

Research on the Spatial Spillover Effect of Financial Agglomeration on the Quality of Export Products

-- Taking the Yangtze River Delta as an Example

Zongming Wang, Jiahao Wu

School of International Economics and Trade, Anhui University of Finance and Economics, Bengbu, 233000, China

Abstract: Since the reform and opening up, China has exported a large number of low-end manufacturing goods with the advantage of resource endowment, which has promoted the rapid development of China's economy, but it has been unable to meet the current demand for high-quality development of China's economy. At this stage, China's export enterprises are facing problems such as the rapid decline of the original low-cost advantage and the extrusion of other countries. Improving the quality of export products is one of the ways to realize China's high-quality development. Historical research results show that the financial service industry can promote the quality of export products by providing financial services and information flow. In this context, by introducing the driving relationship of financial agglomeration on the quality improvement of China's export products, this paper deeply studies the impact of financial agglomeration on the quality of export products, and puts forward policy suggestions to promote the quality improvement of export products. Firstly, this paper combs the relevant literature from two aspects: the influencing factors of export product quality and the development of financial agglomeration. On this basis, it expounds the spatial effect of financial agglomeration, and analyzes the spatial spillover effect mechanism of financial agglomeration on the quality of export products. Secondly, the quality of export products and the degree of financial agglomeration in the Yangtze River Delta are calculated based on the data of China customs database. Thirdly, the spatial econometric model is constructed to empirically test the impact of financial agglomeration on the spatial spillover effect of export product quality. Finally, based on the empirical research results, policy suggestions are put forward.

Keywords: Financial agglomeration, Quality of export products, Spatial spillover effects.

1. Introduction

Since the reform and opening up, taking advantage of low production factors and low standard environmental protection requirements, China has actively undertaken industrial transfer from developed countries, integrated into the global value chain, and built an "export-oriented" economy with foreign trade as the main mode, realizing great economic development. However, relying on low prices of production factors, China only pays attention to the accumulation of export "volume". This extensive economic development model is no longer sustainable. On the one hand, the total number and proportion of China's working population have accelerated to decline, and the "demographic dividend" has gradually disappeared; The long-term destructive exploitation of resources has caused serious environmental pollution and threatened the people's pursuit of a better home. On the other hand, although China has realized the rapid growth of import and export scale and become a world factory, the core production link in the industrial chain has always been firmly controlled by developed countries. China has been at the bottom of the "smile curve" for a long time, and the quality and added value of export products are not high, so it can not get rid of its position at the low end of the value chain for a long time.

The report of the 19th National Congress clearly proposed to support the optimization and upgrading of traditional industries, accelerate the development of modern service industry, aim at international standards, improve the level, and promote China's industry to move towards the middle and high end of the value chain. *** It defines the core position

of the financial industry in the process of economic development. The orderly and rapid growth of the financial industry will play a professional service for China's real economy. The Yangtze River Delta (hereinafter referred to as the Yangtze River Delta) is one of the most dynamic, open and inclusive regions in China's economic development. It plays a vital role in the construction of the national modern economic system. The development of financial industry will also play a professional role in improving the quality of foreign trade in the Yangtze River Delta. Based on the financial industry agglomeration in the Yangtze River Delta, this paper discusses the impact of financial agglomeration on the quality of export products in the Yangtze River Delta region and cities.

1.1. Significance of Project Research

1.1.1. Theoretical Significance of Project Research

By reading relevant literature and combing and summarizing on the basis of existing literature, this paper finds that the current research on the influencing factors of export product quality mainly focuses on national policies and enterprise mechanisms, while there is less research on the influencing factors of financial service industry on export product quality. Therefore, it is of great significance to enrich and expand it at both theoretical and empirical levels. According to the research results of the existing literature, the current financial service industry presents a new development phenomenon of industrial agglomeration. Financial agglomeration plays a significant role in the improvement of regional innovation level and the upgrading of industrial structure. Based on this, on the one hand, this paper will use the demand information backstepping method to calculate the export product quality

of the Yangtze River Delta and the location entropy method to calculate the financial agglomeration degree of the Yangtze River Delta, On the other hand, it will explore the spatial spillover effect of financial agglomeration on the quality of export products in the Yangtze River Delta, and enhance the depth and breadth of the existing research from the research data, research objects and research methods.

