Study on the Influence of Macro-control of Regional Economic Development on Resource Allocation in Capital Market

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Abstract. The influence of macro-control of regional economic development on resource allocation in capital market is studied in order to optimize capital market resource allocation and promote regional economic development. The efficiency of capital market resource allocation is taken as the dependent variable, and macroeconomic regulation indicators such as monetary policy, fiscal policy, and tax policy are selected as independent variables. A multiple regression analysis model is constructed to analyze the impact of macroeconomic regulation on capital market resource allocation. The economic data of 28 provinces in eastern, central, and western China, as well as the data on capital market resource allocation, are selected for empirical analysis. The results of the empirical analysis show that significant impacts on economic growth in the eastern region are exerted by monetary policy, fiscal policy, and tax policy. Economic growth in the central region is positively influenced by monetary policy. Guidance mechanisms, information transmission mechanisms, and competition and incentive mechanisms play a significant promoting role in the allocation of capital market resources in the western region. Based on the empirical analysis results, suggestions are made for optimizing capital market resource allocation to provide reference for promoting regional economic growth.

Keywords: Regional economic development, Macro-control, Capital market, Resource allocation, Monetary policy, Multiple regression analysis.

1. Introduction

Considering the issues pertaining to economic operation, such as excessive growth in investment, indiscriminate construction at a low level in certain industries and regions, and the consequent rapid expansion of money and credit, the central government has taken a firm decision to enhance and refine macroeconomic regulation to ensure social and economic development [1]. Various regions and departments have successively introduced some new measures, such as strictly controlling the credit supply to industries with excessive growth, organizing the clean-up of fixed assets investment projects, strictly controlling new projects, and strictly managing land use. At present, the unstable and unhealthy factors in China's economic operation have been initially suppressed, and some prominent contradictions and problems are being alleviated [2]. The momentum of excessive investment growth has been curbed, the growth rate of money and credit has dropped significantly, the price increase of basic products such as grain has been curbed, and the growth rate of production in some overheated industries has dropped significantly. But it also brings a problem, that is, how to coordinate and accelerate the local economic development and implement the central macro-control policy in relatively backward areas [3]. The regional economic development gap has become an unavoidable and urgent problem in China's economic development. The evident capital flow between regions results in an unequal distribution of capital, thereby impacting the gap in regional economic development [4]. The rational flow of guiding factors has become a research hotspot to narrow the gap of regional economic development in China.

How to realize the rational allocation of national production factors in space and the coordinated development of regional economy are important theoretical and practical issues that have attracted much attention for a long time. China's economy is transformed from government regulation to market allocation of resources. Moreover, it is widely recognized that the market assumes a leading role in the process of economic development [5]. The flow of production factors between different regions is transformed from government guidance to market self-regulation, which greatly plays the role of "invisible hand". The flow of production factors will indirectly lead to the redistribution of

resources, so it is very important to play a good role in regulating the market and promote the effective and rational allocation of resources during the flow of production factors. The eastern, central, and western regions of China vary significantly in terms of inherent conditions, geographical location, and natural endowments [6], so there is a gap and imbalance in economic development. At the same time, with the implementation of China's strategy of "the eastern part takes the lead, the central part rises, and the western part is developed", the economic development speed of each region is increasingly different. In the short term, the regional economic growth level depends on the pulling effect of the troika of investment, consumption and export, while in the long term, the economic growth levels of each region are influenced by the contributions of production factors [7], but also strengthened the interaction among regions within China. With the opening to the outside world among regions in China, the flow frequency of production factors among regions is more frequent, which plays a vital role in the level of regional economic development.

Giving full play to the efficiency of factors and using all factors to mobilize the enthusiasm of factors and guide the rational flow of factors has become a hot spot in the study of regional economy in China [8]. The flow of capital between regions is obvious, and more and more studies show that capital flow affects the regional economic development gap [9]. The key to coordinating regional development lies in enhancing regional development capabilities and optimizing the flow of capital between regions through improved pathways and increased frequency.: developed regions make rational use of capital [10] and improve the efficiency of capital utilization; Give preferential policies to underdeveloped areas, increase capital investment in underdeveloped areas, and accelerate their economic development, thus effectively promoting better economic and social development. Macro-economic development can not be separated from the promotion and cooperation of local and regional development. Influenced by geographical location, cultural factors, religious beliefs, resource endowments, population and system. In this unbalanced economic development, there are many problems of macroeconomic imbalance [11], which is also the enemy of the current economic development of all countries. Although developing countries and developed countries have different national conditions, they are consistent in the face of macroeconomic imbalances caused by unbalanced regional economic development.

