

Research on Financial Resources and Private Enterprises in the Eastern Region

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Abstract: The realisation of high-quality development is largely dependent on private enterprises, which are a driving force behind China's comprehensive revitalisation in the new era. Meanwhile, efficient financial resource allocation can enhance capital use efficiency and encourage the reorganization of the industrial structure. The financial sector allocates financial resources in a fair and efficient manner to promote economic growth and enhance the environment for that growth. A "Matthew effect" shows up in the relationship between financial resources and private enterprises in China's eastern coastal region, where large state-owned enterprises and small and medium-sized private enterprises are impacted by the emergence of talent, capital, technology, and other unbalanced phenomena. The article demonstrates this relationship between financial resources and private enterprises, based on almost a decade of empirical research in the city panel data. Banks, securities, insurance, and other industries are deployed reasonably to facilitate the development of the social economy during the period when more financial resources flow to private enterprises, as well as to ensure the stability and advancement of society. This is done in order to further enhance the efficiency of financial resource allocation in the eastern coastal region and promote the efficient development of private enterprises.

Keywords: Eastern coastal region, financial resources, private enterprises

1. Introduction

1.1. Research Background

The rapid expansion of the private economy has long been a topic of public debate since the reform and opening up. In accordance to statistics provided by the State Administration for Market Supervision and Administration, the number of private enterprises in China has tripled over the past ten years, from 10,857,000 to 44,575,000, and their proportion in total enterprises has increased from 79.4% to 92.1%, since 2012. Private corporations have played an important role in fostering creative thinking and expansion as well as raising individual standards of living throughout the previous 40 years of reform and opening up.

There is a strong positive correlation between the development of private enterprises and the efficient use of financial resources; the stronger the development of the private economy, the more prudently financial resources are allocated, and vice versa. The "Matthew effect" is a phenomenon

that has recently emerged in the allocation of financial resources; the stronger the stronger, the weaker the weaker. Among these is the large amount of financing flows to large state-owned enterprises, while small and medium-sized private enterprises face financial constraints and lack of resources. As a result, the new imbalance in the distribution of financial resources exacerbates the phenomenon and raises the need for the effective allocation of financial resources. This creates additional requirements along with challenging obstacles for the effective channeling of financial resources to support the continued growth of private businesses

1.2. Research Aim

The purpose of this article is to alleviate the "Matthew effect" brought about by the imbalance of financial resources, and focus on solving the problem of financing difficulties of small and medium-sized private enterprises, and to promote the development of the social economy during the flow of more financial resources to the private sector to ensure the stability and progress of society.

1.3. Research method

To explore the research goal, this paper adopts literature review method. Journals, knowledge relationships, financial information networks, economic forums, and other channels are used to gather information regarding financial resource allocation, the expansion of private enterprises, and access to the theoretical model that is relevant to the study of this paper. This information is then used for the study of this paper.

The article examines the current state of financial resource allocation and private enterprise development in the eastern region of China using both qualitative and quantitative research methods. It also provides a qualitative analysis of the region's strengths and weaknesses in those domains.

This paper primarily employs empirical analysis, gathering pertinent information and data through the use of Eviews.10.0 software. The banking, securities, insurance, and GEM indicators industries, as well as other data, are the subject of the study. Eviews.10.0 software is utilized in the regression analysis to examine the relationship between the distribution of financial resources and the growth of private enterprises, and recommendations are made based on the findings of the study.

2. Literature Review

The problem of financial resource allocation from the micro point of view can be summarized as follows. The existing literature on the theory of financial resource allocation is primarily separated into two categories: macro and micro.

The relationship between national policies, financial resources, and the private economy is primarily discussed by scholars from a macroeconomic perspective when discussing the effective allocation of financial resources and the development of private enterprises. Zheng Nanyuan emphasizes in "convergence of financial resources to support the sustainable development of the private economy" that the government and financial resources must insist on supporting the development of small and medium-sized private enterprises in order to facilitate the flow of capital to the private economy[1]. "Investment opportunity set, political connection and business policies of private enterprises in China" looks at the political relationships between private enterprises and understands financial resources in terms of investment opportunities. The use of information technology to analyze the path of innovative financing for small and medium-sized enterprises from a macro perspective and improve the enterprise financing mode is advocated by "Research on the Financing Mode and Path Innovation of Small and Medium-sized Private Enterprises under the Background of Block chain Finance"[2], one study that looks at the future development path and mutual influence of financial resources and the private economy from a micro perspective. The

Connection Between Business and Financial Relationships Chinese Listed Firms Provide Evidence of the Association Between Private Enterprises' Financial Links and Business Performance." [3], Zhuwei Li finds that the financial significance of private enterprises has an enormous effect on business performance, particularly on small and medium-sized organizations, after building a random effects model using panel data based on the data of certain Chinese listed corporations. businesses. In order to analyze the impact of effective financial resource allocation on the high-quality development of private enterprises and to analyze strategies for advocating the sustainable development of the private economy through effective financial resource allocation and efficient deployment of financial resources on a regional scale, this paper integrates financial resources, private enterprises, and the economic development of the eastern coastal region into a single, cohesive framework.

3. Theoretical Analysis and Hypotheses Development

3.1. Analysis of the current situation

A region's financial resources for a reasonable integration through the rational use of them to maximize the satisfaction of a variety of options that may be encountered in the development of our society is referred to as an effective allocation of financial resources. On the other hand, the term "financial resource allocation" refers to the development and use of financial resources under specific conditions using a particular way, so they can support social and economic development. The economics book "Money in Financial Theory," coauthored by American economists John Gurley and Edward Shaw [4], demonstrates that the seamless conversion of savings into investments is the primary function of finance, thereby increasing the level of productive investment in society, and emphasises the relationship between the allocation of financial resources and the region's.

