

Impact of COVID-19 on Small Commodity Export in Zhejiang Province

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How to cite this paper: Han, Y., Wu, J. X., & Yang, R. (2023). Impact of COVID-19 on Small Commodity Export in Zhejiang Province. *Modern Economy, 14*, 1058-1073. <https://doi.org/10.4236/me.2023.148055>

Received: June 6, 2023

Accepted: August 6, 2023

Published: August 9, 2023

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Abstract

With the development of economic globalization, the trade between China and other countries has become increasingly close, but the sudden outbreak of COVID-19 pandemic has had a huge impact on the world economy. In the face of emergencies, China organized quickly and immediately controlled the further spread of COVID-19 pandemic, effectively reducing its negative impact. Among them, Zhejiang Province has also done a very good job in prevention and control. However, other countries did not pay attention to COVID-19 pandemic in the early stage, and did not take measures to prevent and control it until the global epidemic broke out. Using the small commodity trade data between Zhejiang Province and 10 major export partner countries from 2017 to 2021, this paper studies the impact of the COVID-19 pandemic shock on the trade of small commodities in Zhejiang Province, so as to provide reference suggestions for maintaining a good trade situation of small commodities in Zhejiang Province. The main conclusions of this paper are: 1) COVID-19 pandemic has hindered the trade of small commodities in Zhejiang Province. The more severe the epidemic situation in export partner countries, the greater the resistance to exports to this country. 2) The severity of COVID-19 pandemic in Zhejiang also has a certain impact on small commodity exports, but it is far less than the negative impact caused by the spread of the epidemic in major export partner countries.

Keywords

COVID-19, Zhejiang Province, Small Commodity Export, Gravity Model

1. Introduction

Since 2000, international trade has witnessed an unprecedented surge. Accord-

ing to data from the World Trade Organization (WTO), the total value of global trade has escalated from \$6.5 trillion in 2000 to \$24.9 trillion in 2022, reflecting an average annual growth rate of 6.3% (Figure 1). However, following the outbreak of the global financial crisis in 2008, world trade began to experience significant fluctuations. Between 2008 and 2022, there were five instances of negative growth (see the red markers in Figure 1), with the lowest growth rate recorded in 2009 at -22.3% . Since the end of 2020, the world has been hit by the global COVID-19 pandemic. Governments worldwide have implemented various measures, such as transportation management and restrictions on the movement of urban residents, exacerbating the already challenging global economic environment and further impacting global trade and the economy.

Zhejiang province, as an important contributor to China's economy, is well-known for its developed manufacturing industry and small commodity trade. However, the outbreak of the COVID-19 pandemic and the subsequent implementation of prevention and control measures have presented unprecedented challenges to the export of small commodities from Zhejiang. This industry exhibits distinctive regional, product, operational, and workforce characteristics. Under the influence of the pandemic, many enterprises in the small commodity industry have faced bankruptcy due to insufficient cash flow and unpredictable order volumes (Cheng et al., 2021). The export of small commodities in Zhejiang is predominantly driven by small and medium-sized enterprises, which often experience greater economic pressure and confront numerous challenges. However, existing research primarily focuses on analyzing the current state, trends, challenges, and proposed solutions pertaining to global trade during the COVID-19 pandemic. There is still a noticeable dearth of research specifically addressing the intricacies of small commodity trade. Therefore, this study examines

