

# Analysis on the Impact of Trade Barriers on China's Export Trade in Forestry Products

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## Abstract

In the light of continued progress on global trade liberalization, the increasingly serious trade barriers have gradually become obstacles to the free trade of forest products. This paper reviews the authoritative literature, the key forms, features of trade barriers and their effects on China's export trade and around the world in forestry products, which offers a baseline in the study of the relevant questions in order to systemically counter impacts of trade barriers on the trade of China's forestry products for it is a vital section of international trade.

**Keywords:** Trade barriers; China; export trade; forestry products.

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## Introduction

China has become increasingly integrated into the world economy since its accession to the WTO, and the import and export of major wood forest products has continued to expand. According to China Forestry Statistical Yearbook (2001-2017) and relevant data from China Forestry Website, China's total import volume of major forest products rose from US\$ 1,098 billion in 2001 to US\$ 82,557 billion in 2018, a 7.52-fold increase, with an average annual growth rate of 12.60%. The total volume of exports increased from US\$ 7,855 billion in 2001 to US\$ 82,742 billion in 2018, a 10.53-fold increase and an average annual rate of growth of 14.86%. To be sure, China has become a true trading power for forest-products, with slight export edge. However, after further sorting out the import and export trade balance of major wood forest products from 2001 to 2018, it was found that major wood forest products' export trade deficit dominated the trade balance, accounting

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for 68.75 per cent during the investigation period and reaching the highest of US\$10.265 billion. The trade balance showed great fluctuations particularly in the post-economic crisis period (2008-2018). In other words, while the scale of China's trade in wood forest products continues to expand, China's import and export trade faces an international environment at risk of deteriorating. Tariff barriers and non-tariff barriers are two main forms of trade barriers, both of which play an important role in trade protection. In the early stage, tariff escalation was the main means of trade protection. Although the effect was more direct and rapid, it was easy to deteriorate international economic and trade relations. In the 21st century, non-tariff barriers formed by national laws, decrees and various administrative measures have become the first choice of trade protectionism (Zhao, 2020). Trade protectionism is soaring, especially in the context of the global economy's difficult recovery. Tariff barriers are being phased out gradually due to the restriction of bilateral and multilateral trade negotiations (Fu and Qiang, 2018). New non-tariff barriers are set and implemented in specific industries and fields due to their concealment and legality, and have become the main manifestation of existing barriers to trade (Xie, Wei and Liu, 2016; Hillman, 2019). In the United States for example. Amendments to the Lacey Act (2008); European Timber Act; Compulsory Certification System; Toxic Substance Content; Phytosanitary requirements and technical standards relating to safety performance and fire protection performance have become an important shackling of China's export trade in wood forest products (Xue, 2013; Han, 2015). Furthermore, by sorting out the entries of non-tariff barriers for Wood forest products in the Non-tariff Barriers Global Database of THE United Nations Conference on Trade and Development (UNCTAD) (including the initiated and effective non-tariff barriers) and the number of forest products trade policies and regulations in the National Research Network: after the global economic crisis, there is an substantial upward trends of tariff barriers in woody forest products import such as phytosanitary measures related standards, sources and ecological environmental protection label, new standard of wood furniture, wood products, paper, board formaldehyde standard and wood packaging production standards and other technical standards. In addition, studies show that the current anti-globalization is manifested in trade protectionism with tariff regulation as the main means, and a variety of trade barriers, represented by Sino-US trade frictions, also appear at the same time. There are also different types of import restrictions as well as export restrictions (Wen and Liu, 2020). Moreover, in 2018 the State Council clearly put forward measures to promote the steady and healthy development of foreign trade, woody forest products as an important component of international trade in Chinese forest products, under the background of a "wall" of high trade barriers, the healthy development of China's wood forest products will certainly be affected by export trade. In light of this, investigating the development characteristics, the latest connotation and trade effect of domestic and foreign trade barriers on China's export of forest products is of great importance.

