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# Exploring on the risk profile of China Insurance for setting appropriate solvency capital requirement

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**Abstract:** This paper tries to provide a working framework to explore the risk profile and risk assessment of China insurance. It is for the regulatory objective of building a risk-oriented supervision system based on China insurance risk construction and to be consistent to the international development trend of solvency supervision.

**Keywords:** solvency, risk construction, capital requirement

## 1. Introduction

It seems easy to understand the concept of insurer's solvency and its supervision rules. As an insurer's solvency condition is a dynamic concept and the existed systems of solvency supervision are evolving all the time, the assessment and supervision of insurer's solvency condition is not as easy as it looks like. It has always been a central concern for insurance regulators, policyholders, rating agencies, financial analysts, investors, as well as insurers.

The nature of insurance business determines the need of strict regulation on insurer's promises to policyholders for indemnifying their insured losses. The government and insurance regulators are authorized by laws to protect policyholders' interests and are authorized to charge taxes and regulatory fees from premiums paid by policyholders.

It is also the nature of insurance business that the regulator is not able to guarantee every insurer on the market keeping solvent. But it is expected by the public and insurance customers that the number and the size of insolvent insurers would be controlled on a reasonable and acceptable level under a well-built regulatory system which prudentially controls solvency risk.

An insurer is facing various types of risk during its business process, and each risk may damage the insurer's solvency condition to some extent. There are different classifications of insurer's risks according to the purposes of risk identification and assessment.

Regulators have been making efforts in building effective systems to control insurer's solvency risks. For instance with the priority system (*CARMEL*) in The Risk-Focused Surveillance Framework of the NAIC (2004), it tries to control solvency risks through several aspects of *Capital adequacy; Asset management; Reinsurance; Reserves; Management competency; Earnings and Liquidity*. In the Basel II system by the Bank for International Settlements (2003), it is proposed to control financial institution's risk through three pillars: *minimum capital requirement* in Pillar I; *qualitative risk management and supervisory process requirement* in Pillar II and *disclosure requirement* in Pillar III.

Among all the ways in controlling and supervising insurer's solvency risks, capital requirement or capital adequacy for each insurer is a core and basic regulatory tool. The regulator may set a minimum level of required capital for an insurer, and then compare it to the insurer's actual capital and surplus.

This comparison tells the insurer's capital adequacy and then the corresponding regulatory actions may be taken according to the levels of the capital adequacy. This principle could be intuitively and comparatively described by the following example of a speculative currency exchange system in some investment banks.

In such a system, an investor may deposit US\$ 2,000 into an investment bank, then he or she will have the right to buy or to sell up to  $US\$ 2,000 \times 50 = US\$ 100,000$  amount of other currency, using the extended fund provided by this investment bank. To avoid losing money from the customer's buying or selling activities, the bank has to design a "solvency supervising system" to save its fund provided to this customer. This system must have two main functions. First, it will monitor and check the balance of the customer's account in real time; second, it has an early warning and a selling-out signal of balance benchmark. Once the balance of the customer's account is below the benchmark, the bank will immediately sell out the foreign currency in the account to keep the balance above the bank's fund.

Similarly, capital requirement of a solvency supervision model in any legislative is to build such a system that has similar two main functions:

- (1) Assessing and monitoring the balance of an insurer's actual capital and surplus;
- (2) Setting a benchmark or minimum level of capital for early warning and for stopping insurer's business.

To build the first function of assessing an insurer's surplus, it goes both on the valuations of asset and liability sides respectively. The valuations are based on prudential principles/rules usually prescribed by statutory accounting principles for asset values and by actuarial standards for liability values.

To set an appropriate minimum level of capital requirement for an insurer to carry on its business, there has been a generally accepted principle that the calculation of the minimum level should be based on the risks the insurer is assuming.

For an emerging insurance market like China, the appropriateness of the minimum level of capital for insurers will have significant effect on the development of insurance industry. A too high level of required capital will largely increase the capital cost for insurers and will reduce the efficiency of the market, particularly in the period of low investment returns on capital market. On the other hand, a too low level will lose the early warning function of the supervision system to those nearly insolvent insurers and may put their policyholders in dangerous situations.

This study will provide an analysis on the risk construction of insurers on China market, for the purpose of setting appropriate minimum capital requirement. It keeps a comparative prospective on the calculations of actual capital and the risk-based minimum capital, as well as the comparison between the required capital approach and other solvency control approaches to insurers' solvency risk.

