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Effect and Path of Financial Development of Economic Growth in China

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Abstract:

Since the reform and opening up of capital formation in China, financial development has effected technological innovation, increase the value of the tertiary industry directly, and with capital accumulation and technological innovation path role in industrial growth, structural adjustment and the overall economic growth Long. Where technological innovation is the financial development on economic growth in the core mechanism of many paths. At the same time, the financial system Due to changes in the degree of financial development and economic growth, economic growth and financial development has a direct positive effect. Strengthen financial Institution-building, improve overall financial performance, collaborative development of innovative interactive technology constitute the co-ordination of financial and economic development finance Power point.

Keywords: Financial development, economic growth, path

1. Introduction

Economic growth has provided material source for enhance of national welfare and social progress. The primary issue of economic growth is to analyze the sources and factors of economic actives, measure those effect strength, in order to seek approaches and methods to promote economic growth accelerated. As we all know, production activities can not be separated to form an effective range of factors, such as land, labor and capital inputs. However, in modern economic life, these elements need to be combined with promoting the financial, so it can produce the aggregation function and the formation of a huge growth effect. Therefore, Finance has become the core of modern economy, and the relationship between financial development and economic growth has become one of the central topics of economics. As early as 1873, Walter Baghot have noticed that the relationship between financial development and economic growth, that is, sound financial system Able to invest funds from inefficient investment-oriented high-efficiency, thereby enhancing the overall efficiency of investment. Schumpeter, a famous economist, Think from the perspective of the economic cycle circulation, he treats bank credit as a prerequisite for entrepreneurial innovation. He believes that the development of a country's financial sector have positive effect on country's per capital income levels and growth rates, what is more, a well-functioning financial system will promote long-term economic growth. In the year of 1966, Hugh T. Patrick proposed to research the relationship between financial development and economic growth by demand-following and supply-leading, In his opinion, financial development is not just a requirement to follow, it should produce effects caused supply, improve economic efficiency and promote economic growth by means of prompting its stock of capital ownership composition change and transfer of capital to high production applications. Goldsmith in 1969 have done a groundbreaking research about the relationship between financial development and economic growth, and after that, Numerous studies have discussed different aspects of the topic from theoretical and empirical point of it. In 1973, McKinnon and Shaw proposed theory of financial development, which have been developed by Galbis (1977), Mathieson(1980) and Fry(1982),this theory believe that development of the financial sector to the real economic growth has a positive effect. Endogenous Financial Development Theory, raised in 1990s,have greatly improved depth study of the relationship between financial development and economic growth. Economists establish more realistic theoretical model, Analysis and stressed the important contribution of financial development on economic growth. Lewis, Patrick(1996) and Greenwood(1990) established endogenous financial development model, proved there to be an interactive relationship between financial development and economic growth. In 1991, Bencivenga and Smith's module believe that Even if financial development does not lead to higher savings rates, it still be able to promote economic growth.

However, in the causal relationship between financial development and economic growth, and the views of economists are not entirely consistent. Such as Joan Robinson believes that the development of the financial sector is the product of economic growth, not the cause (Robinson, 1952). Some scholars argue that economists exaggerated the role of finance, have strongly opposed the development of the core of the financial perspective in economic growth. Lucas (Lucas, 1988) believes that "economic development is detrimental financial effect emphasizes the"[1].

Significant impact of the financial and economic life in the modern, attracted many scholars find the path and mechanism coordinated financial and economic development. Stiglitz said: "We often likened to finance` brain ', which on the one hand gathering savings, on the other hand are assigned to the formation of productive forces of good financial system will efficiently allocate resources, and poor financial. The system is inefficient allocation of capital to productive sectors. "The rise and spread within raw financial development theory, the study of the microscopic mechanisms to promote financial development on economic growth[2]. Pagano (Pagano, 1993) through the establishment of a simple endogenous financial development framework, analysts pointed out that the financial system could affect economic growth through investment in the conversion rate of savings, the marginal productivity of capital and private savings rate. Levine (Levine, 1996) further pointed out that the financial sector by facilitating transactions, gathering savings, resource allocation, risk management and oversight of the company five basic functions, with the capital accumulation and technological innovation are two paths to economic growth. In a recent empirical study in, Bekaert, Haevey and Lundblad (2005) found that the liberalization of financial liberalization in the stock market as measured by lowering the cost of capital, improve capital efficiency, leading to five-year period to calculate the average annual growth rate of the economy increased by a percentage points.