## **The definition and category of tariff barriers**

### *The definition of tariff barriers*

At present, tariff is still an important barrier in international trade. Tariff barriers usually refer to high import duties and obstacles to import in terms of tariff setting, taxation method and tariff management. The main reasons for implementing tariff barriers

are as follows: (1) Goods with low average tariffs mask high tariffs on some goods. In the United States, for example, the average tariff on manufactured goods is only 3%, but some of them are as high as 30% to 40%. (2) The lower rate of nominal tariff masks the effective rate of protection of tariff. The effective rate of protection of a tariff is different from the nominal rate of protection of the final product when both the final product and the intermediate product are subject to tariffs. (3) The lower normal import tax rate counteracts the higher import surcharge. Besides the normal published rate of import duties, when a country imports goods, an additional part of import duties will be levied at the provisional announced rate if it is necessary. The purpose is either to cope with a balance-of-payments crisis, to prevent dumping of goods by foreign countries, or to discriminate against a country. (4) The imposition of anti-dumping duties is a common means to restrict imports in the world, especially in developed countries. Anti-dumping is a means of protecting domestic products and markets allowed by the WTO, but it is being abused by developed countries. Since the 1990s, China has become the biggest victim of international anti-dumping, involving tens of billions of dollars, and some have imposed anti-dumping duties of more than 100%. (5) With the development of regional collectivisation, tariff has become a means for countries participating in the customs union to impose import restrictions on non-member countries. Countries in a customs union, such as EMU members operate trade freely internally and levy tariffs at a flat rate externally.

#### *The category of tariff barriers*

(1) Tariff Peaks. It refers to the high Tariff maintained by a few products when the overall Tariff level is low. After eight rounds of GATT negotiations, the average tariff level of WTO members has dropped significantly, but some members still maintain tariff peaks in many areas. Therefore, when the overall tariff level is low, high tariffs on specific products unreasonably hinder the normal export of related products from other countries and lead to trade barriers. (2) Tariff Escalation. It is a way to set tariffs, which means a low or even zero tariff rate is usually imposed on imported raw materials of a specific industry, while the Tariff rate of semi-finished products and finished products is correspondingly increased with the increase of processing depth. Tariff escalation can effectively restrict the import of semi-finished products and finished products with high added value, and it is a common trade barrier. (3) Tariff Quotas. It refers to the lower tax rate applicable to imported products within a certain number quota quantity and the higher tax rate employed to imported products exceeding the quota quantity. In practice, there are various ways of administration and distribution of tariff quotas, such as solicitation, bidding, auction and administrative distribution. Certain inappropriate practices in the process of quota determination, issuance and management may result in impediments to trade. In the case of administrative allocation, barrier measures may occur in the following links: ① The determination of quota quantity. For example, a WTO member may impose a trade barrier on the basis that the volume of quotas determined is lower than the average volume of exports in the last three representative years. ② Allocation and management of quotas. A lack of transparency or notarial nature in the issuance and management of quotas can also lead to trade barriers. For example, the lack of transparency in the administration of tariffs on dairy products in a certain country sometimes even gives quotas to companies that are no longer engaged in the dairy business, causing quotas to