## **2. Toward a risk-oriented approach of solvency supervision system for China insurers**

As a full member of International Association of Insurance Supervisors (IAIS), the China Insurance Regulatory Commission (CIRC) has agreed to follow with the IAIS' Insurance Core Principles formally issued on October 2003. In fact, the commissioner of CIRC emphasized the similar principle of insurance supervision and risk control in his speech on the IAIS annual conference held in Jordan on 7 October 2004. CIRC will host the 2006 annual conference of IAIS in Beijing and may further confirm the consistency between Chinese regulatory principles and the IAIS'.

Also in his speech at the 2005 annual conference of China insurance, CIRC commissioner announced the five measures for controlling solvency risks. These include (1) internal control; (2) solvency capital requirement; (3) on site inspection; (4) investment control; and (5) guarantee fund mechanism. CIRC has been making significant progresses on these five aspects since CIRC established in 1998.

### **(1) Internal Control**

In the second year of its foundation, CIRC issued the Internal Control Directive for Insurance Companies (CIRC [No.131, 1999]) which prescribed the main components of internal control system for insurers. Although the directive is mainly based on the Guidance Principles of Internal

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Control for Financial Enterprises issued by the People's Bank of China in 1997, it clearly demonstrates that CIRC has right understanding on insurers' risk control and has made a fundamental preparation to start up. In fact, CIRC is currently to draft the Guidance Principle of Insurance Corporate Governance and to revise the previous version of the internal control directive to be more consistent to risk profile of China insurance, according the commissioner's speech on the 2005 annual conference.

Regarding to insurance corporate governance and risk management, CIRC also issued the Qualification Requirement for Senior Managers of Insurance Companies (CIRC [No.2, 2002]) and further revised it (CIRC [No.2, 2003]) in 23 July 2003.

Comparing to the Internal Control for Insurance Undertakings Paper, issued by the Committee of European Insurance and Occupational Pension Fund Supervisors (Madrid Working Group, 2003), and to the Insurance Core Principle 10: Internal Control by IAIS (2003), CIRC's work may be not so integrated but still significant in considering its history and resources.

## **(2) Solvency capital requirement**

Capital requirements for insurers are divided into two thresholds. The first requirement sets for new insurers to start insurance business on the market. The second is for existing insurers carrying on and expanding their business.

### **A. Capital requirement for new insurers**

China used to set very high capital requirement for insurance business license application. Both the Provisional Insurance Regulation by the People's Bank of China (PBOC) on July 1996 and the Administration Regulation of Insurance Companies by the China Insurance Regulatory Commission (CIRC [No.2, 2000]) required RMB 500 millions for new companies to write business over the whole country or RMB 200 millions to write regional business. Another RMB 50 millions should be added for an extra branch from the fourth branch for whole country company and from the third branch for regional company. This requirement had been a very heavy load for new insurers preparing for their business, particularly for foreign insurers on China market. The main reason is that the basic annual interest rate has been dropping from 10.98% in 1993 to the current 1.98%. The investment return of insurance capital has been also falling down in recent years, 4.3%, 3.14% and 2.68% respectively in years 2001 to 2003.

Considering the low investment return and capital efficiency of insurance companies on China market, CIRC reduced its capital requirement in the revised version of the Administration Regulation of Insurance Companies (CIRC 2004) which requires paid-up capital RMB 200 millions for a business license and RMB 50 millions for an extra branch.

### **B. Capital requirement for existing insurers**

It is not as easy as setting minimum capital requirement for issuing new business licenses. For those existing insurers which have been expanding their business with high growth rate (exceeding the annual growth rate of 30% before 2003) for many years, it has always been a hard and difficult decision for regulator to make.

Short of technical expertise and practical experiences, Chinese insurance regulator had to borrow capital standards from the other regulatory regimes as a starting point for this hard decision.

