

An Empirical Study of the Impact of Financialization of the Economy on China's Economic Growth

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Abstract: *This paper compares the development of economic growth theories, and explains the mechanism and influence pathways of economic financialization on economic growth. Relevant economic development data of 34 provincial administrative units in China for 2017 years are collected, and the impact of two variables, such as technology investment and financial investment, on economic aggregates is analyzed through a multiple linear regression model, and it is found that the deep development of China's financial market has begun to impede economic growth, and relevant policy suggestions are put forward on this basis.*

Keywords: *Financialization of the Economy; Economic Growth; Impact Mechanism; Policy Recommendations*

1. Introduction

Finance is the core of modern economic system and plays a pivotal role in economic development. A mature and transparent financial market can efficiently allocate economic resources to the corresponding areas of efficiency, thus continuously improving the level and efficiency of investment in the whole society and promoting healthy and orderly economic development. However, the fundamental driving force of economic development comes from the real economy, and Liu, xx(2016) believe that the real economy is the basis for the survival and development of human society, reflecting the fundamentals of the economy, and is the broadest basis for the stable operation of a country's market, and deviations in the indicators of the "real economy" are often reflected in various areas of social life.^[1]The financial sector was born out of the real economy, but with the growing number of financial derivatives, the independence and blindness of its development has become more and more obvious. The financialization of the economy reflects the share of financial instruments in the total economic activity, and is a process in which the share of the financial sector in an economy, including banks, securities, insurance, real estate credit, etc., in the broad sense, is increasing and has a profound impact on the economy and politics of the economy.

The field of research on the relationship between financial economic expansion and economic development has attracted a great deal of interest from economists in the last century since the pioneering work of McKinnon (1973), Shaw (1973) and Goldsmith (1969). Stephen G Cecchetti and Enisse Kharroubi (2012) find that that the financial boom has a significant dampening effect on the development of R&D-intensive firms and manufacturing firms that depend on external financing.^[2] Donald Tomaskovic-Devey, Ken-Hou Lin, and Nathan Meyers¹ (2015) argue that this process of financialization of the economy exacerbates the inequality gap and the risk of financial crises^[3]. Since the financial crisis of 2007-2008, the issue of economic financialization has begun to raise more and more concerns in the academic community. The concept of economic financialization was first introduced by Kevin P. Phillips in his book <Boiling Point> in 1993, and then it was widely used by the academic community, and different scholars gave different meanings to economic financialization according to the needs of research. After the outbreak of the financial crisis in 2008, the concept of economic financialization has been given a more critical tone. Economic financialization is manifested at both macro and micro levels. At the macro level, the process of economic financialization is firstly manifested as a large amount of resources flowing into the virtual economy, which contributes to the inflated payoffs of the virtual economy and pulls up asset prices, thus inhibiting the investment and development of the real economy. At the micro level, the process of financialization of the economy is manifested by enterprises investing more funds in finance and real estate, thus continuously reducing the input of the real economy, leading to insufficient investment in the real economy and inhibiting the development of the real economy. As China is the only country in

the world with a complete industrial system and a large real economy with manufacturing industries as the mainstay, whether the development of financialization of the economy has a negative impact is the main question that this paper aims to answer and, based on this, to propose relevant policy recommendations.

2. An Empirical Model

2.1 Influence the Explanation of Economic Growth Model

Economic growth in the neoclassical economic growth model is influenced by four factors: technological progress, savings, population growth and investment, of which technological progress, savings and population growth are exogenous factors, while investment is an endogenous growth factor, and its basic economic growth mechanism is expressed as follows.

$$g_t = \frac{dY_t}{Y_t} = \frac{dY_t}{dK_t} \times \frac{dK_t}{Y_t} = \frac{dY_t}{dK_t} \times \frac{I_t}{Y_t} = \frac{dY_t}{dK_t} \times \frac{\theta_t \times S_t}{Y_t} = E_t \times \theta_t \times S_t \quad (1)$$

Where g_t is the economic growth rate for the current year, and Y_t is the economic output (GDP) in the current year, K_t is the stock of capital, and θ_t is the ratio of savings to investment, and E_t is the marginal rate of return to capital (investment efficiency), and s_t is the savings rate.

It is easy to see from equation (1) that the marginal rate of return to capital, the ratio of savings to investment and the savings rate together affect the rate of economic growth. However, this paper argues that the direct impact of financial development on economic growth is more evident in the ratio of savings to investment (θ_t) and the savings rate (s_t). Although financial development can also affect the efficiency of investment (E_t), the efficiency of investment is more determined by capital accumulation and technology level, and finance indirectly affects the efficiency of investment through two channels: capital accumulation and technology level.