be wasted. In addition, in the process of issuing tariff quotas by means of auction, bidding, etc., artificial manipulation or other reasons may also cause barriers to imported products. (4) Specific duty. It refers to a duty levied on the standard units of weight, quantity, capacity, length and area of goods. Among them, weight is a more commonly used measurement unit, some countries use the gross weight measurement method. Others use the net weight measurement method, or use "gross for net" and other measurement methods. The formula for calculating the specific amount of tax is: the amount of tax equals to the quantity of goods multiply by the specific amount of tax per unit. Specific tariffs are characterized by simple procedures, which do not need to examine the specifications, quality, price of goods, and are easy to calculate. Due to the fixed unit tax, the same tariff is imposed on the import of low-grade goods of low quality and low price as on high-grade goods, which makes the import of low-grade goods disadvantageous and thus has a greater protective effect on them. When the domestic price is reduced, the tax burden is relatively larger due to the fixed tax, which is not conducive to import and the protective effect is strengthened. For this reason, some countries use a lot of specific tariffs, especially widely applied to the import of food, beverage and vegetable oil. In the United States, about 33 percent of the tariff lines are specific. Norway also has a specific tariff of 28%. Since most of the exports of developing countries are of a higher grade, they bear a much higher specific tariff burden than developing countries. (5) Ad Valorem Duty. It is a Duty based on the price of import goods. Its tax rate is expressed as a percentage of the price of the goods. The calculation formula of AD valorem tax is: tax amount equals total value of goods multiply by AD valorem tax rate. AD valorem tax is the main taxation method adopted by all countries. Because: First, since AD valorem taxes are calculated based on the value of the goods, it is easier to estimate how much revenue is due. Second, AD valorized taxes vary with changes in commodity prices, and AD valorized duties pose a barrier to the import of highly processed products or luxury goods. Third, in international tariff reduction negotiations, it is easy to compare tariff levels and negotiate tariff concessions of different countries on the basis of AD valorem taxes. However, the tariff levied by AD valorem depends to a great extent on the method used to determine the dutiable value.

### **The definition and category of non-tariff barriers**

There are many kinds of non-tariff barriers, so a precise definition is hard to obtain (Xie et al., 2016). Investigations by scholars on this issue are carried out in areas other than tariffs, basically reflecting the meaning of non-tariff measures indirectly through various types of "distortion" trade (Huang, 2019; Wang et al., 2013).

In his pioneering research on non-tariff barriers, (Baldwin, 1971) defined "non-tariff distortion" as limiting the resources needed to produce goods and provide services in various ways by taking any open or confidential measures, with the aim of reducing potential real world benefits. Since then, (Lloyd, 1996) has indirectly defined non-tariff measures based on his interpretation of the regional single market as any measure which includes restrictions, taxes and prevents the law of one price from functioning. Furthermore, (Liao, 2012) and (Liu, 2019) proposed that the new non-tariff barriers following China's accession to the WTO would be technical barriers to commerce. Lin, (2010) also believes that non-tariff barriers refer to all kinds of import restrictions except tariffs, (Bora, 2005) and Ando (2010) also confirmed this and both believe that, even

under multilateral trade rules, they belong to the legal system or have some grounds for implementing government policies if they are implemented to protect domestic industries by interfering with trade, non-tariff ones.

### *The definition of non-tariff barriers*

In the United States for example. Amendments to the Lacey Act (2008); European Timber Act; Compulsory Certification System; Toxic Substance Content; Phytosanitary requirements and technical standards relating to safety performance and fire protection performance have become an important shackling of China's export trade in wood forest products (Xue, 2013; Wen and Liu, 2020). Furthermore, by sorting out the entries of non-tariff barriers for Wood forest products in the Non-tariff Barriers Global Database of THE United Nations Conference on Trade and Development ( UNCTAD) (including the initiated and effective non-tariff barriers) and the number of forest products trade policies and regulations in the National Research Network: after the global economic crisis, and the 20 Moreover, in 2018 the State Council clearly put forward measures to promote the steady and healthy development of foreign trade, woody forest products as an important component of international trade in Chinese forest products, under the background of a 'wall' of high non-tariff barriers, the healthy development of China's wood forest products will certainly be affected by export trade. In light of this, investigating the development characteristics, the latest connotation and trade effect of domestic and foreign non-tariff barriers on China's export of forest products is of great importance.

### *The category of non-tariff barriers*

The WTO (2009) distinguishes between non-tariff and non-tariff measures, noting that non-tariff barriers are non-tariff measures with a tendency to trade protectionism and are classified as non-tariff measures. According to the World Trade Organization ( WTO), the website publishes catalogs of non-tariff measures, which can be divided into seven parts, each part is divided into several small groups, containing seven parts of technical barriers to trade, sanitary and phytosanitary measures, special restrictions, import charges, customs administrative clearance procedures, the foreign government In the 2012 edition of the United Nations Conference on Trade and Development ( UNCTAD) the international classification of non-tariff measures is more detailed than the WTO classification, including Chapters A to P of Sanitary and Phytosanitary Measures, Technical Barriers to Trade (TBT) and Subsidy Policies, totalling 16 items.