At present, many researchers have studied the regional economy. Rocha et al. analyzed the rebound effect in macroeconomics [12]. This method focused on the long-term and short-term impact of energy services and non-energy inputs on the economy, put forward the impact of technological changes in energy on energy consumption, and introduced the productivity parameters of non-energy inputs. Zare et al. used fuzzy cognitive map method [13] to determine 26 dynamic factors affecting regional development. These factors are mainly economic and political concepts, and there is a strong correlation between them. Five key concepts are defined, including two economies, one law and two politics, which contribute to the stability of the economic system and promote the development path of the region. Hashimoto and others have studied the spatial pattern of capital market serving inter-city trade [14], and solved the blank in the research of financial center and inter-city trade by providing empirical evidence about the relationship between service complexity and regional scale of trading market. In order to better study the regional economic development and the allocation of resources in the capital market, and study the influence of macro-control of regional economic development on the allocation of resources in the capital market.

2. Macro-control and theoretical analysis of resource allocation in capital market

2.1. Theoretical analysis of macro-control of regional economic development

2.1.1. Macro-control theory

Macro-control is the overall management of the national economy by the government and the economic function of a national government, especially the central government. Including economic

means, administrative means and legal means. Economic means is a measure that the state uses economic policies and plans to influence and regulate social and economic activities through the adjustment of economic interests. Economic means mainly include fiscal policy, monetary policy, industrial policy, credit policy, income distribution policy, price policy, exchange rate policy, tax policy, etc. Economic means are the most important tools for national macro-control. Legal means is a means for the state to regulate economic activities by formulating and applying economic laws and regulations. It mainly includes economic legislation, economic law enforcement and legal supervision. Administrative means is a means for the state to adjust and manage the economy through administrative measures such as administrative orders, instructions, indicators and regulations [15]. Macro-control is a process in which the state regulates and controls the overall social economy in order to promote market development and standardize market operation. The process of macro-control is that the state uses adjustment means and mechanisms according to a series of laws of market economy to realize the optimal allocation of resources, provide a good macro-environment for the operation of micro-economy, and enable the market economy to operate normally and develop in a balanced way.

2.1.2. The role of macro-control in regional economic development

In the process of regional economic development, economic governance activities are complex and comprehensive, which makes it impossible for macro-control departments to obtain the most accurate economic data and related reports in a short time. This objective environment has caused the lag of macro-policy formulation and data distortion. Even if accurate economic data and reports are obtained in an ideal state, policymakers need to analyze, sort out and summarize them, and it is difficult to achieve absolute accuracy in formulating policies under the tight time [16]. Distortion and deficiency of data may lead upper-level planners and macro-policy makers to ignore the characteristics of local regional economy, resulting in insufficient financial support and insufficient guidance of upper-level economy. If the macro-control policy is too biased towards top-level design in concrete implementation, ignoring the autonomy of grass-roots units, and failing to realize that the essence of top-level design is to provide supporting services for grass-roots units, it will lead to unreasonable regional economic development planning, incomplete industrial support and inadequate government service management.

A significant portion of macro-control policies heavily relies on monetary policy. However, it should be noted that monetary policy operates indirectly, and it often takes time for the market to fully perceive and respond to changes in liquidity. On the other hand, direct fiscal policy is easy to be over-adjusted. Although it has the flexibility to release liquidity by adjusting taxes and other means, it also belongs to indirect regulation, and the market still needs longer time than the conventional fiscal policy. In addition, some areas need more financial expenditure to stimulate economic development and employment, and some areas need corresponding supporting industrial policies to support basic industries, but under the influence of the whole macro policy, "backward production capacity" cannot be transferred to areas with relatively low economic development level, thus hindering the improvement of people's livelihood and the development of economic industrialization [17]. Some areas are relatively developed and have good infrastructure. However, due to the excessive stimulation of macro-control policies, local asset prices have risen and people's livelihood costs have increased. Macro-control is grand and imprecise, broad and inflexible. To a certain extent, this constraint arises from the absence of comprehensive macro-control policies aligned with contemporary standards and an inadequate understanding of the underlying principles governing social and economic development. At the same time, it is also related to the lack of thorough understanding of policies and actual situation by local policy implementers.

2.2. Theoretical analysis of resource allocation in capital market

As the name implies, the internal capital market exists within the enterprise, so its allocation efficiency is bound to be affected by various problems existing within the enterprise. Considering the special policy environment in China, the government has played an important role in promoting the

market economy [18], so we will also consider the influence of policy guidance on the allocation efficiency of the internal capital market.