In Chapter 7 of the Provisional Insurance Regulation (PBOC, 1996), minimum capital requirements were set based on a very much simple version of "asset-liability matching" principle for both life and P & C insurers:

P & C Insurers		Life insurers	
Minimum capital	Net premium (P) in previous year	Minimum capital	Admitted liability value (L)
100m	≤ 200m	100m	≤ 300m
Max{100m, 1/3P}	200m ~ 3,000m	Max{100m, 1/4L}	300m ~ 1,000m
Max{1,000m, 1/4P}	> 3,000m	Max{250m, 1/6L}	1,000m ~ 3,000m
		Max{500m, 1/8L}	> 3,000m

Table: Minimum Capital Requirement in Provisional Insurance Regulation (PBOC, 1996)

In the Administration Regulation of Insurance Companies (CIRC [No.2, 2000]), CIRC simply used the EU solvency directives (the Council Directive 73/239/EEC for P&C insurers and the Council Directive 79/267/EEC for life insurers) for calculating minimum capital requirement. CIRC formally issued the Administration for Solvency Margin and Regulatory Indices (CIRC[No.1, 2003]) on 24 March 2003, which did not update the minimum capital standards as EU did in the Council Directive 2002/13/EC and the Council Directive 2002/127/EC.

Since the implementation of the CIRC[No.1, 2003], insurers on China market have practiced submitting Solvency Report for 3 years and have collected 4 year's successive solvency data of all the companies writing business on the market. It is the high time for regulators and expertise to judge the current standards and to design and develop more practical and sounded models of capital requirement based on the observed consequences of practicing solvency reports. It is also the main concern of this paper.

### (3) On site inspection

As an emerging market, the insurance regulation in China has long been focusing on business conducts of insurers. As a consequence, on site inspection has been playing a major role for insurance supervisors to check if the insurers comply with the established regulations and rules. CIRC has also developed the Manual of On-site Inspection for Life Insurers in 2004, and a similar Manual of On-site Inspection for P&C insurers is coming soon.

### (4) Investment control

Investment risk control for insurance companies has always been a central topic for insurance regulation. During the period of 1980---1995, before the Insurance Law was issued, the insurance business of the People's Insurance Company of China (1980), China Pacific (1986), Ping-an Insurance (1988), AIA Shanghai Branch (1992) and Tokyo Marine Shanghai Branch (1993) was under the Provisional Insurance Administration Rules by the State Council of China issued in 1985. As a temporary insurance regulation, it was short of detailed rules and restrictions on the use of insurance capital. The insurers enjoyed relatively flexibility and freedom for investing on various assets. This also resulted in non-performing assets for those companies.

Since the enactment of the China Insurance Law (1995), investment of insurance capital was suddenly and strictly restricted in bank savings and government bonds. This period was followed by a slow and long process of releasing the investment restrictions in the later years.

On October 1999, CIRC issued "Provisional Administration Rules for Insurance Companies Investing in Security Funds" ( CIRC[1999], No.206 ) which allows a certain percent of insurers' capital invested in security funds. The percentage restriction was further extended in following years.

On February 2004, the State Council of China issued "Several opinions for promoting further opening up, reform and stable development of China capital market". It followed by CIRC and CSRC joint issued the "Provisional Regulations on Administration of Stock Investment of Insurance Institutional Investors" (CIRC [2004, No.12] ) which allows a certain percent of insurers' capital

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invested in stock exchange.

### **(5) Guarantee fund**

When the Financial & Accounting Principles for Insurance was issued by the Ministry of Finance of China (No.8, 1999), it required that each insurance company should set 1% of its net premium for property, casualty and other short term business up to 6% of total asset value as guarantee fund. But the insurance guarantee fund was regarded as long term reserve kept by the insurers until year 2005. On March 12 of 2005, CIRC asked in CIRC[No.26, 2005] that all insurance companies must submit their prepared guarantee funds into the two separate bank accounts for the guarantee funds by life insurers and non-life insurers at the China Industrial & Commercial Bank by the end of year 2005.

It has not been clear about whether CIRC can completely collect the fund from insurers, particularly from large insurers. It must be a hard job.

Obviously, CIRC is working towards the consistency to IAIS' Insurance Core Principles and the three pillar principles of risk management in Basel II. However, the right principles and methodologies can only be effective based on the clear understanding, identifying and assessment of risk construction of insurers and insurance industry of China. It is much harder to explore the risks damaging insurers' solvency than to explore the principles and models used in other regimes.

## **3. Risk construction of Chinese insurers**

### **3.1 Risk concepts**

The concept of risk itself has been so dynamic and uncertain that it provides academics and theorists much space to describe, to define, to debate and then to publish. But the general agreement is that risk is consisted of two components, *loss* and *uncertainty*.

People from different areas may further define what the term of loss means to their purposes. The most popular way is to define *loss* as the deviation between a person's expectation and the actual result.

For the term of *uncertainty*, it seems less controversial in using probability to measure it although the discussion on subjective or objective explanation of probability has been carrying on for centuries among mathematicians.

