 liters of water, and reduce the use of 300 grams of fertilizer and 200 grams of pesticides. If all waste textiles in China are recycled, the annual supply of chemical and natural fibers could be saved, equivalent to 24 million tons of crude oil, and result in an 80 million ton reduction in carbon dioxide emissions. It has been estimated that one ton of waste textile can yield 0.99 tons of non-woven fabric or color-separated cotton yarn, which can save 1.1 tons of textile raw materials or 0.8 tons of cotton[87].

Recycling waste textiles can serve multiple benefits for the Chinese textile industry. Firstly, it can aid in the efficient use of resources, ensuring the safety of the raw

material inventory. Secondly, it can promote the development of a circular economy, leading to a sustainable and cost-effective approach for the industry. Ultimately, such efforts can enhance the overall competitiveness of Chinese textile industries.

To achieve the goal of recycling waste textiles, the government has implemented several measures. The first measure is to promote the construction of recycling networks, which includes setting up waste textile recycling bins and facilities in communities, universities, and shopping malls. The second measure is to expand recycling channels by developing online recycling and integrating online and offline channels. Lastly, the government is also strengthening recycling management by punishing illegal recycling activities and regulating non-standard production and business activities.

5. Properly manage the relations with various countries or regions

When China's economic interests clash with those of EU countries, trade disputes may arise. In such cases, it is important to handle relationships between major countries cautiously, promote consensus, and avoid restrictions and strategic conflicts. Jun Yu suggests that we should identify countries with shared interests and objectives and collaborate with them to resolve trade issues. Additionally, it is advisable to steer clear of confrontation and rivalry with other countries to establish a peaceful and stable trade environment[88].

B. The aspect of enterprises

1. Focusing on the domestic demand to reduce over-dependence on exports

With China's economy bouncing back from the effects of COVID-19 and experiencing rapid growth, there is great potential for an increase in domestic textile demand. Therefore, textile enterprises could seize this opportunity and shift their focus towards exploring the domestic market, in order to decrease their reliance on exports. Two approaches for textile enterprises to enhance the role of domestic demand in their development were discussed.

1.1 Domestic marketing channel development

Textile enterprises can adjust the ratio of enterprise resources used for foreign market development and domestic market development, moderately reduce the enterprise resources used for foreign market development and devote more enterprise resources to improving the development of market marketing channels in the inner market. Direct selling, chain, live-streaming e-commerce, and other marketing methods can be adopted to expand the proportion of domestic market.

Here we emphasize the importance of live-streaming e-commerce for textile enterprises to develop the domestic market channel.

On September 2022, China briefing published a report of China's live stream industry, it indicates that the live-streaming e-commerce means the live stream session, which can be accessed through mobile devices, involves hosts showcasing and selling products while customers watch, interact with others, and make purchases simultaneously. The livestream platform enables hosts to address live audience questions, resulting in an improved shopping experience and increased customer engagement. The engaging and captivating shopping features of live streaming platforms have attracted a large and loyal audience. It provides a more interactive experience for online shoppers who may find traditional browsing to be dull and monotonous. As a result, live streaming has become an integral part of online shopping for Chinese consumers. In addition, many live streaming platforms promote products that are directly supplied by factories, resulting in significantly lower prices. Coupled with time-limited discounts and coupons, customers can often find excellent deals on select products, making the overall shopping experience even more appealing[83].

At present, the most sought-after product categories on live streaming platforms are primarily comprised of women's fashion products, with cosmetics, food, electronics,

and household items following in popularity. According to the report, the distribution of products featured on Chinese live streaming platforms can be summarized as follows in the Figure 12:

Figure 12-Breakdown of items featured on Live stream Platforms



Source: [83]

Live streaming e-commerce has revolutionized the way textile products are presented to customers, especially for women's fashion. This method involves showcasing clothes in a dynamic way by models on camera, while also interacting with potential customers to meet their needs. Compared to traditional methods of product display using pictures or videos, this approach provides customers with a better understanding of the product and enables sellers to close deals more effectively. A report suggests that companies can benefit from higher conversion rates of approximately 30 percent, which is ten times higher than traditional e-commerce. Therefore, we can conclude that live streaming e-commerce is well-suited for the clothing business due to its powerful presentation performance.

