Can the Founding of Free Trade Zones Lead to Financial Employment Boom? --Based on Multi-period Double-difference model

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Abstract. The establishment of Free Trade Zones (FTZs) aims to enhance trade liberalization and financial openness, fostering economic growth and financial employment development. Inspired by panel data from 287 prefecture-level cities in China spanning from 2006 to 2019, the study explores the repercussions of FTZs on financial employment using a multi-period double-difference model. The research finds that FTZs have promoted the prosperity of financial employment in local and surrounding areas, the conclusion is upheld by a battery of robustness tests. Mechanism tests show that FTZs significantly promote financial employment prosperity from two perspectives: promoting overall industrial structure upgrading and enhancing the level of marketization. Heterogeneity analysis further reveals that FTZs have a more significant positive repercussions on the prosperity of financial employment in the middle and western regions, indicating that FTZ policies help balance regional development. This paper provides important references for policymakers to implement market reforms, adjust regional development strategies, and promote inter-sectoral cooperation, thereby facilitating the positive impact of free trade zone policies on financial employment.

Keywords: Free Trade Zone, Financial Sector, Employment, Marketization Level, Multi-period Difference-in-Differences.

1. Introduction

Given the swift advancement of globalization and international trade, FTZs provide new opportunities for promoting trade liberalization, financial talent inflow, international trade cooperation, and economic development. As a developing country, China relies heavily on external financial markets and is vulnerable to international fluctuations [1]. Therefore, FTZs help enhance economic resilience, foster the domestic financial market, and promote the prosperity of financial employment.

In September 2013, China's first FTZ, the China (Shanghai) Pilot Free Trade Zone, was established. Up to now, China has established a total of seven batches of 22 FTZs. 2023 marks the tenth anniversary of the construction of China's FTZs, covering the east, west, south, north, and central areas, coordinating coastal, inland, and border regions, innovative measures in reform and opening have been initiated in trade, investment, finance, shipping, and talent. The report of the 20th National Congress of the Communist Party of China proposed further exploration of the radiating effect of FTZs can radiate to surrounding financial enterprises, enhance the labor level, and promote a more prosperous financial market construction [2]. In July 2023, the *"Notice on Doing a Good Job in the Seventh Batch of Reform Pilot Experience Replication and Promotion of Free Trade Pilot Zones"* issued by the State Council mentioned the need to strengthen financial opening and innovation and high-quality development in areas such as "securities, futures, and funds overseas financial professional qualification recognition mechanism." Currently, the seven batches of FTZs have certain differences in regional layout functions, financial policies, and regulatory methods, and the impact on local and surrounding areas' economic construction also varies.

Presently, the unstable economic environment challenges financial employment, however, the profound advancement of a new phase of technological revolution and industrial transformation is creating new employment opportunities and new growth points. In April 2023, the *"Notice of the*

General Office of the State Council on Optimizing and Adjusting Employment Stabilization Policy Measures to Promote Development and Benefit People's Livelihood" supported financial institutions in carrying out stable and expanded employment services. Therefore, can FTZs promote the prosperity of financial employment in local and surrounding areas? This exploration is of great significance for promoting employment stability and economic development.

Currently, research has analyzed the economic benefits of FTZs from the perspectives of corporate human resource indicators, the global industrial division of labor cooperation, and product export quality. For example, Zhang Chen et al. (2023) found that the economic effects of FTZs significantly promote the scale of labor, affecting local enterprises' hiring preferences and thereby affecting the overall employee compensation level [2]. Pan Chen (2023) believes that the construction of an FTZ network is a significant approach to promote deep participation in the global industrial division of labor and cooperation [3]. Zhang Tanjun (2023), using the multi-period DID method based on the FTZs established from 2010 to 2020 and microdata from 7132 listed companies, believes that FTZs have a positive impact on improving the quality of corporate exports [4]. Overall, current research on FTZs mainly focuses on the impact on corporate and trade circulation economy development benefits, with very little direct research on financial employment, only focusing on corporate development benefits without addressing people's employment issues. Therefore, paper will study the repercussions of FTZs on employment in the financial sector based on a multi-period double-difference model. The contributions of this paper may include: 1. Expanding the literature. 2. Providing policy recommendations for the execution of established free trade zones. 3. Offering essential references for policymakers to implement market reforms, adjust regional development strategies, and promote inter-sectoral cooperation.