1.1.2. Practical Significance of Project Research

Financial institutions, as enterprises with operational risks, often contain risks and uncertainties in credit relations. Due to the characteristics of small scale, weak operational stability and opaque information, private export enterprises are generally faced with the problem of "difficult and expensive financing", and are more cautious about the investment of R & D funds. By studying the impact mechanism of financial agglomeration on the quality of export products, it will help to better provide financial services for export enterprises, reduce the operation risk of private export enterprises, especially small and micro export enterprises, disperse the R & D risk of enterprises, further improve the innovation ability of China's export enterprises and realize the further growth of export product quality. At the same time, studying the phenomenon of financial agglomeration will also help the government better formulate financial policies, better achieve targeted RRR reduction, and provide guidance for domestic real enterprises

The industry provides more efficient and convenient services, alleviates the dilemma of "difficult and expensive financing" of private enterprises, especially small and micro enterprises, provides better policy services and support for enterprise R & D and innovation, and promotes the improvement of the quality of enterprise export products.

1.2. Journals Reviewed

1.2.1. Factors Affecting the Quality of Export Products

The factors affecting the quality of export products are first studied by foreign scholars. Linder (1961) first proposed that quality is an important influencing factor in international trade. Linder hypothesis believes that high price products are equal to high-quality products. Falvey (1981) constructed a vertical differentiation model. Based on the factor endowment theory, he incorporated product quality into the econometric model to explore the factors of product quality. Garvin (1984) divided the product quality into the following three parts: from the practical level, it includes the safety of product use and after-sales service; From the perspective of market promotion, it is the recognition and popularity of products; At the consumption level, it is the satisfaction of consumers with products. Subsequently, Flamhe and Helpman (1987) began to study the differences in the vertical plane of similar products, that is, the quality gap. At the macro level, Funke and ruhwedel (2001) found a positive correlation between the quality of export products and GDP; Khandelwal (2010) based on the unit value method, explored the relationship between the per capita production value of exporting countries and the quality of export products, and proved that there is a positive relationship between a country's economic level and trade quality. At the micro level, Bernard (2006) and verhoogen (2008) explored the production factors of export enterprises. The results show that the quality of export products is related to the quality and skills of workers in export enterprises; Kugler and verhoogen (2012) used the selection model to take into account the input and output of enterprises, and empirically proved that there is an obvious

correlation between the quality of export products and the scale of enterprises.

At present, many domestic experts and scholars have put forward their own opinions on the factors affecting the quality of China's export products. With the different development stages of China's foreign trade, scholars' concerns also show great differences. In the early stage, China's foreign trade was in the stage of foreign development, mainly relying on price advantages to expand foreign markets, and did not pay too much attention to the factors affecting the quality of export products. With the development of China's foreign trade in 2010, scholars began to explore whether China's export quality has been improved. For example, Li kunwang (2013) used the Dynamic Panel System GMM method to explore whether FDI has promoted the quality of China's export products, sun churen (2014) explored whether the agglomeration economic effect can promote the improvement of urban export quality, and Dai Xiang (2014) the impact of system quality and product division on the quality of export products. At this stage, scholars' research is relatively macro, mainly focusing on the measurement of export product quality. As the accumulation of "quantity" of China's export trade has reached a certain level, it is necessary to seek a breakthrough in "quality", the research of scholars has become more diversified and differentiated, and more micro level research based on enterprise level has emerged one after another. For example, Xu Ming (2016) explored the case of Chinese enterprise addition rate and export product quality based on the micro data of Chinese manufacturing enterprises; Mosha (2016) explored the impact of producer services agglomeration on the quality of export products based on the data of 275 prefecture level cities in China; Peng Dongdong (2016) used the data of Chinese micro enterprises to explore the impact of environmental regulation on the quality of export products. After 2017, as the main contradiction of China in the report of the 19th National Congress of the Communist Party of China changed into the contradiction between the people's growing need for a better life and unbalanced and insufficient development, and put forward the word "high-quality development", the academic circles have more detailed and focused on the factors affecting the quality of export products. Some scholars have studied from the perspective of national policies, such as government subsidies (Zhang Yangli, 2017). Some scholars have discussed issues from the perspective of enterprise mechanism, such as Internet technology application (Ye Jiao, Heshan and Zhao Yunpeng, 2018), manufacturing service (Wang Siyu and Zheng Lekai, 2019), and information disclosure quality (Chen Lili and Dai Yi, 2021). Foreign scholars have also begun to study the factors affecting the quality of China's export products. Mukherjee (2017) found that the tax burden of enterprises affects the innovation investment of enterprises, and the scale return of enterprises' innovation investment shows an increasing trend. The marginal output is in positive proportion to the input, and affects the innovation efficiency of enterprises at the same time, Then indirectly affect the quality improvement of export products; Liu and Xie (2018) based on the panel data of Chinese manufacturing enterprises, studied the industrial policies in terms of environment, and found that there are offset and compensation effects between different policies, which then affect the factor input structure of the industry, thus indirectly affecting the quality of export products of enterprises; Egger Peter H (2020) discussed the effect of property rights protection on the quality of export