Tommy Hilfiger's live streaming program proved to be successful in China, leading to an expansion of the program to Europe and North America. According to reports, one of their shows had an audience of 14 million and sold 1,300 hoodies in just two

minutes. Similarly, in December 2020, Walmart conducted a pilot live streaming fashion event on TikTok that exceeded its expected viewership by seven times and helped the company gain 25 percent more TikTok followers[84].

Furthermore, the report of China briefing also indicates that individuals who complete registration with the local industrial and commercial bureau have the ability to establish an account to advertise their products. through live-streaming, making it an accessible option for small businesses[83]. As we have discussed that Chinese textile and garment enterprises are mainly small and medium-sized enterprises. Over 90% of textile enterprises are classified as small and medium-sized enterprises in China, the low threshold of live-streaming is easy for small and medium-sized textile enterprises to enter.

In December 2020, Forbes reported that, the anticipated projection is that China's e-commerce will increase from \$862 billion in 2019 to \$1 trillion by 2020.. It is anticipated that over 700 million Chinese individuals will be engaged in online shopping by the year 2020, up from 600 million in 2018. China has the highest percentage of e-commerce sales as a proportion of total retail sales compared to any other country, with a rate of over 35% in 2019. Additionally, China has the highest total sales of e-commerce compared to any other country, with sales over three times greater than the second largest country, the US. China's e-commerce market is also one of the fastest growing markets globally.

Forbes estimates that the live streaming industry in China is already worth around \$60 billion annually. In 2019, more than 430 million people, roughly 30% of China's population, watched live streams, and this number was projected to increase to 560 million, or 39%, by 2020. The sales generated from live streaming were expected to grow by over 100% in 2020 compared to 2019, accounting for almost 9% of all online retail sales. About 37% of Chinese online shoppers made purchases via live streams in 2019. Additionally, middle-aged and elderly Chinese consumers are also starting to

participate in this trend[85].

Alibaba's Taobao Live dominates the live streaming market, accounting for around 80 percent of the market share. The market has been entered by other prominent Chinese tech and e-commerce firms like Baidu and JD.com. Furthermore, JD.com has teamed up with TikTok and its competitor Kuaishou to offer in-app live streaming with shopping capabilities. The widespread availability of live streaming e-commerce on popular platforms provides companies with access to a large customer base. This demonstrates the significant potential in the live streaming industry and suggests that there is ample opportunity for textile companies to explore this space.

In conclusion, the live-streaming e-commerce industry has enormous potential for development, and the participation of popular apps has expanded the customer base for live-streaming e-commerce. The entry threshold for textile enterprises is low, making it an ideal platform for selling textile products. In this new era of live-streaming e-commerce, Chinese textile enterprises can seize the opportunity to explore the domestic market and reduce their dependence on exports, thereby lowering the risk of EU anti-dumping measures on Chinese textiles.

1.2 Market research on consumer needs

Enterprises should increase the market research on consumer demand, understand consumer tastes, preferences, consumer psychology and so on to accurately grasp the market demand, so as to produce products to meet the market demand, improve business efficiency.

2. Strengthen quality management, focus on brand building

As has been discussed earlier in this thesis, China's exports of textile products to the EU are generally focused on quantity rather than quality, with little emphasis on brand development. This results in fierce competition based on low prices, which often leads to investigations into anti-dumping by the EU. To overcome these challenges and

sustain growth, businesses must prioritize both product quality and brand recognition. By improving the quality of their products and establishing a reputable brand, enterprises can establish a strong foothold in the market.

Regarding quality management, enterprises could focus on controlling the quality of their product production processes. This involves enhancing the quality of the products, as well as increasing investments in scientific and technological advancements, and accelerating the pace of technology acquisition. They can also introduce high-tech and high-value new products, improve their product processing techniques and packaging, and actively adopt clean production and eco-friendly packaging to enhance the quality of their products.

Enterprises need to understand the interdependent relationship between brand building and publicity. Larger enterprises with strong financial resources can sponsor globally recognized events such as the World Cup or the Olympic Games and place advertisements in movies to boost their reputation. Medium or small textile enterprises can focus on improving their company website as smart phones and 4G networks have made it easier for potential customers to search for products online at any time. A well-structured official website with detailed product information can help these enterprises to close deals.