The financial system has a significant impact on the savings-to-investment ratio (θ_t) and the savings rate (s_t) can be analyzed through both micro and macro perspectives. At the micro level, financial markets and financial intermediaries emerge to help firms in need of investment to obtain information about funds and reduce the cost of transactions, while also giving groups and individuals holding idle funds a way to profit through capital. From a macro perspective, an important function of the financial system is to facilitate the efficient allocation of economic resources in an uncertain environment and to reduce the risks arising in the course of investment transactions. In the course of the financial system's functioning, economic resources are well allocated to projects with higher returns on capital, a process that undoubtedly increases the ratio of savings to investment, enhances the willingness of economic individuals to invest as a whole, and makes the economic system full of liquidity.

The efficiency of investment in the real sector of the economy (E_t) growth depends on the economic externality exhibited by the process of capital accumulation and technological upgrading. This externality counteracts the diminishing marginal output and ultimately allows the emergence of economies of scale. This externality arises from the accumulation of knowledge and the increase in the level of technology. The accumulation of knowledge comes from the increase in the level of human resources and the increase in the level of technology comes from the increase in the level of R&D.

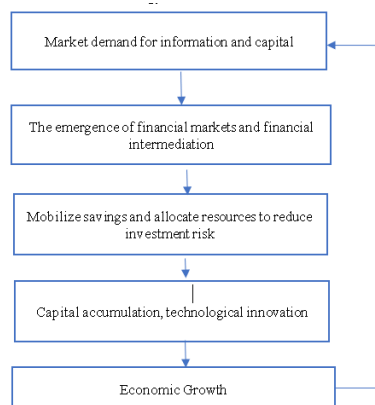


Figure 1: The impact of financial markets on economic growth

2.2 The Model of Correlation between Financial Development and Economic Development

For a model describing the mechanism of correlation between financial development and economic development, refer to Ross Levine (1997) empirical regression equation^[4].

$$G_j = \alpha + \beta_1 F_i + \beta_2 X + \varepsilon \quad (2)$$

Of these, the F_i denotes financial development indicators, which include relevant factors such as commercial bank size, stock market size, private credit size and financial depth. X are factors affecting growth other than financial indicators, collectively referred to as the set of relevant variables, including disposable income per capita, national education level, fiscal policy, monetary policy, import and export trade, and political environment. G_j denotes the j th development indicator, including GDP growth rate, GDP per capita growth rate, capital per capita growth rate, etc. ε is the random disturbance term.

Financial development indicators mainly include Financial Interrelations Ratio (FIR), monetization rate (financial depth), stock market development index, bond market development index, and financial asset price index, etc. In the model considered in this paper, three factors are introduced: financial correlation ratio, monetization rate and financial asset price index.

2.3 An Extended Model Proposed in This Paper

Based on the above analysis and the Ross Levine (1997) empirical regression equation, the regression model in this paper is established as follows.

$$\lg Y = \alpha + \beta_1 \frac{R\&D}{I} + \beta_2 u + \beta_3 \frac{S}{GDP} + \beta_4 \frac{I_1}{I} + \varepsilon \quad (3)$$

Where R&D is the total research expenditure for the year. $\frac{R\&D}{I}$ This data reflects the ratio of intangible capital to total investment, which reflects the progress of the region's technological level and directly affects the efficiency of investment (E_t). u is the regional unemployment rate, which directly affects the savings rate of the population and the rate of economic development, and is an important indicator of economic and social performance. $\frac{S}{GDP}$ is the ratio of incremental regional financing to regional GDP, which reflects the level of financing in the region and reflects the degree of financial development of the region from the side. $\frac{I_1}{I}$ is the ratio of real estate investment to fixed asset investment, with the increasing financial attributes of the real estate industry, so the factor of real estate scale is introduced into the model, and ε is the random disturbance term.

In this paper, this data was analyzed using STATA software based on data from 34 provincial administrative in 2017 years in China, and the results are shown in Table 1.

Table 1: Regression analysis based on 2017-year data

| lgY | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|--|---------|----------|----------------------|---------|-----------|-----------|-----|
| R&D/I | 44.271 | 7.521 | 5.89 | 0 | 28.811 | 59.731 | *** |
| u | -38.184 | 16.867 | -2.26 | .032 | -72.855 | -3.513 | ** |
| S/GDP | -5.381 | .842 | -6.39 | 0 | -7.112 | -3.65 | *** |
| I1/I | -5.146 | 1.732 | -2.97 | .006 | -8.706 | -1.586 | *** |
| Constant | 12.377 | .726 | 17.04 | 0 | 10.884 | 13.87 | *** |
| Mean dependent var | | 9.827 | SD dependent var | | | 0.984 | |
| R-squared | | 0.745 | Number of obs | | | 31 | |
| F-test | | 19.031 | Prob > F | | | 0.000 | |
| Akaike crit. (AIC) | | 53.531 | Bayesian crit. (BIC) | | | 60.701 | |
| *** $p < .01$, ** $p < .05$, * $p < .1$ | | | | | | | |
| Data from China Financial Yearbook (2018), China Statistical Yearbook (2018) | | | | | | | |

