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# An Empirical Analysis of China's Aquatic Product Exports from 2018 to 2025: Trends, Challenges, and Global Trade Implications

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**Abstract:** This paper investigates China's export activities in the aquatic products sector over the period from 2018 to the current year. By collecting and analyzing relevant data from authoritative sources such as the United Nations Comtrade Database and the General Administration of Customs of China, it provides a comprehensive overview of the scale, composition, and market allocation of China's aquatic product exports in this timeframe. In addition, it offers an in-depth examination of the driving factors and outlines relevant strategies for future development. The results show that although China's aquatic product exports have faced certain challenges, there are still great potential and opportunities. Through continuous optimization of the industrial structure, improvement of product quality, and expansion of market channels, China's aquatic product exports are expected to achieve more stable and sustainable development. This research provides a reference for relevant industries and policymakers to understand the current situation and future trends of the exportation of aquatic products from China.

**Keywords:** China; aquatic product exports; export scale; product structure; market distribution

## 1. Introduction

Seafood plays a crucial role in people's diets worldwide due to its rich nutritional value. With the growth of the global population and the improvement of living standards, the demand for aquatic products has been on the rise, which has strongly promoted the development of the international aquatic product trade. China, as a major producer and exporter of aquatic products, has occupied an important position in the global aquatic product market.

Since 2018, the global economic environment has been complex and changeable, with trade protectionism on the rise and the impact of unexpected events such as the COVID-19 pandemic. These elements have posed specific challenges to the export of aquatic products from China. An examination of China's aquatic product export status during this timeframe, exploring the influencing factors, and proposing corresponding development strategies are of great significance for maintaining the stable development of China's aquatic product export industry, optimizing the allocation of resources, and enhancing international competitiveness.

## 2. An Overview of China's Aquatic Product Export Trends from 2018 Onward

### 2.1. Export Scale

According to data from the United Nations Comtrade Database, in 2018, China's total export value of aquatic products reached 21.55 billion US dollars. However, in 2019, it showed a certain decline, with the export value dropping to about 20 billion US dollars, which may be related to the impact of the Sino-US trade friction. In 2020, affected by the global COVID-19 pandemic, the global trade environment deteriorated, but China's aquatic product exports still maintained a certain scale, with an export value of approximately 20.36 billion US dollars. In 2021, as the global economy gradually recovered, China's aquatic product exports rebounded, reaching 24.4 billion US dollars. In 2022, the export value further increased to 26.85 billion US dollars. In 2023, it remained at a relatively high level of 26.5 billion US dollars [1,2]. In 2024, China's aquatic product export amount reached 27.3 billion US dollars, with the cumulative export volume reaching 4170000 tons, showing a year-on-year growth trend in both quantity and value (data from the General Administration of Customs of China).

### 2.2. Product Structure

In terms of product structure, China's exported aquatic products are rich in variety. Fishery products can be divided into several categories according to the HS (Harmonized System) coding. Among them, frozen fish has always been one of the main export products. In 2018, the export value of frozen fish accounted for about 35% of the total export value of aquatic products. By 2024, this proportion remained at around 32%. This is mainly because frozen fish has a long shelf-life and is convenient for transportation and storage, which meets the needs of many international markets.

Shrimp and its products are also important export items. In 2018, the export value of shrimp and its products accounted for approximately 25% of the total. With the continuous expansion of the global demand for high-value-added aquatic products, by 2024, the proportion of shrimp and its products increased to about 28%. Aquatic products such as canned fish and dried and salted fish also occupy a certain share in China's aquatic product exports, but their proportions have remained relatively stable over the years, each accounting for about 10%-15% of the total export value.

In recent years, with the improvement of processing technology and the increasing demand for convenience foods in the international market, value-added aquatic products such as aquatic product deep-processing products and pre-made dishes have gradually emerged. In 2018, the export value of these value-added products accounted for only about 5% of the total. By 2024, this proportion has increased to about 10%, indicating that China's aquatic product processing industry is constantly upgrading, and the added value of products is gradually increasing [3].

### 2.3. Market Distribution

In terms of market distribution, China's aquatic product exports are mainly concentrated in a few major markets. The traditional export markets include Japan, the United States, South Korea, the European Union, and Southeast Asian countries.

China's aquatic products have traditionally found an important market in Japan, which accounted for around 28% of exports in 2018. However, in recent years, due to factors such as Japan's own economic situation, changes in consumer preferences, and the impact of trade policies, this proportion has gradually decreased. By 2024, the proportion of exports to Japan dropped to about 22%.

The United States is also a major market for China's aquatic products. In 2018, the proportion of exports to the United States was about 20%. But affected by the Sino-US trade friction, in 2019, this proportion dropped significantly to about 15%. In the following

years, although the Sino-US economic and trade relations have shown some signs of improvement, the proportion of exports to the United States has only recovered to about 18% in 2024.

South Korea is another important market in Northeast Asia. In 2018, the proportion of China's aquatic product exports to South Korea was about 15%. With the continuous deepening of economic and trade cooperation between the two countries, this proportion has remained relatively stable, reaching about 16% in 2024.

