

**The Assessment and Supervision of China's Systemically
Important Insurers**

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Abstract

On July 19, 2013, the International Association of Insurance Supervisors (IAIS) announced the first list of Global Systemically Important Insurers (G-SII). There are nine insurance groups on the list. Ping An Group, a China's insurance company, is the only insurer coming from the Asian-Pacific region.

The entrance of Ping An demonstrates that with the rapid development of China's insurance market, some China's insurance companies are playing an important role in the global insurance industry. Moreover, it also reminds domestic regulators that in order to promote the steady development of insurance industry and maintain financial stability, assessment method of China's Systemically Important Insurers should be established.

This paper consists of five parts. The first part is the introduction, which contains the background and significance of this paper. The second part is the literature review introducing the relevant research of domestic and foreign scholars. The third part is establishing the assessment method of China's SIIs. The establishment refers to the method of IAIS and some adjustments are made according to the actual situation as well as the availability of data. The fourth part is the empirical research. Basing on the assessment method established in the third part, this paper calculates the systemically important index of nine China's insurance groups (People's Insurance Company of China, China Life Insurance Company, Ping An Group, China Reinsurance Group, Sunshine Insurance Group, China Taiping Insurance Group, China Pacific Insurance Group, Anbang Insurance Group and Huatai Insurance Group) in 2013. According to the index, this paper will sequence these insurance groups and make some analysis. The last part is supervision proposals of China's Systemically Important Insurers. In accordance with the empirical results and the supervision policy of IAIS, this paper comes up with some supervision proposals for China's Systemically Important Insurers.

Key words: China's SIIs; Aggregative Indicator Method; Supervision Proposals

1.Introduction

1.1Background

In the financial crisis of 2008, the bankrupt of some large financial institutes such as American International Group brought severe impact to the global economy. These so-called “too big to fall” financial institutes play important roles in the whole financial system since they have large scale, complex business, and have close relevance with other financial institutes. In peacetime, they are stabilizers of the whole financial system. However, once some of these financial institutes face up to trouble or bankrupt, risk will transfer to other financial institutes through various channels. So how to solve the problem of these “too big to fall” institutes has become an important content of the international financial supervision reform.

On May 31, 2012, the International Association of Insurance Supervisors (IAIS) published the document “Global Systemically Important Insurers: Proposed Assessment Methodology”. On July 18, 2013, IAIS issued two documents “Global Systemically Important Insurers: Initial Assessment Methodology” and “Global Systemically Important Insurers: Policy Measure”. On July 19, 2013, the Financial Stability Board (FSB) announced the first list of Global Systemically Important Insurers (G-SII). There are nine insurance groups on the list. Ping An Group, a China’s insurance company, is the only insurer coming from the Asian-Pacific region.

The entrance of Ping An demonstrates that with the rapid development of China’s insurance market, some China’s insurance companies are playing an important role in the global insurance industry. Moreover, it also reminds domestic regulators that in order to promote the steady development of insurance industry and maintain financial stability, assessment method of China’s Systemically Important Insurers should be established.

1.2 Purpose

This paper is on the purpose of establishing an assessment method conforming to China’s insurance industry and coming up with some supervisory suggestions basing on the empirical results.

The assessment method can help to identify China’s systemically important insurers and implement classified supervision, which is beneficial to guarantee the steady development of the whole industry.

1.3 Importance

In theory, this paper lays a foundation for further research on assessment and supervision of the China’s Systemically Important Insurers and it enriches the theory of China’s Systemically Important Financial Institutes. And this research is also of practical significance. It is useful to maintain the steady development of the domestic insurance market and helpful for insurers to avoid risk.

Moreover, as an important part of the world insurance market, China’s insurance industry is influencing the global insurance market. To what extent, the research has international significance.

2.Literature Review

Since the problem “too big to fall” has appeared and the concept of Systemically Important Financial Institutes (SIFIs) is came up with, the regulators and scholars make many researches on SIFIs in many respects such as identification method, supervision measures, impact and so on.

This part will summarize domestic and international research results about the identification method.

2.1 The Assessment Method of SIFIs

There are two main research method used to study the Systemically Important Financial Institutes, the Index Method and the Market Method respectively. The Index Method indicates that the international financial regulators set several indexes according to the understanding of the core features of the systemically important financial institutes. The principle of the Market Method is focusing on the risk management from different perspectives.

2.1.1 The Index Method

The index method is based on the accumulated experience of monetary authorities and international financial regulators. The financial regulators set several indexes to define the range of the SIFIs in view of the comprehension of the core features of SIFIs.

In October 2009, three international financial regulators International Monetary Fund (IMF), Financial Stability Board (FSB) and Bank for International Settlements (BIS) came up with the identification criterion and assessment method of SIFIs. There are three kinds of main indexes to assess systemically importance: size, substitutability and interconnectedness. Later, the index “global activity” is added up into the main indexes.

In July 2011, the Financial Stability Board (FSB) and the Basel Committee on Banking Supervision came up with aggregative indicator system to identify Global Systematically Important Banks. This system includes five main indexes: size, cross-jurisdictional activity, interconnectedness, substitutability and complexity.