products; Dario fauceglia (2020) discussed the impact of exchange rate on the quality of export products. However, the improvement of the quality of export products by financial agglomeration has attracted less attention from the academic circles.

1.2.2. The Meaning of Financial Agglomeration

Financial industry is a special industry, and financial agglomeration is an industrial agglomeration with special nature. The financial industry is the core of the economy and has the characteristics of high liquidity. The connotation of financial agglomeration is essentially different from that of general industrial agglomeration (Huang Jieyu and Yang zaibin, 2006). "Financial agglomeration" was first proposed by Kindle Berger (1974) based on the agglomeration theory of Marshall (1920) and Weber (1929). It is believed that more financial sectors are concentrated in one region, which will make the region more attractive to other financial participants. Park (1982) and Porteous (1999) further explained the phenomenon of financial agglomeration by using the theory of economies of scale and the theory of information hinterland. Pandit et al. (2002) cut in from the perspective of traditional industrial agglomeration, compared the financial industry with traditional manufacturing industry, and proposed that financial agglomeration forms financial agglomeration. Then brulhart (2009) further expanded the phenomenon of financial agglomeration, In order to improve the utilization efficiency of financial resources, the supply and demand sides spontaneously converge to form a financial center, and then form a financial agglomeration. In terms of domestic scholars, Teng chunqiang (2006) understood financial agglomeration as an industrial spatial structure or industrial organization form of producing and trading financial products. Che Xinwei et al. (2012) introduced the concept of geographical factors into the financial agglomeration model, looked at financial agglomeration from a spatial perspective, and further enriched the concept of financial agglomeration.

1.2.3. The Motivation of the Evolution of Financial Agglomeration

As a special form of industrial agglomeration, financial agglomeration has attracted many scholars to make theoretical and Empirical Analysis on its driving factors and internal mechanism. Based on the agglomeration theories of Marshall (1920), Weber (1929), Porter (1990, 1998), most scholars attribute the main reasons of financial industry agglomeration to the following economic factors: external economy, economies of scale, agglomeration economy and transaction cost. Tschoegl (2000) analyzed the impact of enterprise location selection and self reinforcement on the agglomeration of financial enterprises. He believes that both enterprise location selection and self reinforcement will enhance the proximity of financial traders to a certain region, and the attraction of this location promotes the formation of agglomeration. Naresh R. Pandit (2001, 2002) and other scholars adopted the dynamic research method of industrial clusters proposed by Swann (1998) to make an empirical analysis on the UK financial service industry, and concluded that the agglomeration effect affects the growth of companies and the number of new entrants. A large number of financial companies gather to form financial centers, and subsequent financial enterprises in order to reduce transaction costs, Maximizing resource sharing will gather in the agglomeration area and further enhance regional financial agglomeration. Qin Lingui et al. (2013) under the theoretical framework of

new economic geography, taking Dalian as an empirical case study, using relevant indicators of financial operation, empirically tested that economies of scale are the decisive factor in the formation and evolution of financial agglomeration. Some other scholars believe that the motivation of financial agglomeration lies in information asymmetry, and put forward the "path dependence theory", "information hinterland theory" and "information dependence theory", which emphasize that the causes of financial agglomeration are information factors, and the asymmetry of information and the externality of information are the key elements of the formation of financial agglomeration. Clark (2003) conducted an empirical study on the capital market in Germany and found that the formation of European financial centers stems from the demand for information of financial institutions. After introducing geographic information into financial agglomeration, Che Xinwei (2013) used spatial econometric model to study financial agglomeration from a spatial perspective, proving that financial information is the key factor affecting financial agglomeration. On the basis of previous research, Clark (2005) further proposed that with the rapid development of contemporary information technology, financial institutions also actively tend to concentrate, and the deepening of financial agglomeration will enter a deeper level.