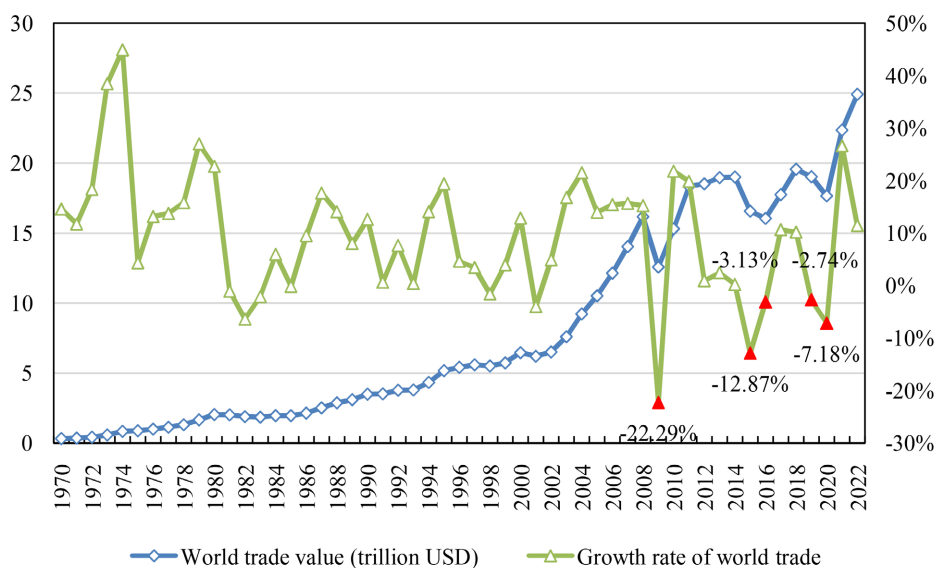


Figure 1. World trade value and growth rate, 1970-2022. Data Source: World Trade Organization (WTO).

the impact of the pandemic on Zhejiang's small commodity exports and offers relevant recommendations to assist these enterprises in navigating difficulties, recovering, and thriving in the post-COVID-19 era. Consequently, this paper offers a substantial and valuable contribution to the existing research in this field. Moreover, the findings of this study hold considerable significance as they can serve as a valuable point of reference for other small and medium-sized enterprises, thereby contributing to the promotion of sustainable economic development.

The rest of the paper is organized as follows. Section 2 is the literature review. Section 3 analyzes the state of small commodity export in Zhejiang before and after COVID-19. Section 4 introduces the methodology. Section 5 discusses the empirical results. Finally, Section 6 provides conclusions and policy implications.

2. Literature Review

2.1. The Impact of COVID-19 on International Trade

Benguria (2021) finds that under the impact of the COVID-19, subsidiaries of multinational corporations experienced a smaller decline in exports, and in comparison to producers of final consumer goods, producers of intermediate inputs and capital goods faced a more significant export collapse. Espitia et al. (2021) suggest that sectors that were more suitable for remote work experienced less contraction in trade during the pandemic. While participating in global value chains increased traders' vulnerability to the impact on their trading partners, it also reduced their vulnerability to domestic shocks. Mena et al. (2022) argue that globalization, logistics, and healthcare preparedness played a positive role in stimulating trade resilience during the pandemic. However, strong government responses and a high number of deaths had largely negative effects on trade.

Research on China indicates that the COVID-19 pandemic has significant implications for various sectors. In particular, the electronic information industry and automotive manufacturing have experienced supply shortages in their upstream supply chains, while the energy industry and electronic information industry have faced challenges due to reduced downstream demand (Shen & Xu, 2020). Additionally, China's cross-border e-commerce has been significantly affected by the pandemic (Zhu & Xing, 2021). Chen (2021) suggests that Chinese foreign trade enterprises have been negatively impacted by the pandemic in terms of import and export volumes. However, the long-term positive trajectory of foreign trade development is expected to remain unchanged. Ning (2021) analyzes the opportunities and challenges faced by China's cross-border e-commerce during the new phase of the pandemic. The study explores development strategies for domestic and international micro cross-border e-commerce, emphasizing the need to adapt to diversified market entities and implement rational business layouts. Li and Chen (2021) find that the pandemic has had a significant negative impact on China's import and export trade since its outbreak.

However, China's import and export trade has demonstrated strong resilience, with the impact gradually diminishing after peaking in February 2020. A reversal and recovery trend emerged in September.

In the later stages of the pandemic, [Cheng et al. \(2021\)](#) discovered that private foreign trade companies in Wenzhou faced difficulties in supply chain management, insufficient supply of raw materials, a lack of financial management, and significant cash flow pressure.

2.2. Impact of COVID-19 on International Trade in Zhejiang

[Lan and Meng \(2020\)](#) suggest that COVID-19 has a significant short-term impact on foreign trade in Zhejiang, particularly on the service trade sector. However, Zhejiang's high level of openness, vibrant digital economy, and flexible institutional mechanisms have played a stabilizing role during the fluctuations in foreign trade. [Zhu et al. \(2021\)](#) find that compared to other regions in China, the city of Ningbo in Zhejiang, which has an economic outward orientation of over 75%, has been particularly hard hit by COVID-19. [Lv and Wang \(2020\)](#) propose that in the post-pandemic era, the digitization of global trade has become an inevitable choice under domestic and international constraints. They suggest that Zhejiang should undergo digital transformation in foreign trade, focusing on areas such as trade rules, global integration, government leadership, and corporate reforms.

