



Research on China's Financial Risk Indicators and Precaution System

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Supported by the Staggered Results of 2009 Years of Hunan Province Soft Science Research Projects "China Financial Risk Assessment and Risk Early Warning Research".

Received 27 April 2014; accepted 30 June 2014

Abstract

Financial stability is one of the most important conditions ensuring national economy of a continuous, fast, and healthy development. Based on the international research efforts, this paper is intended to build precaution index system from macroscopic and microcosmic aspects, which focus on the handling of financial risks before and afterwards. This serves as another contribution to the study on financial stability.

Key words: Financial crisis; Early warning system; Index system

Kuang, Y., & Zhan, H. W. (2014). Research on China's Financial Risk Indicators and Precaution System. *International Business and Management*, 9(1), 149-152. Available from: <http://www.cscanada.net/index.php/ibm/article/view/5292>
DOI: <http://dx.doi.org/10.3968/5292>

INTRODUCTION

With the development of the globalization of the world economy, the development of the Chinese economy and the world economy are increasingly linked, in such a background, the China share in economic globalization and financial deepening bring great interests, but also will inevitably face from foreign financial tsunami hit. To guard against financial crises, ensure that China's financial security, establish a adapt to China's economic and financial

development early warning mechanism, in order to form or expand in crisis before it to take effective control, so as to avoid crisis or mitigate the crisis broke out on the national economy of China of the adverse impact of economic development, financial security and social stability has a very important realistic and practical significance.

1. REVIEW ON THE EARLY WARNING THEORY AND THE INDEX SYSTEM OF FINANCIAL RISK

The research on financial risk began in Mexico, Argentina and other Latin American countries. In the age of 1970s-1980s, these countries have erupted in monetary crisis. and the financial crisis occurrence frequency climbed since the 1990s, the crisis not only to local economic and social development caused serious harm, but also to the global financial market and the development of the world economy, this bad situation has caused the academic attention on the causes of the financial crisis, infections and warning index system, and other aspects of the wide attention and in-depth research. On the financial crisis warning index system for research, foreign research mainly from the following several aspects of: First, through to the cause of the crisis and its change for qualitative factors discussed to determine early-warning index system; Second, through the "group" and "control group" comparison method to determine which measures help to predict the probability of a crisis; Thirdly, applied econometrics model, the model to estimate in the future or a few period of the probability of the crisis. In the above three kinds of study, based on the objectivity of the factors such as consideration, the third type of academia and research of the mainstream consensus, which more representative of several research results were Kaminsky, and Goldstein Abiad, the results for representative. All in all, after a long period of time

the development, foreign academia in the financial crisis warning system development had done a lot of theory and model. Relative to character, because the domestic financial risk early warning the later start, as the current research status is concerned, although have a some empirical research achievements, but most of the work as stay on foreign financial crisis warning on the introduction of the theories and models, from the whole financial system to consider China's overall financial risk system the research results of the does not appeared.

2. THE SPECIFIC CONSTRUCTION OF FINANCIAL RISK EARLY WARNING INDEX SYSTEM

Predict the risk of financial crises, must through the selection of some representative index, by using the quantitative analysis method, accurately as possible, scientific use of financial risk early warning model measure include each aspect, and comparison and analysis of the different areas of the changes of the financial risk.

2.1 The Financial Stability of the Warning Index Selection Principle

Absorbs the domestic and foreign research results in the foundation, on the financial risk early warning index system design should follow the following principles:

Firstly, systematic, financial risk early warning is a complex system of contact each other by numerous subsystems namely constitution components. But the system is not simple addition each subsystem, the optimal each subsystem that may not be able to achieve integral optimal, but to make each subsystem to integrate science to ensure system "integral of the best".

Secondly, orientation, choice of each specific statistical evaluation index to comply with the requirements of the warning of the risks of improve the financial, belongs to the

category of the financial risk, can be in a certain degree of financial risk reflected on connotation and the characteristic, to improve the financial risk early warning goal is a clear orientation, to the improvement of the modern financial system has positive guidance and function.

Thirdly, maneuverability, the choice of each index data have reliable source, the calculation method of index to science, facilitate the computer to carry on the data processing. But often some important factors is difficult to be directly quantitative statistical data integrity or lack. So in the study design early-warning index system should be in order to reflect the key factors of the index, as far as possible the flexible methods for obtaining index data.

