A Research on Chinese Financial Sustainable Development

Wei Jingqiang^{1,2}, ZhaoYijun³

1 School of Finance, RenMin University of China, Beijing, P.R.China, 100872
2 China Financial Policy Research Centre RenMin University of China, Beijing, P.R.China, 100872
3 Management School University of Liverpool, Liverpool, United Kingdom, L6972X
(E-mail: weijingqiang503@163.com, z_y_jun@hotmail.com)

Abstract This paper uses partial correlation to research the sustainable development of China's finance from the perspective of correlation between the economic growth and financial development. The results show that China's economic growth depends too much on bank-based quota (Deposit, Load, Money supply) and too less on market-based quota (the market value of shares, premium income, and raised capital of shares). In fact, The amthors find that this condition isn't fit for the sustainable development of China's finance and has led to some existing problems of the development of China's finance. The anthors also put forward some strategies for the sustainable development of China's finance.

Key words Sustainable development; China's finance; Economic growth; Partial correlation

1 Introduction

Financial development refers to the expansion of the quantity of financial system and the improvement of the quality of financial system; and the sustainable development of financial system including the sustainable development issue of financial system's entirety, as well as the essential factors of the financial system.

In 1969, Goldsmith selected the financial and economic data of 35 countries during 1860--1963 to study the relation between financial development and economic growth for cross-country comparisons in his influential book financial structure and Development. This is an initiative research in history^[1].

Modern financial development theory is formulated formally since Mckinnon and Shaw advanced the theory of financial repression and financial deepening in 1973^[2].

After the Asian financial crisis in 1997, Chinese scholar Bai Qinxian advanced the theory of the financial sustainable development, and the theoretical research of sustainable development of financial system based on the study of financial resource, revealed the resource character of finance^[3].

Even though some scholars have researched on the sustainable development of financial system, some research only concentrated on the theoretical aspects, and the quantitative study of the financial sustainable development is not sufficient. During the long process of economic development, finance emerged with the economic development, and finance development not only originated from the real economy, but also facilitated the real economy. We believe that when analyzing whether the finance development of a country is sustainable or not, the core of the study should be connected with the correlation between the economic growth and the financial development. On the basis of some existing theoretical research, we take partial correlate analysis of modern econometrics to research the sustainable development of China's financial system from the perspective of correlation between the economic growth and financial development.

2 Data and Methodology

2.1 Data

We choose the typical financial development quota of China: deposit, loan, the market value of shares, premium income, raised capital of shares, money supply between 1992 and 2008. We also choose the typical economic growth quota of China: GDP, see Table 1.

2.2 Method

When we analyze the related factors and linear relation lever of two variables, the results are affected by other variables. Partial correlation is controlling the impact of disturbing variables to research the correlation between target variables.

When we simply analyze the relation between bank-based quota (Deposit, Load, Money supply) and economic growth, the results are always affected by Market-based quota (the market value of shares, premium income, and raised capital of shares). When we simply analyze the relation between market-based quota (the market value of shares, premium income, and raised capital of shares) and

economic growth, the result is also always affected by bank-based quota (Deposit, Load, Money supply). So we can use partial correlation to study the correlation between the economic growth and financial development in two parts:

Table 1 The Financial Development And Economic Growth Quota of China

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Year	Deposit	Load	The market value of shares	Raise d capital of shares	Premium income	Money supply	GDP	
1992	23468	26322.9	1048	94.09	335.1526	25402.2	27565.2	
1993	29627	32943.1	3531	375.47	456.8712	34879.8	36938.1	
1994	40502.5	39976	3691	326.78	376.4154	46923.5	50217.4	
1995	53882.1	50544.1	3474	150.32	453.3179	60750.5	63216.9	
1996	68595.6	51156.6	9842	425.08	538.3333	76094.9	74163.6	
1997	82390.3	74914.1	17529	1293.82	772.7094	90995.3	81658.5	
1998	95697.9	86524.1	19506	841.52	1255.969	104498.5	86531.6	
1999	108778.9	93734.3	26471	944.56	1406	119897.9	91125	
2000	123804.4	99371.07	48091	2103.08	1598	134610.4	98749	
2001	143617.2	112314.7	43522.2	1252.34	2109	158301.9	108972.4	
2002	170917.4	131293.9	38329.13	961.75	3054	185007	120350.3	
2003	208055.6	158996.2	42457.71	1357.75	3880	221222.8	136398.8	
2004	241424.3	178197.8	37056	1510.94	4318	254107	160280.4	
2005	287169.5	194690.4	32430.28	1882.51	4932	298755.7	188692.1	
2006	335459.8	225347.2	89403.89	5594.29	5640.339	345603.6	221651.3	
2007	389371	261690.9	327141	8680.17	7036.21	403442.2	263093.8	
2008	466203	303394.6	121366.4	3852.21	9784.24	475166.6	306859.8	

Source: GTA Research Service Center; Unit: 0.1 Billion Yuan RMB

The first part: Market-based quota (the market value of shares, premium income, and raised capital of shares) used as controlled variables to analyze the correlation between bank-based quota (Deposit, Load, Money supply) and GDP.

The second part: Bank-based quota (Deposit, Load, Money supply) used as controlled variables to analyze the correlation between market-based quota (the market value of shares, premium income, and raised capital of shares) and GDP.

3 Results

In this paper, we use SPSS software to compute the correlation, Significance (2-tailed), df between the quotas of economic growth and the quotas of financial development. Table 2 and Table 3 illustrate the results.