[Pan \(2021\)](#) identifies the impact of the COVID-19 pandemic on Zhejiang's economic development, specifically in terms of consumption, production, and export pathways. They recommend that the government establish a comprehensive policy system to support enterprises, provide assistance for export and foreign trade, and establish a robust emergency support system. [Gong and Gui \(2021\)](#) highlight the challenges faced by private foreign trade enterprises in Yiwu, including difficulties in resuming work, receiving orders, and generating profits due to COVID-19. [Cao et al. \(2020\)](#) find that the short-term impact of the COVID-19 pandemic on consumption and foreign trade in Zhejiang is significantly greater than that of the SARS epidemic. [Wu \(2020\)](#) states that Zhejiang's exports have regained balance and achieved rapid growth during the downward phase of the pandemic's economic impact, making it the province with the highest contribution to China's export growth.

Through literature analysis, it can be observed that existing research primarily focuses on analyzing the current status, trends, existing problems, and challenges, as well as solutions related to global trade under the COVID-19 pandemic. However, there is a lack of research specifically on small commodity trade. Therefore, this study takes Zhejiang, the main province for small commodity exports in China, as an example to investigate the impact of COVID-19 on small commodity exports and the challenges faced by Zhejiang's small commodity exports. The study aims to provide policy recommendations to promote Zhejiang's small commodity exports in the post-pandemic era.

3. Small Commodity Export in Zhejiang before and after COVID-19

3.1. Pre-COVID-19 Situation of Small Commodity Exports in Zhejiang

Small commodities refer to goods that are produced in a decentralized manner, encompassing a wide variety of products that are subject to rapid changes in consumer demand. These goods are not easily incorporated into national plans. According to statistics from the Yiwu International Trade Comprehensive Information Service Platform¹, the top ten exported goods from Yiwu, the hub of small commodities in China, include household daily necessities, lighting equipment and supplies, building materials and decorative hardware products, hardware tools, toys, packaging, kitchen supplies, kitchen and bathroom hardware, clothing, and daily crafts. This data highlights the fact that Yiwu's exports predominantly consist of small commodities. Therefore, the export situation in Yiwu serves as a reference for describing the pre-pandemic state of small commodity trade in Zhejiang Province.

The majority of Yiwu's small commodity exports are achieved through market purchases, followed by general transactions, and finally processing transactions. This characteristic is a result of the small commodity manufacturers in Yiwu employing flexible production methods, allowing them to operate with agility and gain a certain level of influence in the international market.

Small commodity enterprises in Zhejiang province are primarily privately-owned businesses. Within Zhejiang's foreign trade exports, private enterprises play a dominant role, with the majority of them being small and medium-sized enterprises. Moreover, according to the data from the General Administration of Customs of China, the proportion of exports from private enterprises has consistently increased, growing from 35.92% in 2013 to 48.06% in 2018. This accounts for nearly half of the total provincial export value, securing their position at the top. The export proportion of foreign-funded enterprises has exhibited a fluctuating trend, initially decreasing and then rebounding. In 2018, the export proportion stabilized at approximately 24.6%, equivalent to about one-fourth of the total provincial export value. State-owned enterprises experienced a slight decline in their export proportion, stabilizing at around 6.8% in 2018.

3.2. Post-COVID-19 Situation of Small Commodity Exports in Zhejiang

By analyzing the export data of 15 representative small commodities (**Figure 2**), it can be observed that the export value of small commodities in Zhejiang began to decline from 2019 onwards. In 2020, there was a significant drop of 15.8% compared to 2019, even falling below the levels in 2017. This indicates that COVID-19 had a significant negative impact on the export of small commodities from Zhejiang at the early stages of the outbreak. However, as the pandemic

¹<http://trade.yw.gov.cn/>.

