Analysis of Chinese Motor Insurance

Comparative Study of Third Party Liability Insurance systems

Topic: others

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Abstract

This paper provides an introduction to Chinese third party motor liability insurance. The paper appraises the rating criteria and rating factors applied by various insurers to calculate third party motor insurance tariffs, including bonus malus systems. The study also compares the Chinese compulsory auto liability market, and the economic environment in which it operates, with those in United States and Japan, where the regulatory supervision on the insurance industry appears to be stricter.

Key words: Motor Insurance Third Party Liability Insurance Statutory Automobile Liability Insurance Bonus Malus System Primary Tariff

1. Introduction

Third party motor insurance has become a compulsory coverage in China starting from July 1, 2006. The affordability of third party motor insurance coverage for all groups of people is likely to have a significant influence on social stability and economic development. Moreover, the state imposition of an obligation to insure also implies a special responsibility of the state to ensure satisfactory capacity and availability of coverage in the market.

The structure of this paper is as follows:

Part 2 provides context for the later discussion of the motor liability insurance system by displaying relevant metrics for the intensity of motor insurance purchase in China, USA and Japan, and relevant facets of the economic environments in which the motor liability insurance systems operate.

Part 3 is an introduction to third party motor insurance in China, including a discussion of the difference between traditional commercial third party liability insurance and the new compulsory statutory auto liability insurance system (SALI).

Part 4 focuses on the methods applied by the various insurers in establishing their third party motor insurance tariffs, in particular with regard to the application of tariff criteria, including bonus malus systems (BMS).

Part 5 provides a conclusion and final considerations.

2. Motor insurance market context

This chapter contains illustrations and tables comparing basic information about traffic conditions, and relevant economic activity measures, in China, USA and Japan. The data in this chapter is taken mainly from the 2004 statistical yearbooks of the three countries. These comparisons provide some context for the later discussion of the insurance system and rating factors.

2.1 Economic Activity and Traffic

2.1.1 GDP per inhabitant

The per capita GDP of USA is the greatest among these three countries, though only slightly above that of Japan. The aggregate amount of China's GDP ranked 7th in the world in 2004, but its per capita GDP ranked 109th, and is by far lower than the per capita GDP of USA or Japan. See Illustration 2-1.

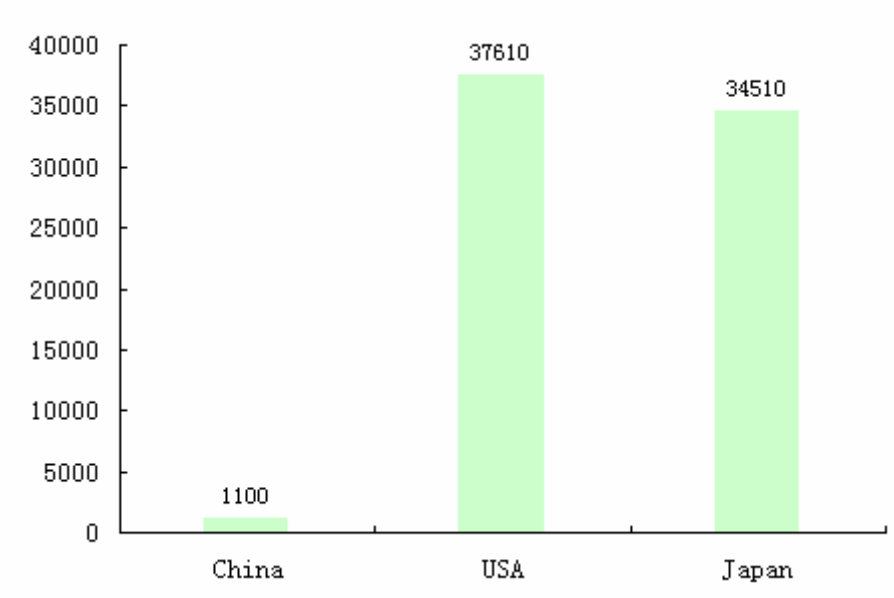


Illustration 2-1: GDP ($) per inhabitant

2.1.2 Number of motor vehicles per inhabitant

The motor vehicle density in relation to the number of inhabitants is clearly correlated with the GDP per inhabitant shown in *Illustration 2-1*. Thus, USA also has the most motor vehicles per inhabitant in these three countries, and China has the least. But, reflecting the sheer size of China's population, the total number of vehicles in China reaches to 104.79 million, which ranks second in these three countries. Clearly, there is a very large potential automobile insurance market in China。