After nearly two decades of reform, opening up, and development, private enterprises have overcome obstacles such inadequate foundations and inherent limitations with the strong support of private economic policies. The expansion of private businesses and the effective use of financial resources are essential and irreplaceable on the new path of reform and opening up as they promote the high-quality leapfrog development of the regional economy. The growth of private businesses and excellent economic development go hand in hand. This article investigates and describes the expansion of the financial sector and the private economy in the eastern coastal region, the number of listed businesses, and other pertinent factors using the gross national product, financial industry value added, and other relevant data as a starting point. Regarding the progressive rise in the social funding scale for the five eastern coastal provinces (Guangzhou, Fujian, Zhejiang, Jiangsu, and Shanghai) in 2021:

Table 1: Financial and economic development in the five eastern coastal provinces Economic development

| Regional Indicators | Guangdong | | Fujian | | Zhejiang | | Jiangsu | | Shanghai | |
|---|-----------|---------|---------|---------|----------|--------|---------|----------|----------|--------|
| | 2015 | 2021 | 2015 | 2021 | 2015 | 2021 | 2015 | 2021 | 2015 | 2021 |
| GDP(billion yuan) | 74732.4 | 124370 | 25979.8 | 48810.4 | 43507.7 | 73516 | 70116.3 | 116364.2 | 25123.4 | 43215 |
| GDP per capita(yuan) | 64516 | 98285 | 67966 | 116939 | 73276 | 113032 | 87995 | 137039 | 103796 | 173630 |
| GDP growth rate(%) | 8 | 8 | 9 | 8 | 8 | 8.5 | 8.5 | 8.6 | 6.9 | 8.1 |
| Added value of financial sector(billion yuan) | 6119.6 | 11058.1 | 1681.3 | 3623.1 | 2923 | 6159.1 | 4914.5 | 9164 | 4162.7 | 7973.3 |
| Number of listed companies(number) | 223 | 762 | 66 | 162 | 248 | 606 | 276 | 571 | 224 | 390 |
| Value Added Index of Financial Industry | 117.6 | 105.9 | 113.1 | 105.2 | 108.3 | 107.2 | 111.3 | 106.3 | 122.1 | 107.5 |
| Increase in the scale of social financing(billion yuan) | 14443 | 37843 | 4298 | 10016 | 6291 | 34021 | 11394 | 34453 | 8507 | 12126 |

Source: China Economic and Social Big Data Research Platform (wzu.edu.cn).

3.1.1. Development Advantages of Private Enterprises on the Eastern Seaboard

The constant opening up and reform of the industrial structure, the strong promotion of supply-side structural reform, and the continuous industrial structure optimization have all contributed to the eastern region's economy's steady and smooth growth. The GDP of the eastern area has been increasing yearly in recent years; in 2022, it was predicted to reach 622,018 billion yuan, 2.5% more than the previous year. At the same time, private companies have continued to go public in order to take advantage of the capital market and sustain the long-term expansion of the private sector, which has improved the prospects for the eastern coastal area. Figure 1 depicts the eastern region's economic growth.

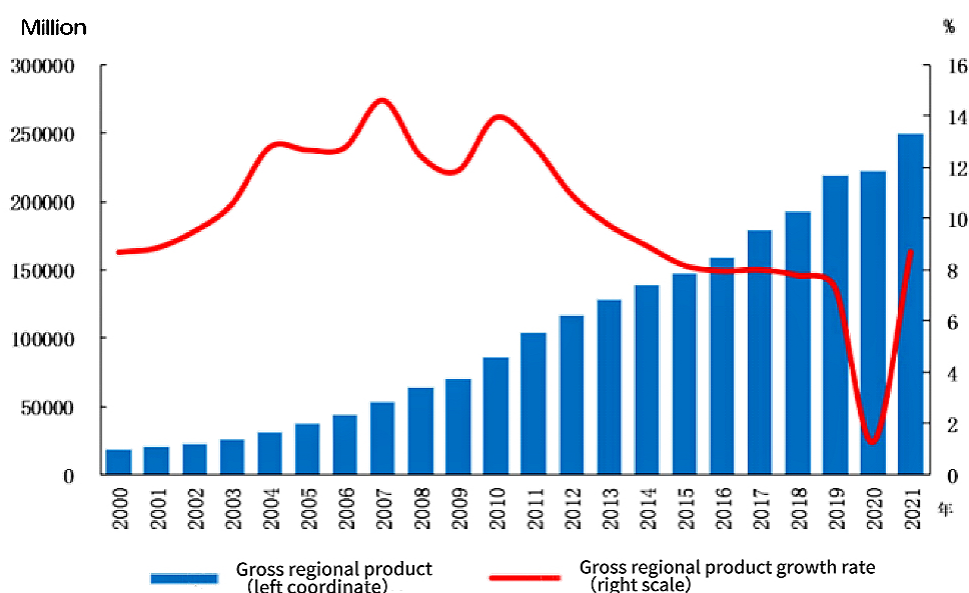


Figure 1: Economic Growth in the Eastern Region, 1999-2021

Source: 2022070817545097994.pdf (pbc.gov.cn)