3.Diversifying export markets

According to Seema Sangita, to mitigate the impact of recessions in various regions of the world, diversification of trading partners and exported goods is considered a strategy. This approach is based on the idea that global trade links are becoming more intertwined due to the growth of global value chains (GVCs).Therefore, when a country has a limited range of specialized commodities that are traded in certain markets, any disturbance in the particular commodity market or an economic downturn in the trading partner's economy would have a significant impact on the country's exports[86].

Therefore, to mitigate the risk of trade disputes like anti-dumping, one potential solution is to tap into emerging markets, which are characterized by fast-growing economies, stable trade environments, and significant market potential.

4.Responding to lawsuits

The EU submitted a formal complaint against China's Category 35 textiles for anti-dumping on June 17, 2005. The Notice indicated that an investigation into imports of finished polyester filament fabrics with more than 85% content, commonly utilized in garment production, would be initiated. This anti-dumping case could potentially involve up to \$580 million, which was the same as the total value of Chinese textile exports to the EU in the previous year. The majority of textile businesses in Zhejiang could be impacted by this case.

The EU's decision to use Mexico as a benchmark country while not recognizing China as a market economy is unjust. Chinese businesses must provide adequate proof of their market economy status to be eligible for domestic prices given this situation, which is quite unfair to China. Faced with the case, Chinese companies must present sufficient evidence that they are operating in a market economy in order to qualify for domestic prices as a reference.

In March 2005, the EU announced the preliminary findings that 25 out of 56 Chinese enterprises that responded to the lawsuit were granted market economy status, and 18 were granted separate tax rates. The average tax rate for those that received market economy status was 20%, while the tax rate for those that did not was 85.3%[24].

As for the preliminary finding, Chinese textile enterprises said that it was very unfair. If the damage was not established, they would get 0 tax rate. Even if it was judged to be minor, they would only get a lower tax rate. In July 2005, the Textile Chamber of Commerce organized another 36 enterprises to carry out no-harm defense. The final

result was that 25 of the 49 enterprises involved in the case obtained market economy status, and the average tax rate was reduced to 14,1%. Most of the enterprises responded to the lawsuits get a more favorable tax rate than the preliminary finding[24].

To minimize the risk of facing punitive tariffs or being disqualified from supplying products due to anti-dumping lawsuits, it is crucial for companies to respond proactively. Some companies are disqualified or imposed with high tariffs because they are unaware of anti-dumping laws or do not want to incur high costs associated with responding. However, responding to lawsuits provides an opportunity for companies to prove their innocence and reduce the severity of the tariffs. Therefore, it is important for companies to actively respond to lawsuits to avoid significant losses. Additionally, companies should focus on cultivating legal awareness and hiring professional anti-dumping personnel to better handle anti-dumping cases. By learning from past cases and developing better strategies to cope with them, companies can successfully appeal and minimize losses resulting from EU anti-dumping measures against China.

VII. Conclusion

A. Summary of the main findings

This thesis aims to examine the economic and trade effects of EU anti-dumping policies on the Chinese textile industry. The research will first provide an overview of what anti-dumping policies entail, followed by an analysis of the reasons behind the EU's imposition of anti-dumping measures on Chinese textiles. The study will also explore the potential consequences of these policies, and their impact on trade and the economy. Furthermore, the research will propose measures that China can take to address this challenge, thus contributing to the current literature on the effects of anti-dumping policies on global trade. Additionally, policymakers can benefit from the insights provided in this study to develop solutions to address the EU's anti-dumping measures against China.

Initially, we conducted a review of the current literature on the EU's anti-dumping policies towards Chinese textile. We discovered that most of the research has concentrated on the economic and trade consequences, with minimal attention given to potential solutions for China to adopt. Therefore, this presents several possibilities for future research in this area. Based on this, our aim is to examine the impact of EU anti-dumping on Chinese textile, and propose viable measures for China to mitigate the negative effects.

Next, we provide a summary of the reasons behind the EU's imposition of anti-dumping policies on Chinese textile from both the EU's and China's perspectives. From the EU's perspective, the first reason is the relatively slow economic growth in recent years, coupled with the trade deficit with China, which puts pressure on the EU's economy. Therefore, the EU is taking measures to protect its domestic market. The second reason is the decline in employment in the textile and apparel sector in recent years. This trend is expected to continue, so the EU is limiting the inflow of textile imports from China to protect its domestic industry and increase employment rates. In addition, the exchange rate of RMB against the euro also affects the trade relationship between China and the EU, thereby increasing the risk of dumping by China.