Table 2-1 The Assessment Methodology of Global Systematically Important Banks

Category (and weighting)	Individual Indicator	Indicator Weighting
Cross-jurisdictional activity (20%)	Cross-jurisdictional claims	10%
	Cross-jurisdictional liabilities	10%
Size (20%)	Total exposures as defined for use in the Basel III leverage ratio	20%
Interconnectedness (20%)	Intra-financial system assets	6.67%
	Intra-financial system liabilities	6.67%
	Wholesale funding ratio	6.67%
Substitutability (20%)	Assets under custody	6.67%
	Payments cleared and settled through payment systems	6.67%

	Values of underwritten transactions in debt and equity markets	6.67%
Complexity (20%)	OTC derivatives notional value	6.67%
	Level 3 assets	
	Trading book value and Available for Sale value	6.67%

Source: Basel Committee on Banking Supervision “Global systemically important banks: Assessment methodology and the additional loss absorbency requirement”

In China, Zhang and Wu (2011) uses entropy evaluation method to determine the weight of indicators impacting the systematically important banks. They find out that size, complexity, substitutability and interconnectedness are the main indicators. The weights of complexity and interconnectedness are 22.7% and 64.1% respectively. The most important indicator of complexity is financial derivative assets and liabilities, and the most important indicator of interconnectedness is trading financial assets and liabilities.

Xiao and Liu (2012) use the assessment methodology of Basel Committee on Banking Supervision to assess and sequence systemically importance of 16 China’s listed commercial banks. They are classified into 3 categories: the 5 nationalized banks are in the first category, the joint-stock commercial banks are in the second category and the city commercial banks are in the third category.

Ba and Gao (2012) come up with the assessment methodology of systemically important banks, which suits the development of China’s banks. They use the methodology to assess 16 China’s banks to find out that the systemically importance of the 4 nationalized banks (Bank of China, the Agricultural Bank of China, the Industrial and Commercial Bank of China, and the China Construction Bank) is much higher than the other commercial banks.

The Index Method can get the list of the Systematically Important Financial Institutes easily since the data used by the Index Method is derived from different times and the data is in the same criterion.

2.1.2 The Market Method

The Market Method is based on the model of risk management of the financial market. It assesses the Systemically important financial institutes in the respect of one’s risk extent to the whole financial system. The Market Method has several analytical perspectives since there are many indicators to assess the systematic risk. The Market Method includes Extreme Value Theory, CDS Spread and CoVaR.

(1) Extreme Value Theory

The Extreme Value Theory uses the data of extreme value to set up the model. At first, the EVT is used to evaluate the VaR, then Zhou (2010) uses the EVT to estimate the systematically importance. Its basic idea is that two financial institutes have the same systematically importance while the contribution to systematic risk may be different. That is to say it is not reliable if only estimating the indicator of systematically importance simply. Thus we should use the EVT to measure the one’s contribution to the whole systematic risk. Gravelle, T&F. Li (2010) use the EVT to make a research on Canada’s banks.

Segoviano and Goodhart (2009) come up with the probability of at least one other failure (PAO) when one bank closes down. Zhou (2010) comes up with Systemic Impact Index (SII) basing on the probability of at least one other failure (PAO). It uses the expect quantity of failed banks to measure the failed bank's impact to the system when one bank closes down. At the same time, he also comes up with the Vulnerability Index (VI) to calculate the probability of one specific bank's crisis when at least one bank closes down in the bank system. Zhou (2010) compares the three indexes through the empirical research. He thinks that the PAO and VI have the same validity when sequencing the systematically important institutes. And SII can calculate the value of impact on the whole financial system when one bank closes down. Thus SII is more effective than the other two indexes.

(2) CDS Spread

The main idea of CDS is using the spread to indicate the systematic risk. Huang and Zhu (2009) use the CDS Spread to estimate and sequence the systematically importance of American financial institutes. They choose the top-ranked financial institutes on the list as the systematically important financial institutes. In 2011, they use the CDS Spread to estimate the systematically importance of 19 American commercial banks. Yang and Zhou (2009) use this method to sequence the American and British financial institutes during the time from January of 2007 to September of 2008 (the eve of financial crisis). They find out that there is connected relationship between systematically important financial institutes and credit risk.

(2) CoVaR

Adrian and Brunnermerier (2009) come up with the concept of CoVaR firstly, and they use it to measure the overflow effect of the single financial institute. They define the CoVaR that it is the VaR of the whole financial system when one financial institute falls into the crisis.

The method of CoVaR can not only identify the relationship of two financial institutes' tail risk but also solve the problem of quantitative correlation between two financial institutes. However, it doesn't estimate the systematic risk of complex financial network since the method of CoVaR is based on the linear model while there is high correlation among modern financial network.

In China, Li and Fan (2011) use the CoVaR and the quantile regression to estimate the systematically risk premium of China's commercial banks. They find out that, firstly it is not probable to defend systematically risk premium since there is no necessary link between Conditional Value at Risk (CVaR) and Value at Risk (VaR) while the supervision policy regards the VaR as the key index. Secondly, the risk premium of joint-stock commercial bank is smaller than the State-owned Commercial Bank. Thirdly, the value is affected by both the character of bank and the financial system together.