2.2.1. Internal capital market capital allocation process

Figure 1 provides an overview of the capital allocation process within the internal capital market and its dynamic interactions with the external environment.

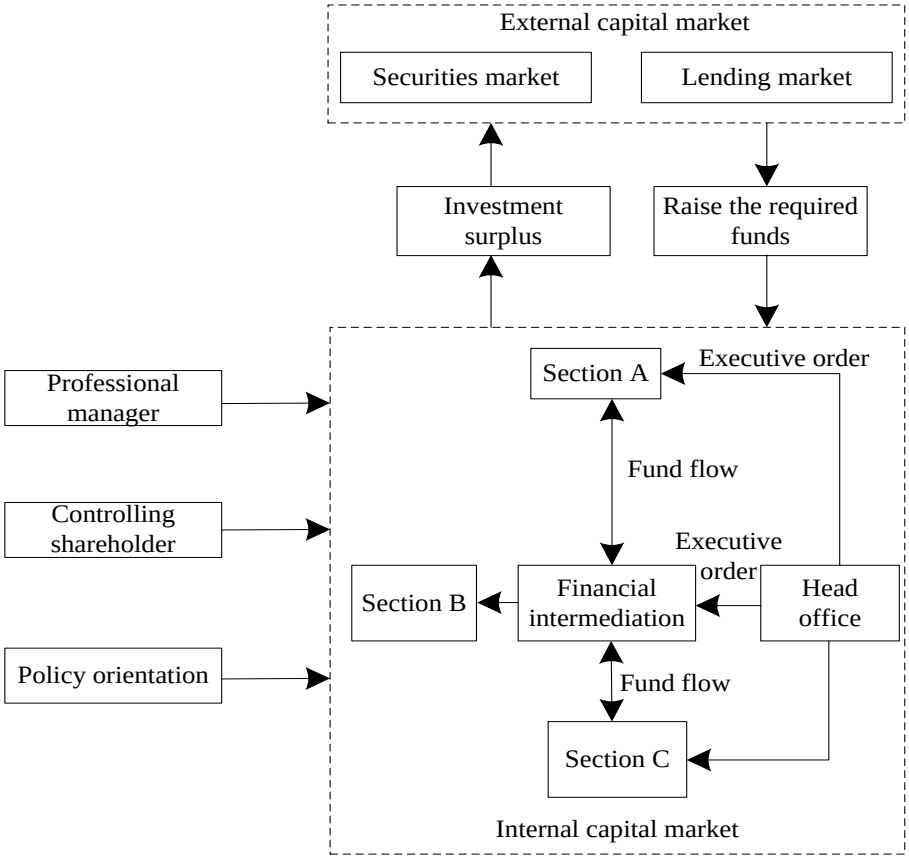


Figure 1. Structure chart of fund allocation process in internal capital market

Figure 1 reflects the process of capital allocation and the factors affecting its operation. As can be seen from Figure 1, corporate headquarters plays a leading role in the process of capital allocation. On the one hand, the headquarters forms an internal circulation network of funds by reconfiguring the funds accumulated by enterprises themselves; On the other hand, through the interaction with the external capital market, funds are raised and redistributed, forming an external circulation network of funds. Internal and external capital circulation ensures the normal development of enterprises. If the funds of an enterprise are limited, each branch will compete fiercely in order to obtain more funds. The headquarters will allocate funds in the appropriate branches according to the development prospects, investment returns and risk preferences of the branches. If an enterprise has idle funds temporarily, it may invest the funds in external capital markets, such as the securities market and the lending market, so as to improve the utilization rate of funds.

If an enterprise wants to raise funds from outside, it must fully disclose the information such as the operation of the enterprise to attract investors. However, due to the problems of friction and information asymmetry in the external capital market, external investors can't fully believe in the development potential of enterprises. Corporate headquarters tend to allocate the cash flow generated by business to the development of other businesses and reduce external investment [19], thus forming a diversified enterprise or enterprise group across regions and industries. The phenomenon similar to the external capital market allocation activities in an enterprise is defined as the internal capital market. Corporate headquarters is superior to external capital market in obtaining information and effective supervision, and can effectively allocate resources, but it will also be constrained by managers,

controlling shareholders and policy orientation.

2.2.2. Composition of internal capital market fund allocation system

According to the theory of external capital market, a complete capital allocation system should include five aspects: the leader of capital allocation, the individual who receives capital, the source of capital, financial intermediary and allocation mechanism. The corresponding fund allocation system of the internal capital market should also be composed of these five parts. The comparison of the structure of the capital allocation system in the internal and external capital markets is shown in Table 1.