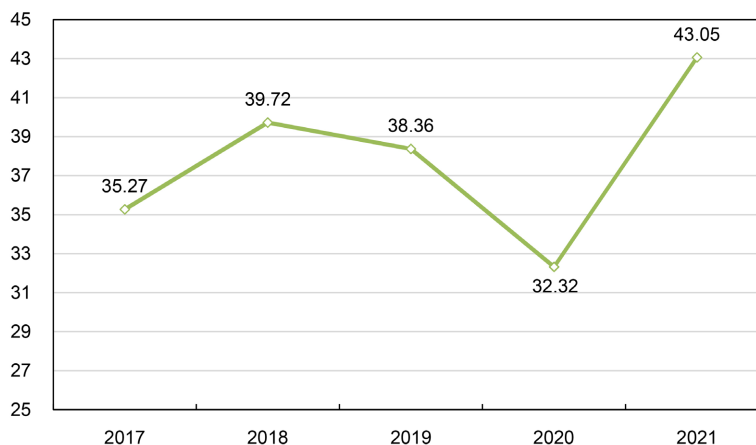


Figure 2. Zhejiang's 15 major small commodities export values, 2017-2021 (billion USD). Data source: General administration of customs of China.

situation normalized, the export of small commodities experienced a substantial increase in 2021, with a 33.2% rise in export value compared to 2020. Consequently, it is worth exploring the specific impact of COVID-19 on the export of small commodities in Zhejiang and whether the effects were consistent between domestic and international epidemic situations. This study will conduct an empirical analysis to address these questions.

The COVID-19 pandemic has had a significant impact on small commodity enterprises in Zhejiang, affecting both the supply and demand sides. Disruptions in production and transportation, both domestically and internationally, have resulted in a sharp decline in foreign trade, leading to a sudden drop in the short term. Among the small commodity enterprises in Zhejiang, those primarily focused on exports have been particularly hard hit by the decrease in demand from importing countries, leading to a drastic reduction in orders. The pandemic-induced pressure has prompted many importing countries to restrict the import of Chinese goods, causing significant customer losses, excessive inventory, decreased cash flow, and a major setback to the short-term operations of small commodity enterprises in Zhejiang.

In 2020, the COVID-19 pandemic wreaked havoc across the world, inflicting a substantial blow to global economic development and international trade. According to WTO data, by the end of November 2020, global merchandise trade had contracted by around 27%. The world economy experienced a decline of over 3% in 2020, leading to an estimated cumulative GDP loss of approximately 9 trillion RMB.

Amidst the challenging global economic landscape, Zhejiang Province's foreign trade has faced substantial setbacks. The long-standing industrial relocation policies in China have notably impacted the small commodity foreign trade enterprises in Zhejiang. These enterprises, characterized by low technological content and lower capital requirements, encounter fewer barriers and challenges when it comes to relocation. Additionally, they predominantly operate in labor-intensive industries. However, with China's demographic dividend gradual-

ly diminishing, labor costs for these enterprises have significantly risen. Furthermore, changes in domestic policies and regulations, such as the discontinuation of tax incentives and stricter environmental controls, have resulted in price hikes and reduced market competitiveness. Consequently, a considerable number of small commodity production factories in China have relocated to Southeast Asian countries, posing a significant threat to Zhejiang's small commodity foreign trade enterprises. Simultaneously, disruptions in overseas logistics have further escalated trade costs for these enterprises.

The impact of the COVID-19 pandemic has prompted numerous countries to implement port closures as a measure to contain the spread of the virus. Consequently, there has been a substantial decline in international market demand for goods, resulting in the suspension of China's international container business. Additionally, the prolonged duration of cargo transportation and increased vessel rental costs have significantly raised transaction expenses. From the second quarter of 2020 onwards, global airport departures have witnessed a year-on-year decrease of 48.98%, with negative growth observed in all months except for January. Moreover, to restrict people's movements and prevent gatherings, many countries have implemented work stoppages and closures, leading to a shortage of personnel for cargo handling upon arrival at ports. Consequently, logistical blockages have emerged, placing considerable strain on ports worldwide due to the accumulation of products and overwhelmed warehouses. In this challenging scenario, Zhejiang's small commodity foreign trade enterprises face the dual challenge of incurring higher delivery costs and bearing the risk of goods loss due to the absence of personnel for cargo pickup upon arrival.