3.1.2. Private enterprises on the east coast broaden investment channels

Enterprise finance ensures that businesses will continue to exist and grow. Capital is a prerequisite for businesses to engage in manufacturing activities. The eastern region accounted for 62.3 percent of the national proportion in 2021, 2.5 percentage points higher than the previous year, with an incremental volume of social financing scale of 17.8 trillion yuan, 263.18 billion less than the same period the previous year. Private businesses have employed a range of strategies to increase the number of investment and financing channels while preserving a high degree of capital strength. The assets of financial institutions in the banking industry have grown yearly in recent years. For inclusive small and microloans, the weighted average interest rate was 5.43%, a 0.28 percentage point drop from the previous year. 2021 The interest rate for loans to the private sector had decreased significantly by December 2012, and the interest rate market reform was moving closer to its objective of "optimizing the regulation of deposit interest rates and lowering the cost of banks' liabilities." The eastern region accounted for 26.8% of all loans with LPR reduction points. The eastern region, while "expanding the total volume," is actively playing the role of structural monetary policy tools as a driving force, tilting the credit resources to "specialised, specialised and new" enterprises and increasing the scale of multiple modes of social financing, supporting the growth of the private economy. Meanwhile, the interest rate market reform is moving closer to its goal of "optimising the regulation of deposit rates

and reducing the cost of bank indebtedness." The scope of social finance in its many forms has kept growing, supporting the ongoing improvement of the private economy's level and efficiency while also assisting the private sector in funding enterprises more effectively.

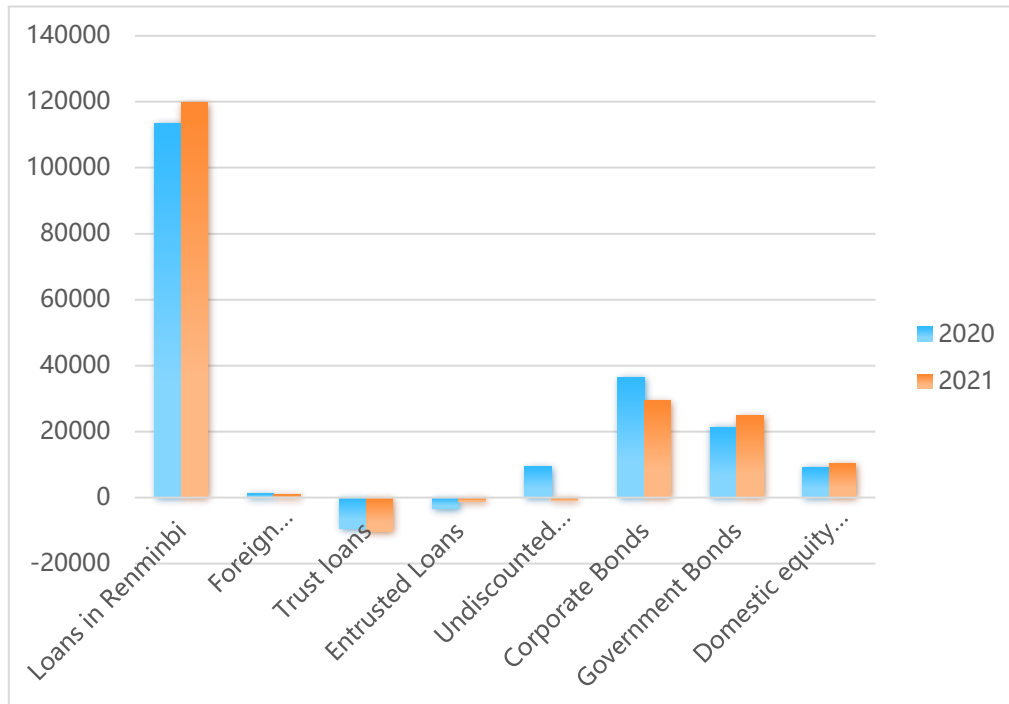


Figure 2: Increment of social financing scale in the eastern region from 2020 to 2021
 Source: People's Bank of China, People's Bank of China staff calculation

3.1.3. Financial Risk Prevention and Control for Private Enterprises on the Eastern Seaboard Enhanced

Since 2018, the insurance enterprises has steadily moved from sheer scale expansion to quality enhancement, and is currently heading towards high-quality development as a "delicate stabiliser" of social production and social life. Insurance businesses in the eastern area made 2.4 trillion yuan in premium income in 2021, a 9.1% annual rise. The coastal area has seen breakthroughs in the avoidance and management of financial risk; the vitality of private businesses is still growing; and the role that private firms play in advancing the economy and safeguarding people's livelihoods is still evident. In the meantime, the insurance sector's excellent growth is essential to improving the state of national development overall because it effectively distributes private companies' business risks and implements financial product innovations through credit guarantees and intellectual property insurance, which in a sense actualizes the efficient use of financial resources. The securities market has assisted in increasing the volume and effectiveness of direct financing, the speed of private company listing has accelerated, and the overall size of the securities and futures industry has grown annually. The insurance industry's development status in 2021 is displayed in the table below.

