

Research on the Impact of the Liberalization of Cross-border Capital Flows in Hainan Free Trade Port on Regional Economic Fluctuations

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Abstract: The main policy orientation of the Hainan Free Trade Port is the liberalization of cross-border capital flows, and the liberalization of cross-border capital flows is a decisive factor in promoting trade and investment facilitation. This paper systematically summarizes relevant domestic and foreign research and discusses it in combination with the development process and policy deployment of the Hainan Free Trade Port. It systematically examines its impact on regional economic fluctuations, summarizes the existing research results and their shortcomings, and aims to provide theoretical references and policy implications for deepening the liberalization reform of the Hainan Free Trade Port and preventing economic fluctuations. Studies have shown that the liberalization of cross-border capital flows has a bidirectional fluctuation effect on the economic growth rate of Hainan: improving resource misallocation and accelerating industrial structure upgrading; increasing the short-term capital inflow and outflow volume and exchange rate level fluctuations in Hainan, and the final outcome depends on the structure of cross-border capital flows, the intensity of financial regulation, and the stability of economic development.

Keywords: Hainan Free Trade Port; Liberalization of Cross-border Capital Flows; Regional Economic Fluctuations

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1. Introduction

Hainan is the only provincial-level full-fledged free trade port in China. The advantages of “no tariffs, low tax rates, and simplified tax system” have enabled it to implement reforms for the liberalization of cross-border capital flows, such as the EF account, QFLP/QDLP policies, etc., which have led to an increasingly expanding scale of cross-border capital flows. However, the liberalization of cross-border capital flows also has a double-edged sword effect. While promoting economic development, it brings about capital vitality; due to the profit-seeking nature and price volatility of international capital, it may cause disturbances in the financial market and affect the real economy, increasing the instability of regional economies. Currently, the Hainan Free Trade Port has implemented full island customs clearance operations, entering a new stage in the process of liberalization, and seeking a way to achieve economic stability under a highly open environment is a question that urgently needs to be answered^[1]. At present, there are many relevant studies by domestic and foreign scholars, but there

are relatively few studies on the Hainan Free Trade Port and some controversies exist. Therefore, based on previous research, this paper sorts out the actual situation of Hainan and analyzes its impact, providing some inspiration for subsequent research and the formulation of related policies.

2. Relevant Theoretical Foundations

2.1. Theory of Free Cross-border Capital Flows

The concept of free cross-border capital flows is an assumption based on traditional international trade theory and financial liberalization theory. According to the McDougall model, cross-border capital flows are conducive to improving the efficiency of resource allocation worldwide, ensuring that the return rates of funds among different countries are at the same level, and helping to solve the capital shortage in developing countries and promoting economic development. “Financial repression and financial deepening” is a viewpoint proposed by McKinnon and Shao: excessive state intervention will hinder capital flows, reduce the efficiency of resource allocation, and financial liberalization promotes economic growth by eliminating these restrictions. The “trilemma” indicates that free capital flows, fixed exchange rates, and independent monetary policies cannot all be satisfied simultaneously. Therefore, in the Hainan Free Trade Port, free reform needs to coordinate the relationships among these three factors. In recent years, with the changes in the international landscape, the security considerations of cross-border capital flows have weakened to become a secondary factor, while factors such as geopolitics and monetary policies have become increasingly significant, and the research perspective has focused more on the risk aspect^[2].

2.2. Regional Economic Fluctuation Theory

Regional economic fluctuations start from the analysis of macroeconomic fluctuations. It involves analyzing the various factors that affect the regional economy and the transmission process. It mainly includes three aspects: supply, demand, and external factors. Supply shock refers to factors such as technological progress and changes in resources; demand shock is the instability of consumption and investment; external shock mainly comes from the drastic changes in the international market and the influence of cross-border financial markets. Cross-border capital flows are the most common source of external shocks, and whether inflows or outflows, they directly affect the region’s fiscal revenue, interest rate, and exchange rate, and have an impact on the real economy in the form of investment, consumption, and imports and exports. The Hainan Free Trade Port is very open, and economic fluctuations are not only affected by the domestic environment but are also more likely to be influenced by international capital flows, with more transmission paths.