3. The Assessment Method of China's SIIs

When it comes to the supervision of the Systematically Important Insurers, the chief problem is assessing and identifying the Systematically Important Insurers. This part will set up the comprehensive index system of China's SII basing on the methodology of IAIS and the development of China's insurance industry.

3.1 The Assessment of Global Systematically Important Insurers

The International Association of Insurance Supervisors formulated the assessment methodology to assess the Global Systematically Important Insurers. The assessment methodology uses index system, which is similar to the assessment methodology of Global Systematically Important Banks.

The assessment methodology of G-SII includes four parts: introduction, assessment method, policy measure and the future development. It elaborates the following contents in detail: the five main indexes and eighteen sub-indexes assessing the systematic risk of the insurers, the assessment process and five terms of supervision policy. The five main indexes of G-SII are size, global activity, interconnectedness, non-traditional insurance and non-insurance activities and substitutability. And the specific indexes and weights are in the table below.

Table 3-1 The Index Assessment Methodology of Global Systematically Important Insurers

	Index	Weight (%)	Sub-index	Weight (%)
1	Size	5	Total assets	2.5
			Total revenues	2.5
2	Global activity	5	Revenues derived outside of home country	2.5
			Number of countries	2.5
3	Interconnectedness	40	Intra-financial assets	5.7
			Intra-financial liabilities	5.7
			Reinsurance	5.7
			Derivatives	5.7
			Large exposures	5.7
			Turnover	5.7
			Level 3 assets	5.7
4	Non-traditional insurance and non-insurance activities	45	Non-policy holder liabilities and non-insurance revenues from financial activities	6.4
			Derivatives trading	6.4
			Short term funding	6.4
			Financial guarantees	6.4
			Minimum guarantee on variable insurance products	6.4
			Intra-group commitments	6.4
			Extent of liquidity of insurance liabilities	6.4
5	Substitutability	5	Premiums for specific business lines	5

In July 19, 2013, the Financial Stability Board (FSB) announced the first group of 9 Global Systematically Important Insurers.

Table 3-2 The First Group of 9 Global Systematically Important Insurers

America	MetLife
	Prudential Financial
	American International Group
Germany	Allianz SE
France	Axa S.A.
Britain	Prudential plc
	Aviva plc
Italy	Assicurazioni Generali S.p.A.
China	Ping An Insurance Group

We can see from the table that the insurers in the first group are all the international top insurers. Among them, the Aviva is the largest insurer in Britain and the Allianz is the largest insurer in Europe. We can also conclude that the insurers in the first group are of no substitutability in the global financial system.

We should pay more attention to the entrance of Ping An. Comparing to other international insurers, Ping An is the only insurance group coming from developing country and emerging market. Ping An's entrance states that the financial reform and development achievements are fully affirmed by the international society and the impact of China's insurance industry is approved in the international insurance market. Meanwhile, the entrance also alerts that there is potential systematic risk when Ping An expand its business recently.

In fact, it is not surprising that Ping An is the only China-invested insurance company. Because since 2009, Ping An's premium income of life insurance has become the second largest in the industry. Instead of China Life which is the largest commercial insurance company in China, Ping An stepped into the first group of G-SII. In the view of the IAIS, the complex business and active investment strategy will bring huge potential systematic risk to the whole financial market.

3.2 The Assessment of China's SII Basing on the Index Method

3.2.1 The Choice of the Index

This paper sets up the index system of China's SII combining the development situation of China's insurance industry and modifying the assessment methodology of G-SIIs. The contents and rationales of indexes and sub-indexes are as follows:

(1) Size

The importance of a single component for the working of the financial system generally increases with the amount of financial services that the component provides. It should be recognized, however, that in an insurance context size is a prerequisite for the effective pooling and diversification of risks. In the index of size, there are two sub-indexes: total assets and total revenues. They will measure the extent and size of insurance service from different angles. The total asset is the straightforward indicator of size, and we can use the data of the total assets on balance sheet. The total revenue indicates the extent or scale of financial services of an insurer from a different angle since looking at only asset size may underestimate activities of non-life insurers. The total revenue includes the sum of insurance gross premium earned, investment

income, realized gains and losses, fees and commissions and other income. We use ASSET and REVENUE to stand for the two sub-indexes respectively.

(2) Global Activity

The index of global activity indicates the foreign earnings and the overseas branches. The methodology is aimed at identifying components of the financial system whose failure can have large negative externalities on a global scale. It includes two sub-indexes: Revenues derived outside of home country and Number of countries. The revenue derived outside of home country indicates the extent of global activity from a revenue perspective. It is the sum of the total revenues recognized from jurisdictions outside the home country. The number of country indicates the extent of global activity from an operational perspective. It is the number of countries where a group operates with branches and/or subsidiaries outside of the home country. Since China's insurance companies are on the period of beginning in the foreign business and the foreign activities are limited. This index has to be deleted when assessing the China's SIIs and the weight of this index will be distributed to other indexes.