Hence, we simply agree that risk is consisted of two un-separated components, *loss* and *uncertainty*. If the loss can be identified and quantitatively described by accounting rules or other ways, the risk we are to explore may be described like a random variable and our ideal target is to study for its probability distribution. Since the probability distribution provides complete information that may not be available in practice, what we can usually do is to get some partial but important information such as its mean value, variance and so on about this distribution.

For our purpose of risk studies, we may have to identify all kinds of risks facing an insurer and to investigate co-relations among these risks and the overall risk of the insurer. We also need to study these risks on the industry level and then to investigate the deviations of each index between an individual insurer and the industry.

We will focus our study target on China insurance market, and explore the possible answers to the following questions:

- What are the risks an insurer is facing with?
- What risks are more significant than others in damaging insurer's solvency?
- What kinds of risks can be quantitatively assessed and what are not?

Based on the above investigations, we may further explore the possible answers to the following questions:

- What risks of an insurer should be controlled by setting up capital requirement and what may only be controlled by other ways of risk management?

- How can the co-relation among risk categories be assessed and be used to encourage insurer spread risks?

### **3.2 Identification of methodologies**

On emerging market like China, both practitioners and regulators of insurance are under great pressure in building a business operation and management system and an effective regulatory system. They tend to learn experience and knowledge from insurance developed markets. As a consequence, the applicability and fitness of international best practices to domestic market has always been a controversial issue among all interest related parties. There is hardly any clear conclusion on the issue because the market is so dynamic and the risk is evolving so fast every day. On the other hand, the investigations exploring the risk construction of insurers and China insurance industry are valuable contributions to the market.

Risk study is never an easy work, particular referring to that of China insurance. Before we can reach any inductive conclusions to the above questions, we have to judge our study methodologies and understand what possibly conclusions they could provide, based on our available resources.

#### **(1) Normative studies: international comparisons and case analysis**

The nature of the insurance business determines and constitutes the common structure of risk for insurance. There have been sufficient studies on this topic and have been summarized into textbooks for students and professionals. As an illustration, the risk construction for life and non-life insurers may be intuitively described in Figure-1 and Figure-2.

Figure 1-2 provides a basic structure of insurer's risk construction referring to what risks an insurer is facing. As to the question of what risks are more significant than others, comparative studies between American market, European market and others, along with some case studies, may provide more educative evidences. The following study reports are good examples for this purpose.

- Massey's Report (2001): Insurance Company Failure: the reasons why insurance companies fail.
- Sharma Report (2002): Prudential supervision of insurance undertakings, The Conference of Insurance Supervisory Services of the Member States of the European Union.
- The HIH Royal Commission of Australia (2003): Failure of HIH, Vol. I & II
- Ronnie Baird etc. (2001), Report of the Financial Services Authority on the review of the Regulation of the Equitable Life Assurance Society from 1 January 1999 to 8 December 2000, which Her Majesty's Government is submitting as Evidence to the Inquiry Conducted by Lord Penrose.
- The serial failures of Japanese insurers 1997-2002.
- Risk disclosures for the IPOs of China Life Insurance Company, People's Insurance Company of China (PICC), Ping-an Insurance of China.

It also provides a list of insurer's risks as a starting point for further investigation on risks of insurers on China market.