At the same time, the COVID-19 pandemic has resulted in supply chain disruptions, leading to shortages of production factors and intermediate goods along the supply chain. According to a survey conducted by [Cheng et al. \(2021\)](#) on 84 privately-owned foreign trade enterprises in Wenzhou, Zhejiang, more than half of the companies experienced disruptions in their supply chains. Among them, 22.6% of the companies frequently faced shortages of raw materials, while 35.7% occasionally encountered such shortages. Moreover, an astonishing 81.8% of textile and apparel companies believed that procurement issues for raw materials had significantly impacted their regular production activities. The upstream raw materials for textile and apparel companies consist of synthetic fiber products, and the city has only six chemical fiber manufacturing enterprises with an annual output value of less than 10% of the downstream textile industry. This highlights a heavy reliance on imports. For companies heavily dependent on imported raw materials, maintaining normal production activities becomes extremely challenging without a consistent supply of raw materials.

4. Methodology

4.1. Empirical Model

The main objective of this article is to investigate the effects of the ongoing pandemic on the export of small commodities from Zhejiang. Therefore, based on

the gravity model, the severity of the pandemic is introduced as the core explanatory variable. Additionally, the model incorporates the classification of the trading partner as a country along the Belt and Road Initiative. The extended gravity model proposed in this study is presented as follows:

$$\ln X_{ijt} = \beta_0 + \beta_1 EP_{it} + \beta_2 EP_{jt} + \beta_3 \ln GDP_{it} + \beta_4 \ln GDP_{jt} + \beta_5 \ln POP_{it} + \beta_6 \ln POP_{jt} + \beta_7 \ln GD_{ij} + \beta_8 BR_{jt} + u_{ijt} \quad (1)$$

where i represents Zhejiang, j represents the destination country for small commodity exports, and t represents the year. X_{ijt} denotes the export value of Zhejiang to country j in year t . GDP_{it} and GDP_{jt} represent the gross domestic product of Zhejiang and country j in year t , respectively. POP_{it} and POP_{jt} indicate the population size of Zhejiang and country j in year t , respectively. GD_{ij} represents the geographical distance between Zhejiang and country j . EP_{it} and EP_{jt} represent the severity of the COVID-19 pandemic in Zhejiang and country j in year t , respectively. BR_{jt} indicates whether country j is a Belt and Road Initiative country in year t . If it is, $BR_{jt} = 1$; otherwise, $BR_{jt} = 0$. u_{ijt} represents the error term.

4.2. Severity of the COVID-19 Pandemic

Due to the rapid spread of the pandemic in countries around the world, it is insufficient to measure the severity of the outbreak based solely on the number of infections. Global pandemic data indicates that the severity of the epidemic is not only highly correlated with the number of confirmed cases but also closely associated with factors such as the country's healthcare capabilities. Therefore, this article adopts three comprehensive indicators, namely the COVID-19 case fatality rate, population density of confirmed cases, and cases per million people, to assess the severity of the COVID-19 pandemic. The case fatality rate serves as a reflection of a country's healthcare level, where a higher value suggests a lower level of medical care. On the other hand, the population density of confirmed cases and cases per million people reflect the gravity of the epidemic, with higher values indicating a more critical situation. The definitions of these three indicators for assessing the severity of the pandemic are presented in **Table 1**.

Table 1. The definitions of indicators for assessing the severity of the COVID-19 Epidemic.

Indicator	Definition
Case fatality rate	The proportion of deaths among the confirmed COVID-19 cases in a country or region, which is used to reflect the healthcare level of that country or region. A higher value indicates a lower healthcare level.
Population density of confirmed cases	The number of confirmed cases per square kilometer in a country or region, calculated using the land area while excluding the area covered by the sea.
Cases per million people	The proportion of confirmed cases per million population in a country or region.

Data sources: World Bank database and Dingxiang Doctor <https://dxy.com/>.

Referring to Fan (2021), we assign weights to each indicator based on their accuracy in assessing the severity of the epidemic. The weight age of each indicator is presented in Table 2.

Additionally, we divide each indicator into ten standard intervals based on the maximum value, minimum value, and median value observed across all countries. This division enables us to assess the severity of the epidemic in each country or region. The specific criteria used for dividing the intervals are presented in Table 3.

4.3. Data Source

This paper selects the countries that have had close trade relations with Zhejiang Province in the small commodity trade sector and are among the top 10 importers of small commodities from Zhejiang during the period of 2017-2021. Among them, the developed countries include the United States, Germany, the United Kingdom, Spain, and South Korea. The developing countries include the United Arab Emirates, Russia, Ukraine, Panama, and Brazil.