2.2 The Index System Selection Process of Early Warning Financial Risk

Establish a financial safety warning index system for one purpose, it is to make supervision department comprehensive as possible, completely, specific about the safety of the financial district of the influence factors, so as to have targeted and take effective measures. Influence of financial stability numerous factors, and various factors of the relative importance of and the interaction for the development level of a nation also, openness, economic size, economic structure and the influencing factors of different vary widely. Financial risk from countries all over the world experience, with the risk of China's financial industry the truth, China regional financial safety warning index system can be roughly from the macro and micro prudent index of leading indicators will be built two levels. So, China's financial crisis warning evaluation index system is established process can summarize for: decomposition to describe China financial crisis warning evaluation index system always goals-establish corresponding standards-creating pass class time structure--build primary index collection-screening index-setting up the index system (the following Figure 1).

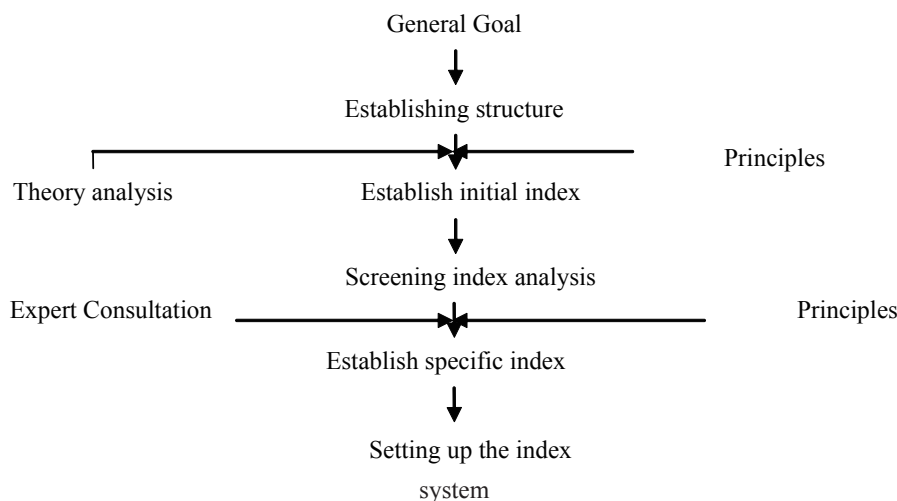


Figure 1
The Basic Construction Process of Financial Crisis Warning Evaluation Index System

2.3 The Establishment of the Financial Risk Warning Index System

Through the above analysis, we clear the financial risk pre-warning system concrete structure and elements, according to the domestic and foreign experts and scholars on financial risk characteristics description, use frequency statistics method and theory analysis, the choice in the financial risk early-warning system used in high frequency, and financial risk the connotation and features of the related index, constitute a primary index collection.

Considering the recognition as financial risk root and financial risk early warning of the foundation of the theory of paper, and combining the current financial risk data and statistics for the particularity of the possibility, we from the macroeconomic, financial system, bubble risk and

the global economy from four aspects such as selection index established 18 Chinese financial risk monitoring index system, as the warning system alternative index. Through the above analysis, we in the primary index set based on making the simple adjustment, final financial risk pre-warning system index system, the index system of four subsystems, total 18 a specific measure indicators. Among them, the macro economic indicators mainly reflects the macroeconomic environment stability; The financial system index mainly includes monitoring bank crisis and currency crisis indicators reflect the financial market stability; Bubble risk index, asset prices changes in risk; While the global economic index is the main consideration major foreign economic entity changes on the domestic influence. (The following table 1 shows Specific warning index system).

Table 1
China's Financial Risk Early Warning Index System

Type	Index name	Type	Index name
Index of macro economic	GDP growth index	Index of financial system	Domestic credit/GDP
	The inflation rate foreign net assets/GDP		Foreign net assets/GDP
	Value added of industry growth speed		M2 multiplier (M2 / M1)
	Export rate		Loans/Deposit
Bubble risk index	The share price index rate (the Shanghai index)	Savings deposit/M2	Interest rates
	Real estate investment growth rate	M2 / Foreign exchange reserves	
	Construction loans/bank loans	Foreign exchange reserves growth rate	
The index of global Economic	International crude oil prices state	Foreign direct investment/GDP	
	The United States economic growth rate		

Note. GDP refers to GDP, CPI refers to the consumer price index, M1 refers to the broad money, and M2 refers to narrow currency.