(3) Interconnectedness

Systemic risk can arise through direct and indirect inter-linkages between the components of the financial system so that individual failure or distress has repercussions around the financial system, leading to a reduction in the aggregate amount of services. In the assessment methodology of the G-SIIs, there are 7 sub-indexes in the indicator of interconnectedness. They are intra-financial assets, intra-financial liabilities, reinsurance, derivatives, large exposures, turnover, and level 3 assets.

① Intra-financial asset indicates the potential for failure or distress of an insurer to impact the financial system through fire sales of assets. It is the sum of lending to financial institutions and holdings of securities (debt securities, commercial paper, certificates of deposit and equity) issued by other financial institutions. Considering the situation and the availability of data, we use trading financial asset, redemptory monetary capital for sale, fixed time deposit, available-for-sale financial asset, held-to-maturity investment and lending funds in financial statement to calculate the value of this sub-index. And we use the abbreviation "INTRA-SSET" to stand for it.

② Intra-financial liability indicates the degree to which failure or distress of an insurer could impact those with exposures to it. It is the sum of borrowing from financial institutions and issuance of securities (debt securities, commercial paper and certificates of deposit) owned by other financial institutions. Considering the situation and the availability of data, we use short-term borrowing, trading financial liability, financial assets sold for repurchase and borrowing funds to calculate the value of this sub-index. And we use the abbreviation "INTRA-LIABILITY" to stand for it.

③ Reinsurance indicates the degree of interconnectedness with the insurance sector through reinsurance transactions. We can try to use the reinsurance premium in the financial statement to calculate its value. And we use the REINSURANCE to stand for it.

④ Derivative indicates the degree of interconnectedness with the financial system through derivatives transactions. It is the gross notional amounts of derivatives outstanding. We use derivative financial asset in the financial statement to calculate. And we use the DERIVATIVE to stand for it.

⑤ Large exposure indicates the degree of interconnectedness focusing on concentrations in asset exposures to major counterparties. Since the data is not available, this sub-index will be deleted in the assessment of China's SIIs.

⑥ Turnover could point towards insurers that are more active in the capital markets than is normal for a traditional insurance business. We use the operating income in the financial statement to calculate. And we use TURNOVER to stand for this sub-index.

⑦ Level 3 asset indicates the potential scale of fire sales of illiquid assets by an insurer in distressed financial market situations. Since there is no available data of this sub-index in the financial statement, this sub-index will be deleted.

(4) Non-traditional and non-insurance activities

Non-traditional and non-insurance activities are potential drivers of the systemic importance of insurers and thus have the greatest impact upon failure. It includes non-policy holder liabilities and non-insurance revenues from financial activities, derivatives trading, short term funding, financial guarantees, minimum guarantee on variable insurance products, intra-group commitments, extent of liquidity of insurance liabilities and premiums for specific business lines.

① Non-policy holder liabilities and non-insurance revenues from financial activities indicate the extent to which an insurer conducts NTNI activities using both balance sheet and revenue figures. It is total on balance sheet liabilities minus policyholder liabilities. We use the difference of total liability and policyholder liability to calculate. And we use the abbreviation NPNI to stand for this sub-index.

② Derivatives trading indicates the scale of CDS protection sold which links an insurer with other parts of the financial system. It is the gross notional amount of CDS protection sold. Since the business of CDS is in the period of beginning, the data is limited. This sub-index will be deleted.

③ Short term funding indicates the extent to which an insurer could be involved in maturity transformation. A large degree of short-term funding is a feature of financial institutions involved in maturity transformation. We use short-term borrowing to calculate. And we use FUNDING to stand for this sub-index.

④ Financial guarantees links an insurer with other parts of the market and is correlated with the economic cycle. Since the data cannot be found in the financial statement, this sub-index will be deleted.

⑤ Minimum guarantee on variable insurance products indicate that variable insurance products (including variable annuities and unit linked products with capital protection) most often include some type of guaranteed levels of payment to policyholders: attempting to pay guaranteed amounts could accelerate asset sales by an insurer and exacerbate already distressed market conditions. Since data cannot be found in the financial statement, this sub-index will be deleted.

⑥ Intra-group commitments indicate that a large amount of intra-group support given to the non-traditional/ non-insurance entities of the group may indicate significant NTNI activities and/ or lack of self-sufficiency of NTNI activities. Since the data cannot be got, this sub-index will be deleted.

⑦ Extent of liquidity of insurance liabilities indicate the potential for an “insurance run” to occur because the liabilities are more exposed to being “on demand” than traditional insurance liabilities. We select current liabilities to calculate this sub-index, and we use LIABILITY to stand for it.

(5) Substitutability

The systemic importance of a single component increases in cases where it is difficult for the components of the system to provide the same of similar services in the event of failure. We select the earned premium to calculate it and use the FEE to stand for it.

3.2.3 The Establishment of the Model

Basing on the analysis in the last part, we can establish the assessment model of China’s SIIs.

Since the index of Global Activity is deleted, there are four main indexes in the assessment model.