From China's perspective, we found that the abundance of natural resources and human resources in China has created a scale effect, making Chinese textile products highly competitive. Moreover, based on China's revealed comparative advantage (RCA) in the textile trade, it has a significant edge over other industrialized nations in the world. However, due to the lack of international marketing experience, China tends to adopt a low-price strategy, which increases the risk of dumping.

Subsequently, we will explore the economic and trade impacts of the EU anti-dumping policies on Chinese textile. Analyzing it from the EU's perspective, the

trade diversion effect will cause China's textile market share in the EU to decrease, while other countries will gain a competitive edge in exporting textiles to the EU. Furthermore, the protective effect on the EU textile industry will reduce EU consumers' surplus. In addition, the anti-dumping measures will have a cascading effect, affecting downstream industries as well as upstream industries. Furthermore, the possibility of retaliation effects of anti-dumping measures cannot be ignored, as countries may impose similar anti-dumping policies on those that have imposed such policies on them.

From China's standpoint, the protective effect of the EU anti-dumping policies will lead to a substantial decrease in China's textile exports to Europe. The anti-dumping measures may also prompt Chinese textile enterprises to invest in a third country to evade tariffs, potentially boosting the economy of the third country. Nonetheless, Chinese textile industries may benefit from the anti-dumping measures by upgrading their textile industry to increase competitiveness.

We have proposed several solutions to address the issue of anti-dumping policies on Chinese textiles. Our first suggestion is for the Chinese government to improve the anti-dumping early warning system and provide industry guidance to enhance competition in the domestic market. Establishing a database for anti-dumping purposes could also be beneficial for enterprises to share their knowledge and experiences or seek assistance. An effective anti-dumping response mechanism should be established, including the creation of an anti-dumping response fund and encouraging enterprises to respond to lawsuits.

Another suggestion is to increase the recycling rate of waste textiles and maintain good relations with other countries through proper management. To reduce over-reliance on exports, textile enterprises in China should focus more on the domestic demand. Developing domestic marketing channels by conducting market research on consumer needs, avoiding the low-price strategy, and concentrating on

quality management and brand building can also help. Moreover, enterprises should diversify their export markets to increase their chances of success. Finally, in the event of trade friction, enterprises should respond to lawsuits to the best of their ability.

Our proposed solutions are expected to enhance China's textile competitiveness in the global market and can serve as a guide for other countries facing similar issues.

B.Limitations of the study

The thesis examined the economic and trade consequences of EU anti-dumping policies on Chinese textile from various angles. However, it was challenging to find recent data for some cases, and some of the cases referred to were almost 20 years old, such as the 2005 chemical fabrics case used to analyze the export restriction effect. The world has undergone significant changes in the past few decades, and the economic impact of the old cases may not accurately reflect the current state of China's textile industry. As a result, the conclusions drawn from the analysis may not fully correspond to the present situation, and there may be time-efficiency limitations in the cases used. Therefore, further confirmation is required to validate the findings.

Secondly, we mainly draw our conclusion by analyzing the cases so we lack of the quantitative research to support our theory. To improve the validity of the conclusions, it is recommended to conduct quantitative research to support the analysis of the cases. Quantitative research can provide numerical data that can be analyzed statistically to test hypotheses and draw conclusions. It can also help to identify patterns and trends that may not be easily observable through qualitative analysis alone. By combining both qualitative and quantitative methods, the findings can be more robust and comprehensive. Therefore, future research can focus on conducting surveys or experiments to collect quantitative data on the economic and trade impact of EU anti-dumping policies on Chinese textile.

C. Suggestions for Further research and reflections

In Part V, we explored the countermeasures that China could take to address the challenges posed by anti-dumping policies. We recommended improving the anti-dumping early warning mechanism, but we only provided general advice rather than detailed guidance. Unfortunately, we were unable to find relevant cases of early warning mechanism construction to support our recommendations.

However, this topic requires more attention and resources, especially considering the significant potential for global economic development in the aftermath of the COVID-19 pandemic. Moreover, the ongoing conflict between Russia and Ukraine may present new opportunities and challenges for global trade. Therefore, further research on the anti-dumping early warning mechanism is not only important for China but for other countries worldwide. It is expected that more studies will be conducted in the future to better understand and improve the anti-dumping early warning mechanism.

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