Table 1. Comparison of capital allocation system composition in internal and external capital markets

Allocation of funds		Internal capital market	External capital market
Capital allocation leader		Corporate headquarters	Marketplace
Fund recipient		Segment	Firm
Source of funds		Internal funds	Social funds
Financial intermediation		Financial settlement center	Bank
Fund allocation mechanism	Guiding mechanism	Executive orders and prices	Price
	Information transfer mechanism	Hierarchical transfer information	Information error
	Competition and incentive	Internal incentives and constraints	Market incentives and constraints

It can be seen from Table 1 that social funds are allocated to enterprises with the highest production efficiency through the market-led external capital market. As a financial intermediary, banks guide the distribution of funds among different enterprises through the price mechanism. However, due to the information asymmetry in the information transmission mechanism formed by public disclosure of information, the internal capital market appears. The internal capital market, which is dominated by the managers of the enterprise headquarters, redistributes the funds accumulated internally to all branches of the enterprise through administrative orders and price mechanisms. This distribution method is mainly manifested in two aspects: Firstly, headquarters managers use authority to directly allocate funds; Second, through formulating a series of rules and regulations to guide the flow of funds between different branches, including capital allocation standards and internal interest rates. As an internal financial intermediary, the financial settlement center is the gathering place of enterprise funds, and the funds are distributed under the administrative instruction or price mechanism of enterprise headquarters. To enhance the quality of information transmission, it is essential for the managers at headquarters to incentivize and regulate the actions of branch managers [20]. This will help prevent them from engaging in rent-seeking activities to secure additional funds. The efficiency of internal capital market allocation is influenced not only by various factors within the enterprise's internal system but also by the external environment. The external environment of China is often influenced by the government's macro-control policy.

3. Empirical analysis of the impact of macro-control on the allocation of resources in the capital market

3.1. Sample selection and data source

3.1.1. Sample selection

In this paper, the data of 28 provinces in China are selected. The sample data selected in this paper is the panel data of 28 provinces in China during the ten years from 2011 to 2020. It is assumed that all kinds of capital are converted into investment in the current year, so the lag effect is not considered, and all the above variables are taken from 2011 to 2020. The distribution of sample industries is shown in Table 2.

Table 2. Distribution of sample industries

Industry name	Central state ownership	Local state ownership	Non-state	Total
Mining industry	5	3	0	8
Manufacturing industry	35	76	45	156
Building industry	18	21	8	47
Energy industry	13	21	8	42
Transportation industry	8	12	11	31
Warehousing industry	19	10	8	37
Information industry	9	8	5	22
Retail business	6	7	5	18
Housing industry	14	12	11	37
Social service industry	8	3	5	16
Communication industry	3	0	2	5
General	0	3	2	5

Based on the table above, it is evident that there is a greater presence of state-owned listed companies in monopoly industries that are interconnected with national economy and public welfare. On the other hand, non-state-owned enterprises are predominantly concentrated in manufacturing and comprehensive industries, which are more competitive and it is easier for non-state-owned capital to enter. However, mining is controlled by the state, which reflects its monopoly position.

3.1.2. Data sources

Data sources: "China Statistical Yearbook", "China Financial Yearbook", China Economic and Social Development Statistical Database, Guotai 'an Database, Wonder Database and National Bureau of Statistics.

3.2. Macro-control impact on the allocation of resources in the capital market index system construction

To examine the impact of macroeconomic control on resource allocation in the capital market, the efficiency of resource allocation within the capital market is selected as a key indicator. This measure serves both as an index to evaluate the effectiveness of resource allocation and as the dependent variable in the empirical analysis model. The GDP is widely utilized as a paramount indicator for assessing the level of regional economic development. To foster and stimulate regional economic growth, macro-control measures such as monetary policy, fiscal policy, and tax policy are implemented. These measures hold significant influence over the overall economic performance of a region, orchestrating policies to facilitate investment, expenditure, and tax incentives to bolster economic expansion and development. Fixed assets investment, foreign direct investment, guidance mechanism, information transmission mechanism and competition and incentive mechanism are selected as indicators to measure the allocation of resources in the capital market. Macro-control measures and related indicators of capital market resource allocation are used as explanatory variables. To conduct a more comprehensive analysis on the impact of macroeconomic control on resource allocation in the capital market, the level of industrial structure and urbanization are selected as control variables. Based on the above analysis, the index system of the influence of macro-control on the allocation of resources in the capital market is constructed, as shown in Table 3.