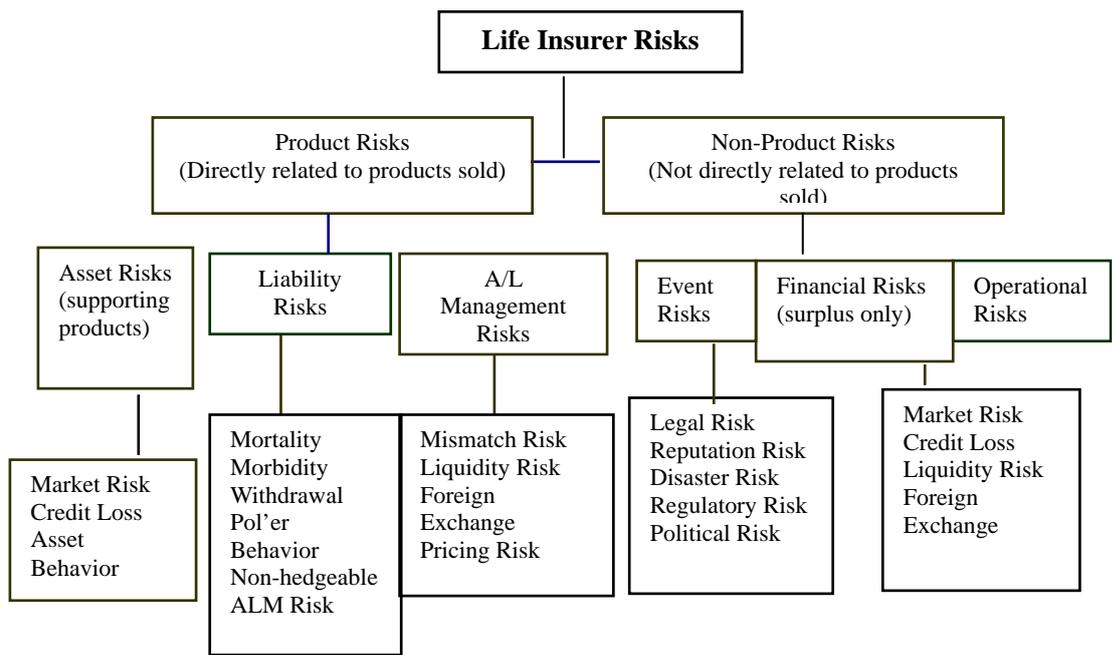


Figure-1: Risk construction of life insurer

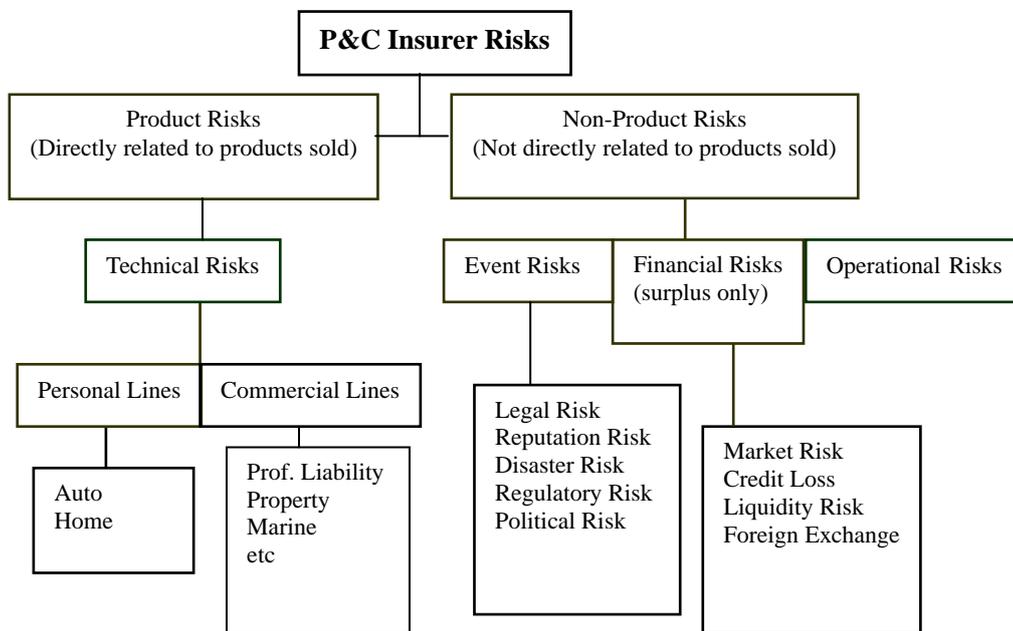


Figure-2: Risk construction of P & C

**(2) Statistical analysis**

Insurers writing business on China market are requested to submit audited financial reports (going concern basis) and audited solvency reports (breaking up basis) to CIRC annually and non-audited report quarterly. These reports provide a substantial database for doing statistical analysis on the risks listed through international comparative studies. From year 2004, CIRC has been trying to do a intensive analysis and to summarize a survey about financial condition and solvency of overall industry and some selected individual companies based on their submitted annual and seasonal reports.

The statistical analysis on financial ratios, along with the international comparisons, may provide good views on quantitative risks of insurers. The auditors' managerial opinions attached with financial and solvency reports also provide suggestive views on qualitative risks of insurers.

