

Financial Openness Supports the New Development Pattern of Double-Cycle

- - Empirical Analysis based on the Guangdong-Hong Kong-Macao Greater Bay Area

Junhao Zheng, Ye Chen, Chenchen Sun, Zhijie Bao

Anhui University of Finance and economics, Bengbu, Anhui, 233030, China

Abstract

As an important platform for opening up and a demonstration area for high-quality development in coastal areas, the Guangdong-Hong Kong-Macao Greater Bay Area has significantly enhanced its economic strength and regional competitiveness, and has the basic conditions for building a world-class bay area and a world-class urban agglomeration. The degree of financial opening is the key to realize the economic development under the new development pattern of "taking domestic circulation as the main body and domestic and international circulation mutually promoting each other". This paper from the perspective of financial support, using factor analysis of financial open effect comprehensive index, analysis of financial open effect in a large bay area of Guangdong in the old and new kinetic energy conversion, support the role of double cycle system establishment, and put forward a large bay area double cycle development under the new pattern of financial open development strategy and construction path.

Keywords

Guangdong-Hong Kong-Macao Greater Bay Area; Financial Openness; Double Cycle; Factor Analysis.

1. Foreword

At present, our country in order to achieve "the domestic big cycle as the main body, domestic and international double cycle mutually promote new development pattern", formed on the basis of continue to participate in the international international division of labor, further expand domestic demand, promote factor market configuration and realize innovation driven development mode, is trying to improve the level of financial opening, promote the old and new kinetic energy conversion, through the introduction of external competition, achieve the goal of promoting the development of high economic quality. The Guangdong-Hong Kong-Macao Greater Bay Area is the main area where China participates in economic globalization, and has an important strategic position in the overall national development; while the Greater Bay Area has three currencies and multiple systems coexist, with high economic openness. Therefore, this paper takes the Guangdong-Hong Kong-Macao Greater Bay Area as an example, and explores the path of financial opening to support the development of double circular economy under the background of the new pattern of double circular development.

2. Literature Review

Financial opening includes two basic aspects: capital account opening and financial service industry opening. The former means the removal of restrictions on cross-border capital flows, falling within the category of financial liberalization; the latter means the permission of foreign

financial institutions to establish an independent or joint venture commercial presence at home and to provide financial services through licensing. From the existing literature, domestic and foreign scholars have conducted in-depth research on the impact of financial opening on economic development:

Based on the panel data of 57 countries, Yang Jimei et al. adopted the Hansen non-dynamic panel threshold model to take five indicators of the three dimensions of financial scale, financial efficiency and financial structure as the threshold variables to test the heterogeneous impact of financial development levels in different dimensions on the economic growth effect of financial opening. Ren Zaiping et al. took the added value of the financial industry as an intermediate transmission factor, and effectively analyzed the contribution of financial innovation and opening up to the economic growth of Shanghai Free Trade Zone by using the synthetic control method and multiple regression. Zhang Yongsheng et al. used financial openness indicators to explain the effect of financial openness on economic growth from the perspective of influence path. Zhao Wei and Ma Jing took the five coastal provinces and cities as the research objects, and analyzed the coupling and coordination relationship between financial development, scientific and technological innovation and economic opening up.

3. Study Design

3.1. Variable Selection

This paper on the basis of the existing research, with the large bay area of Guangdong as the research object, from the capital market and money market two dimensions, mainly select customs import trade (Im), customs export trade (Ex), actual foreign investment to account amount (Fi), foreign exchange balance (Fe), domestic qualified investors approved quota (QDII) five indicators. The data required for this paper are mainly obtained from the National Bureau of Statistics.

3.2. Construct an Index Evaluation System

This paper mainly adopts factor analysis, through the analysis of the internal relationship between the factors, the factors grouped, the same group factor correlation is higher, the correlation between different groups is low, each group extracted the common factors, thus use the less common factors instead of the original complex factor system. The specific steps are as follows:

In the first step, the data was standardized to extract multiple common factors with strong ability to interpret the original variables:

$$z = \frac{x - x_{\min}}{x_{\max} - x_{\min}}$$

x_{\min} Where, indicates the minimum value, indicates the maximum value. x_{\max}

In the second step, the factor was interpreted using the PCA extraction method to establish the factor load matrix and the factor score matrix to obtain each main factor weight.

4. Results Analysis

4.1. Factor Extraction

According to Table 1, total customs import trade (Im) accounted for 60.51% of the total variance, and total customs export trade (Ex) accounted for 22.04% of the total variance, explaining 82.55% of the total variance of the original variables, that is, having a strong ability to explain the original variables.

Table 1. For each factor

variable	Initial eigenvalue	variance ratio	The cumulative ratio of variance
Total Customs Import Trade (Im)	3.025489	0.6051	0.6051
Total Customs Export Trade (Ex)	1.101847	0.2204	0.8255
Actual Account Amount of Foreign Investment (Fi)	0.665567	0.1331	0.9586
Foreign exchange deposit and loan balance (Fe)	0.147355	0.0295	0.9881
CAApproval (QDII)	0.059741	0.0119	1.000

4.2. Factor Interpretation

Table 2. Factor load Matrix

	factor f1	factor f2
Total Customs Import Trade (Im)	0.490039	0.772245
Total Customs Export Trade (Ex)	0.587402	0.718820
Actual Account Amount of Foreign Investment (Fi)	-0.095516	0.251641
Foreign exchange deposit and loan balance (Fe)	-0.933838	-0.121534
CAApproval (QDII)	1.0000	0.0000

The relationship and proportion of the variables can be known from Table 2. factor f1 mainly explains the actual amount of foreign investment (Fi), foreign exchange deposit and loan balance (Fe) and domestic qualified investor approved quota (QDII), while factor f2 mainly explains the total customs import trade (Im) and total customs export trade (Ex).