Table 3. Index system of impact of macro-control on resource allocation in capital market

Variable type	Index name	Index content
Explained variable	Capital market resource allocation efficiency	Reflect the resource allocation of capital market
Explanatory variable	Gross domestic product	The per capita GDP of each province in each year represents the level of economic development
	Monetary policy	Policies that control and regulate the money supply and the amount of credit
	Fiscal policy	It refers to the policy choice of lightening economic fluctuations, preventing inflation and achieving stable growth
	Tax policy	Tax policy means to regulate the material interests of market economic subjects
	Investment in fixed assets	Expressed in monetary terms, the amount of work undertaken by an enterprise to construct and acquire fixed assets over a given period of time and the changes in the costs associated therewith
	Foreign direct investment	Direct investment by foreign enterprises, economic organizations or individuals in China
	Guiding mechanism	Mechanisms to give play to the guiding role of social capital
	Information transfer mechanism	The mechanism of transmitting capital market resource information
	Competition and incentive mechanism	Mechanisms to promote the development of capital markets
Control variable	The level of industrial structure elevation	Establish and realize the level of high efficiency industrial structure
	Urbanization level	The level of urbanization affecting regional economic development

3.3. Empirical analysis model construction

Select multiple linear regression analysis method, construct multiple regression analysis model, and analyze the influence of macro-control of regional economic development on resource allocation in capital market.

$$y = \beta + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + \beta_8 x_8 + \beta_9 x_9 + \beta_{10} x_{10} + \beta_{11} x_{11} + \varepsilon \quad (1)$$

In the formula (1), y and x_1 respectively represent the efficiency of resource allocation in the capital market and the gross domestic product; x_2 and x_3 respectively indicate monetary policy and fiscal policy; x_4 and x_5 respectively represent tax policy and investment in fixed assets; x_6 and x_7 respectively indicate foreign direct investment and guiding mechanism; x_8 and x_9 respectively represent information transmission mechanism, competition and incentive mechanism; x_{10} and x_{11} respectively indicate the level of industrial structure upgrading and urbanization; β and ε respectively represent regression coefficient and residual term respectively.

3.4. Empirical analysis results

3.4.1. Descriptive statistical analysis

Within the index system of macro-control impact on capital market resource allocation, the statistical analysis results for each variable are displayed in Table 4, providing a descriptive summary.

Table 4. Results of descriptive statistical analysis of variables

Index name	Minimum	Maximum value	Mean value	median	Standard deviation
Capital market resource allocation efficiency	0.0012	0.1512	0.0754	0.0284	0.0021
Gross domestic product	0.0001	0.5612	0.3512	0.0684	0.0121
Monetary policy	0.0001	0.3554	0.1512	0.1546	0.0015
Fiscal policy	0.0002	0.7512	0.5411	0.5412	0.0023
Tax policy	0.0002	0.3645	0.1685	0.1625	0.0154
Investment in fixed assets	0.0003	0.2845	0.1152	0.1154	0.0064
Foreign direct investment	0.0151	0.6152	0.3451	0.4685	0.0154
Guiding mechanism	0.0054	0.4212	0.2685	0.2541	0.0021
Information transfer mechanism	5.6154	32.5184	18.4615	10.5645	1.5231
Competition and incentive mechanism	11.5123	68.5181	48.6152	48.5161	2.6454
The level of industrial structure elevation	0.0035	0.8456	0.4845	0.6452	0.0032
Urbanization level	0.0015	0.6451	0.34685	0.3451	0.0021

Analyzing the descriptive statistical analysis results revealed in Table 4, it is evident that resource allocation efficiency in the capital market demonstrates a consistently positive average and median value. This suggests that the resource allocation in the studied capital market is effective. Consequently, we can proceed with measuring the impact of regional economic macro-control on resource allocation in the capital market with confidence.

3.4.2. Unit root test

In regression analysis, the smoothness of panel data is critical to ensure reliable results. Hence, prior to conducting regression analysis on the panel data from all 28 provinces, it is essential to mitigate false regression by performing unit root tests on the variables. This research paper utilizes LLC test and ADF-Fisher test as the chosen methods to assess unit root. Table 5 presents the outcomes of these tests, considering the extensive time period covered in this study.