The above research mainly focuses on the impact of internal factors on the evolution of financial agglomeration, while some scholars study the impact of external factors on financial agglomeration. Huang Jieyu (2011) believes that financial agglomeration is a product derived from traditional real industrial agglomeration, and industrial agglomeration and financial agglomeration develop in mutual promotion. Firstly, the huge capital demand for the agglomeration and development of real industries has expanded and deepened the development of financial industry. Secondly, the government provides policy support and a good business environment for the development of regional real industries in order to achieve good regional economic development, which increases the possibility of financial agglomeration. Finally, high-level human resources are the core competitiveness of an industry. The continuous inflow of high-quality talents provides a lasting driving force for regional financial development, and high-level human capital investment helps the formation and development of financial agglomeration.

1.2.4. Research on the Economic Effect of Financial Agglomeration

Domestic scholars have carried out extensive research on the spatial effect of financial agglomeration. Zhang Xiuyan (2019) studied the guiding role of financial agglomeration on the high-quality development of regional economy based on the threshold effect and spatial effect, and Zhang Xuan et al. (2019) discussed the promoting effect of financial agglomeration on the productivity of regional private economy based on the spatial panel Durbin model; Yue Tingting (2020) confirmed the spatial spillover effect of financial agglomeration by studying the data of 11 prefecture level cities in Shaanxi Province, and further confirmed that financial agglomeration helps to promote the improvement of regional innovation ability; Zhang Zhen (2020), Zhang Zhongjun (2020), Pang Qinghua (2021), Wu Yaohua and other scholars studied the spatial spillover effect of financial agglomeration from the perspective of industrial agglomeration theory, and found that regional financial agglomeration helps to improve the concentration of regional

human capital and the growth of the number of R & D activities, promote the innovation ability of surrounding areas, and drive the upgrading of regional industrial structure, Realize regional economic development; Chen Xiangyang (2021) conducted an empirical study on the panel data of 11 cities in Guangdong, Hong Kong and Macao Dawan district from 2000 to 2018, and found that financial agglomeration is conducive to promoting the improvement of regional innovation ability.

Foreign scholars have also made sufficient research on China's financial agglomeration. Dan Gao (2016) studied the impact of financial agglomeration on the upgrading of industrial structure with the economic data of Guangdong Province as an example, and Akhtar rasool (2017) studied the promotion effect of financial agglomeration on the upgrading of tertiary industry with the economic data of Anhui Province; Yan Wang (2019) studied the impact of financial agglomeration on the upgrading of industrial structure under the background of supply side structural reform based on the economic data of Shandong Province; Zhisen Zeng (2021) also used the export data of the Great Bay area of Guangdong, Hong Kong and Macao in China to study the intermediary effect of technological innovation of financial agglomeration, and confirmed that regional financial agglomeration is conducive to improving the innovation level of the region; Yong fan (2021) studied the spatial effect of financial agglomeration on the real economy based on the data of Shanghai, China. Jingwen Xia (2021) took the economic data of Guangdong Province as an example to study the impact of the spatial effect of financial agglomeration on the upgrading of industrial structure. A series of studies by foreign scholars and domestic scholars confirm each other, which proves that financial agglomeration can stimulate the innovation of traditional manufacturing industry and promote the upgrading of traditional industries.

1.2.5. Related Literature Review

Scholars at home and abroad have explored the theory of financial agglomeration from multiple perspectives in the existing literature. The relevant research results can be divided into:

The related meaning of financial agglomeration is more based on the traditional industrial agglomeration, which is defined as various types of financial institutions, financial departments and financial enterprises with different natures. In order to give full play to the functions of financial market, they spontaneously form industrial clusters under the promotion of market competition, and then make the original structure closer under the guidance of government industrial policies, human capital investment and financial information flow agglomeration, Form financial industry clusters with different scales and levels.