2.3. The Theory of Association between the Two

The impact of the liberalization of cross-border capital flows on regional economic fluctuations is mainly achieved through the “capital allocation effect” and the “risk transmission effect”: the former can guide capital to flow to regions with higher efficiency to optimize resource allocation and stabilize economic fluctuations; the latter transmits the risk of capital flows through the financial system to the real sector, thereby amplifying the fluctuation amplitude. According to the theory of financial development, a sound financial system can resist the shocks caused by international capital flows and reduce their impact on economic fluctuations. The construction of a complete financial system and risk prevention mechanism in the Hainan Free Trade Port is the key to achieving a balance between openness and security^[3].

3. The Mechanism of the Impact of Cross-border Capital Flows Liberalization on the Regional Economic Fluctuations of Hainan Free Trade Port

3.1. Resource Allocation Mechanism

The core advantage of liberalization lies in the restriction on capital flows, guiding domestic and foreign funds to flow into the advantageous industries in Hainan, filling the construction funding gap, and promoting industrial upgrading to enhance the quality of economic development. As of October 2025, a total of 144 QFLP funds have been successfully established in Hainan, attracting 2.275 billion US dollars of foreign capital; a total of 15 QDLP management companies have been registered, achieving an overseas investment scale of 1.346 billion US dollars. These funds are mainly invested in strategic fields such as deep sea, aerospace, and tourism, which are conducive to industrial development and also alleviate downward pressure. Since the opening of the EF account, there have been 80 countries and regions with account holders conducting fund transfers. This not only helps the company expand overseas business but also diversifies the company's operational risks, and significantly enhances the economic resilience of this region to market fluctuations^[4].

3.2. Exchange Rate Transmission Mechanism

The process of liberalization of cross-border capital flows is closely linked to exchange rate fluctuations. Hainan has a distinct open economy characteristic. Due to its high degree of liberalization in exports and reliance on foreign investment, exchange rate changes directly affect the import and export costs of enterprises and the investment intentions of foreign capital. When the pace of liberalization accelerates, international capital flows may cause fluctuations in the RMB exchange rate, putting pressure on some Hainan enterprises. From June to August in 2025, the RMB depreciated by 2.3% against the US dollar. Some Hainan enterprises used EF accounts for "currency hedging", with a scale of 3.8 billion US dollars, accounting for 12% of the current onshore market share of China. This indicates the significant impact of exchange rate fluctuations on them. At the same time, an increase in the expectation of RMB depreciation may lead to capital outflows, causing local liquidity tensions, and thereby increasing economic downward pressure.

3.3. Mechanism of Short-Term Capital Impact

Liberalization will attract a large amount of short-term investment funds with extremely strong profit-seeking nature and high liquidity. This will have an impact on local financial markets and even the real economy, increasing the risk of economic fluctuations. The preferential policies and low interest rates of the Hainan Free Trade Port are easily attracted by such factors, but once there are changes in the international market (such as the Federal Reserve raising interest rates or global recession), they will easily withdraw, resulting in a sharp reduction in regional capital supply and triggering financial system turmoil and further transmission to the real economy. In 2022, the aggressive interest rate hikes by the Federal Reserve led to global capital outflows, and the scale of cross-border funds in Hainan decreased, which had an impact on economic development. Short-term capital speculation can easily push up asset price bubbles. After the bubbles burst, market fluctuations will be even more intense^[5].

3.4. Upgrading Convergence Mechanism

Cross-border capital flows under free trade facilitate the international transfer of production factors such as technology and talents. In the field of high-tech industries and new business forms - modern services in Hainan, financial support is provided to promote diversified and high-value-added development of industrial upgrading, and reduce reliance on traditional industries. At the same time, multinational enterprises also bring advanced technologies and management models, which are conducive to enhancing the overall core competitiveness of

companies and reducing regional economic volatility.