Table 2: Status of Insurance Industry Development in 2021

| | Shanghai | Jiangsu | Zhejiang | Fujian | Shandong | Guangdong | Hainan |
|---|----------|----------|----------|----------|----------|-----------|---------|
| Number of participants in unemployment insurance | 1021.3 | 1967 | 1793.5 | 716.7 | 1542.7 | 3725.1 | 205.6 |
| Workers' injury insurance fund expenditures | 442000 | 884000 | 814000 | 289000 | 651000 | 923641 | 26000 |
| Income from unemployment insurance fund | 144.4 | 136 | 108.8 | 30.8 | 104.3 | 116.1 | 10 |
| Number of participants in basic endowment insurance | 1728.8 | 5964.9 | 4423 | 2927.4 | 7840.8 | 7760.9 | 658.2 |
| Expenditure of basic medical insurance fund | 11333000 | 18540000 | 16325000 | 6187000 | 18276000 | 21993000 | 1414000 |
| The accumulated surplus of unemployment insurance funds | 51.3 | 248.3 | 199.7 | 84.5 | 178.4 | 438.8 | 21 |
| Industrial injury insurance fund balance | 424000 | 1210000 | 710000 | 480000 | 899000 | 1908000 | 193000 |
| Accumulated balance of basic medical insurance fund | 3903.4 | 2625.7 | 2860.2 | 963.6 | 1759.2 | 4042.1 | 277.8 |
| Income from basic medical insurance fund | 18291000 | 21762000 | 20326000 | 7154000 | 19215000 | 25732000 | 1972000 |
| Income from work-related injury insurance fund | 428000 | 882000 | 753000 | 278000 | 611000 | 510712 | 37000 |
| Number of maternity insurance participants | 1084.7 | 2094.9 | 1810.9 | 711.1 | 1607.5 | 3973.9 | 179.6 |
| Number of workers' injury insurance participants | 10973000 | 23410000 | 27420000 | 9844000 | 19220000 | 40690000 | 1850000 |
| Insurance business premium income | -- | 40511000 | 28597600 | 12944900 | 32783000 | 55797200 | 1982998 |
| Expenditures of unemployment insurance funds | 121.4 | 137.2 | 76 | 45.1 | 102.4 | 150.3 | 11.6 |

Source: China Economic and Social Big Data Research Platform (wzu.edu.cn).

3.1.4. Groundbreaking developments in green finance

Several eastern Chinese provinces have spearheaded the reform and liberalization of the financial industry while also advancing green finance. Green finance aims to direct capital flows into environmentally friendly and sustainable sectors in order to support the sustainable growth of the economy, society, and environment. It offers enticing investment prospects in addition to assisting businesses and governments in carrying out their social obligations and minimizing negative environmental effects. Globally, this industry is expanding and drawing more and more interest and capital. The report, China Regional Financial Operation Report (2022)[5], details the creative growth of green finance in several eastern provinces, including the establishment of a "trinity" policy framework that will facilitate the multifaceted and organized opening up of the financial sector and innovation, the completion of a multilevel capital market system, and the creation of a pilot financial reform zone centered around science, technology, and innovation finance.

3.2. Analysis of the main points of an issue

3.2.1. The problem of the "Matthew effect" is prominent

According to the "Matthew effect" in the financial market, in a given field, individuals, organizations, or groups in a dominant position can rely on their advantages to obtain more benefits; conversely, disadvantaged individuals, organizations, or groups can only obtain less benefits, leading to polarization over time. In the eastern region, small and medium-sized microenterprises with lower profitability are unable to obtain bank credit due to an imbalance of risk and return, and a notable phenomenon is the "Matthew effect" caused by the reversal of financial resource flow, which leads to these microenterprises. In contrast, state-owned enterprises with higher profitability have more and more lucrative bank credit opportunities, corresponding resources, and deposits are rising. The "Matthew effect" is particularly notable because it is caused by the reversal of financial resources,

which leads to the flow of deposit funds to large monopoly enterprises and the flow of funds from the region's poorer areas to the more developed areas along the coast in the east. This greatly exacerbates the imbalance in the financial resources allocated to private businesses and the region.

3.2.2. Lack of regular access to equity finance for SMEs

Small and medium-sized business financing has not been sound for a long time. While traditional inclusive finance has helped some small and medium-sized businesses with their financing needs, very few small and medium-sized businesses can really receive financing through this channel. Many small and medium-sized private businesses are prohibited by policy from participating in the domestic capital market at the entry threshold for progressively better and more standardised background management. Statistics show that the management costs of small and medium-sized private firms by domestic banks are around five times higher than those of major state-owned enterprises. One of the biggest issues now is that most small and medium-sized businesses are unable to meet the bank's requirements, which results in them losing out on loan chances. Second, in order to prevent financial risks, China's financial institutions have increased internal supervision, decreased the number of credits, and most enterprises need a loan but lack sufficient collateral to borrow from the bank. As a result, the bank's loan guarantees for MSMEs are extremely limited, the operation mechanism is challenging to understand, and there are no preferential measures specifically for MSMEs. The credit spread between private and state-owned businesses has been roughly 150–200 basis points since 2019, the registration and cancellation ratio of MSMEs in the eastern coastal region has been steadily declining, financing issues are widespread, and listing and bond issuance have become unattainable goals.

3.2.3. Imbalance between supply and demand of insurance for private enterprises

Insurance unifies legal and economic relationships by performing fund finance, social management, and economic compensation functions. Insurance offers distinct advantages over other financial products in protecting and promoting the long-term growth of the private sector. Since then, the socialist economy has developed at a rapid pace, which has made the environment for the insurance industry's development particularly harsh. In my opinion, this has hidden the issues caused by the low level of homogeneous competition, and the imbalance and unavoidable contradiction between the demand for private enterprises and the supply of insurance have become more apparent due to the lack of kinetic energy and traditional growth momentum. The growing disparity between the supply of insurance and the demands of private businesses is becoming increasingly apparent. In addition, China's private businesses were founded later than other countries and lacked a strong corporate governance framework. The insurance market in China is currently quite large, widely distributed, and varies greatly in size. Product development is also not perfect, and many products fall short of the requirements of private enterprises in terms of protecting intellectual property rights, diversifying business risks, and other needs while ignoring the sizeable market these enterprises occupy. The current state of the insurance industry, in my opinion, is beset by issues such as a lack of innovation and a lack of depth and knowledge among internal staff members of private enterprises regarding insurance, which are detrimental to the long-term, sustainable growth of insurance and financial institutions as well as private enterprises.