The data in this study comes from the China Customs Data Platform, National Bureau of Statistics of China, Belt and Road Portal, Zhejiang Provincial Bureau of Statistics, Juhui Data, World Bank, and the CEPII—GeoDist Database. The specific sources are listed in Table 4.

Table 2. Indicator weights.

Case fatality rate	Population density of confirmed cases	Cases per million people
35%	35%	30%

Table 3. Criteria for indicator classification.

Indicator scores	Case fatality rate (%)	Population density of confirmed cases (people per square kilometer)	Cases per million people (ten thousand people)
1	0 - 1	0 - 1	0 - 1
2	1 - 2	1 - 2	1 - 2
3	2 - 3	2 - 3	2 - 3
4	3 - 4	3 - 4	3 - 4
5	4 - 5	4 - 5	4 - 5
6	5 - 6	5 - 6	5 - 6
7	6 - 7	6 - 7	6 - 7
8	7 - 8	7 - 8	7 - 8
9	8 - 9	8 - 9	8 - 9
10	>9	>9	>9

Table 4. Data sources.

	Variable	Definition	Expected Symbol	Data Source
Dependent Variable	X_{jt}	Export value of small commodities from Zhejiang to country j in year t .		National Bureau of Statistics of China
Core Variable	EP_{it}	Severity of the COVID-19 epidemic in Zhejiang in year t .	-	Calculated by the authors using the indicators in Table 1 .
	EP_{jt}	Severity of the COVID-19 epidemic in country j in year t .	-	
Control Variable	BR_{jt}	If country j is a country along the “Belt and Road” initiative in year t , $BR_{jt} = 1$; If it is not, $BR_{jt} = 0$.	+	Belt and Road Portal https://www.yidaiyilu.gov.cn/
	GDP_{jt}	GDP of Zhejiang in year t .	+	National Bureau of Statistics of China
	GDP_{jt}	GDP of country j in year t .	+	Juhui Data https://www.gotohui.com/
	POP_{it}	Population of Zhejiang in year t .	-	Zhejiang Provincial Bureau of Statistics
	POP_{jt}	Population of country j in year t .	-	World Bank
	GD_{ij}	Geographical distance between Zhejiang and country j .	-	CEPII—GeoDist Database (Mayer & Zignago, 2011)

4.4. Descriptive Statistics

Descriptive statistics of the variables are presented in **Table 5**. The maximum value of the severity of the COVID-19 epidemic in Zhejiang (EP_{it}) is 1, indicating that the severity of the epidemic in Zhejiang is relatively low compared to other countries. The maximum value of the severity of the epidemic in the destination countries of small commodity exports (EP_{jt}) is 6.85, with a standard deviation of 2.17. These findings suggest that the selected sample data in this study adequately represent diversity and variations, demonstrating their robust representativeness.

5. Results and Discussion

The regression results, depicted in **Table 6**, demonstrate the influence of the severity of the COVID-19 epidemic on the export of small commodities in Zhejiang Province. Further analysis of these regression results unveils the following findings:

Table 5. Descriptive statistics of the variables.

Variable	Mean	Std. Dev.	Min	Max
X_{jt} (USD)	3.77e+08	6.40e+08	2.85e+07	2.71e+09
EP_{it}	0.40	0.49	0	1
EP_{jt}	1.55	2.17	0	6.85
GDP_{it} (Trillion yuan)	6.21	0.73	5.18	7.35
GDP_{jt} (Billion USD)	34984.32	60507.40	540	229,935
POP_{it} (Ten thousand people)	6005.20	429.37	5442	6540
POP_{jt} (Ten thousand people)	9892.92	9756.63	410	33,292
GD_{ij} (km)	9488.40	4574.76	1023	17,999
BR_{jt}	0.30	0.46	0	1

Table 6. Regression results.