4. Review of Relevant Empirical Studies

4.1. Relevant Empirical Studies Abroad

Early in the international empirical evidence studies conducted, two opposing viewpoints emerged: García López and Stracca (2021) based on cross-national panel data argued that the liberalization of cross-border capital flows could alleviate regional economic volatility and mitigate regional financial crises, especially for emerging economies. Reasonable cross-border capital flows could effectively alleviate capital shortages and stabilize economic growth. The IMF (2023) pointed out that due to the increase in geopolitical risks and the slowdown of globalization, the instability of international capital liquidity has increased, which will exacerbate the degree of short-term capital shocks suffered by relatively vulnerable developing countries in the financial system and further increase economic volatility. Additionally, some studies have pointed out that there is a non-linear relationship between the two. When the financial system is well-developed and regulation is in place, liberalization can reduce volatility; conversely, volatility may increase^[6].

4.2. Relevant Empirical Studies in China

There are three types of research results related to the impact of the liberalization of cross-border capital flows on regional economic fluctuations in China: Firstly, studies focusing on the open areas in the eastern coastal regions suggest that the liberalization process can promote the optimization of resource allocation and industrial upgrading, and reduce economic fluctuations; Secondly, Tan Xiaofen et al. (2023) pointed out that since the 2008 financial crisis, the deleveraging in the banking sector has increased the volatility of cross-border capital flows, and net short-term capital flows are considered a key factor driving regional economic fluctuations; Thirdly, these effects have regional differences. In the advanced financial systems of the eastern regions, liberalization can reduce fluctuations, but in the less developed central and western regions, due to their weaker financial systems, liberalization may increase the degree of fluctuations.

4.3. Empirical Research on the Hainan Free Trade Port

Although the liberalization reforms in the Hainan Free Trade Port are still in their early stages, there are not many empirical studies. Most of the studies are policy analyses and quantitative evaluations. Some scholars believe that the impact of liberalization on economic growth in Hainan has two sides: measures such as the EF account can bring in capital inflows, promote economic growth, and alleviate the fluctuations in growth; but on the other hand, when the scale of capital flow increases, such as some short-term capital flows and exchange rate fluctuations, these factors will also occur and may lead to greater volatility. From the data of the 100-day closure of the Hainan Free Trade Port, the combined foreign and domestic currency of the EF account has increased by approximately double compared to before the closure. Among them, offshore RMB accounts account for 40%, which has played a certain role in promoting economic development. However, the exchange rate risk pressure for enterprises still exists. At the same time, the risk prevention and control system in Hainan is also in the process of continuous improvement, and the supervision of the fund flow and early warning mechanism is not strong enough. Once there is a lack of supervision, it will increase the risk of greater volatility^[7].

5. Existing Controversies and Research Gaps

5.1. Existing Controversies

Regarding the impact of liberalization on the economic fluctuations in Hainan, there are three types of opinions: Firstly, in terms of impact, some believe that a highly liberalized Hainan Province can better balance resource allocation to reduce fluctuations; however, some scholars are concerned that the immature Hainan financial market may lead to temporary capital flows and exchange rate fluctuations. Secondly, regarding the scope of impact, one aspect of research suggests that the scale of cross-border capital flows in Hainan is small, and their volatility has little impact; on the other hand, there is concern that once the customs-free zone is implemented, the capital flow will increase, and the impact of volatility will become more obvious. Thirdly, policy regulation, scholars have differences in opinions on how to balance liberalization and economic stability. Some advocate strengthening capital control, while others advocate promoting liberalization and improving the prevention and control mechanism.

5.2. Research Deficiencies

At present, the research on the Hainan Free Trade Port still has four shortcomings: Firstly, quantitative methods are rarely employed; instead, mostly qualitative expressions are used, and local panel data from Hainan is not utilized for empirical analysis, making it impossible to accurately measure the impact effects; Secondly, the research perspective is limited, with most studies starting from the financial market, but the transmission mechanism of the market fluctuations brought about by liberalization through factors such as industrial development has not been deeply explored; Thirdly, the research on risk management is not comprehensive; it mostly focuses on individual risk points rather than conducting systematic overall risk assessment and prevention system research, especially lacking research on the risks generated by new policies such as EF accounts; Fourthly, the comparative research needs to be further strengthened. The benchmarking effect of advanced free trade ports like Hong Kong and Singapore has not been fully utilized, making it difficult to draw on their experience and practices and highlighting the unique characteristics of Hainan^[8].