3.2.4. Incomplete innovation and reform of the financial sector

The financial sector faces numerous obstacles to innovation and transformation, including the significant impact of policy and the incompatibility of financial institutions' financing schemes with the economy. Using the banking sector as an example, the majority of commercial banks have not yet

developed into legitimate economic entities. Due to the lack of highly skilled innovative individuals and the commercial banks' own lack of innovation capacity, many financial innovations have unfavorable outcomes regardless of their cost, and the financial sector finds it challenging to address the financing challenges facing private businesses today through the efficient use of financial resources, according to the theory of financial resource allocation, only the allocation of financial resources to the most efficient according to the theory of financial resource allocation, only the allocation of financial resources to the most efficient enterprises can achieve Pareto optimality. The financing of private enterprises stems from a number of factors, including scientific research, credibility, and other aspects of the sustainable development of the private economy. However, there are a number of issues that arise from financial innovation, including a lack of products, a mismatch in the terms of supply and demand for funds, information asymmetry, and other issues. Currently, there is only one green financial product available, a lack of data sources, and small financing channels for private enterprises. It is challenging to fully innovate and restructure the financial sector.

3.3. Hypothesis

The effective allocation of financial resources led by the banking, securities and insurance industries can provide private enterprises with capital supply and more flexible capital operation in different ways, helping them to reduce risks and improve the stability and sustainability of their operations. And through the support of financial policy, guidance of financial funds, financial and financial co-operation and the strengthening of financial supervision and other means, it can promote the financing support of financial institutions to private enterprises, reduce the difficulty of their financing and promote the development of the private economy.

Hypothesis: Effective deployment of financial resources led by the banking, securities and insurance industries can enhance the vitality of private enterprises.

4. Empirical Analysis

4.1. Data selection

In order to examine the influencing factors of China's total import and export trade in general, the model of total consumption of residents is established. The following table gives the number of listed companies on the domestic GEM (Y), the value added of the financial industry (X1), the incremental social financing scale (X2), the total number of legal entities of securities and funds and futures companies (X3), the total number of legal entities of banking financial institutions (X4), and the total number of legal entities of insurance companies (X5), and the above data is the total value of each of the five provinces, namely, Fujian, Zhejiang, Jiangsu, Shanghai, and Guangzhou, for the period of 2012-2019. The above data are the sum of the values to represent the financial resources and the development of private enterprises in the eastern coastal region, i.e., the observations are the data of different consecutive years. This paper is based on the theory of multiple linear regression in econometrics for empirical analysis.

4.2. measure

This paper searches for data through official websites such as Zhi.com, China Statistical Yearbook, and China Bond Information Network, etc. This study uses the data of the financial industry such as the banking industry, the securities industry, the insurance industry, etc. as the indicators to study the effective allocation of financial resources, and as for the development of private enterprises, it is based on the listing of each enterprise as an indicator. Due to the lack of specific data and the lack of

effectiveness after 2020 for the epidemic outbreak, this study limits the financial industry data to 2019.

4.3. Modelling

According to the theory of consumption in macroeconomics, the micro-level data of the economy in 2014-2019 are selected, combined with the actual analysis of the current situation of resource allocation in the financial industry, and it is found that there are a lot of factors of financial resource allocation, so this paper sets the explanatory variables as the value added of the financial industry, the incremental increase in the scale of social financing, the total number of legal institutions of securities, funds and futures companies, and the total number of legal institutions of financial institutions in the banking sector, Total number of corporate bodies of insurance companies.

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \mu \quad (1)$$

i represents time; Represents a constant term; $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ indicates the estimated parameter. It's a random error term.

5. Results

5.1. Descriptive analysis

The descriptive statistics of the variables are shown in the table, which can be seen that the standard deviation of both explanatory variables and explanatory variables are large, and the difference between the minimum value and the maximum value is large, indicating that in the 2012-2019 China's financial industry and the private economy development trend is better, and the change is large. The table below is a descriptive analysis chart.

| | X1 | X2 | X3 | X4 | X5 | Y |
|--------------|----------|----------|-----------|-----------|-----------|-----------|
| Mean | 21093.05 | 60973.94 | 222.2500 | 797.0000 | 92.62500 | 477.1250 |
| Median | 20802.71 | 56275.00 | 224.5000 | 843.5000 | 94.50000 | 483.5000 |
| Maximum | 30614.32 | 93072.00 | 249.0000 | 931.0000 | 109.0000 | 578.0000 |
| Minimum | 13080.64 | 43612.00 | 193.0000 | 592.0000 | 76.00000 | 345.0000 |
| Std. Dev. | 5956.659 | 18176.45 | 18.89633 | 144.2003 | 12.24672 | 89.36832 |
| Skewness | 0.218744 | 0.598063 | -0.133649 | -0.324981 | -0.127501 | -0.225318 |
| Kurtosis | 1.919780 | 2.036854 | 1.878639 | 1.384596 | 1.534978 | 1.583226 |
| Jarque-Bera | 0.452757 | 0.786123 | 0.442967 | 1.010660 | 0.737105 | 0.736774 |
| Probability | 0.797416 | 0.674987 | 0.801329 | 0.603306 | 0.691735 | 0.691850 |
| Sum | 168744.4 | 487791.5 | 1778.000 | 6376.000 | 741.0000 | 3817.000 |
| Sum Sq. Dev. | 2.48E+08 | 2.31E+09 | 2499.500 | 145556.0 | 1049.875 | 55906.88 |
| Observations | 8 | 8 | 8 | 8 | 8 | 8 |