As discussed in Insurance and Financial Stability, the two most important categories for assessing the systemic importance of insurers are the NTNI category and the interconnectedness category. Non-traditional and non-insurance activities are important because the longer timeframe over which insurance liabilities can normally be managed may not be present, and interconnectedness is important because there can be strong connections between the insurance banking sectors. Therefore, these indicators receive higher weights. The weighting for the non-traditional insurance and non-insurance category is 45%, and the weighting for the interconnectedness category is 40%. And the sub-indexes will divide the total weight of the main index equally.

Consequently, the size and substitutability categories are given lower weights. This is consistent with the risk diversification benefits that can accrue with greater size of traditional insurance activities and the usual speed with which loss of insurance capacity is replaced by new entrants into the market. The two indicators have the weight of 5% respectively and equal weight is given to each sub-indexes.

Thus, we establish the assessment model below.

Table 3-3 The Assessment Methodology of China’s SIIs

	Main Index	Weight	Sub-index	Weight
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1	Size	5%	Total asset (ASSET)	2.5%
			Total revenue (REVENUE)	2.5%
2	Interconnectedness	45%	Intra-financial asset (INTRA-ASSET)	9%
			Intra-financial liability (INTRA-LIABILITY)	9%
			Reinsurance (REINSURANCE)	9%
			Derivative (DERIVATIVE)	9%
			Turnover (TURNOVER)	9%
3	Non-traditional insurance and non-insurance activities	45%	Non-policy holder liabilities and non-insurance revenues from financial activities (NPNI)	15%
			Short term funding (FUNDING)	15%
			Extent of liquidity of insurance liabilities (LIABILITY)	15%
4	Substitutability	5%	The earned premium (FEE)	5%

The score can be figured out through the following equation.

$$\begin{aligned}
SCORE_{it} = & 2.5\% \times \frac{ASSET_{it}}{\sum_{i=1}^9 ASSET_{it}} + 2.5\% \times \frac{REVENUE_{it}}{\sum_{i=1}^9 REVENUE_{it}} + 9\% \times \frac{INTRA-ASSET_{it}}{\sum_{i=1}^9 INTRA-ASSET_{it}} + \\
& 9\% \times \frac{INTRA-LIABILITY_{it}}{\sum_{i=1}^9 INTRA-LIABILITY_{it}} + 9\% \times \frac{REINSURANCE_{it}}{\sum_{i=1}^9 REINSURANCE_{it}} + 9\% \times \frac{DERIVATIVE_{it}}{\sum_{i=1}^9 DERIVATIVE_{it}} + \\
& 9\% \times \frac{TURNOVER_{it}}{\sum_{i=1}^9 TURNOVER_{it}} + 15\% \times \frac{NPNI_{it}}{\sum_{i=1}^9 NPNI_{it}} + 15\% \times \frac{FUNDING_{it}}{\sum_{i=1}^9 FUNDING_{it}} + 15\% \times \frac{LIABILITY_{it}}{\sum_{i=1}^9 LIABILITY_{it}} + \\
& 5\% \times \frac{FEE_{it}}{\sum_{i=1}^9 FEE_{it}}
\end{aligned}$$

In the equation, $SCORE_{it}$ represents the important index of the insurer “i” at the “t” time. Value of each denominator is the sum of sub-indexes from the nine insurance groups.

3.2.3 The Result of the Assessment of China’s SIIs

We select 9 large insurance groups (People’s Insurance Company of China, China Life Insurance Company, Ping An Group, China Reinsurance Group, Sunshine Insurance Group, China Taiping Insurance Group, China Pacific Insurance Group, Anbang Insurance Group and Huatai Insurance Group) in China as the research objects. Since data of some insurers in 2014 has not announced, we use the data of 2013.

Table 3-4 The Systematically Importance of China’s Insurers

	Insurer	Size	Interconnectedness	NTNI	Substitutability	Score
1	Ping An	0.0166	0.1976	0.3639	0.0101	0.5882
2	China Life	0.0158	0.0987	0.0507	0.016	0.1812

3	People's Insurance	0.0072	0.0689	0.0142	0.0112	0.1015
4	China Pacific	0.0054	0.0405	0.0134	0.0067	0.066
5	Taiping Insurance	0.0018	0.0277	0.0044	0.0026	0.0365
6	Anbang Insurance	0.0008	0.0026	0.0004	0.0003	0.0041
7	Huatai Insurance	0.0003	0.0026	0.0006	0.0003	0.0038
8	China Reinsurance	0.0015	0.0114	0.0023	0.0028	0.018
9	Sunshine Insurance	0.0006	0.00007	0.0001	0.00001	0.00078