Variable	Coefficient
$\ln EP_{it}$	0.874* (1.73)
$\ln EP_{jt}$	-0.118** (-2.13)
$\ln GDP_{it}$	3.756** (2.27)
$\ln GDP_{jt}$	0.831*** (14.93)
$\ln POP_{it}$	-8.589* (-1.83)
$\ln POP_{jt}$	-0.251*** (-3.84)
$\ln GD_{ij}$	0.448*** (7.45)
BR_{jt}	0.202* (1.90)
Constant	77.01** (2.04)
R ²	0.9402
Wald-test	645.20

Note: t statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

1) The severity of the COVID-19 epidemic in Zhejiang Province (EP_{it}) shows a positive correlation with the export of small commodities, which contradicts initial expectations. However, upon further analysis, it becomes evident that the epidemic situation in Zhejiang is comparatively milder compared to other prov-

inces in China and abroad. The effective implementation of control measures has contributed to better containment of the epidemic. Being one of China's prominent manufacturing hubs, Zhejiang benefits from a well-established production and supply chain system for small commodities. When manufacturing activities are restricted in other regions due to the epidemic, Zhejiang can leverage its supply chain advantage to swiftly adjust production and meet the global market's demands. Additionally, during the epidemic, consumers exhibit an increased focus on health and hygiene products. Zhejiang's small commodity manufacturers are adept at adapting their product offerings to align with market demands and provide consumer-centric products. Furthermore, Zhejiang has made significant progress in the field of cross-border e-commerce. As people increasingly turn to online shopping during the epidemic, cross-border e-commerce has become a primary shopping method. Zhejiang's small commodity manufacturers have expanded their market presence in overseas markets through cross-border e-commerce platforms, resulting in a boost in the export volume of small commodities.

2) The severity of the COVID-19 epidemic in the import countries (EP_{jt}) has a negative impact on the export of small commodities from Zhejiang Province, consistent with the expected direction. This suggests that the more severe the epidemic situation in the trading countries, the greater the hindrance to the export of small commodities from Zhejiang. Due to the seriousness of the epidemic, major destination countries for small commodity exports have implemented measures like border closures to contain the spread of the virus, leading to a substantial decline in the trade volume of small commodities.

3) The coefficients of GDP for both Zhejiang and the importing countries are positive, which is in line with expectations. The coefficients are 3.756 (GDP_{jt}) and 0.831 (GDP_{jt}) respectively. This implies that a 1% increase in Zhejiang's GDP leads to a 3.756% increase in the export value of small commodities, while a 1% increase in the GDP of the importing country results in a 0.831% increase in Zhejiang's export value of small commodities. These findings indicate that the expansion of Zhejiang's economic scale has a greater impact on increasing export flow compared to the growth in the GDP of the importing country. This phenomenon underscores that Zhejiang's small commodity economy primarily relies on its own economic growth to drive the export of small commodities.

4) The coefficient of geographical distance between Zhejiang and importing countries (GD_{jt}) is unexpectedly positive. The elasticity coefficient is measured at 0.448, indicating that a 1% increase in geographical distance results in a 0.448% increase in export value. The progress of globalization has facilitated more efficient and convenient cross-border trade through the development of logistics and transportation systems. Despite the greater distances involved, continuous enhancements in logistics networks and transportation channels have reduced transportation costs and time, thus boosting the competitiveness and market responsiveness of products. Moreover, Zhejiang's small commodity manufacturing industry holds an advantageous position in terms of product features and

competitiveness. Geographically distant importing countries may exhibit greater interest and demand for Zhejiang's unique products, which may be relatively scarce or possess distinct qualities in their local markets. As a result, these distant importing countries have become crucial target markets for Zhejiang's small commodity exports.

5) The impact of population in Zhejiang province (POP_{jt}) and the population of importing countries (POP_{jt}) on Zhejiang's small commodity export value is negative. As the population in Zhejiang increases, labor costs also rise, prompting many small commodity enterprises to seek production opportunities in other regions or countries. Consequently, this leads to a reduction in Zhejiang's small commodity export value. Additionally, the growing population in importing countries enhances their own production levels and competitiveness in the small commodity market. This intensifies competition for Zhejiang's small commodities in those markets, resulting in a decrease in export value. However, it's important to note that the impact of population growth in importing countries on Zhejiang's small commodity exports is much smaller compared to the impact of population growth within Zhejiang.

6) The coefficient of whether the importing countries of small commodities are along the "Belt and Road" (BR_{jt}) is consistent with the expected positive sign, with a value of 0.202. This suggests that the "Belt and Road" initiative has the potential to stimulate the export of small commodities from Zhejiang.