Table 2 The Result Of Partial Correlation Analysis I

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Controlled Variables	Target Variables		Deposit	Load	Money supply
	GDP	Correlation	0.818	0.703	0.778
The market value of shares, Premium income, Raised		Significance	0.000	0.005	0.001
capital of shares		(2-tailed)			
		df	12	12	12

From Table 2, we can see that when the market value of shares, premium income, and raised capital of shares are treated as controlled variables, the correlation between bank-based quota (Deposit, Load, Money supply) and GDP is 0.818,0.703 and 0.778 respectively. Significance (2-tailed) is 0.000, 0.005, 0.001 respectively. The result indicates that the correlation is obvious between bank-based quota (Deposit, Load, Money supply) and GDP.

From Table 3, it is obvious that when bank-based quota (Deposit, Load, Money supply) is controlled variables, the correlation between the market value of shares, premium income, raised capital

of shares and GDP is 0.385,0.357 and -0.358 respectively, Significance (2-tailed) is 0.175, 0.210, 0.209 respectively. We can conclude that the correlation between the market value of shares, premium income, raised capital of shares and GDP is not evident.

Table 3 The Result of Partial Correlation Analysis II

Controlled Variables	Target Variables		The Market Value Of Shares	Raised Capital Of Shares	Premium Income
	GDP	Correlation	0.385	0.357	-0.358
Load, Deposit, Money supply		Significance (2-tailed)	0.175	0.210	0.209
		df	12	12	12

4 Conclusions

4.1 The existing problems with the development of China's finance

From Table 2 and Table 3, we can see that China's economic growth depends too much on bank-based quota (Deposit, Load, Money supply); as a result, this leads to some existing problems of the development of China's finance.

4.1.1 The financial development cannot promote the development of economy in an efficient way

On the one hand, because some of the state-owned banks in China monopolize the banking industry, effective competition in this area can be neglected. As a result, the state-owned banks are lacking some motivations for revolution, and the efficiency is low in the developing process. It is manifested that this situation is unfavorable for the financial sustainable development. On the other hand, some non-state-owned banks and non-banking institutions have lagged behind in their developing process, so it is difficult to satisfy the growing financial demand of non-state-owned economy. At present, non-state-owned departments occupied 74% industrial growth rate, and 63% GDP growth rate. However, among the total financial assets, the non-state-owned departments account for less than 20%, these departments cannot formulate proper financial support to the growth of non-state-owned economy, and the banking effectiveness can be low. If things continue like this way, it is hard to have the sustainable development for the Chinese financial market over a long period of time.

4.1.2 The ability for the China's financial development to handle the risks emerged with economic growth is weak

From table 1, from the comparison of the financial development quotas of China: deposit, loan, the market value of shares, premium income, raised capital of shares, money supply between 1992 and 2008, we can see that the non-banking financial institutions in China is still at the underdeveloped stage, so all the financial risks along with the economic growth almost concentrate on the state-owned banking system. Consequently, the rate of bad account in China is higher than the Western commercial banks. That's why Chinese government frequently injected capital into state-owned banks in order to keep the capital sufficiency.

4.2 The strategies for the sustainable development of China's finance

From the point of the relationship between financial development and economic growth, we provide the way for achieving the finance sustainable development regarding three issues. First of all, finance development should promote the economic growth in quantity; Secondly, finance development should optimize the economic growth efficiency constantly; Finally, the finance risks along with the economy should get effective control, and the stableness of the finance development should improve continually. China's financial development issues mainly emerged at the efficiency of promoting the economic growth and the management of financial risks in the process of the economic growth. Accordingly, the solutions to these issues should also be varied as the suggested points follows:

4.2.1 Enhancing the utility of financial asset in non-banking financial institutions

Within China's financial system, banks are the main financial products suppliers and manufactures. Load composition is the main manifestation of financial products. As the kinds of financial production are single, and the existing risk-profit equilibrium system results in the lower efficiency of the constitution of China's financial system. However, China's non-banking financial institutions (capital market, insurance market etc) development is beneficial to the emergency of more financial products. With the guide of financial theory and the help of high-tech knowledge, we can find the balance between the supply and demand of financial products based on the different needs of people to the deadline of financial assets, profit needs, and the preference of risks according to further separation and

combination of those financial products. China's non-banking financial institutions (capital market, insurance market etc.) development can optimize the working effectiveness of the financial system constitution, and will thus enhance the allocation and manipulation efficiency. As a consequence, devoting major efforts to develop non-banking financial institutions (capital market, insurance market etc) has profound significance in the process of economic growth, especially in high-tech industry. For instance, when the lacking the consensus on the technology and operation management in the process of economic development, non-financial system can help optimize the economic resources allocation and become more effectively, and will make the financial development sustainable.

4.2.2 Giving energetic support to develop non-banking financial institutions, which can reduce financial risks in the process of economic growth

In the bank-based financial system, the risk management mainly depends on the banking represented financial intermediaries. Banks can use their own information advantages and cost advantages to smooth the risks by time spread, but the transaction cost is so expensive for some non-financial banking institutions. With the effects of the integration of global economy, the financial risks increased dramatically, the information exposure widely, and it transmits faster and faster. If the banks continue to undertake the financial risks alone, they will aggravate the banking financial risks, resulting in the financial crisis.

Furthermore, the development of capital market and insurance market can not only smooth the risk by time spread, but also can share the financial risks laterally, and that will make more financial risks undertake personally. From the experience of the developed countries, market-based financial system's ability of controlling risks is better than that of the bank-based financial system.

Because China's market-based financial institutions are at underdeveloped stage, so all the financial risks along with the economic growth mainly concentrate on the state-owned banking system. So if China wants to deepen the revolution of state owned banks, it should have some innovations in strengthening the capital and insurance market, building up a developed capital and insurance market, and constructing a healthy commercial banking system, in order to formulate a modern financial system. With the help of such modern financial system, China can achieve the goal of the sustainable development of finance and economy.

How can China design a modern financial system and stimulate innovation in its financial sustainable development? It should be a good direction of research in future.

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