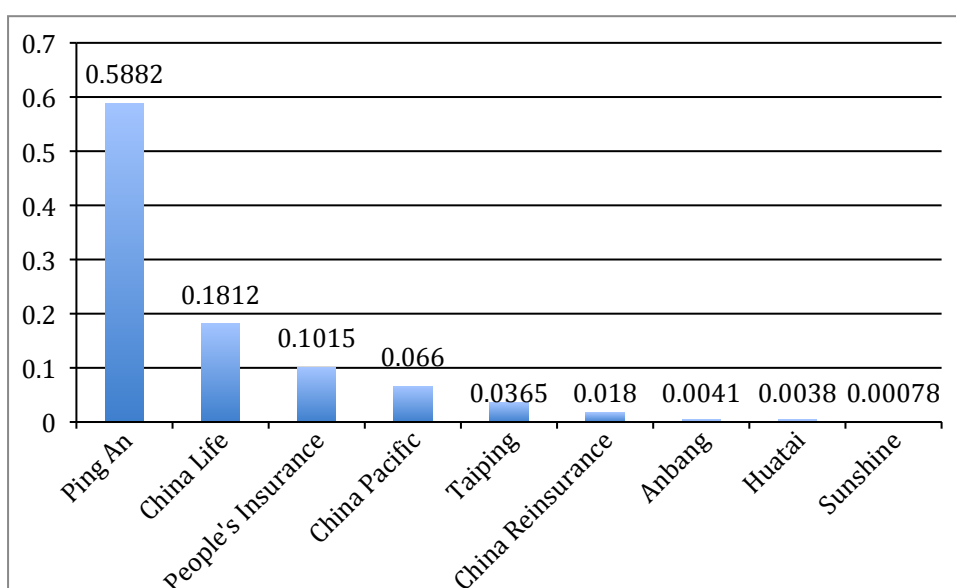


Chart 3-1 Ranking of Systematically Importance of China's Insurance Groups

We can see from the result that the score of Ping An is much higher than the other insurance groups. This is why Ping An rather than other insurance groups appears on the list of the Global Systematically Important Insurers.

In comparison of the score of every single index, Ping An ranks first in three indexes (size, interconnectedness and NTNI). China Life and People's Insurance are the second and the third respectively.

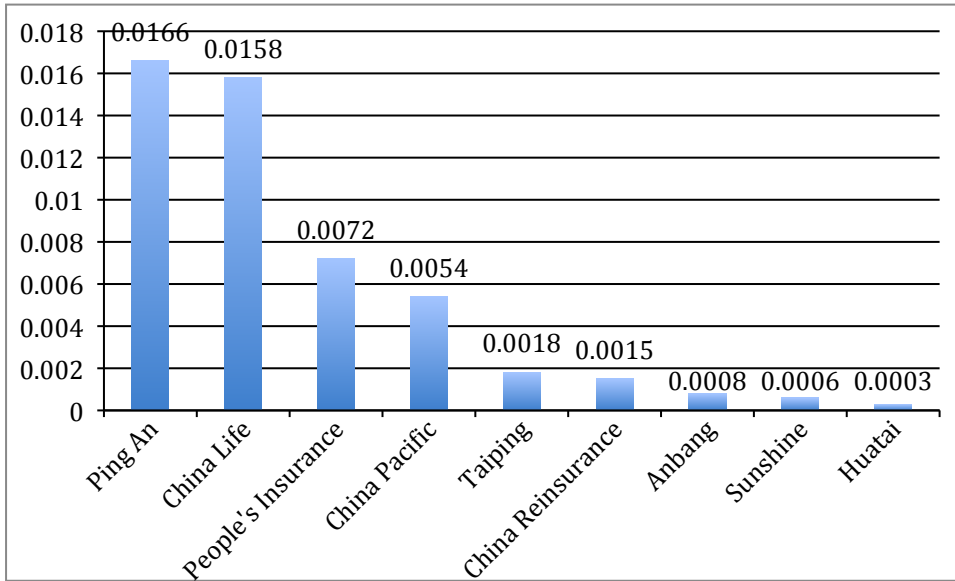


Chart 3-2 Comparison of Size of Insurance Groups

Ping An has complex business not limited to traditional insurance, and it has business contact with other financial institutes frequently. So the scores of interconnectedness and NTNI are much higher than the second and the third insurers.