Table 5. Results of unit root test

Index name	LLC inspect		ADF-Fisher inspect	
	Statistic	P value	Statistic	P value
Capital market resource allocation efficiency	-3.5121	0.0055	115.6151	0.0001
Gross domestic product	-5.6152	0.0034	97.5465	0.0004
Monetary policy	-4.1123	0.0005	135.4651	0.0006
Fiscal policy	-3.8456	0.0021	125.6185	0.0023
Tax policy	-2.9452	0.0012	134.5123	0.0014
Investment in fixed assets	-6.5211	0.0031	152.3125	0.0008
Foreign direct investment	-2.6152	0.0005	184.5123	0.0015
Guiding mechanism	-1.6482	0.0016	136.8542	0.0025
Information transfer mechanism	-3.5645	0.0032	108.6452	0.0031
Competition and incentive mechanism	-4.0512	0.0005	114.5156	0.0052
The level of industrial structure elevation	-5.0615	0.0001	234.2515	0.0003
Urbanization level	-3.9458	0.0002	205.6454	0.0002

According to the results of LLC test, all variables passed the test at 1%; According to the results

of ADF-Fisher test, all variables also passed the test at 1%. It can be seen that the variables that need to be regressed to analyze the impact of macro-control on the allocation of resources in the capital market are stable and can be regressed.

3.4.3. Regression analysis results

Using the empirical analysis model constructed by this method, the regression analysis results obtained are shown in Table 6.

Table 6. Results of regression analysis

Index name	The east	Middle part	West
Capital market resource allocation efficiency	0.251 ***	0.312 ***	0.251 ***
Gross domestic product	0.785 ***	0.654 ***	0.751 ***
Monetary policy	0.152 ***	0.261 ***	0.211 ***
Fiscal policy	0.315 ***	0.258 ***	0.645 ***
Tax policy	223.615 ***	185.615 ***	142.621 ***
Investment in fixed assets	85.615 ***	75.165 ***	68.054 ***
Foreign direct investment	1.645 ***	-1.855 ***	1.761 ***
Guiding mechanism	16.524 ***	15.612 ***	14.285 ***
Information transfer mechanism	13.648 ***	12.512 ***	11.612 ***
Competition and incentive mechanism	0.954 ***	0.854 ***	0.905 ***
The level of industrial structure elevation	0.561 ***	0.485 ***	0.605 ***
Urbanization level	12.612 ***	13.541 ***	15.612 ***
Observations	135	115	138
R-squared	0.964	0.985	0.978

Through the regression analysis results in Table 6, the influence of macro-control of regional economic development on the allocation of capital market resources is analyzed. The specific analysis results for the eastern region are as follows:

(1) Significant impacts of macro-control measures, namely monetary policy, fiscal policy, and tax policy, on regional economic growth have been observed specifically in the eastern region. These measures have played a pivotal role in propelling and stimulating economic development within the region. Furthermore, their level of significance is comparable to the efficiency of resource allocation in the capital market. The implementation of these policies exhibits a positive correlation with economic growth and serves as a catalyst for promoting economic development. Macro-control measures have proven to have a positive impact on economic growth in the eastern region, effectively driving and fostering its economic development, which shows that monetary policy, fiscal policy and tax policy can introduce development funds for the eastern region and provide financial support for R&D and technological innovation in the eastern region. The positive impact of capital market resource allocation on the eastern region implies that this allocation process contributes to financing channels for enterprises in the area. In addition, capital market resource allocation in the eastern region is characterized by a rapid pace and substantial funding amounts. The high rate of return in the eastern region will attract more enterprises to invest in the eastern region from the central and western

regions to meet the capital demand in the allocation of resources in the capital market.

(2) The guiding mechanism, information transmission mechanism, competition and incentive mechanism have a significant positive correlation with the economic growth in the eastern region, and the level of significance is similar to the efficiency of resource allocation in the capital market. The eastern part of China boasts abundant marine resources, a favorable human environment, strategic geographical location, and natural endowments. In an effort to accelerate development in the eastern region and foster growth in the central and western regions, the government has adopted a wide array of preferential measures. These measures, including the implementation of the "leading in the east" development strategy, aim at creating a conducive environment to facilitate rapid economic advancement. Through the allocation of resources in the capital market, a substantial amount of financial funding has been invested in infrastructure construction and technological innovation in the eastern region. This has facilitated the growth of high-tech and new energy industries, propelled a shift in the economic development model.

(3) Investment in fixed assets and foreign direct investment have a significant positive correlation with the economic growth in the eastern region. Because the eastern region has geographical advantages and rich resource endowments, the geographical advantages of its coastal areas have created favorable conditions for external opening. The eastern region makes extensive use of foreign capital channels to facilitate the introduction of foreign capital. The entry of foreign enterprises can bring healthy competition to the eastern market, such as the so-called "catfish effect", this positive effect has further stimulated the robust development of tourism and foreign trade in the eastern region, thereby fueling economic growth in the area.