The European Union is a large-scale consumer market for aquatic products. In 2018, about 12% of China's aquatic product exports were sold to the EU market. In recent years, with the EU's increasingly strict food safety standards and the impact of the European economic situation, the proportion of exports to the EU has fluctuated slightly, remaining at about 13% in 2024.

In addition, Southeast Asian countries have become emerging markets with rapid growth in demand for China's aquatic products. In 2018, the proportion of exports to Southeast Asian countries was about 10%. With the continuous development of the economies of Southeast Asian countries and the improvement of people's living standards, further supported by regional cooperation initiatives led by China, this proportion has increased significantly. By 2024, the proportion of exports to Southeast Asian countries reached about 15%.

### **3. Determinants of China's Aquatic Product Export Performance**

#### *3.1. International Market Demand*

The primary factor influencing China's aquatic product exports is the global demand for these products. As people's living standards improve globally, the demand for healthy and nutritious food such as aquatic products has been increasing. For example, in developed countries in Europe and America, consumers have a high demand for high-quality, high-value-added aquatic products such as salmon and shrimp. In emerging economies such as Southeast Asia and South America, with the growth of the middle-class population, the demand for various aquatic products is also on the rise. However, the demand for aquatic products is also affected by factors such as the economic situation and population growth rate of each country. During the global economic recession or slowdown, such as the period affected by the COVID-19 pandemic, the purchasing power of consumers in some countries has declined, which has led to a certain reduction in the demand for non-essential consumer goods such as high-end aquatic products [4].

#### *3.2. Trade Policies and Barriers*

Trade policies and barriers of importing countries have a significant impact on China's exports of aquatic products. In recent years, some developed countries have continuously raised trade barriers in the name of food safety, environmental protection, and animal welfare. For example, the European Union has extremely strict regulations on the content of antibiotics and heavy metals in aquatic products, as well as requirements for production processes and environmental protection. China's aquatic products need to meet these strict standards to enter the EU market. The United States has also imposed a series of tariffs and trade restrictions on China's aquatic products, citing concerns over trade imbalances and market practices. In addition, some countries may also implement anti-dumping and anti-subsidy investigations on China's aquatic products, which has seriously affected the export competitiveness of China's aquatic products in these markets.

#### *3.3. Domestic Production and Cost Factors*

Domestic production capacity and cost factors also play an important role in China's aquatic product exports. On the one hand, China's aquaculture industry has developed rapidly in recent years, and the production capacity of aquatic products has been continuously improved. However, with the increase in the prices of feed, labor, and aquaculture

resources, the production cost of aquatic products has also risen significantly. For example, the price of fish feed has increased by about 20%-30% in recent years, which has compressed the profit margin of aquaculture enterprises. On the other hand, the level of domestic aquatic product processing technology and innovation ability also affects the added value and quality of products. Compared with some developed countries, China still has some gaps in high-end aquatic product processing technology, this limits the enhancement of China's aquatic product exports' competitiveness in the global market.

#### **4. Strategies for Promoting China's Aquatic Product Exports**

##### *4.1. Strengthening Market Research and Development*

In response to the complex international market demand, Chinese aquatic product export enterprises should strengthen market research. They need to deeply understand the consumption habits, preferences, and demand trends of different markets. For emerging markets such as Africa and South America, enterprises can develop products that meet local consumption levels and taste preferences. For example, developing more affordable frozen fish products and simple-processed aquatic products suitable for local cooking methods. In addition, actively explore new market channels, participate in more international aquatic product exhibitions and trade fairs, and use e-commerce platforms to expand the international market share.

##### *4.2. Improving Product Quality and Safety Management*

In view of the increasingly strict trade barriers of importing countries, China must strengthen the quality and safety management of aquatic products. First, improve the quality and safety standard system of aquatic products, align with international advanced standards, and strengthen the supervision of the entire process from aquaculture to processing and export. Strengthen the detection of drug residues, heavy metals, and other harmful substances in aquatic products, and ensure that products meet the import requirements of various countries. Second, promote the construction of standardized aquaculture bases, popularize green and healthy aquaculture technologies, reduce the use of antibiotics and chemical fertilizers, and improve the quality and safety level of aquatic products from the source.

##### *4.3. Reducing Production Costs and Improving Added Value*

To deal with the problem of rising production costs, aquaculture enterprises can take a series of measures. For example, optimize the feed formula, develop new types of feed raw materials, and reduce feed costs. Strengthen enterprise management, improve production efficiency, and reduce labor costs. In terms of improving product added value, increase investment in scientific research and development, develop more high-value-added products such as aquatic product deep-processing products and pre-made dishes. Strengthen brand building, enhance the brand awareness of Chinese aquatic products in the international market, and increase product competitiveness through brand value.

#### **5. Conclusion**

From 2018 to the present, China's seafood export sector has shown certain fluctuations in scale, with continuous adjustments in product structure and market distribution. International market demand, trade policies and barriers, and domestic production and cost factors have all had an impact on China's seafood export sector. By intensifying market research and innovation, strengthening product quality and safety management, and simultaneously lowering production costs and increasing added value, China's aquatic product export sector is expected to surmount these challenges, seize opportunities, and achieve more stable and sustainable development in the international market.

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