2. Theoretical analysis and research hypotheses

The establishment of FTZs was China's first policy to expand openness in the services and financial sectors after joining the WTO, providing a platform for further market liberalization, trade facilitation, and investment convenience. The creation of FTZs helps to improve the efficiency of resource allocation, cultivates emerging industries, boosts FDI, and develops foreign trade finance. It is an effective way to maintain a high-quality economy and drive financial employment prosperity.

Hence, Research Hypothesis 1 is proposed: The establishment of FTZs can drive the prosperity of financial employment.

2.1. Overall Industrial Structure Upgrade

The establishment of FTZs can facilitate trade openness, the overall optimization of the tertiary industrial framework, and the upgrading and integration of industrial framework [5]. The overall upgrade of the industrial framework is a key factor in enhancing corporate production efficiency and expanding the industrial scale. Essentially, this can be divided into structural transformation and efficiency improvement. On one hand, changes in industrial structure can allow factors of production like labor and capital to flow toward industries with higher marginal returns, thereby increasing the demand for labor. On the other hand, industry efficiency improvements are shown by higher labor productivity, which has a positive effect on employment [6]. For example, Fujian leverages the advantages of the FTZ to transform Xiamen into a key center for cross-regional and international flow of production factors and resource allocation, driving the overall upgrade of Xiamen's industries [7]. Moreover, the establishment of FTZs helps to build new trade channels, promotes structural adjustments and innovations in the financial sector, and advances the integrated development of industrial chains, capital flows, and talent networks. It also strengthens the clustering effect of talent and the aggregation of advanced industries. Based on this, the paper proposes:

Hypothesis 2: The establishment of FTZs can drive the prosperity of financial employment by promoting the overall upgrade of the industrial framework and optimizing the adjustment of the financial sector's structure.

2.2. Level of Marketization

As the level of marketization in the financial sector increases, competition among financial institutions or enterprises intensifies. The enhancement of marketization levels in various regions helps businesses alleviate financial pressures [8]. The execution of established FTZs promotes the elevation of marketization levels, helps lower trade barriers, attracts more multinational companies or enterprises, directly increases the demand for financial services, and provides platforms for financial institutions and enterprises to offer related financial services, helping businesses access better resources at lower costs and risks. For instance, the Tianjin FTZ bases its financial services on commodity financing, integrating settlement and credit services to innovate financial services for imported cars. On the one hand, the establishment of FTZs expands the market demand for financial services, with banks and others promoting industrial transformation and upgrading through capital, thereby expanding scale, extending service range, enhancing service efficiency, and guiding declining industries to exit the market [9]. On the other hand, this provides an innovative platform for professional financial services, allowing financial institutions to channel capital into more advantageous industries through market analysis, enhancing the vitality of the financial market, focusing on developing financial services, providing more diverse and specialized financial positions, and creating a significant number of financial employment opportunities. Grounded in this, the paper proposes:

Hypothesis 3: The establishment of FTZs can enhance the level of marketization and promote the opening and development of the financial services industry, thereby driving the prosperity of financial employment.

3. Results

3.1. Specification

Based on the theoretical analysis above, factors such as total wages of employees on duty, financial efficiency, level of openness to the external world, and the development level of the financial market are important in estimating the repercussions of the founding of FTZs on the prosperity of financial employment. On this basis, this paper employs a multi-period double-difference approach to construct the following model:

$$Y_{it} = \beta_0 + \beta_1 PFTZ_{it} + \gamma X_{it} + City_i + Year_t + \varepsilon_{it} \quad (1)$$

In this model, the dependent variable Y_{it} represents the number of financial employment positions in the prefecture-level city i in year t; $PFTZ_{it}$ is the core explanatory variable, where if prefecture-level city i is designated as a Free Trade Zone in year t, then $PFTZ_{it} = 1$ is set to 1 for that year and subsequent years, otherwise $PFTZ_{it} = 0$; X_{it} includes a series of control variables $City_i$ represents individual fixed effects, used to control for characteristics of each city that do not change over time; $Year_t$ represents time fixed effects, used to control for characteristics that change over time at the national level; and ε_{it} is the random error term.

3.2. Variable Setting

(1) Dependent Variable

$Y_{it}(Finance_{pop})$ represents the number of individuals employed in the financial sector in each prefecture-level city (in tens of thousands).

(2) Core Explanatory Variable

$PFTZ_{it}$ represents a dummy variable for the period before and after the establishment of the Free Trade Zone policy. This variable is constructed from the interaction between the prefecture-level cities affected by the FTZ and the policy establishment timing of the FTZ. If prefecture-level city i is designated as an FTZ in year t, it is considered as the treatment group, and $PFTZ_{it} = 1$; otherwise, it is considered as the control group, and $PFTZ_{it} = 0$.