**(3) Field study and case analysis on China insurers**

Statistical and financial analysis can definitely provide substantial evidences for identifying risks of insurers on China market. However, financial and solvency reports submitted by insurers are only summarized data that may not be sufficient to identify and assess some specific risks of insurers. For example of high receivable premium risk, it has long been heard that this is a serious issue for P & C insurers in China. However, it looks not so serious a issue according to financial reports. For the top three P & C insurers (simply named as Company A, Company B and Company C), the reported rates of receivable premium in years 2002 and 2003 are as follows:

Company	Rate of receivable premium (%)	
	2002	2003
A	3.93	4.07
B	1.11	1.77
C	6.55	6.16

Table : Receivable premium of the 3 large P&C companies (CIRC Statistics 2004)

The number looks pretty low if compared to same index of some small companies on the market. For instance of a typical foreign branch of P&C insurance company on China market, the receivable premium rates were 19% and 26% respectively in years 2002 and 2003. The three big companies have more than 90% of the market share. The very low rates of receivable premium may contain a big risk if the figures from their solvency reports are with big foams.

To further investigate the issue, field study and case analysis on some major business lines and in some branches of these companies are necessary. Study groups consisting of supervisors, insurance practitioners and academics have been organized by CIRC for various specific study issues. Except for receivable premium, other issues include commission rate, policy renewal rate will be explored in similar way. These studies help to build a clear profile of risks.

**(4) Combined approach**

There are many methods we can choose to identify and assess risks. Individual method may be used for individual and specific risk. But for our final target of setting minimum capital requirement to control solvency risk, individual approach may not be able to capture the dynamic and comprehensive profile of insurers' risks and the assessment. Instead, we have to combine the above methods together for our purpose. Our currently working approach may be simply summarized in four steps:

- Step 1: study on other people's works (international best practices) like those listed examples in (1), and then summarise a list of various risks damaging insurer's solvency.

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- Step 2: compared to China market and based on finance and solvency reports and other available data of insurers, use statistical analysis on some significant risks such as reserving risk and other risk indicators.
  - Step 3: field studies by study group or individuals are carried out for further identifying specific risks selected after step 2.
  - Step 4: parallel to step 3, case studies on individual issues are recommended to our graduate students as summer and winter vacation assignments. Most of them provide good work after spending days in the local insurance branches in their hometowns.

#### **4. Keeping up an overall and historical view on the evolution of risk profile of China insurance**

Considering the dynamic nature of risk, it is necessary to have a clear picture of the evolving process of risks facing insurers. It is actually a vertical and historical view of risk construction of China insurance, and it may greatly enhance the effect in understanding the risks through other horizontal views in the above approaches.

Investigators taking this prospective may build this picture of risk profile with their own views. What important is that the evidences used to support their views should be concrete and substantial. In the following, we divide China insurance into three periods and then highlight the main characteristics in each period, along with possible and necessary supportive evidences. For the length of text, however, we present a brief summary here only.

##### **(1) Period 1: 1980 --- 1995**

China was experimenting the state-owned commercial insurance in this period without a formal issued Insurance Law. The People's Insurance Company of China was a state-owned, writing composite business from 1980 and almost without any market competition, although China Pacific and Ping-an insurance were formed with state owned capital in 1986 and 1988 respectively. The AIA Shanghai Branch and Tokyo Marine Shanghai Branch were introduced as windows to look at foreign insurance in year 1992 and 1993.

The typical problem in this period is the non-performing asset produced by wrong investment strategy and mismanagement. This is parallel to the similar issue of the four big state-owned commercial banks of China. As to the risks involved, it may mean the influence on the operations in later years and later periods. The heavy amount of non-performing assets was separated from China P&C Insurance Company and China Life Insurance Company by the state-owned group companies for the purpose of their IPOs in Hong Kong and New York stock exchange.

For example of China P&C Insurance Company, by its IPO disclosure document, the stock company was separated from the holding company from the valuation date of 30 September 2002. The holding company still retained net asset value of RMB 3,749 million, most of assets were actually non-performing. The stock company was separated with the net value of RMB 10.271 billions of new business related assets. The comparison of these two numbers may, in some sense, tell the ratio of non-performing assets.

##### **(2) Period 2: 1995 --- end of 2003**

The enactment of the Insurance Law (1995) greatly promoted the concept and principles of commercial insurance in China. The gradually opening up of insurance market and particularly the WTO agreement signed on November 1999 steered up the fast growing of insurance business. The average annual growth rate during this period is over 30%.

Comparing to growth of asset size, the growth of capital to support the assets was relatively slow. According to a report by Standard & Poor published in 2003, China insurance was short of capital of RMB 15 to 20 billions for life insurance and RMB 5 to 10 billions for P&C insurance by end of year 2002.