Strictly speaking, non-tariff barriers and non-tariff measures are not equal, the former may be included in the latter category (Linkins, 2002) but the concept of 'non-tariff measures' is generally adopted by the WTO and UNCTAD, along with the vast majority of non-tariff measures formulated and implemented with a protectionist, and the implementation of trade protectionism through tariff barriers and Since the differences between the two are not the focus of this paper, this paper adopts the term non-tariff barriers.

Above all, irrespective of the definition and category, non-tariff barriers are generally more than tariff barriers, referring to a country or region in limiting imports of all

measures other than tariff measures, primarily by importers of state laws, decrees and administrative measures implemented in the form of (Lin, 2010; Liu, 2019; Ando

2010; Xie, 2016). This is mainly attributed to the non-tariff barrier which has the following characteristics : (1) the relevance and flexibility, the formulation and implementation of non-tariff measures usually take administrative procedures, to develop more rapidly, the procedure is simple, can replace the corresponding restrictive import measures at any time for a country or a commodity, so as to achieve rapidly Non-tariff measures, such as import and export quotas and technical standards, will be directly prohibited from importation by setting access thresholds beyond the relevant standards, so that the purpose of trade protection can be achieved quickly and directly. (3) A cover-up. Non-tariff measures tend to have poor transparency and strong concealment compared with tariff measures, which makes it easy to apply differential treatment to the relevant countries.

### **The impact of tariff barriers on global export trade in forestry products**

Xiong(2019). show that the tariff imposed by the United States on forest products exported to China o lead to the fragmentation and reconstruction of the global value chain of forest products (Xiong and Cheng , 2019). As far as forest products are concerned, the list of products on which the US imposes tariffs includes logs, sawn timber, wood-based panels, flooring, furniture, wood products, bamboo and rattan products, wood chips, wood pulp, paper and cardboard, pulp and paper products, etc., covering all types of wood forest products exported from China to the US except printed matter (Chen et al., 2019). For the world market of forest products, the tariff imposed by the US on Chinese forest products is likely to lead to the fragmentation of the global value chain of forest products, and the harm of tariff barriers will be transmitted to the upstream and downstream trading partners of China. Zhang Weifu et al(2019) employed GTAP model to simulating analysis of the Sino-US trade friction in the context of a bilateral forest products trade tariffs (Chen et al., 2019). The result shows: if importing countries do not further upgrade bilateral trade friction, forestry industry will not be further suffer tariffs, and the forestry industries in China will indirectly benefit, and realize the expansion of output and exports, while the forest industry output and exports in the United States will be slightly damaged. In addition, If Sino-US trade friction further escalates to impose 25% tariff on all imported goods from the other side, the output and trade surplus of China's forest industry will shrink due to the loss of part of the US market, while the US forest industry will increase its output and trade surplus due to import substitution effect caused by import reduction.(3) In terms of the forest industry, China rely more on the United States, thus in the tariff war, damage of China's forest industry will be enlarge. Guan Zhijie et al(2010) used spatial price gradient field mode to analysis the substitution effect of forest certification on tariff barriers. It shows that forest certification is an important way to promote sustainable development of forestry, and it tends to become a trade barrier in international trade (Guan, 2010). Tan Xiufeng (2008) found that the United States recently imposed a \$200 billion tax bill on China, contains a wide range of wooden products, which contains charcoal (HS4402), log (HS4403), wood (HS4404, 441441, 5441, 6441, 7441, 9442, 0441), sleepers (HS4406), wood (HS4407), single (HS4408), wood (HS4409), chipboard (HS4410), measuring plate (HS4411),marine plywood (HS4412), reinforced wood (HS4413), wooden doors, windows and wooden building