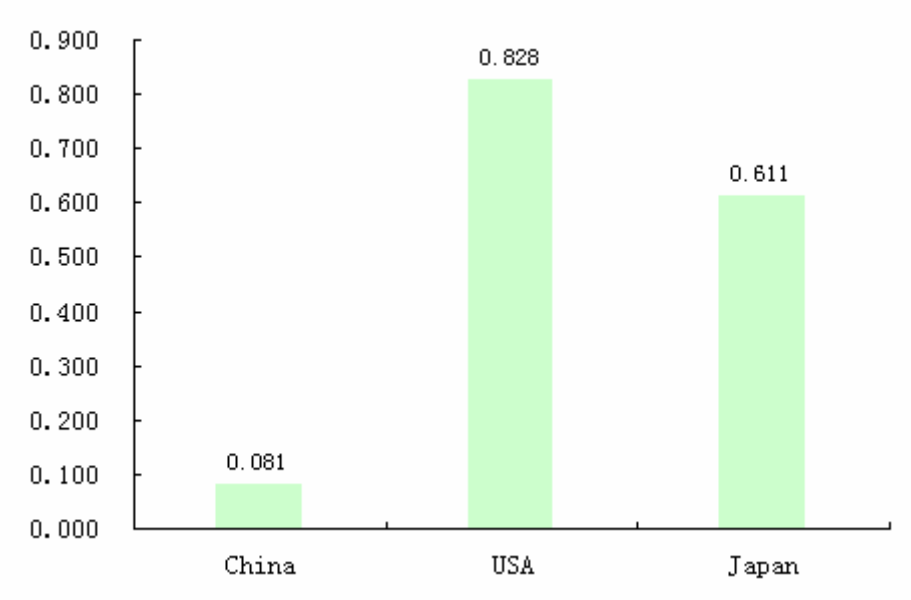


Illustration 2-2: Motor vehicles (number) per inhabitant

2.1.3 GDP per motor vehicle

Illustration 2-3 shows the ratio between GDP and the number of motor vehicles. The per motor vehicle GDP in Japan, which is $59,205, is about one and a quarter times that of USA ($48,010), and four times that of China, which is $15,738.

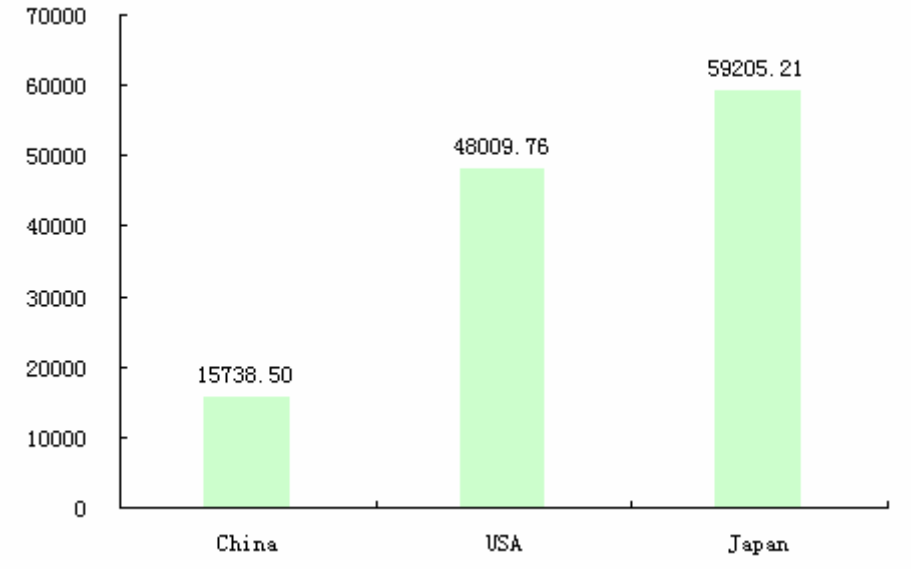


Illustration 2-3: GDP ($) per motor vehicle

2.1.4 Number of motor vehicles per road-km

The motor vehicle density in relation to the length of the road network (road-km) in

China is nearly as great as in Japan. Comparing this result with the number of motor vehicles per inhabitant (Illustration 2-2) in the three countries, we see a clear indication that the road infrastructure in China is not developed thoroughly. . To facilitate economic growth and commerce, and avoid traffic congestion, building more roads will be a significant consideration.