As for the motivation of financial agglomeration, domestic and foreign scholars believe that it can be divided into endogenous motivation and external reasons. Economies of scale and information flow are the endogenous driving forces to promote the formation of financial agglomeration; Traditional industrial agglomeration, government policy guidance and human capital investment are the external reasons to promote financial agglomeration; Domestic and foreign scholars have verified the correctness of the theory through empirical research.

Research on the innovation effect of financial agglomeration. At present, scholars at home and abroad mainly focus on

empirical analysis, using China's provincial panel data to analyze the relationship between financial agglomeration and regional innovation level and industrial structure upgrading. However, there are two problems: one is that the research scope is too large, ignoring the unbalanced level of financial development in different regions in the region. As far as the Yangtze River Delta region is concerned, under the new research perspective, the research object is refined to cities to study the current situation of financial agglomeration and the impact of the spatial spillover effect of financial agglomeration on the quality of export products. Second, the innovation promotion effect of existing financial agglomeration is mainly concentrated in the region or industry, and the research scale is too large, ignoring the different innovation status of different enterprises in the region or industry. As for the quality of export products, scholars pay less attention to the impact of financial agglomeration on the real economy at the enterprise level. Therefore, this paper uses spatial econometric model and urban panel data to empirically study the spatial spillover effect of financial industry agglomeration on the quality of export products in the Yangtze River Delta.

2.The impact of financial agglomeration on the economic development of the Yangtze River Delta

At present, China is in a critical period of transforming growth power and economic structure. Realizing the transformation of economy from high-speed growth to high-quality development is the primary goal of national policy-making. Realizing the combination of financial industry and real industry is an effective path for regional industrial transformation and upgrading and a new driving force for China's development in the new era. On the other hand, with the deepening of urbanization, the speed of financial service industry and various industries gathering in urban clusters is accelerating. The combination of financial industry and real industry helps to promote the high-quality development of urban economy. The Yangtze River Delta (hereinafter referred to as the Yangtze River Delta) is one of the most dynamic, open and inclusive regions in China's economic development. It plays a vital role in the construction of the national modern economic system.

Since the 1970s, more and more financial institutions have begun to organize transactions and production activities in the way of inter enterprise coordination. From the initial concentration of a few banks to the rise of financial holding companies, and then to the spatial aggregation of various types of financial institutions today, clusters have become the basic form of modern financial industry organization, Financial agglomeration has become a new form of industrial agglomeration. As one of the core elements of modern economic development, finance is one of the important driving forces of national economic development. Financial agglomeration helps to promote the development of real industries and the improvement of export quality.

2. Policy Suggestions of Financial Agglomeration on the Improvement of Export Quality in the Yangtze River Delta

First, continue to promote the reform of the financial supply side, enhance the ability of financial services to the real economy and improve the level of financial agglomeration.

Build a highly adaptable, competitive and inclusive modern financial system, improve the level of financial market, optimize the structure of financial market, expand effective financial supply, give full play to the function of financial resource allocation, attract more funds to science and technology and industrial innovation, support the technological progress of strategic emerging industries, and give full play to the radiation and driving role of financial agglomeration, We will promote the upgrading of the real economy, improve total factor productivity, Promote the quality improvement of export products

Second, build an international or national financial center in the Yangtze River Delta and give full play to the financial radiation effect of the central cities in the Yangtze River Delta. Regions with a high level of financial agglomeration should give full play to their regional advantages and build central cities such as Shanghai and Nanjing into international or national financial centers, promote the high-quality economic development of the region through the agglomeration effect, and affect the production behavior, production mode and production layout of the surrounding areas through the trickle effect, radiating and driving the economic development of the surrounding areas.

Third, promote the flow of factors of production and strengthen technological exchange and sharing among regions. Promote the free and full flow of advanced manufacturing technologies, share financial products and high-quality financial services, accelerate the exchange and interaction of science, technology and innovative talents among regions, realize the rational division of labor among regions, and promote the common improvement of the quality of export products among regions.

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