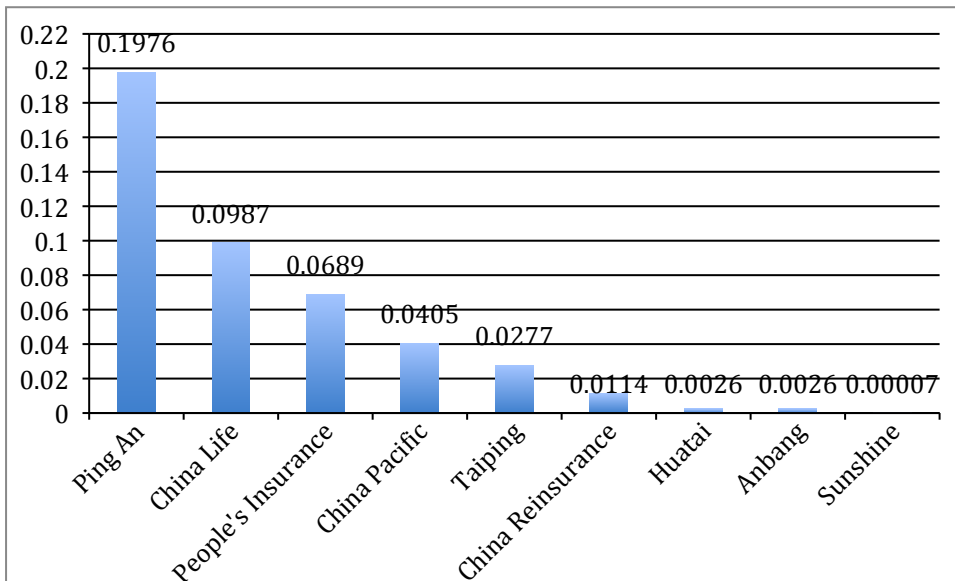


Chart 3-3 Comparison of Interconnectedness of Insurance Groups

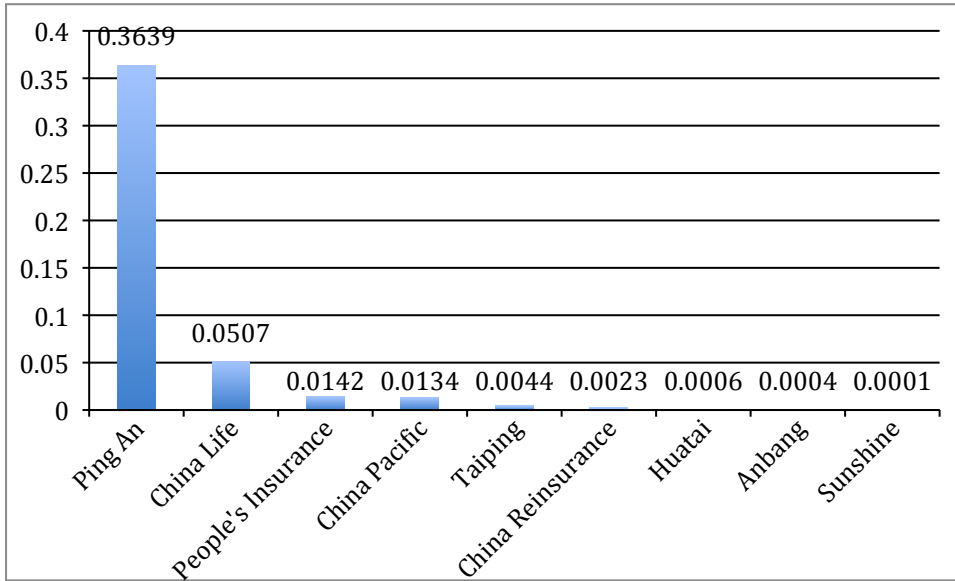


Chart 3-4 Comparison of NTNI of Insurance Groups

As for the index of substitutability, China Life ranks first since it is the largest life insurance company in China.

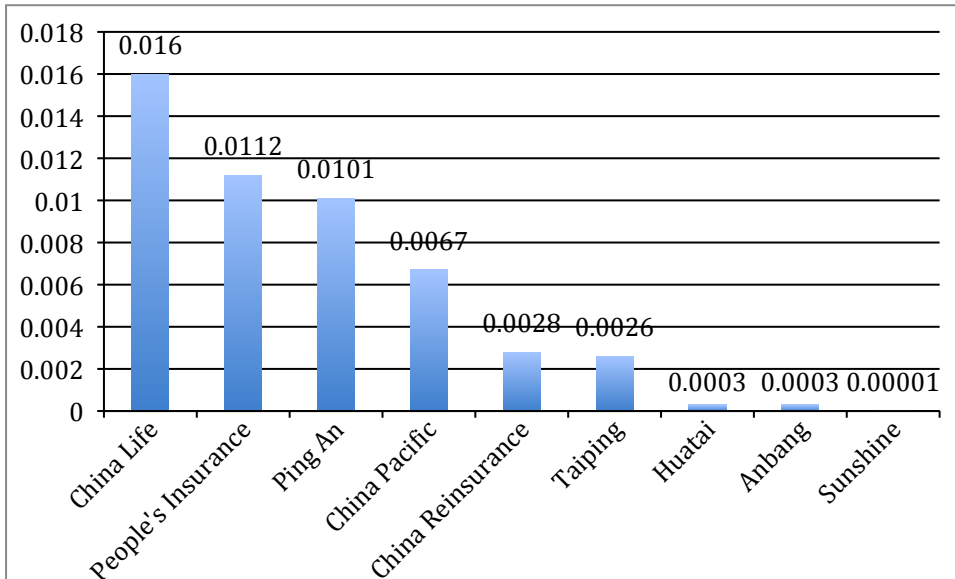


Chart 3-5 Comparison of Substitutability of China's Insurance Groups

4. Policy Proposals of China's SIIs' Assessment and Supervision

4.1 The Assessment Methodology of China's Systematically Important Insurers

The first question of supervision of the G-SIIs is assessing and identifying the Systematically Important Insurers. The accuracy of the assessment methodology will exert huge influence on the effect of the supervision policy. Higher or lower assessment of systematic importance will exert adverse impact. So it is crucial to identify the Systematically Important Insurers accurately. We should take part in the supervision reform of international insurance industry actively and refer to the assessment method and policy measures of G-SII to set up the assessment method of China's SIIs.

First, we should establish the assessment method of national systematically important insurers in accordance with the situation of China's insurance industry. The assessment method should combine the Index Method of G-SIIs with the Market Method. Although both domestic and international researches of Systematically Important Insurers are less, we can also refer to the researches about the assessment of Systematically Important Financial Institutes and Systematically Important Banks.