formwork (HS4418), wood pulp (Chapter 47), paper and cardboard, pulp and paper products (Chapter 48), furniture and seat upholders (HS9401,9403) (Guan, 2010). In 2017, China exported about 16.3 billion US dollars of wood forest products to the US, excepting Chinese printed products. In addition, in 2017, China's exports of plywood, wood floor and fiberboard to the US decreased by 19%, 15% and 11%, respectively, compared with the same period last year. It can be seen that China's exports of plywood, wood floor and fiberboard have been greatly affected by the double reverse of the US, and the volume of exports has decreased significantly compared with the same period last year. The study further shows that the additional tax burden of US \$200 billion on China will have a greater impact on the enterprises exporting over US \$100 million including furniture, wood flooring, wood-based panels, wooden doors and paper products. Both China and the United States impose taxes on a wide range of wood forest products. All but printed wood forest products are on the list of the \$200 billion U.S. tax on China. Only wood products (HS4404, 4416, 4502) are not included in China's \$60 billion tax list against the United States. Other wood forest products are also included. Thus, China's wood forest products enterprises will be hard hit.

### **The impact of non-tariff barriers on global export trade in forestry products**

With the acceleration of economic globalization and regional economic integration, on the one hand, openness to trade and trade liberalization have become the mainstream of international trade (Ando, 2010) on the other, countries to protect domestic industries, the need to sustain their economy's continuous and stable development, and often USES trade protection measures have expanded their domestic industries. Relevant countries benefit from the vagueness of relevant trade rules and the concealment of implementing measures to erect high trade barriers, which makes the new trade barriers represented by non-tariff measures particularly prominent in the new situation (Disdier and Van, 2010; Li, 2016). However, the impact of relevant trade measures on the forest product market has gradually shifted from tariff barriers to non-tariff barriers, with the continuing promotion of global trade liberalization. Philippidis and Sanjuán (2007) point out that important non-tariff barriers to trade in forest products include direct quantitative restrictions such as export quotas and tariff quotas, technical standards, phytosanitary standards, import licences, customs procedures and domestic policies.

Given that the existing global trade agreements restrict the direct use of tariff barriers, the importing countries turn to non-tariff barriers that have a greater aggregate effect on trade in forest products, production, profits from manufacturers, consumer spending and value chain than tariff barriers. However, the reduction of non-tariff barriers can improve the global production of wood forest products, improve the trade environment, further enhance consumer welfare and avoid loss of profit by manufacturers (Sun et al., 2010) such as the cork industry, (Cohen et al., 2003) found that the growth of non-tariff barriers limiting the free trade of cork in Canada, cutting the Canadian cork entering the international market, technical barriers. Eastin and Fukuda (2001). further believes that some countries have gradually taken non-tariff measures to protect their domestic softwood lumber industry.

Furthermore, Yin et al. (2020) concluded that there are two kinds of trade barrier policies against wood forest products that must be given close attention. One is the restriction measures imposed on the export of wood forest products from the exporting countries by importing countries. The second is that timber exports are legitimate. First, the export ban of logs implemented by Southeast Asian countries has reduced log exports to Japan in order to restrict the export of wood forest products (Tachibana and Shin, 1999). Similar trade bans have had similar effects on the heavily processed forest products in Ghana (Amoah et al., 2009). Furthermore, by predicting the presence of log export bans on the impact on global timber trade, Li et al. (2007) found a ban on the implementation of the results in a wood forest products worldwide of consumer spending and the manufacturer's profit increased by 2.2 per cent and 1.9 per cent, but from the perspective of nationality, Russia and New Zealand's main manufacturer of solid wood production' Moreover, Russia's timber-export restriction measures have a major impact on Canada and the United States' bilateral trade welfare for timber (Van et al., 2014). The effect of the restriction measures on the import of illegally harvested timber in THE EU, however, is not apparent, but only has a short- and medium-term impact (Moiseyev et al., 2010). Secondly, the Lacey Amendment of the United States (2008) and the European Union Voluntary Relations Agreement (2012) have no obvious effect in terms of reducing illegal sources of timber (Bandara and Vlosky, 2012; Gan and Cashore, 2013) when it comes to timber legality guarantees policies. Some scholars also found that the EU Timber Act did not effectively restrict the entry of illegal timber into the EU market, particularly in countries in eastern and southern Europe (McDermott and Sotirov, 2018). Carodenuto and Cerutti (2014) and Obidzinski et al. (2014)'s research suggests that implementation of the EU Voluntary Partnership Agreement in Cameroon and Indonesia has failed to achieve its desired impact. However, (Prestemon, 2015) conclude that the implementation of the Lacey Amendment (2008) has increased the price of forest products imported into the United States from tropical countries, thereby reducing the volume of imports. However, while the import quota of forest products has been gradually reduced, the export restriction has been increasing day by day, in particular the log export restriction is more evident than other forest products (Islam et al., 2018). Additionally, the high trade costs brought by forest certification have an effect of trade restriction on wood forest products (Guan and Sheong, 2013).