Along with economic growth and financial reform since the reform and opening up, China scholars on the relationship between financial development and economic growth have done a lot to explore. However, we note that a causal relationship between the two scholars are mostly concerned about the argument between, and less concerned about how financial development is affecting economic growth. Even if research is mainly based on the theory, logical point of the role of financial development and economic growth mechanism, the lack of rigorous econometric analysis and demonstration (Xionghong Yi, Zhang Xianfeng, 2006; Zhang Rong, Li Ping, 2007), or it is nominally effect of financial development on the path of economic growth to explore, but the analysis is still back to the causal reasoning (Pan Aimin, Wang Wei, 2006). Combined with our financial realities and economic growth data, with strict economic analysis measurement simulation study on the mechanism of financial development and economic growth in specific path is very uncommon. In fact, the analysis of this mechanism of action, not only in theory, contribute to a better understanding of the causal relationship between financial development and economic growth, but also more conducive policy practice, there is a broader sense in reality. Based on this, the author attempts to effect economic growth and development of China's financial mechanism, the path to unify the process of quantitative analysis carried out, on this basis, to provide some empirical evidence has policy implications for financial and economic development collaboration.

2. Experimental Section

2.1. Variable Selection

According to the relevant discussion of financial development theory, financial development by affecting investable resources and improve the allocation of capital, deepening technological innovation, improve economic efficiency and other ways to act on industrial output growth and industrial restructuring, thereby affecting economic development. Consider the availability of data, select the following variables to carry out quantitative analysis.

2.1.1. Financial Development

Financial development is the financial scale expansion, financial structure optimization, financial efficiency, and improve the function of the dynamic process of development finance. Financial Development Index is the basis for building a reasonable measure of the level of financial development is a prerequisite to discuss the relationship between financial development and economic growth and further explore its inner mechanism of action. Goldsmith proposed financial interrelation ratio (FIR) is the first description of the level of financial development of quantitative indicators. McKinnon made by $M2 / GDP$ to measure the extent of a country's financial deepening. With endogenous 1990s the rise of the theory of financial development and dissemination of empirical research by scholars proposed many realistic policy proposals. In empirical research, gold and Levin (King and Levine, 1993) made a seminal contribution. After ten years of development finance numerous research literature has greatly enriched the field of domestic and foreign financial development indicators. Domestic scholars on these indicators combined with China's financial and economic data were discussed, considered two indicators FIR and $M2 / GDP$ does not fully reflect the existence of financial securities and virtualization trends and possible exaggerate China's financial development level and quality of the "virtual quality" ingredients, such as defects, in conjunction with other indicators of the need to carry out a comprehensive analysis. Zhang thin Yang, cattle Chiron (2005) in combing the evolution of the logic of financial development indicators combined with China's financial and economic data to carry out the measurement test after that "the empirical analysis of China's financial development and economic growth, you can select the $M2 / GDP$, PRIVATE and SVT / GDP or FIR, PRIVATE and SVT / GDP in a group at the same time into the regression equation, each group can better represent the development of China's reform and opening up of the financial system." ③

This selection of the first group to carry out empirical analysis. Which, PRIVATE represents financial efficiency, equal to the non-financial private sector (including township enterprises, private enterprises, foreign-funded enterprises) credit and total credit (net of credit available to deposit money banks) ratios. SVT / GDP liquidity indicators for the stock market, stock trading volume is equal to the ratio of the GDP. Because of $M2 / GDP$, PRIVATE and

SVT / GDP for a set of data, not easy to carry out a direct path analysis. We use this set of data and economic growth vector (first, second and third industries actual value of the composition) conducted canonical correlation analysis, in order to build a unified level of China's financial development index as the financial development indicators. ④ 1978-2002 years of data from thin sheets of foreign cattle Chiron (2005), after the data according to the "China Financial Yearbook" (2006) rearranging. Financial Development Index

constructed = $1.2015 \times M2 / GDP - 0.0465 \times PRIVATE - 0.2248 \times SVT / GDP$. This index reflects the development of the financial status of China and also reveals the Chinese financial system overall bank-low capital allocation efficiency of the banking system, poor investment channels of financial markets, the stock market fluctuating characteristics.