6. Conclusion and Policy Implications

This paper comprehensively examines the impact of COVID-19 on the export of small commodities from Zhejiang province by analyzing the current situation, conducting theoretical analysis, and empirical testing based on export data from 2017 to 2021. The results demonstrate that COVID-19 has a significant inhibitory effect on the export of small commodities from Zhejiang. However, the severity of the epidemic in the importing countries has a greater influence compared to the severity of the epidemic in Zhejiang. Moreover, higher GDP in both Zhejiang and the importing countries correlates with higher export values of small commodities from Zhejiang. Notably, the promoting effect of Zhejiang's GDP on its export performance is more pronounced. Additionally, the study reveals that geographically distant importing countries play a crucial role as target markets for the export of small commodities from Zhejiang. Furthermore, the "Belt and Road" initiative plays a facilitating role in boosting the export of small commodities from Zhejiang. Based on the research findings, several policy recommendations are proposed to promote the export of small commodities from Zhejiang in the post-pandemic era.

Firstly, expanding export markets. Following the global financial crisis in 2008, many developed countries experienced sluggish economic growth and limited market demand. However, emerging developing countries along the "Belt and Road" initiative are currently undergoing rapid economic development. Many of these countries had relatively small trade volumes with China in the

past. Under the “Belt and Road” initiative, these countries are experiencing significant economic growth propelled by infrastructure development and investments, leading to higher income levels and increased consumer spending. As a result, the demand for small commodity imports has also grown. Zhejiang’s small commodity enterprises can leverage the opportunities provided by the “Belt and Road” policy to strategically expand and optimize cooperation, continuously exploring new markets along the “Belt and Road” route. By reducing dependence on countries severely affected by the pandemic, Zhejiang can mitigate export risks and uncertainties. On one hand, it is crucial to provide higher quality products that align with the specific preferences and cultural nuances of the target export markets. On the other hand, establishing mutually beneficial partnerships with local businesses can facilitate the efficient utilization of local resources and foster domestic and international industry integration. By reducing production costs and fostering interconnectedness, a robust global small commodity industry ecosystem can be created, with “Made in China” and “Created in China” serving as its foundation.

Secondly, developing specialized loan programs to address the cash flow challenges faced by many small commodity enterprises due to the impact of the pandemic. These enterprises, often privately-owned or small family businesses, have limited financial resources and face the risk of bankruptcy if short-term cash flow issues are not resolved. Implementing specialized loan programs can provide the necessary external funding to help these enterprises resume normal operations. For instance, Hangzhou’s “Hangxin Loan” program has been introduced to assist small and medium-sized enterprises in overcoming challenges and ensuring the resumption of work and production. To enhance efficiency, it is crucial to expedite the loan approval process. Establishing dedicated fast-track channels for accelerated loan processing can significantly benefit small and medium-sized foreign trade enterprises. Additionally, credit instruments such as letters of credit and guarantees can be employed to improve the efficiency of enterprise collections. While improving loan efficiency, it is essential to strengthen the supervision and management of funds. Banks should implement substantial risk assessment measures, particularly by providing grace periods for repayment to enterprises severely affected by the pandemic. This approach can help reduce the negative impact of delayed payments and prevent the accumulation of adverse records caused by the pandemic on enterprises’ financial health.

Thirdly, innovating and optimizing trade modes. The government should foster the development of cross-border e-commerce to establish trade platforms for small commodity export enterprises. Cross-border e-commerce offers several advantages over traditional international trade, such as eliminating intermediaries between wholesalers and retailers, leading to improved trade efficiency, lower product prices, and increased company profits. Moreover, enabling enterprises to complete import and export registration procedures at the point of purchase can streamline processes, expedite customs clearance, and exempt taxation. This approach is particularly advantageous for small commodity exports character-

alized by a diverse range of products, high trade frequency, and multiple transactions, as it promotes efficiency and facilitates trade.

This paper delves into the repercussions of COVID-19 on the export of small commodities in Zhejiang. However, the impact of the pandemic on the import of small commodities remains uncertain, and the underlying mechanism by which COVID-19 affects small commodity trade is not explored in this study. Consequently, this presents an area that deserves further investigation in future research endeavors.

Supporting Projects

National College Student Innovation Training Program of Beijing Institute of Petrochemical Technology: A Study on the Impact of Foreign Direct Investment on Agricultural Productivity in China from the Perspective of Innovation Diffusion (2022J00216).

National College Student Innovation Training Program of Beijing Institute of Petrochemical Technology: A Study on Foreign Direct Investment, Absorptive Capacity, and Agricultural Innovation in China (2023J00098).

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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