## **The Impact of Non-tariff Barriers on China's Export Trade in Forestry Products**

### *The Impact of Technical Barriers on China's Export Trade in Forestry Products*

In green technical standards, the certification system and the health inspection and quarantine system as the main form of green trade barriers have restricted the development of China's forest products export trade (McDermott and Sotirov, 2018), and then print the shown as trade barriers affect the mechanism of action of trade in forest products, and formaldehyde releases a quantity to Japanese standards for the export of Chinese wood furniture facing major trade barriers, some scholars concluded that the developed countries, primarily through the use of anti-dumping, green trade barriers, and relevant technical standards, would directly or indirectly restrict China's export of furniture (Jiang and Liu, 2008), such as Tang and Song (2013), found that technical barriers to the trade in C wood furniture exports Moreover, the average US technical trade



barrier to China's wood and paper products has been maintained at a high level (Zhang and Wen, 2019). Qiu and Yang (2007) believe that the forest-certified green trade barrier to consumption is a hidden danger to China's export of forest products, and China's manufacture and management of forest products is inconsistent with international standards, resulting in various technical standards affecting the export of forest products from many aspects.

#### *The impact of Lacey Act and European Timber Act on export trade of China's forestry products*

The European Wood Act is designed to restrict illegal logging, owing to China's wooden furniture source for billing illegal logging in risky areas, and thus to some extent to the export of Chinese forest products trade barriers to trade and produce negative influence, making it increasingly difficult to export furniture, making it difficult for wooden furniture exports to buy raw materials and wooden products. Moreover, as a major consumer market for timber and wood products in China, the introduction of the European Timber Act has changed the rules of international timber trade, affecting China's timber industry and import and export trade as well as increasing timber supply uncertainty (Yin et al., 2011). Also certain scholars from China's timber industry affected by the new eu timber bill directly enterprise number, its dependence on foreign timber imports, and the level of management of the wood enterprise and the degree of three-dimensional normative exposes China's timber industry affected by the negative impact of the new eu timber bill may be greater than other major competitors on the eu market (Hou and Zhuang, 2015). The amendment to the Lacey Act (2008) also has a restraining effect on most wood enterprises, particularly the export to the United States of Chinese wood forest products shows a significant negative effect (Yin et al., 2011).

On the other hand, some scholars believe that non-tariff barriers have some positive effect on the trade in forest products. As the implementation of the eu timber act aimed at enhancing the competitiveness of legal timber, improving the trade environment, promoting sustainable forest development (Duan and Liu, 2011), it can also optimize the export trade of international forest products and promote the protection of the world's forest resources in order to promote the improvement of the global ecological environment. Similar to the above points of view, it establishes a platform for fair competition for all countries from the perspective of the universality of the EU timber act and has a deterrent effect on the fight against illegal logging and the illegal trade in timber, thereby reducing deforestation and forest degradation and contributing to mitigating global climate change (Zeng et al., 2017). However, the negative effect of the Lacey Act amendment (2008) on the export trade of Chinese wood products to the United States is not as significant as the scholars' previous theoretical analysis, and it also provides an empirical basis for the views on the preservation of the amendment's positive and negative effects (Lin et al., 2015; Shen, 2008).