4.3. Calculate the Factor Score

Table 3. Factor score matrix

	factor f1	factor f2
Total Customs Import Trade (Im)	0.283845	0.869443
Total Customs Export Trade (Ex)	0.391396	0.841756
Actual Account Amount of Foreign Investment (Fi)	-0.154779	0.220204
Foreign exchange deposit and loan balance (Fe)	-0.874779	-0.348694
CAApproval (QDII)	0.968940	0.247296

The linear combined equations for f1 and f2 can be obtained from Table 3:

$$f_1 = 0.2838451 \text{Im} + 0.391396 \text{Ex} - 0.154779 \text{Fi} - 0.874779 \text{Fe} + 0.9689400 \text{QDII}$$

$$f_2 = 0.869443 \text{Im} + 0.841756 \text{Ex} + 0.220204 \text{Fi} - 0.348694 \text{Fe} + 0.247296 \text{QDII}$$

According to the above formula, by substituting the value of each factor, the extracted common factors f1 and f2 can be calculated.

4.4. Calculate the Comprehensive Factors of Financial Opening

According to the comprehensive factor formula of financial opening:

$$F = \frac{\lambda_1}{\lambda_1 + \lambda_2} f_1 + \frac{\lambda_2}{\lambda_1 + \lambda_2} f_2$$

The regression analysis of common factor F and GDP GDP, and then concluded that: $Y=21263.63+0.268601F$, so the degree of financial openness and regional economic development are positively correlated, and the correlation between the two is promoted.

5. Conclusion and Suggestions

From the perspective of financial opening, this paper empirically analyzes the contribution of financial opening to the economic development of the Guangdong-Hong Kong-Macao Greater Bay Area through factor analysis. The study finds that financial opening increases the added value of the financial industry, thus promoting the economic growth and increasing to GDP GDP. Therefore, based on the above research results, the following suggestions are put forward for the economic development of the Guangdong-Hong Kong-Macao Greater Bay Area under the new pattern of double-cycle development:

(1) Deepen financial reform and opening up and enhance international competitiveness

Under the national policy opportunity to support the development of the financial industry open opportunities, under the new pattern of binary development, a large bay area of Guangdong financial industry should follow the national financial open development pace, seize the regional comprehensive economic partnership agreement (RCEP) signed to expand multilateral trade and investment opportunities, improve cross-border financial comprehensive service ability, A large bay area of Guangdong should adhere to the balance and handle the relationship between financial opening and economic growth, financial security, from the "introduction" to "going out" "two-way exchange" three aspects, build stereo, internationalization, high level of financial open ecosystem, promote the depth of the bay area financial market and global financial markets, build and perfect the large bay area financial institutions service system, improve the cross-border financial service ability and level, deepen the openness of the financial market, improve the international economic competitiveness.

(2) Promote institutional innovation, and vigorously develop financial institutions

On the one hand, encourage and support banking financial institutions to develop cross-border financial and foreign exchange business, enhance the openness and service level of banking institutions; on the other hand, give full play to the advantages of financial institutions in attracting investment, and formulate and introduce relevant attractive policy conditions. At the same time, support securities, insurance and trust institutions to become bigger and stronger; and jointly cultivate and develop professional financial intermediary services such as law, accounting, asset appraisal, insurance agency, credit rating and financial service outsourcing institutions to improve the professional financial service capability.

(3) Optimize the efficiency of resource allocation and enhance the level of financial development

Under the background of the new pattern of double cycle development, Guangdong region should continue around the financial resource allocation efficiency, build new service development pattern strategic fulcrum, promote a leading and display of important financial measures, the development of financial support strategic industrial cluster, financial support for scientific and technological innovation, financial support for common prosperity three major areas. We will support large financial institutions in the Guangdong-Hong Kong-Macao Greater Bay Area in "going global", taking advantage of new international financial opportunities to further improve the financial system and upgrade the level of financial development.

Acknowledgments

This paper is a funded project of the Innovation and Entrepreneurship Training Program for college students of Anhui University of Finance and Economics. Project name: New Development Pattern of Double Cycle Supported by Financial Opening -- An Empirical Analysis Based on the Guangdong-Hong Kong-Macao Greater Bay Area (Project number: 202210378173).

References

- [1] Ren Li, Zhang Lijie. Research on the construction of the financial power mechanism of the new development pattern [J]. Enterprise, 2021,40 (10): 123-131.
- [2] Zou Yuan long han. Exploring the Impact of Financial Opening on Economy and Finance in Developing Countries [J]. National circulation economy, 2022 (03): 166-168.
- [3] Xia Dan, CAI Xiang, Wan Yong. Heterogeneity analysis of the economic radiation influencing factors in the central cities of the Guangdong-Hong Kong-Macao Greater Bay Area [J]. Special Economic Economy, 2022 (03): 5-9.
- [4] Zhao Wei, Ma Jing.--Research on the systematic coupling degree of financial development, scientific and technological innovation and economic opening in China's coastal areas of China [J]. Journal of Nanjing University of Science and Technology (Social Science edition), 2022,35 (04): 20-29.
- [5] Li Helong, Lu Yulin, Wang Cunhua, Liu Fan.--is based on the perspective of collaborative innovation in urban agglomeration [J]. Science and Technology Management Research, 2022,42 (13): 51-58.