2.1.2. Investment Resources

Mobilize sufficient funds for investment is a necessary condition for economic take-off in developing countries. Romer and other famous economist believes that "In any case, despite the accumulation of capital is no longer considered a panacea for poor countries out of the woods, but very clear, only able to maintain a sizable community in GNP when the ratio of investment in order to maintain in the long term it is appropriate strong revenue growth." ⑤ gathered into investment and savings is the basic function of the financial sector. Financial development increases the flow of resources to enhance the private savings rate and reduce the transaction costs of financial investment, so that a higher proportion of savings into investment. To this end, we selected the annual amount of capital formation as an alternative investment resources variables.

2.1.3. Technological Advances

Bagehot put forward in the 1800s, the use of long-term investment and new technologies in UK thanks to its well-developed financial markets. The interaction between financial development and technology is advancing an important force of modern economic development. On the one hand, financial innovation process technology penetration, influence and driving force is growing, financial development itself has constituted the basic conditions necessary for technological innovation and development; on the other hand, technological advances have become an important material and financial development means and rely on space. In this paper, total factor productivity is calculated according to the Solow residual value method as the rate of technological progress.

2.1.4. Economic Efficiency

Econometric analysis using the capital / output ratio as an indicator of economic efficiency. Capital-output ratio (IOCR) by the following equation:

$$IOCR = (dY / Y) / (dK / K) \dots \dots \dots (1)$$

2.1.5. Capital Allocation

Enhanced financial deepening financial market competitiveness, enhance the marginal productivity of capital and improve the overall efficiency of resource allocation, and ultimately increase productivity. The impact of the financial system for the allocation of capital is reflected in two aspects: first, to increase the efficiency of the physical configuration of a given amount of wealth or capital, as financial intermediaries to promote their ownership and composition changes; second, to improve the allocative efficiency of new capital because the financial intermediaries to promote the new capital to productive uses high from low productive uses. Taking into account the trend of international industrial structure evolution, following the selection of the total capital increment in the proportion of tertiary industry as capital allocation efficiency.

2.1.6. Industrial Output and Industrial Structure

Modern economic development is the core capital formation, technological progress as the driving force, upgrade the industrial structure is characterized by a process of industrial development. The nature of financial development is to enhance the finance function, and its interaction with economic growth, the central part of the structure is to optimize the financial and industrial structure optimization. The higher the level of financial development, upgrading of industrial structure faster, and vice versa. Upgrading the industrial structure refers to the secondary industry and tertiary industry output share of GDP increased gradually in the process. In the development of modern industrial structure, the proportion of primary industry gradually declined steadily rising proportion of tertiary industry is the basic trend of industrial development. So, were selected as the proportion of tertiary industry output and its industrial output and industrial structure indicators.

2.1.7. Economic Growth

In development economics, commonly used as a measure of GDP per capita growth performance indicators. In our country, "building a moderately prosperous society" metrics system, per capita GDP is a fundamental and iconic indicators. Therefore, the following econometric analysis also chose this indicator.

2.2. Data Selection and Processing

2.2.1. Data Description

Financial Development data calculated in accordance with the aforementioned method. First, second and third industrial output data from "China Statistical Yearbook" (2006). Industrial output, GDP and GDP per capita in 1978 according to constant prices scaled to remove price changes. Capital Data 1978-1998 total capital and first, second and third industries selected from Wang camp, "Human Capital and Economic Growth --- Theory and Evidence", ⑥ 1999-2005 years of data collation been provided in accordance with the method of its . Thus, it is easy to calculate the total capital increment in the proportion of tertiary industry.

According to Solow residual method, select real gross domestic product (million), the amount of economic activity in employment (10,000), the actual amount of capital (million) and other data, and its logarithmic regression residuals there are a function of post-correlation correction:

$$\ln Y = -3.15 + 0.93 \ln K + 0.45 \ln L + [AR(1) = 1.031495088, AR(2) = -0.5953599866] (\dots \dots \dots 2)$$

$$(-3.05) \quad (16.02) \quad (2.24) \quad (5.58) \quad (-3.1)$$

$$R^2 = 0.997015, \text{adj.} R^2 = 0.996446, F\text{-statistic} = 1753.428, D.W. = 1.984639$$