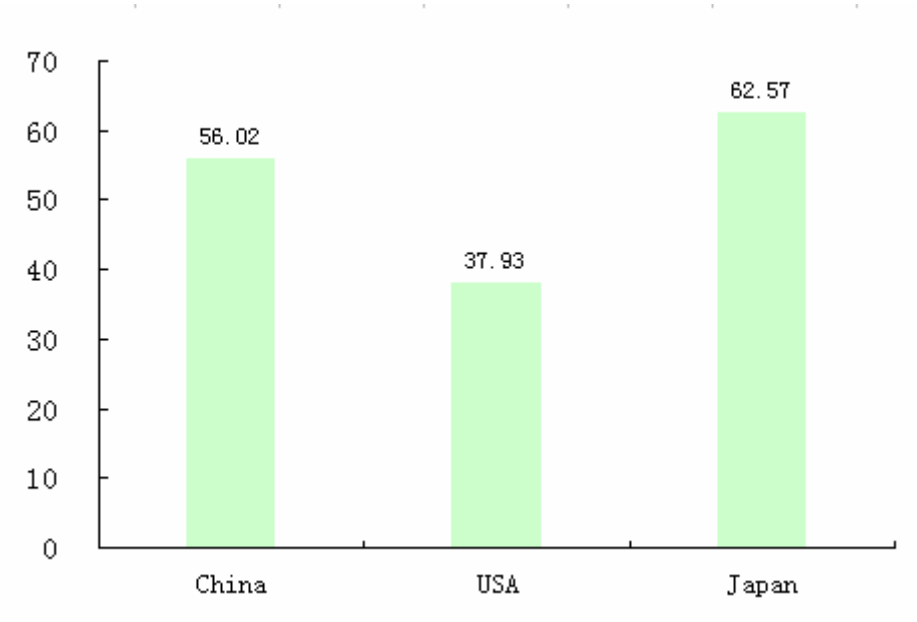
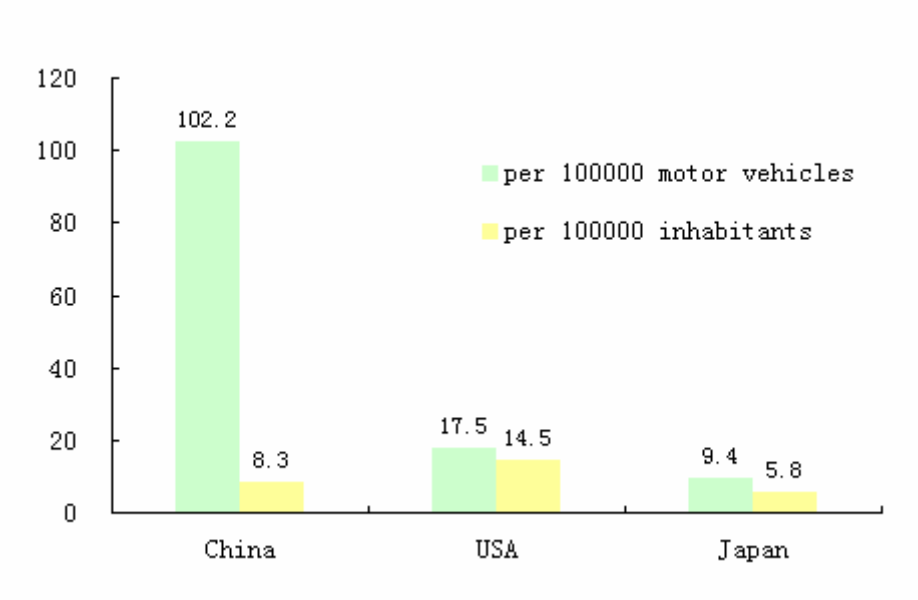


Illustration 2-4: Number of motor vehicles per road-km

2.1.5 Road casualties and injuries in relation to the population and the number of motor vehicles

China's rate of road casualties (deaths) in proportion to the number of motor vehicles, is dramatically higher than in USA or Japan, as shown below. Comparing the above several illustrations we find that the casualty figures are not correlated with the motor vehicle density (motor vehicle per inhabitant or motor vehicle per road-km). China, for example, displays the lowest motor vehicle density (in relation to the population) but the highest number of deaths per motor vehicle. On the other hand, the motor vehicle density (motor vehicle per inhabitant) in USA and Japan is relatively high (cf. Illustration 2-2), whereas the number of deaths per motor vehicle is lower.

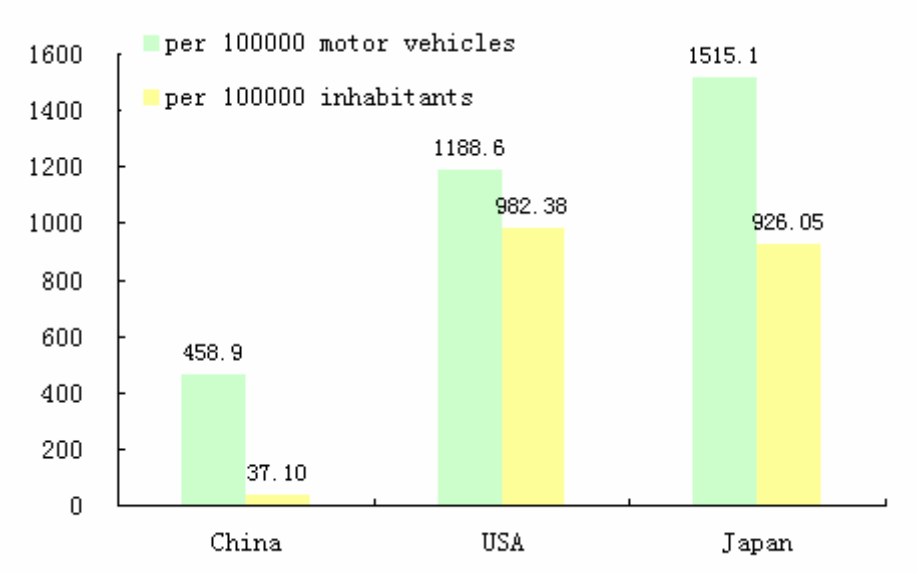
Notwithstanding China's high rate of road deaths per vehicle, China displays a number of deaths per inhabitant similar to Japan, and lower than the USA because of China's large population relative to the number of motor vehicles.