Figure 3: Empirical diagram of descriptive analysis

5.2. Multiple regression

The data selected in this paper comes from China's economic and social data platform, due to the large value of macro variables. In order to improve the fit, this paper takes logarithmic treatment of the explanatory variables and explanatory variables, and the above values are analysed by OLS regression using Eviews.10.0 software, and the results are shown in Figure 4.

Dependent Variable: LNY
 Method: Least Squares
 Date: 11/17/23 Time: 16:24
 Sample: 2012 2019
 Included observations: 8

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 6.505375 | 0.454110 | 14.32554 | 0.0048 |
| LNx1 | 1.714639 | 0.078049 | 21.96873 | 0.0021 |
| LNx2 | 0.012174 | 0.010601 | 1.148307 | 0.3697 |
| LNx3 | -3.134104 | 0.194413 | -16.12082 | 0.0038 |
| LNx4 | 1.332137 | 0.061215 | 21.76151 | 0.0021 |
| LNx5 | -2.090737 | 0.158624 | -13.18046 | 0.0057 |

| | | | |
|--------------------|----------|-----------------------|-----------|
| R-squared | 0.999929 | Mean dependent var | 6.151606 |
| Adjusted R-squared | 0.999753 | S.D. dependent var | 0.194837 |
| S.E. of regression | 0.003064 | Akaike info criterion | -8.624175 |
| Sum squared resid | 1.88E-05 | Schwarz criterion | -8.564594 |
| Log likelihood | 40.49670 | Hannan-Quinn criter. | -9.026026 |
| F-statistic | 5658.842 | Durbin-Watson stat | 3.369252 |
| Prob(F-statistic) | 0.000177 | | |

Figure 4: Multiple linear regression analysis empirical graph

The regression calculation results of the data in the table are obtained by using the software EViews10.0:

$$\ln \hat{Y}_i = 6.505375 + 1.714639 \ln X_{1i} - 0.012174 \ln X_{2i} - 3.134104 \ln X_{3i} + 1.332137 \ln X_{4i} - 2.090737 X_{5i} \quad (2)$$

$$t = (14.32554) \quad (21.96873) \quad (1.148307) \quad (-16.12082) \quad (21.76151) \quad (-13.18046)$$

$$n=8 \quad \bar{R}^2=0.999753 \quad F=5658.842$$

Goodness of fit: $\bar{R}^2=0.999753 > 0.8$, The goodness of fit was significant.

In this study, the significance level of 5% was chosen, and its p-value is much less than the value, so the test passed the F-test, so the overall linear relationship between the development of private enterprises and the above explanatory variables is considered to be significant. However, at the 5% significance level, the incremental social financing scale fails the t-test, and the parameter estimates of X1, X3, X4 and X5 pass the test, so it is considered that there may be multicollinearity between the explanatory variables.

5.3. Multicollinearity test

5.3.1. Simple correlation coefficient test

This test does simple correlation coefficient test between five explanatory variables and the results are shown in the table:

| | X1 | X2 | X3 | X4 | X5 |
|----|----------|----------|----------|----------|----------|
| X1 | 1.000000 | 0.928765 | 0.988186 | 0.920210 | 0.980731 |
| X2 | 0.928765 | 1.000000 | 0.898255 | 0.841329 | 0.906479 |
| X3 | 0.988186 | 0.898255 | 1.000000 | 0.953445 | 0.987545 |
| X4 | 0.920210 | 0.841329 | 0.953445 | 1.000000 | 0.976633 |
| X5 | 0.980731 | 0.906479 | 0.987545 | 0.976633 | 1.000000 |

Figure 5: Simple correlation coefficient test empirical graph

From this test, the simple correlation coefficient between the explanatory variables can be obtained > 0.8 , and the result concludes that the correlation coefficient between the explanatory variables is large, and there is a serious multicollinearity.

5.3.2. Variance inflation factor test

This test does variance inflation factor test between five explanatory variables, and the results are shown in the table:

Variance Inflation Factors
 Date: 11/19/23 Time: 20:26
 Sample: 2012 2019
 Included observations: 8

| Variable | Coefficient Variance | Uncentered VIF | Centered VIF |
|----------|----------------------|----------------|--------------|
| C | 780057.3 | 29910.49 | NA |
| X1 | 0.000430 | 7840.652 | 511.4371 |
| X2 | 8.20E-07 | 125.9763 | 9.088785 |
| X3 | 14.61421 | 27854.44 | 175.0796 |
| X4 | 0.346999 | 8693.733 | 242.0834 |
| X5 | 139.2151 | 46497.81 | 700.5366 |

Figure 6: Empirical graph of variance inflation factor test

From the results of this test, we can get $VIF_1=511.4371$, $VIF_2=9.088785$, $VIF_3=175.0796$, $VIF_4=242.0834$, $VIF_5=700.5366$, and VIF_1 , VIF_3 , VIF_4 , and VIF_5 are all far >10 , and the results show that there is a serious multi-collinearity among the above explanatory variables, X_1 , X_3 , X_4 , and X_5 . serious multicollinearity.