(3) Control Variables

X_{it} represents control variables that may influence the prosperity of financial employment due to the establishment of FTZs, including:

Wage (Logwage), represented by the logarithm of the total wage amount (in billions of yuan) of employees in position in each prefecture-level city for that year; Financial Efficiency (Fe), measured by the proportion of the whole loan balance by the end of the year of financial institutions to their total deposit balance by the end of the year; Level of Openness (Level), measured by the ratio of total imports and exports to the regional GDP; Degree of Financial Development (Degree), represented by the proportion of the loan and deposit balance of financial institutions to the GDP.

3.3. Data Source and Processing

Considering that the experiences and data from the early Free Trade Zones provide a benchmark for subsequent policies and facilitate the comparative analysis of the long-term effects of policy changes on financial employment, this paper mainly examines the 11 FTZs established in 2013, 2015, and 2017. The research selects panel data spanning from 287 prefecture-level cities and above from 2006 to 2019, using multi-period double-difference method to investigate the repercussions of the establishment of FTZs on financial employment. Relevant data are sourced from the *"China City Statistical Yearbook"*, *"China Regional Economic Statistical Yearbook"*, and CSMAR, with missing values handled using interpolation.

4. Empirical Analysis

4.1. Descriptive Statistics of Variables

The descriptive statistics of the main variables in the model are depicted in Table 1.

Table 1. Descriptive Statistics of Variables

Variable	Obs	Mean	Std.dev.	Min	Max
Finance_pop	3,934	1.886	3.436	0.11	64.478
PFTZ_it	3,934	0.104	0.306	0	1
Logwage	3,934	4.835	1.077	1.701	9.444
Fe	3,934	0.662	0.225	0.059	5.613
Level	3,934	0.019	0.019	1.90E-06	0.199
Degree	3,934	2.236	1.186	0.560	21.302

4.2. Baseline Regression

The paper next examines the specific repercussions of the founding of FTZs on financial employment. Initially, estimations based on the model were performed, and Table 2 reports the regression results for the repercussions of FTZ establishment on financial employment. From columns (1) and (2) of Table 2, the regression coefficients for the establishment of FTZs are positive, indicating that the founding of FTZs promotes the prosperity of employment in financial enterprises. The results in column (2) show that, upon integrating a series of control variables, the regression coefficient for the establishment of FTZs is 0.216, significant at the 5% level, meaning that the establishment of FTZs on average boosts the prosperity of employment in the financial sector by 21.6%. This verifies Research Hypothesis 1, pointing that the establishment of FTZs has a positive consequence on the prosperity of financial employment.

Table 2. Baseline Regression Results and Baseline Regression Results After Replacing the Dependent Variable

	(1) Finance_pop	(2) Finance_pop	(3) Realestatepop	(4) Retailtradepop	(5) Rentpop	(6) Fdi
PFTZ_it	0.245**	0.216**	0.355***	1.348***	0.910***	3.028***
	(0.106)	(0.105)	(0.085)	(0.405)	(0.199)	(0.984)
Logwage		0.400***	1.175***	2.940***	1.312***	5.197***
		(0.099)	(0.113)	(0.382)	(0.176)	(0.803)
Fe		0.183	0.085	-0.453	-0.211	1.615
		(0.282)	(0.165)	(0.409)	(0.256)	(1.176)
Level		-4.999***	2.575*	5.092	4.931**	298.383***
		(1.799)	(1.339)	(6.473)	(2.441)	(31.978)
Degree		0.075	0.082*	0.240*	0.130*	0.125
		(0.052)	(0.046)	(0.144)	(0.069)	(0.215)
_cons	1.860***	-0.264	-6.563***	-12.801***	-6.937***	-24.455***
	(0.022)	(0.529)	(0.572)	(1.937)	(0.884)	(4.276)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
N	3934	3934	3934	3934	3934	3934
r2	0.892	0.893	0.923	0.734	0.897	0.832