Under the Insurance Law (1995) and CIRC's Administration Regulation of Insurance Companies (2002), the regulation was relatively very strict. Products pricing, clauses and application procedures are completely controlled by the regulator. The investment of insurance fund was also strictly restricted mainly on bank deposits and bonds.

Those guaranteed rates were made referring to the basic interest rate that time, but the rates kept dropping since then, as the recorded table shown below:

Adjusted date	05/01/96	08/23/96	10/23/97	07/01/98	12/07/98	06/09/99	02/21/02
rate ( % )	7.47	5.67	5.22	4.77	3.78	2.25	1.98

(Sources: China Annual Statistics, 2004)

Before 1999, most life insurers sold annuity and other life products with fixed interest rate as follows:

Year	1988	1997	1998	1999
Fixed rate for Life products	8.8%	7.5%-- 8.8%	6.5%-- 5%	2.5%

Table: Annual interest rate adjusted (Source: China Finance Annual Statistics 2002)

As a consequence, huge amount of interest gap losses was reported from life insurance industry. According to the speech of the CIRC commissioner at the 2003 Annual conference of China Insurance, the loss was about RMB 50 billions by the end year 2002. This number would be increasing in the following years as the long-term nature of those products sold.

For an individual example of China Life, it disclosed this in the IPO document (Page 179-180) as follows:

*Owners' equity of our predecessor, China Life Insurance (Group) Company, was a deficit of RMB 176,353 million (US\$21,305 million) as of June 30, 2003 and a deficit of RMB 175,463 million (US\$21,197 million) as of December 31, 2002. The net losses incurred by our predecessor were RMB 714 million (US\$86 million) for the six months ended June 30, 2003 and RMB 6,990 million, RMB 3,295 million and RMB 2,250 million (US\$272 million) for 2000, 2001 and 2002, respectively. These losses were attributable to losses incurred by our predecessor on policies retained by CLIC in the restructuring, which has offset the profitability of the policies transferred to us. On a pro forma basis after giving effect to the restructuring, our net profit was RMB 3,128 million (US\$378 million) for the six months ended June 30, 2003 and RMB 4,524 million (US\$547 million) in 2002.*

### (3) Period 3: 2004 --- near future

It seems that China insurance has been entering a hard period by the end of year 2004. The overall picture looks like a very thin sandwich: the insurance is in the middle of two weak sides of underwriting and investment profits. This picture might be influenced by the following elements.

On underwriting side, the deregulation of product pricing and premium rating started from motor insurance from year 2003 (e.g. CIRC[No.87, 2002]) which released the highly controlled premium rating in such a short preparation period (experimented in Guangdong province in 2002). Experience has shown that sudden deregulation of pricing and premium rating would stimulate price competition and add cost to insurers at least in a few years. Another reason contributing to insurers cost is the sudden entry of new insurers in a short period. The following events joint together may compose a typical story referring to the issue.

In July 2004, for instance, CIRC issued 18 new business licenses (8 life, 7 P&C and 3 Health). One direct consequence is that those new insurers were hiring senior managers and technical professionals from other insurers with much higher payments.

November 2004, Pacific-Aetna Life Insurance held a special press conference in Shanghai and criticized and accused *Citiinsurance* of malicious competition. The later was just licensed to prepare

writing life insurance business in China and then had just successfully hired a group of experienced managers and professionals from the Pacific-Aetna Life Insurance Company, including the general manager of marketing, general manager and most technicians of the IT department and others from Pacific-Aetna Life Insurance. This unusual movement seriously damaged the business of Pacific-Aetna Life Insurance.

In China Pacific P & C, a sister company of Pacific-Aetna Life Insurance, the assistant general manager and past general manager of Motor Insurance Department, the general manager of product development, the responsible actuary and other managers left China Pacific P&C Company successively within half year of that period.

Insurance experience shows that if the business keeps stable growing like P & C business in recent years, the added cost may be covered for some time by the advantages of non strict accounting and actuarial standards. If the business growth shows a relatively sudden slow, the cost and loss will significantly show high. For example of life insurance of China, the premium increased only 7.2% percent from year 2003 to year 2004, but the payment and expenses showed significant increases.