5.3.3. Stepwise regression test

Stepwise regression analysis of the explanatory variables in the original regression model revealed that X_5 had the most significant goodness of fit and reasonable parameter sign, and the variables passed the t-test at the 5% significance level. The best coefficients were X_3, X_4, X_5, X_1, X_2 , which confirmed by binary linear regression, and a comparison of the p-value magnitude and the decidable coefficients was sufficient. Then through the ternary linear regression to confirm the best coefficient is,, does not have the regression effect of the explanatory variables, rounded off. Therefore, the final private enterprise development function should be $Y = \int (X_3, X_4, X_5)$ as the optimal model.

5.3.4. Heteroscedasticity test

Heteroskedasticity Test: White

| | | | |
|---------------------|----------|---------------------|--------|
| F-statistic | 4.164993 | Prob. F(3,4) | 0.1009 |
| Obs*R-squared | 6.060016 | Prob. Chi-Square(3) | 0.1087 |
| Scaled explained SS | 0.729684 | Prob. Chi-Square(3) | 0.8662 |

Figure. 7: Heteroskedasticity test results graph

For this sample data, the method of White's test was chosen to test for heteroskedasticity due to the possibility of heteroskedasticity due to the large differences in factors other than the explanatory variables at different sample points. The original hypothesis of this test is the assumption of homoskedasticity, i.e. there is no heteroskedasticity. In this paper, the test was carried out using Eciews.10.0 software and found that $p \geq 0.05$ gives the level of significance, so the original hypothesis is valid, i.e. there is no heteroskedasticity in the random error term, and finally the optimal model is derived:

$$\hat{Y} = -223.9311 + 0.839808X_3 + 0.131687X_4 + 4.420555X_5 \quad (3)$$

6. Experimental conclusions and reflections

Through the above regression model, it can be learned that the financial resources which have an impact on China's private enterprises are mainly the number of institutional legal entities in the banking industry, securities industry and insurance industry, and all of them have a positive correlation. From the point of view of the magnitude of the factor, the factor before the number of institutional legal persons in securities funds and futures companies was 0.839808, the factor before the number of institutional legal persons in banking financial institutions was 0.131687, and the factor before the number of institutional legal persons in insurance companies was 4.420555. 420555, implying a rise of 0.839808 in the number of private enterprises with each rise of 1 in the number of legal entities of Chinese securities funds and futures companies. For every increase of 1 in the total number of legal entities of banking financial institutions, private enterprises increased by 0.131687; for every increase of 1 in the total number of legal entities of insurance enterprises, private enterprises increased by 4.420555.

With the deepened reform and opening up of China and the acceleration of economic globalisation, private companies have gradually become a significant part of the national economy. The banking, securities and insurance industries play an important role in the long-term development of private enterprises. These industries can help private enterprises overcome various difficulties and challenges and achieve healthy and stable development by providing financial support, expanding financing channels and transferring and diversifying risks. To better support the development of private companies, the government and supervisory authorities should step up their support and guidance for the banking, securities and insurance industry, improve the quality and efficiency of financial services, and create a better financial environment for the long-term development of private companies.

7. Effective allocation of financial resources and path optimisation of private enterprises in the eastern coastal region

The eastern region must take the lead in the effective allocation of financial resources and the innovative development of private enterprises as the "ballast" of China's economy, the "power source" of development and the "testing ground" of reform. The eastern region needs to take the lead in the effective allocation of financial resources and the innovative development of private enterprises, the eastern region needs to take the lead in the effective allocation of financial resources and the innovative development of private enterprises.

7.1. Precise credit placement

All-round, diversified is the current banking industry to serve the real economy style label, in the "banking market structure on the impact of private enterprise financing research" in the "market power hypothesis" and "scale matching theory" is now the banking industry has reached the hidden danger[6], the banking industry should improve banking services to private enterprises to broaden the financing channels, to the sustainable development of private enterprises to help improve the monetary and financial environment. The banking industry should improve the professionalism of its services to private enterprises and alleviate their financing difficulties. Differentiated products for different small and medium-sized private enterprises should be made according to local conditions, so as to better solve the financing problems of private enterprises. Tingting Xie and others even studied six regions, including Shandong, where the banking industry has a high degree of competition, and argued that they should focus on improving the efficiency of banks in serving real enterprises[7]. In this regard, I believe that banks should optimise the credit process and improve service efficiency by innovating financial products and services, and at the same time reasonably determine the

financing needs of enterprises and give them stable financing expectations, as well as reforming the concept of financial supply and innovating the credit-granting mode of science and innovation-oriented enterprises to better adapt to the development needs of the real economy. In addition, accurate credit has become a top priority, banks can increase the credit line for private enterprises, improve the quality and efficiency of services to private enterprises to meet their financial needs, but also should rely on the front of the force, targeted force, sustained force, and further increase the support for small and medium-sized micro-enterprises and individual businessmen, and small and medium-sized micro-enterprises to tide over the difficult times with the stable market players and thus stabilise growth, employment and basic livelihood. Basic livelihood.