Note: Standard errors are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

4.3. Robustness Test

(1) Parallel Trends Test

The parallel trends assumption is a prerequisite for empirical papers using the multi-period DID model. It assumes the treatment group and the control group follow a consistent trend in the absence of the policy intervention. The model is specified as follows (2):

$$Y_{it} = \alpha + \beta_1 Before6_{it} + \beta_2 Before5_{it} + \beta_3 Before4_{it} + \beta_4 Before3_{it} + \beta_5 Before2_{it} + \beta_6 Before1_{it} + \beta_7 Current_{it} + \beta_8 After1_{it} + \beta_9 After2_{it} + \beta_{10} After3_{it} + \beta_{11} After4_{it} + \beta_{12} After5_{it} + \beta_{13} After6_{it} + \gamma X_{it} + City_i + Year_t + \varepsilon_{it} \quad (2)$$

The time dummy variables represent the observations of the years before, the years of, and the years after the founding of the FTZs in various prefecture-level cities. Due to the observation period of this article spanning from 2006 to 2019, and the specification sets the base year for event analysis as the initial year 2013. Using time dummy variables for policy -1 period, -2 period, -3 period, -4 period, and -5 period as reference years for pre-policy parallel trend tests. Therefore, it is necessary to merge the time before -6 periods in other cities into the -6 period and exclude the dummy variables for this time to avoid collinearity. For non-pilot cities, the dummy variables are all set to zero. In terms of policy implementation effects, it has been six years since the founding of the first batch of FTZ cities up to 2019. Therefore, this paper mainly analyzes the dynamic effects within the six periods. The test results show that before the establishment of the FTZs, there were no significant differences among the prefecture-level cities. In the year of and the two years following the founding of the FTZs, due to the lagging impact of the policy repercussions generated by the founding of FTZs, the significance is weaker. Two years after the founding of the FTZs, the repercussions coefficient of the founding of the FTZs is significantly positive, indicating that the founding of FTZs has a sustained positive effect on the prosperity of financial employment.

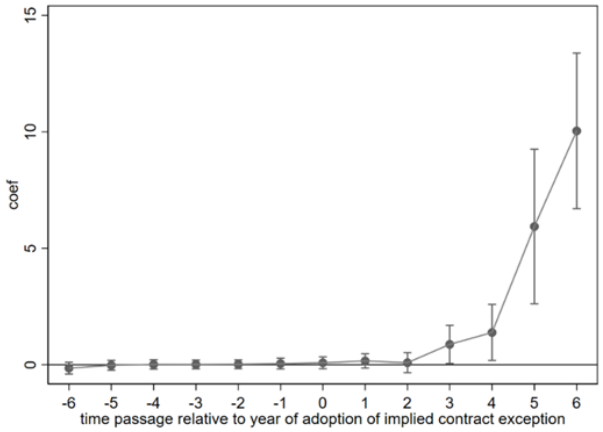


Figure 1. Parallel Trends Test

(2) Placebo Test

To eliminate the influence of other factors such as the establishment of non-free trade zones and to avoid errors, this paper employs an individual placebo test, measuring through the construction of density graphs. By conducting 5000 random experiments on 287 sample cities, testing their coefficient and P-value distribution, the results shown in Figure 2, pointing that the DID coefficients generated during the random treatment process are mainly concentrated around zero, with most P-values greater than 0.1, and the random coefficients are mostly located to the left of the true regression coefficient of 0.216, significantly different from the placebo test results. This confirms the robustness of the conclusions stated above.

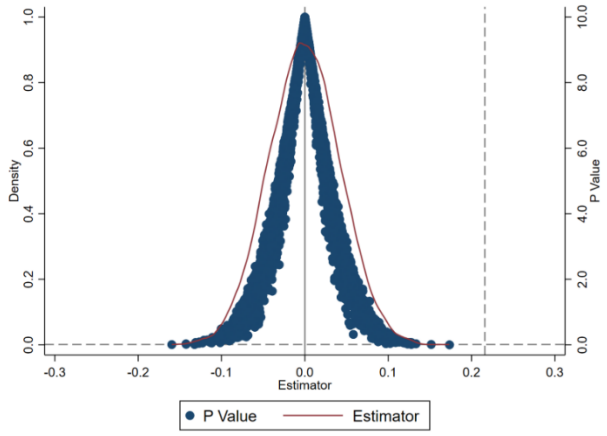


Figure 2. Placebo Test

(3) Substitution of the Dependent Variable

For ease of comparison, this paper attempts to use indicators closely related to the financial industry such as lots of people employed in the real estate industry (Realestatepop), the number of people employed in wholesale and retail trade (Retailtradepop), and the number of people employed in leasing and business services (Rentpop) to measure the repercussions of the founding of FTZs on the prosperity of financial employment. The regression results are shown in columns (3), (4), and (5) of Table 2, respectively. In addition, considering that the actual foreign capital utilized in the current year can serve as an important indicator to assess the degree of openness of the financial industry and its ability to attract foreign investment, which may also reflect the employment opportunities and market vitality of the financial sector, the actual foreign capital utilized in the current year (Fdi) is selected as an indicator to measure the impact of the FTZ establishment policy on the prosperity of financial employment. The regression results are shown in column (6) of Table 2. The results indicate that the coefficients of PFTZ_it for all four indicators are significantly positive, suggesting that the policy of establishing FTZs significantly enhances the prosperity of financial employment. The results are robust.