6. Future Research Directions

Taking into account the existing deficiencies and the direction of construction of the Hainan Free Trade Port, the following four points can be proposed for in-depth research: First, enhance the use of quantitative research methods. Based on the panel data of cross-border capital flows and economic fluctuations in Hainan, construct empirical models to conduct quantitative analysis of the impact and provide references for policy formulation; Second, expand the research perspective. Study the impact of liberalization on Hainan's economic development from the aspects of industries, imports, and exports, and focus on the development of some characteristic industries; Third, strengthen research on risk prevention and control. Analyze the possibility of various risks and establish an assessment system and countermeasures; Fourth, should strengthen comparative research work. Compare Hainan with other mature free trade ports and draw on their successful experiences to improve relevant measures in Hainan.

7. Conclusion

As an important measure for China's further opening up to the outside world, the liberalization policy of cross-border capital flow in the Hainan Free Trade Port has an impact on regional economic fluctuations: On one hand, it can optimize resource allocation and industrial structure, expand the liquidity of the financial market,

enhance economic resilience and thereby reduce economic fluctuations; on the other hand, influenced by factors such as short-term capital inflows, exchange rate shocks, and institutional frictions, it will also bring greater volatility. In the current context of international order reconstruction and uncertainty in the international environment, this becomes more evident.

In the future, we should strengthen empirical research, expand research perspectives, improve the risk prevention system, and draw on the experience of relevant cities' free trade ports to ensure that Hainan successfully completes its opening-up tasks. Adhering to the principle of "opening up fully while managing effectively", in the process of steadily advancing trade liberalization, we should improve the monitoring and early warning mechanism, strengthen departmental joint supervision, optimize the financial system, enhance the economic's ability to resist risks, and ensure the smooth operation of the free trade zone.

Disclosure statement

The author declares no conflict of interest.

References

- [1] Liu Y, Liu X, Wang Y, 2024, Discussion on the Development Strategy of Hainan Free Trade Port Based on the "Point-Axis System" Theory, *Acta Geographica Sinica*, 79(12): 3050-3062.
- [2] Wang M, Lu F, Cai X, et al., 2022, Research on the Coupled Coordinated Development of Marine Economy and Free Trade Pilot Zones in Coastal Provinces of China, *Management Review*, 34(7): 71-80.
- [3] Zhang D, Cui C, 2025, Analysis of the Impact of the Language Service Industry on the Economic Development of Hainan Free Trade Port, *Annual Report on the Development of Language Services in China*, Social Sciences Academic Press (China).
- [4] Gao H, Gao L, Yang H, et al., 2025, Development Challenges and Opportunities of the Measurement and Testing Industry in the Context of Hainan Free Trade Port: A Dual Perspective Based on Economic Structure and Policy Advantages, 2025(18): 97-99.
- [5] Wu Q, Hong H, 2023, Feasibility Study on Promoting the Overseas Indirect Listing of Private Enterprises in Hainan Free Trade Port, *Hainan Finance*, 2023(8): 39-47.
- [6] Yin X, 2026, CPTPP Digital Trade Rules and China's Response to Joining - Based on the Comparison with RCEP Digital Trade Rules, *Northern Economy*, 2026(1): 69-73.
- [7] Xia J, Zhang Y, 2024, Regulatory Dilemmas and Optimization Paths of Cross-border Data Flow in Digital Trade, *Economic Horizons*, 2024(4): 39-46.
- [8] Shang P, Zhan H, 2023, International Experience and Implications of China's Management of Cross-border Capital Flows, *Northern Finance*, 2023(12): 86-91.

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