Based on the regression analysis, we first examine the effect of $\frac{R\&D}{I}$. Based on this, it is easy to see that intangible investment in science and technology and human resources has a significant enhancement effect on the total economy, which reflects that the most favorable macro policy for economic growth is still to strengthen the investment in science and technology and human resources training, and the long-term economic development still relies on technological progress. The graph shows that the share of intangible capital in most regions of China is still in the growth zone, which shows that continuing to increase the scale of investment in technology and education is still valid for

the time being.

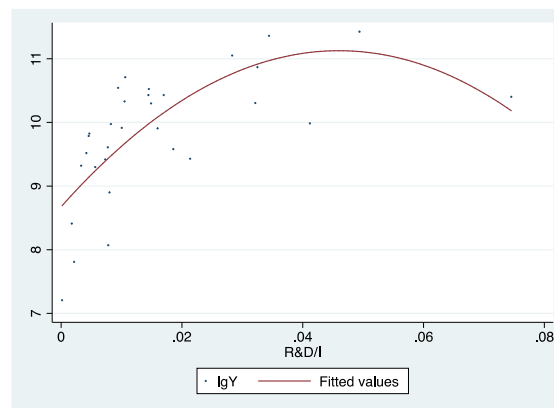


Figure 2: Regression plot of intangible capital share on the logarithm of output

It is worth noting that, based on the results of the regression analysis, we found that the two variables describing the development status of the financial market $\frac{S}{GDP}$ and $\frac{I}{I}$ have a dampening effect on economic aggregates, which shows that the current financial development has started to harm the economic growth. At the macro level, the excessive development of financial markets has begun to inhibit economic growth due to the diminishing marginal utility of factors, which is reflected in the "crowding out effect" of the financial sector on real investment by taking up a large amount of capital and pushing up the prices of production materials. At the micro level, the excessive development of the financial sector has changed the investment behavior of enterprises. Due to the high rate of return of finance and the liquidity required for production and operation, enterprises invest more funds in real estate and finance, thus neglecting investment in industry. For enterprises with excessive economic financial investment, the "crowding out effect" will lead to insufficient investment in industry, but for enterprises with insufficient investment, the high financing cost caused by excessive economic financialization will also inhibit their investment in industry, the phenomenon of economic financialization from two perspectives simultaneously inhibit the development of industry and reduce the efficiency of investment.

3. Policy Recommendations

Financialization of the economy is a "double-edged sword", on the one hand, it can promote the rational flow of economic resources, improve resource utilization and investment efficiency, and promote economic growth. On the other hand, it can also crowd out the resources of the real economy and raise asset prices, which may lead to an "economic bubble". Based on the findings of this paper, the following policy recommendations are proposed for the development of financialization of the economy.

First, we should strengthen the supervision of the capital market and promptly dissolve the blindness of capital operation. Capital is profit-seeking, in the conditions of market economy, the development of the capital market always inevitably deviates from the national and social period, showing a certain blindness. This requires strengthening the supervision of the capital market to make it develop along a healthy track.

Second, monetary policy should be used wisely to continuously enhance the rationality of capital flows. The degree of financialization of the economy is to a large extent related to the flow of money. When there is a large amount of idle funds in the capital market, and these funds can not find a higher rate of return on investment projects, the intrinsic motivation of "money to make money" is born. At present, we should adhere to the structural control-based monetary policy, to strengthen the initiatives related to the release of targeted liquidity, focusing on supporting financing difficulties, financing expensive private enterprises, small and micro enterprises and other weak links in the national economy. At the same time, we should also continue to increase direct financing in the capital market, increase the issuance of bonds and listing of enterprises for financing, and open up more resources for the real economy.

Third, we should vigorously promote industrial upgrading and continuously enhance the real nature of capital flow. The financialization of the economy depends to some extent on the result of comparing

the average profit rate of the real economy with that of the virtual economy. If the average profit rate of certain industries in the real economy is high, capital will flow more to the sectors with higher profit rates. Conversely, capital will be heavily focused on the virtual economy. Therefore, promoting the transformation and upgrading of industrial structure is an important step to effectively solve the excessive development of financialization of the economy.

4. Conclusion

Financialization has harmed China's economy, according to an analysis of China's 2017 data. The financialization of the economy is not simply an economic issue, but contains complex economic, social and human factors. The only way to achieve a strong economy is to pay full attention to the development of the real economy and vigorously develop science and technology innovation to revitalize China's real economy.

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