(4) The eastern region's economic growth is significantly influenced by its advanced industrial structure and high level of urbanization. These factors not only drive the efficiency of resource allocation in the capital market but also facilitate the positive impact on economic growth. The eastern region is renowned for its abundant pool of human resources, making it a magnet for attracting a substantial number of highly skilled foreign talents. This influx of international talent has greatly contributed to the region's economic growth and development, creating a vibrant ecosystem of diverse expertise and knowledge exchange. For example, there are a large number of outstanding foreign talents pouring in every year in Beijing, Shanghai, Guangzhou and other places. The relatively high level of labor quality supports the technological innovation and R&D in the eastern region. The influx of foreign high-quality talents in the eastern region significantly enhances the efficiency in converting scientific and technological achievements into productive forces. This infusion of expertise promotes the development of an innovative economic model, revolutionizing the region's growth trajectory and fostering a culture of creativity and progress. At the same time, it also promotes the economic development of the eastern region from extensive to intensive, which strongly promotes the economic development of the eastern region.

The R2 value of the regression decomposition result of the influence of macro-control of regional economic development on the allocation of capital market resources in the central region is 0.985. For the central region of the study area, the specific analysis results are as follows:

(1) The monetary policy in macro-control has a positive impact on the economic growth in central China, further promoting the efficiency of resource allocation in the capital market. Through the implementation of monetary policy in macro-control, bank funds increase, thus promoting economic growth, indicating that regional economic growth needs to rely on the guiding role of monetary policy. In recent years, China has paid more and more attention to regional coordinated development. The credit scale of state-owned banks in the central region is gradually increasing. While developing its own economy, the eastern region also provides help to the central region, and puts the spilled funds into the central region for credit to support its economic development. By further allocating capital market resources, the economic development of the eastern region has been stimulated, subsequently leading to positive spillover effects on the economic development of the central region.

(2) Investment in fixed assets within the capital market resource allocation demonstrates a positive impact on the economic growth of the central region. This suggests that the economic development

of the central region is, to a certain extent, reliant upon the allocation of capital market resources. To facilitate coordinated regional economic development, the Chinese government has devised a series of preferential economic policies for capital market resource allocation in the central region, along with increased financial support. These policies have promoted the economy of the central region, and alleviated the problem of unbalanced economic demand and development in the central region. At the same time, this has also promoted local enterprises to increase investment in R&D expenditure and made important contributions to the economic growth of the central region. Investment in fixed assets is positively related to economic development in the allocation of capital market resources, which shows that the central region will spend most of its investment on infrastructure construction and optimize the allocation of capital market resources through infrastructure construction.

(3) The high level of industrial structure in the central region exerts a notable positive influence on the allocation of capital market resources. The assessment of industrial structure can be gauged by evaluating the proportion of the added value generated by the secondary industry and tertiary industry compared to the GDP. During the early phases of development, the central region primarily depended on the primary industry, namely agriculture, to stimulate local economic growth due to constraints related to geographical location and technological advancements. However, with the state's support for the central region and the promotion of opening to the outside world, the links between regions are increasingly close. The state provides financial support for the central region and encourages the central region to develop manufacturing industry. The central region has also actively taken advantage of its geographical features and vigorously developed characteristic industries such as tourism, which has greatly promoted the development of the local economy.

(4) The level of urbanization in central China assumes a critical and decisive role in fueling its economic development. Moreover, it serves as a catalyst for optimizing resource allocation within the capital market. The process of urbanization facilitates the concentrated growth of population and economic activities, enhancing operational efficiency and driving economic advancement in the region. This shows that the development of cities in the central region is relatively balanced and the gap is small. The level of urbanization is closely intertwined with a city's economic development. It serves as a metric that reflects the equilibrium and disparity in economic growth within a city. If the level of urbanization is improved, the resources in this region will flow more freely between regions, thus promoting the overall economic upgrading and promoting the balanced development among cities.

(5) The economic impact of foreign direct investment on central China is negatively correlated. Because the central region is located in the inland area, it lacks geographical advantages and is quite different from foreign cultures, so there are limitations in foreign direct investment. Direct foreign direct investment may not necessarily spur economic development in the central region. In some cases, it can hinder the region's economic progress and even result in resource wastage.

The R2 value of the regression decomposition result of the influence of macro-control of regional economic development in the western region on the allocation of resources in the capital market is 0.978, which shows that the regression analysis model has a high degree of fitting. For the western region of the study area, the specific analysis results are as follows:

(1) Monetary policy, fiscal policy, and tax policy in western China have a positive impact on regional economic growth. This is primarily due to the opening up of bank loans, which provides essential financing channels for local enterprises and individuals facing difficulties in securing funds. It effectively meets their demand for financial resources and facilitates economic growth in the region.