(4) Mechanism Test

a. Overall Upgrade of Industrial Structure

Following the approach of Wang Wei et al. (2015), this paper adopts a comprehensive index of industrial structure upgrading by assigning different weights to the primary, secondary, and tertiary industries [10]. From the regression results of column (1) in Table 3, the coefficient of the free trade zone establishment policy is significantly positive at the 1% level, imply that the FTZ pilot policy has promoted an overall upgrade of the industrial structure. From the regression results of column (2), the coefficient of the overall upgrade of industrial structure on the number of people employed in the finance industry is also significantly positive at the 1% level, indicating that the overall upgrade of the industrial structure has effectively promoted the prosperity of the financial sector. Therefore, it can be concluded that the founding of FTZs can promote the prosperity of financial employment by promoting an overall upgrade of the industrial structure, optimizing the financial industry structure, and improving the efficiency of the financial industry, supporting research hypothesis 2.

b. Level of Marketization

Bandiera et al. (2000) [11] noted that the construction of the financial marketization level index involves calculating eight indicators, including interest rate liberalization. The marketization level in this paper is composed of 23 basic indicators from five aspects: the relationship between government and market, the growth of non-state-owned economy, the grade of development of product markets, the level of development of factor markets, and the development of market intermediary organizations and legal system environment. From the regression results of column (3) in Table 3, the coefficient of the FTZ establishment policy is also significantly positive at the 1% level; similarly, the regression results of column (2) show that the level of marketization coefficient on the prosperity of financial employment is also significantly positive at the 1% level. From this, it can be inferred that the implementation of the FTZ policy has promoted an increase in the level of marketization, the enhancement of marketization levels has effectively increased the vitality of the financial market and thereby drove the prosperity of financial employment, supporting research hypothesis 3.

Table 3. Mechanism Test and Heterogeneity Test

	(1)	(2)	(3)	(4)	(5)	(6)
	Indication	Finance_pop	Market	Finance_pop	Estern	Middle-Western
FPTZ_it	0.022***		0.282***		0.485	0.215**
	(0.004)		(0.042)		(0.360)	(0.085)
PFTZ×Indication		7.876***				
		(1.093)				
PFTZ×Market				0.476***		
				(0.125)		
Logwage	0.060***	0.358***	0.032**		3.152***	1.390***
	(0.003)	(0.094)	(0.013)		(0.136)	(0.028)
Fe	0.030	0.138	0.080	2.881***		
	(0.021)	(0.274)	(0.069)	(1.074)		
Level	1.006***	-2.571	1.848***	27.717***	22.734***	8.021***
	(0.079)	(1.623)	(0.609)	(3.033)	(5.932)	(1.097)
Degree	0.047***	0.064	-0.001	0.934***	1.584***	0.165***
	(0.005)	(0.046)	(0.009)	(0.124)	(0.117)	(0.017)
_cons	1.827***	-0.104	0.825***	-2.696***	14.009***	-4.431***
	(0.010)	(0.499)	(0.062)	(0.697)	(0.646)	(0.114)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
N	3934	3934	3934	3934	1204	2730
r2	0.595	0.901	0.022	0.234	0.557	0.602

Note: Standard errors are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

5. Heterogeneity Test

Considering the establishment of Free Trade Zones may have differentiated impacts on financial employment across various regions, this paper divides the sample cities into Eastern and Middle-Western regions for testing. The results shown in Table 3. The test outcome indicate that the founding of FTZ policies has an insignificant effect on the prosperity of financial employment in the eastern region, as shown in column (1). However, for the central and western regions, as depicted in column (2), the founding of FTZ policies has a positive repercussions on the prosperity of financial employment. This indicates that, on one hand, the Eastern region generally has a higher level of economic development compared to the Middle-Western region, meaning the financial sector in the Eastern region is relatively more mature and saturated. Therefore, the policy advantages and new opportunities brought by the establishment of FTZs are more pronounced in the Middle-Western region. On the other hand, the Middle-Western region typically possesses more abundant labor resources. The establishment of FTZs can better leverage these advantages, attract industrial transformation and upgrading, and promote the rapid development of the financial sector.