7.2. Integrated deployment of equity, debt and credit in securities

As a participant and "gatekeeper" of the capital market, securities companies are fully involved in and serve the whole life cycle of private enterprise investment, which is not only the inherent requirement of serving the real economy, but also the inevitable choice of development. An Qingsong mentioned in Tsinghua Financial Review that the securities industry should play a good role as a capital market pivot[8], actively resolve the risk of private enterprise stock pledges, actively resolve the financing difficulties of private enterprises, and strengthen the capacity building of investment banking to better serve the high-quality development of the private economy[9]. In my view, the securities industry should assist private enterprises in issuing shares to achieve equity financing, reduce their gearing ratio and optimise their capital structure; it should increase its efforts in designing and issuing the required bond products for private enterprises to provide them with diversified financing channels; and it should actively provide lending services to private enterprises through its affiliated commercial banks or cooperative banks. The Securities and Futures Commission, as the regulator, should also actively supervise securities companies in assuming responsibility for stimulating vitality by deploying private enterprises' stocks, bonds and loans in a variety of ways to provide them with all-round financial service support and promote their healthy development and growth.

7.3. Innovative insurance service models

Zhang Shasha's exposition of the financial and insurance industry its exposed problems and opportunities[10], to enhance the competitiveness of financial and insurance enterprises to analyse the strategy, I think, for different insurance industry subjects, should take different strategies. The Future of Insurance Intermediation in the Age of the Digital Platform Economy suggests that digital insurance technology services are the goal of our insurance intermediaries[11], as insurance intermediaries to innovate the service model and provide more personalised and flexible insurance services. For example, to provide one-stop risk management solutions for enterprises, including risk assessment, insurance programme design, and claims service.

The Journal of Risk and Insurance has also mentioned that for insurance companies and private enterprises[12], diversification plays a central role, and that operational risk measurement and management are highly relevant to insurance companies and should be incorporated into the enterprise risk management framework. As the main body of the insurance industry, insurance companies should also use big data, artificial intelligence and other technical means to improve the operational efficiency and market competitiveness of insurance companies, and digital means to improve the accuracy of risk identification and pricing, and reduce the risk of enterprise management. And customised insurance products should be developed for different industry subjects to meet their special needs. For example, science and technology insurance products should be developed for high-tech enterprises, and medical liability insurance should be developed for medical and healthcare industry subjects. In the main body of insurance, the regulatory authorities should also assume the

relevant responsibilities, establish a perfect insurance regulatory system, strengthen the supervision of insurance companies and intermediaries, and regulate market behaviour. Promote insurance companies and intermediaries to improve the transparency of information disclosure to protect consumers' right to know and legitimate rights and interests.

7.4. Balancing market and government

Since ancient times, people have attached importance to the "middle way" of Mencius, acting in the middle way and not going to extremes. For the effective allocation of financial resources, we should follow the ancient saying, balance the relationship between the market and the government, to determine the role of the market and the government positioning. 1990s, the economist Stiglitz and others put forward the theory of financial constraints[13], stressing that the government must appropriately intervene in the financial market, Herman and others put forward the government to control deposit and loan interest rates, limit competition and limit the substitution of assets and other policies. In my opinion, first of all, the government should set up a more perfect and reasonable financial regulatory system to ensure that the "savings-investment" relationship is maintained between banks, other financial institutions and private enterprises, and to regulate the remuneration of senior executives of financial institutions and internal incentive mechanisms of enterprises. Secondly, the government should respect the intrinsic connection between financial institutions and private enterprises, relax the micro-intervention on enterprise credit and financial institutions, break the financial inhibition by interest rate liberalisation, and promote the operation of financial market to a certain extent, so that different economic subjects can operate spontaneously. that enables different economic agents to enter the financial market spontaneously. Finally, through financial marketisation and government regulation to promote the effective allocation of financial resources, "there are retreats and advances", so that private enterprises can have more opportunities for the use of financial resources, so that private enterprises have more channels for financing.

7.5. Multiple innovations to reform the financial sector

Yin Long proposes that China's financial innovation has continuity[14], continuity and characteristics, which requires that China's financial regulatory system should relax the regulation and restriction of financial innovation, so that financial innovation can become an important means of financial regulatory efficiency. As a wise pilot region for financial innovation, the eastern region should firmly introduce, innovate and develop financing tools suitable for the development trend of national conditions; should vigorously push forward the development path of green finance to guide private enterprises to shift to the direction of green, environmental protection and carpet; should de-structure monotonous products and businesses, optimise the layout of financial resources and expand private enterprises, and optimise the layout of financial resources, and expand private enterprises, by relying on the competition effect and empowerment effect of the technological basis of financial science and technology, such as big data, artificial intelligence and so on. It should de-structure its products and businesses, optimise the layout of financial resources and expand the financing channels of private enterprises by relying on the competitive and enabling effects of the technological basis of big data and artificial intelligence in financial technology, and expand the financing channels of private enterprises; it should strengthen the popularisation and application of financial services and products, and synergistically promote the sustainable development of large, medium and small enterprises.

8. Conclusion

This paper examines the relationship between the development of China's private enterprises and the allocation of financial resources in eastern China. The study found that the two have a complementary relationship, with the flow of financial resources to private enterprises increasing during this period. The development of the private economy can ensure the stability and advancement of society by promoting the private sector, which in turn can be facilitated by the reasonable allocation of financial resources to banking, securities, insurance, and other financial sectors.

We suggest the following actions in response to the study's findings: First, proper credit distribution and improving the banking sector's ability to assist private businesses. Second, employ securities to provide private businesses more vigor by deploying stocks, bonds, and loans. In the meanwhile, create private company development with multi-party insurance main body and innovate the insurance service mode. Furthermore, maintaining equilibrium between the government and the market is essential for the efficient allocation of financial resources to support private businesses in expanding their funding sources. Ultimately, financial industry innovation and reform will help to maintain the health of the private sector.

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