(2) The guiding mechanism, information transmission mechanism, competition, and incentive mechanism in the allocation of resources in the capital market play a positive role in the economy of the western region. This is primarily attributed to the implementation of the strategy for developing the western region. Since the adoption of this strategy, increased support and financial assistance have been provided to the economy of the western region. Furthermore, it has facilitated the introduction of advanced production technologies and encouraged technological innovation, thereby fostering the development of new enterprises, infrastructure construction, and improvement. As a result, the market

has experienced increased dynamism and stimulation. Additionally, this has contributed to the growth of fiscal revenue and undeniably propelled economic development in the region.

(3) In the early stages of economic development, multiple factors such as geography and technology constraints limit economic growth. During this phase, agricultural development becomes essential for boosting GDP growth. However, with strong support from the government and improved economic ties between regions, the western region experienced rapid development, particularly in its manufacturing industry due to state assistance. Furthermore, the unique geographical advantages of the western region have facilitated the growth of distinctive tourism, which has significantly contributed to the local economy.

The flow of capital between different regions will have an impact on factors of production such as labor and land, and usually flows from relatively backward areas to areas with rapid economic development, such as the eastern region. This kind of capital flow has a favorable influence on the economic development of the eastern region, which further promotes the economic development of the eastern region. However, this phenomenon of capital return will also lead to more uneven economic growth among regions in China. Therefore, it is not enough to rely on market self-regulation, and the government must play its role in macro-control. The government can reasonably guide the capital flow through the introduction of economic policies, make the flow between regions more reasonable, alleviate the imbalance of economic growth caused by capital return, and promote the coordinated growth of regional economy.

In view of the influence of regional economic macro-control on the allocation of resources in the capital market, the following policy suggestions are put forward:

(1) Strengthen the policy coordination of various departments, strengthen the macro-control effect, and curb the overheated economy. It involves many macro-management departments such as finance, finance, taxation, import and export, etc., and has achieved certain results at present, but it is necessary to further strengthen policy coordination and cooperation among various departments and further control over-investment in certain fields, industries and enterprises. This paper holds that the securities regulatory authorities should increase their support for monetary policy and other regulatory measures in terms of issuance and financing, and restrict more funds from flowing into hot industries to avoid waste of resources; The departments of finance, state-owned assets and foreign trade should also strengthen the adjustment of mergers and acquisitions, restructuring and auditing of key industries, limit the increase of production capacity of key industries as quickly as possible, and curb the overheated development of some industries.

(2) In the context of accelerating international economic integration, we will actively promote the planning, adjustment, optimization and upgrading of China's industrial structure through various means, including the allocation of capital market resources, and acquisitions and financing development. Therefore, it is very important to maintain and improve the resource allocation function of the capital market. It is necessary to adopt balanced fiscal and taxation policies, as well as the policy regulation of the departments of finance, state-owned assets and foreign trade in the review of mergers and acquisitions, which can not only curb the overheating of the industry, but also support enterprises that meet the needs of national economic development to integrate resources through the capital market, so that the capital market can maintain its due vitality and improve the allocation efficiency.

(3) It is indeed important for the central bank to include capital market resource allocation activities within the scope of monitoring for implementing monetary policy. This inclusion helps prevent market risks resulting from excessive support through active monetary policy. With active monetary policy support, resource allocation in the capital market may become distorted, leading to economic overheating and exacerbating structural imbalances. Consequently, economic fluctuations can emerge, posing serious market risks.. Therefore, it should strengthen monitoring of resource allocation and related activities, while also paying attention to the trends in industry resource integration and development. By doing so, the central bank can effectively mitigate systemic risks within capital markets and even the broader financial markets to the maximum extent possible.

4. Conclusion

The development of regional economy cannot be separated from the support and precise regulation of macroeconomic policies. Only by giving full play to the subjective initiative of policy makers in local regional development can we use scientific and technological means to innovate, research and develop macro-control tools and improve them. The implementation of macro-control policies has a certain impact on the resource allocation function of the capital market, and the allocation vitality has declined, showing new characteristics of industrial resource allocation. It is necessary for the central bank to strengthen the monitoring of resource allocation activities in the capital market, maintain the stability of the capital market, and prevent and resolve market risks. Actively support the state to adopt balanced fiscal and tax policies through monetary policy means, strengthen the macro-control effect, adjust and improve the control objectives, maintain the vitality of the capital market, maintain the overall stable operation of the financial market, and make due contributions to the sustained, healthy and rapid development of the national economy.

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