For (2) the residual unit root test, its ADF test is -5.055776, 1% significance level thresholds under McKinnon is -2.660720. Thus residuals for a smooth level, equation (2) does not exist "spurious regression." Regularization (2) obtained after constant returns to scale production function as follows:

$$Y = AK^{0.67}L^{0.33}(\dots \dots \dots 3)$$

2.2.2. Standardized Data Processing

In order to eliminate the effect of each variable units, all of the original standardized variables, the standardized formula:

$$X = (x - \bar{x}) / S_x (\dots \dots \dots 4)$$

where, x is the respective variable, \bar{x} is the mean of each variable, S_x is a standard difference of each variable. Due to space limitations, there is not a list of the data.

2.3. Empirical and Economic Significance Explained

The relationship between financial and economic phenomenon is very complex, some factors other factors impact on both direct and indirect effects. To this end, we examine the practical application of path analysis Effect on Economic Growth of China's financial development, empirical Chinese financial sector affect the specific path of the real economy. Path analysis Wright (Wright) in 1921 in the first to propose a simple correlation coefficient seeks to break down into many parts, to show the direct effect of a variable on the dependent variable and the effect of other variables on the dependent variable through indirect effects. Decomposition simple correlation coefficient is based on the multiple regression analysis above.

Correlation and regression analysis of a basic assumption is that the dependent variable (the dependent variable) and the correlation between the independent variables (explanatory variables) between variables are only in their mutual independence, can only directly reflect their impact on the dependent variable degree. In fact, natural, economic and social activities, the argument is often influence each other, from the correlation coefficient is difficult to measure the impact of a independent variable on the dependent variable. Path analysis path through the network diagram, not only can the correlation and regression relationship represented visually, but also the correlation coefficient or regression coefficient is decomposed into the direct and indirect effects, etc., that the direct and indirect path coefficients path coefficients. Direct path coefficient represents the independent variable on the dependent variable direct impact, indirect path coefficients indicates that certain arguments because of the role of other arguments by which the degree of influence on the dependent variable. Path coefficient is a vector, and is a dimensionless unit used to measure the effect of the independent variable on the dependent variable standard and compare the extent of the role of each variable on the dependent variable.

3. Conclusion

Methods of application of path analysis and path of the effect of financial development on economic growth, there are several empirical conclusions are as follows:

Firstly, from the perspective of industrial development, the financial sector output directly form part of the national output growth. The financial industry as a modern service industry, both for the development of the tertiary industry, or on the optimization and upgrading of industrial structure have had a direct positive effect.

Secondly, China's financial development on aggregate investable resources, optimize the allocation of capital to support technological innovation have had a direct positive effect, and then make use of these mechanisms to promote economic development through industrial development and structural adjustment. Where technological innovation is linking financial development and economic growth of a core mechanism, and financial development and technological progress have interaction.

To enhance the degree of financial industry, to co-ordinate the financial and economic development of the financial industry is relatively developed economy the most dynamic and most leading role in the industry. From the international finance industry development trends, the financial front office and back-office operations to accelerate the separation of financial back-office operations to industrial development. However, China's financial industry in the industrial structure, the proportion of small, impact and contribution to the national economy is relatively small, the financial industry's value creation capabilities also need to greatly improve.

Financial mechanisms and financial resources to finance the development of a market-oriented mechanism configured, integrated system external mechanisms of macro-financial adjustment mechanism of the government, the management mechanism of financial institutions, financial markets and the operating mechanism of the financial system. Financial comprehensive efficiency and overall performance of external influence the efficiency of the financial system and the financial sector itself, is the status and functioning of financial results. To enhance the overall effectiveness of our financial system, we must further improve the financial system, speed up financial information construction, improve services and intermediary functions of financial institutions; promote market-oriented reform of the financial, the allocation of resources to enhance financial capability; a sound financial regulatory system and guard against financial risks.

A conclusion is the revelation of experience, improve financial mechanisms to enhance overall efficiency of financial need and the transformation of economic development mode, the conversion to co-ordinate economic development path forward. Changes in investment to promote industrialization and thus promote economic development path dependence bring capital allocation imbalance, inefficient pattern, give full play to market allocation of resources in the financial system's function is to use financial leverage to achieve the first, second and third industries coordinated development pattern basic conditions.

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