2.4 The Understanding of Macro-Economic Indicators

Firstly, Track definition: Macro-economic indicators mainly reflects the macroeconomic environment stability, in the index system mainly by the following “GDP growth”, “Value added of industry growth speed”, “inflation” and “export rate” and so on several specific indicators. Firstly, “GDP growth” and “value added of industry growth speed”, “GDP growth” and “value added of industry growth speed” is mainly used in the measure of a national economy the rate of economic growth, in a sense, the economic development too quickly possible overheating situation, and development is slow could mean the economy into recession stage; Secondly, “inflation”, “the inflation rate” is usually measured in macro-economic stability of the important sign, can measure the macro-economic control for the financial system produce negative influence; Thirdly, “export rate”, “export rate” is the measure of a country foreign trade stability index, a lot of financial crisis are accompanied with the sharp decline in exports. Financial crisis spread theory suggests that one country foreign trade is often the main financial crisis spread channel.

Secondly, financial system index meaning: The financial system index mainly includes monitoring bank crisis and currency crisis indicators reflect the financial market stability, mainly by “domestic credit/GDP”, “Foreign net assets/GDP”, “The actual interest rate”, “Foreign direct investment/GDP”, “M2/GDP”, “M2

multiplier”, “Loan/deposit” and “savings deposit/M2” and so on several specific indicators.

The “domestic credit/GDP” measure a country’s credit expansion, excessive credit expansion on one hand the circulation of currency excessive, cause inflation pressure, on the other hand the fast growth in lending caused the Banks’ bad loans probability increase; The “M2/GDP” called the money supply and inflation. The large increase in the money supply, not only can cause inflation pressure, but also will lead to low efficiency of monetary policy. The index of the high proportion of May is the sign of the financial deepening, also may be the financial risk warning signs of growth; The “foreign net assets/GDP” to reflect on its foreign net assets of the influence of the financial market; The “the actual interest rate” is eliminating price increases factors of after interest rates. The index can reflect the capital supply and demand situation of a country and capital inflows appeal. High real interest rates show that one country will be or is under attack speculation. It also often used as a measure of financial institutions robustness; the “foreign direct investment/GDP”, index to measuring a country’s economic dependence on foreign capital. High ratio of foreign capital means that the country depends on too high if foreign capital into the slow down will be the country’s economic growth to pose a serious blow; The “M2 multiplier”, money multiplier improve means the base currency is currency derivatives amplifier, economic

bubble more; The "loan/deposit", high or the loan growth than may indicate the savings-bank system more fragile, not enough liquid assets to cope with the impact of foreign appear; Eighth, "savings deposit/M2" mainly reflect the bank risk probability change, that family and enterprise for the trust bank system, if the ratio is low, show the degree of trust is low; Ninth, "China's foreign exchange reserves growth" and "M2/foreign exchange reserve" central bank reserves enough to measure the degree of index.

Thirdly, Bubble risk and global economic part index meaning:

The accumulation of financial risks and release will through the stock market and housing markets reflected, outstanding performance for abnormal fluctuations in asset prices, if the asset prices tumbled, will lead to financial assets shrink, financial asset bubble burst, form a lot of financial institution non-performing assets, worsening economy, cause financial crisis. Bubble risk index, consider the risk of changes in asset prices, in the main index system by "stock index rate (the Shanghai index)", "the real estate investment growth", "construction loans/bank loans" and several other indicators, and the global economic index is the main consideration major foreign economic entity changes on the domestic influence, the main "international crude oil prices rate" and "the economy growth" in the two indicators.

CONCLUSION

In order to design better index to reflect China's financial security situation, this paper, from the Angle of different influence factors of financial security, the paper builds open financial security warning index system. The study conclusions promoted the Chinese financial security warning development scientific and standard process and the financial security of early warning that will provide premise condition and necessary preparations, but also as a China in different periods financial security

situation from review basis, to make China's financial industry executives can more reasonable using Chinese domestic limited resources to carry on the financial crisis prevention, maintain financial stability. However, this study is limited to the warning system alternative index of choice, the choice for index further without making further exploration, and in the next research, we should through such as such as the construction of mathematical model Logit, Granger test was used to determine if the various subsystems in warning index, the index of the crisis of the early warning for that role, and use the final selection index by factor analysis method can reflect the synthesis of China's financial crisis levels of specific risk index, and planning the corresponding risk level, according to China's financial risk overall depict fluctuations, and according to the historical experience of China's economic development, and the characteristics of different development stages reference, determine the index value and constructs the alarming China's financial risk early warning signal system, early warning signal output system shows the financial risk state and describe the operation condition of financial hot and cold.

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