#### *The impact of anti-dumping measures on export trade of China's forestry products*

Globalization of trade continues to deepen and lead to trade disputes and trade intervention policies, wooden bedroom furniture as one of the representative product of

this trend, some scholars studying trade policy interventions (represented by anti-dumping) in the United States, Vietnam, Malaysia and other countries, slashed their share of Chinese wooden bedroom furniture imports. For example, on the basis of an investigation into the anti-dumping trade effect of the United States on Chinese wooden bedroom furniture, it is found that the imposition of anti-dumping duty has a significant trade restriction effect on China, which leads to imports from the United States to Vietnam, Malaysia and Indonesia being diverted and further promotes the transfer of furniture imports to differ. Additionally, the US-led anti-dumping investigation also had a temporary trade inhibition effect on China's exports of wood beds (Wan et al., 2010; Ren and Hou, 2015). In parallel with the expansion of China's forest product production scale and the increase in its export share, some scholars have shown that the anti-dumping trade barrier faced by China's plywood exports to the United States is equivalent to 150 per cent to 580 per cent AD tariff value, which not only hinders the development of China's forestry industry, but also poses a serious threat to it. By comparing the anti-dumping intensity index, (Yang et al., 2008) demonstrated that the export share of Chinese wood products on the US market was greatly affected by the US ANTI-DUMPING measures, and also found that the anti-dumping measures against Chinese forest products were higher than the world average level.

## Literature Review

Trade barriers generally have different names and forms, which have complicated impacts on the export trade of global forest products and have attracted academic attention. It is found through the combination of relevant literature that many scholars have conducted theoretical discussion and empirical tests on various forms of trade barriers. Scholars' abundant research achievements have provided a rich perspective for the follow-up research and have laid a solid foundation.

Based on existing literature it was found that the impact of tariff barriers on China's forest products export trade in recent years, mainly focused on the impact of the United States on China's tariff, and involving more and more product categories. The current definition of non-tariff barriers is considered by scholars to be non-tariff barriers rather than tariff barriers, refers to a country or region as a typical representative in limiting imports of all other than tariff measures, in the field of trade in forest products, with all kinds of plant quarantine requirements, technical standards and anti-dumping. Firstly, by combining the relevant literature on the impact of major non-tariff barriers on the export trade of forest products at home and abroad, it is found that the original intention of some countries has not been met by non-tariff measures. Secondly, globally, in view of the non-tariff barriers of forest products export trade impact on the world, more focus is placed on log trade, such as export restrictions on specific measures, such as log ban and the European Union act, etc.) and timber export legitimacy policy on non-tariff security measures, and the influence on log export trade mainly for negative effect. Various non-tariff measures, however, have a dual impact on China's trade in forest products: on the one hand, non-tariff measures can, to some extent, improve the international competitiveness of legitimate timber, optimize the export trade of forest products, and promote the protection of forest resources to enhance the environment. On the other hand, the strict technical and phytosanitary standards and relevant importing countries' policies and regulations increase the production costs of forest products companies, thereby

raising the export prices of forest products and even leading to the inability to export related products, thereby hindering the healthy and stable development of China's forest products export trade to some extent. Additionally, the existing literature focused on the United States, Japan and EU countries on wood furniture and plywood export trade in our country, but based on the fact that forest product segmentation sort is more non-tariff barriers are consistent effects on other trading partners, for different types of forest products export trade influence degree? We need further discussion. In addition, existing literature mainly discusses non-tariff barriers to trade affecting global forest products export trade, but the change in forest products export trade may hide its internal differentiation in the fact that different products and microscopic perspectives investigate non-tariff barriers to global and Chinese forest products exporting from different countries and from the dynamic trend.

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