Second, data is the key when assessing the systematically important insurers and the lack of data is the main problem at the moment. The number of listed insurance companies is limited. There is not enough open data to use. We should set up a database to follow and update the assessment result of systematically important insurers.

Third, we should realize the deviation and serious consequences of assessing the systematically important insurers. Overestimation will increase the cost of the financial system while underestimation will reduce the effectiveness of the supervision. Since the systemic risk varies constantly, we should update the assessment method and assessment data now and again to reduce the negative effect on financial supervision.

Last, we should implement differential supervision basing on the extent of systematic importance of different insurance companies.

4.2 Policy Proposals for Supervision of China's Systematically Important Insurers

4.2.1 The Supervision Measures of International Association of Insurance Supervisors

In order to reduce the moral hazard and negative externality when the systematically important insurers close down, International Association of Insurance Supervisors formulates the supervision policy of Systematically Important Insurers basing on the features of the Systematically Important Insurers.

International Association of Insurance Supervisors advises supervision departments of every country to adopt the following measures:

(1) Strengthening supervision. Basing on the Insurance Core Principles, Key Attributes and the Common Frame, International Association of Insurance Supervisors comes up with measures of strengthening supervision. There are three items: First, the establishment and implement of systemic risk management plan; Second, strengthening liquidity plan and management. We should establishing the

liquidity strategy and policy of risk management aiming at non-traditional and non-insurance activities and the interconnectedness of financial market; Third, to separate the non-traditional and non-insurance activities effectively. On the purpose of reducing the systematically importance, we should separate the non-traditional and non-insurance activities from the traditional insurance business and limit or prohibit some special business.

(2) Disposing effectively. When disposing the Systematically Important Insurers effectively, stockholders and unsecured creditors should bear the losses to protect the profit of policyholders. And we should ensure that the Systematically Important Insurers without possibility of existing in the market to exit in an ordered way. The exit will bring no serious damage to the financial system or losses to the taxpayers.

(3) Improving the ability of absorbing losses. The Global Systematically Important Insurers should have stronger ability of absorbing losses to cope with large risk in global range. In the view of improving insurers' ability of absorbing losses, International Association of Insurance Supervisors focuses on establishing supervision criterion of global solvency. International Association of Insurance Supervisors comes up with two methods: one is capital method and the other is balance sheet method. The capital method sets some proportion of supervision capital as supplementary capital. The balance sheet method adds items inside and outside the balance sheet to calculate the supplementary capital.

4.2.2 Policy Proposals for the Supervision of China's Systematically Important Insurers

With the rapid development of China's insurance industry, China's insurance companies will bring larger and larger impact to international insurance industry. Thus, it is necessary to refer to international supervision measures to strengthen the supervision of China's insurance companies.

First, identifying insurers of systemically importance. Regulators should confirm the list of China's Systematically Important Insurers basing on the situation of China's insurance industry and the four indicators (size, interconnectedness, non-traditional insurance and non-insurance activities and substitutability). If the range of Systematically Important Insurers is too wide, it will reduce the efficiency of financial supervision. However, if the range of Systematically Important Insurers is too narrow, it will threaten the financial stability.

Second, strengthening supervision. China Insurance Regulatory Commission will follow and refer to the reform advice of international financial supervision institutes. Improving the supplementary capital and proportion of common stock to enhance insurers' ability of absorbing losses. As the core indicator, improving the ability of solvency can prevent the excessive market behavior and enhance the potential ability of absorbing losses to avoid the systemic risk. Establishing the strict supervision requirement and criterion in liquidity reserve. We should test the liquidity of non-traditional insurance and non-insurance activities with the systematically importance termly.

Third, Completing the requirement of information disclosure to improve the transparency of insurance market. Large insurance groups should publish the relationship of insurers and financial system, the relationship of departments of insurers and data of systemically importance. Meanwhile, a large insurance company should have the ability of offering information in short time which is an important part in recover from and dealing with the plan.

Last, establishing risk response mechanism of systematically important insurers. Setting the mechanism of burden sharing between creditors and stockholders. The stockholders and unsecured creditors should bear the losses to protect the profits of policyholders and taxpayers reaching the purpose of reducing moral hazard of insurers. Completing liquidation mechanism of systematically important insurers and introducing the bridge institutes. When one insurer faces up to business trouble, the bridge institutes take over the core business to ensure the ordered exit of systematically important insurers which avoids the systemic risk to the whole financial system.

5. Conclusion

With the development of China's insurance industry, China's insurers will step into the ranking of international market. There are more and more insurance companies appearing on the list of Systematically Important Insurers, which is an opportunity and a challenge. Our government should encourage and support China's insurers to join in the Global Systematically Important Insurers. This paper comes up with some supervision proposals for China's Systematically Important Insurers. China Insurance Regulatory Commission should make explicit requirement in strengthening supervision, information disclosure and effective disposal.

This paper tries to identify China's Systematically Important Insurers basing on the Index Method. However, since the lack of some data and limitation of the method, some questions need further discussion. Identifying the Systematically Important Insurers is a permanent job and I will make more researches in this respect to make more achievements.

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