	Premium	Payment	Expenses (with P&C)
2003	30,109,911.83	3,646,954.43	3,612,183.63
2004	32,282,490.91	4,369,177.19	4,358,195.90
Increase rate	7.2%	19.8%	20.6%

Table: Between premium and payments (CIRC Statistics 2003-2004, RMB 0000)

On investment side, the suddenly added capital by the IPO and other strategic investors was huge. The three companies financed capital by IPO at Hong Kong and New York was about US\$ 5 billions, for instance. However, the interest rate and investment have been keeping low and the regulation and management on foreign currency capital has not been clearly made. In year 2004, the investment return of China insurance industry has been the worst ever since. Although the industry average rate has not reported so far, the investment return in the first half year 2004 was in the P&C industry 0.02%, China Life 2.7% and Ping-an insurance 3.2%.

It seems that the current return of investment is unbearable by insurers for long.

## **5. Risk characteristics and proposed principles for solvency capital requirement**

### **(1) Main characteristics of risk profile**

Based on the analysis in Section 3 and 4, we conclude a dynamic and evolving risk profile of China insurance. This profile may be described with two main characteristics of the three historical periods and the “three worlds map” of market structure.

#### **A. Three historical periods of risk evolution**

With the classification of the three periods, it helps to look forward the risk of China insurance, with well understanding of its logical links in the past. In the current period, the most significant risks are investment risk for life insurers mainly, underwriting risks caused by premium rating deregulation for non-life insurers mainly, and regulatory risk (even risk) for the whole industry.

#### **B. The “three worlds map”**

The first world companies include the market dominant insurers of China Life Insurance Company on life side and the China P & C Insurance Company on non-life side (China Reinsurance Company and other reinsurance companies are not considered in this report).

The second world companies include two medium size insurers of Ping-an Insurance and China Pacific Insurance groups.

The third world companies consist of other small, new and developing companies.

Simply, China insurance market consists of three companies (worlds): large, medium and small ones. These three groups of companies are currently facing different significance of risk and challenges, which are jointly forming the special characteristic of risk profile of China insurance.

The “three worlds map” of risk profile is also a big challenge for insurance regulator in setting up solvency supervision standards including minimum capital requirement.

a. The first world companies have been released from capital shortage since their IPOs in Hong Kong and New York. Instead, they are facing with the serious challenge of capital return and efficiency. As compensation, both companies have been emphasizing underwriting profit and management quality. Except for investment, they are facing less risk than others.

b. The second world companies are relatively similar to the market dominant companies on the issue of capital return and efficiency, with much less effect on size. Not only on size of market share, they are also in the middle of both the advantages and disadvantages on the issues of corporate governance, internal control and management, business underwriting and capital investment. Jointly considering with investment risk, they are facing least risk than the first and the third world companies.

c. The third world companies are either just entering the market or expanding their market shares taking the opportunity that the first and the second world began to concern business profit and the regulator began to deregulate premium and product clauses. Most new companies are injected with private capital and the owners may be with very successful experience on capital investment but are with little insurance knowledge. Except for historical burden like non-performing asset and interest gap loss, the third world companies have hardly any advantages to compete to the above two worlds companies. They may have to pay more acquisition cost to get business than the other two worlds companies. Overall, they are facing more significant risk than the above two world companies.

The two main characteristics jointly show that China insurance has been entering a high-risk period, both on investment, on underwriting and on corporate governance, as well as on insurance regulation. If the regulator misunderstands the true risk profile of China insurance and makes wrong regulatory decisions, significant risks may be expanded and new risks may be accumulated in a short period.

## **(2) Guiding principles for setting capital requirement**

For purpose of controlling solvency risk and its supervision policies referring to the current and evolving risk profile of China insurance, we may emphasis on the following two points:

(i) Referring to the three pillar principle of risk management and comparing to the risk profile between China insurance and other matured markets, China may need to build a risk management system with the same emphasis on each pillar of risk management, not only depends on capital requirement and not expects to require all three world companies with one set of simple standards.

(ii) Although capital requirement is a core component of solvency risk control system, it is an evolving process consistent to the evolving risk profile of China insurance. It should avoid sudden changes of requirement rules like the change in the Provisional Insurance Regulation (PBOC 1996) and in the Administration Regulation of Insurance Companies (CIRC [No.2, 2000]). It should avoid unpractical expectation for charging insurer with capital requirement on every risk and with one building model.

We suggest the regulator to start from improving the current minimum solvency margin model and to cover more significant quantitative risks step by step. Meanwhile, the regulator may develop risk management guidelines and encourage insurers to build their internal risk management systems to reduce their statutory capital requirement and to increase capital investment freedom.

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