6. Conclusion and Policy Implications

Since the first Shanghai Free Trade Pilot Zone in 2013, with the deepening influence of economic globalization, FTZs have significantly impacted the upgrade of industrial structures, marketization levels, financial employment prosperity, and high-quality economic development in China. The paper selects city panel data of 287 prefecture-level cities from 2006 to 2019 to construct a multi-time point DID model, systematically evaluating the repercussions of the FTZ policy on the prosperity of financial employment. Research shows that FTZs positively affect financial employment, supported by robust tests. Mechanism studies indicate that FTZs enhance financial employment by upgrading industries and marketization. Heterogeneity analysis reveals stronger effects in the Central-Western than the Eastern region, tied to city distribution. Based on these conclusions, the paper offers the following policy implications:

Firstly, the government should further market reforms and support FTZ enterprises in technology and industrial upgrades, especially in finance by streamlining approvals, easing market access, and adopting flexible policies. This will open markets for financial institutions, attract foreign investment, aid industry upgrades, link industries, share resources, and boost economic efficiency and competitiveness.

Secondly, the government should ensure balanced regional development in FTZ policymaking, coordinating growth across Eastern, Central, and Western regions. This includes optimizing policy design for equitable financial employment and services, enhancing infrastructure in the Central-Western region, promoting fintech innovation, and encouraging regional enterprises to innovate technologically and in business models to adapt to market changes.

Thirdly, all sectors of society should collaborate widely to create more employment opportunities. The government, financial institutions, non-governmental organizations, and other sectors can establish effective cooperation mechanisms to promote information exchange and sharing. Within FTZs, the government can offer more preferential policies, financial support, and other measures to attract more talents with different needs and backgrounds. Additionally, cooperation between universities and financial institutions or enterprises to develop internship programs can provide students with practical opportunities and supply enterprises with talents.

References

[1] Luo Jie. Study on the Impact of Free Trade Zones on China's Economic Growth. Special Economic Zone Economy, 2023, (05): 149-152. (In Chinese)

[2] Zhang Chen, Ding Huilin, Chen Jingqi. Study on the Correlation between the Radiating Effect of Domestic Free Trade Zones and the Human Resource Indicators of Local Listed Companies—Based on PSM-DID Exploration. China Business Review, 2023, (20): 129-133. (In Chinese)

[3] Pan Chen. Promoting Deep Participation in Global Industrial Division and Cooperation through High-Standard Free Trade Zone Network Construction. Contemporary Economic Management, 2024, 46 (03): 77-86. (In Chinese)

[4] Zhang Tanjun. Analysis of the Impact Effect of Free Trade Zone Establishment on the Quality of Enterprise Export Products—Discussion on the Mediating Effect of Financing Constraints. Business Economy Research, 2023, (16): 140-143. (In Chinese)

[5] Cai Haiya, Xu Yingzhi. Does Trade Openness Affect China's Industrial Structure Upgrading? Journal of Quantitative & Technical Economics, 2017, 34 (10): 3-22. (In Chinese)

[6] Zou Yin'an, Shi Tengchao. Analysis of the Employment Effects of Industrial Structure Upgrading. Shanghai Economic Research, 2012, 24 (12): 3-13+53. (In Chinese)

[7] Zhang Ping, Wang Hongmiao. Xiamen Free Trade Zone Upgrade Strategy and Urban Economic Transformation. Journal of the Party School of Xiamen Special Economic Zone, 2016 (02): 8-14. (In Chinese)

[8] Zhang Anjun, Zhao Liurui. Marketization Level, Financialization of Enterprises, and Market Value. Financial Theory and Practice, 2023, (09): 19-33. (In Chinese)

[9] Da Rin M, Hellmann T. Banks as Catalysts for Industrialization. Journal of Financial Intermediation, 2002, 11 (4): 366-397.

[10] Wang Wei, Liu Yufei, Peng Dongdong. The Effect of Population Aging on Industrial Structure Upgrading. China Industrial Economics, 2015 (11): 47-61. (In Chinese)

[11] Bandiera O, Caprio G, Honohan P, et al. Does Financial Reform Raise or Reduce Saving? Review of Economics and Statistics, 2000, 82 (2): 239-263.