Note: The USA data in this illustration is 2003, and the other two countries' data is 2004.

Illustration 2-5: Road casualties in relation to the population and the number of motor vehicles

In contrast to the fatality statistics, the total number of reported road injuries per motor vehicle in China is significantly below USA or Japan. . This is because of a regulation in China, which prescribes that the first and second parties in an accident can resolve it themselves under certain conditions in order to keep the traffic flowing. Under these circumstances, the accidents will not enter on the records, so the number of reported road injuries in China is much lower than it in the other two countries



Note: The USA data in this illustration is 2003, and the other two countries' data is 2004.

Illustration 2-6: Road injuries in relation to the population and the number of motor

vehicles

2.2 Gross Premium Revenues in the Insurance Industry

2.2.1 Gross Premium Revenue (total motor insurance and Third Party Liability motor insurance) as a percentage of the GDP

The entirety of the premium income generated by the insurance industry in relation to the gross domestic product is also referred to as “insurance penetration”. This quantity reflects the insurance development of a country. We focus here on motor insurance only.

With regard to the total premium of motor insurance as a proportion of GDP, the differences prevailing between the individual countries are lower than they are in relation to the Third Party Liability (TPL) motor insurance premium income. USA’s total value at 1.652% is just about 3 times that of China (0.550%); the spread regarding TPL premium in relation to GDP is greater, with USA displaying a percentage of 1.015%, almost 6 times that of China (0.173%).

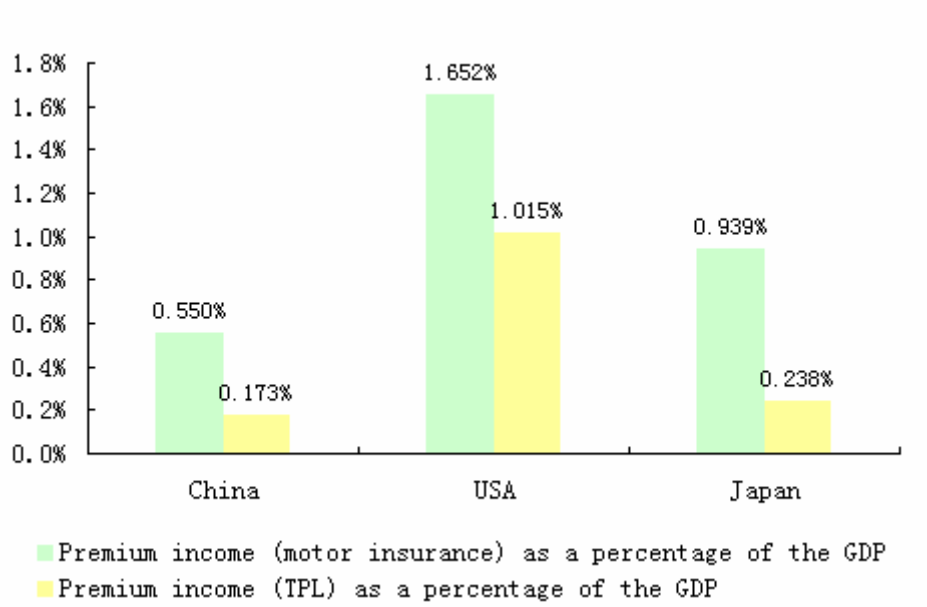


Illustration 2-7: Premium income (motor insurance and TPL) as a percentage of GDP

2.2.2 Premium income (total motor insurance) per motor vehicle and inhabitant

Illustration 2-8 sets out the motor insurance premium, related to the number of motor vehicles and to the population. USA’s values in relation to vehicle and inhabitant are about 9 and 95 times of that of China respectively. While other aspects of the two

environments in the two countries are quite different (for example, the tort liability system in the USA), the disparity does suggest the potential for significant future growth in the China motor insurance market.

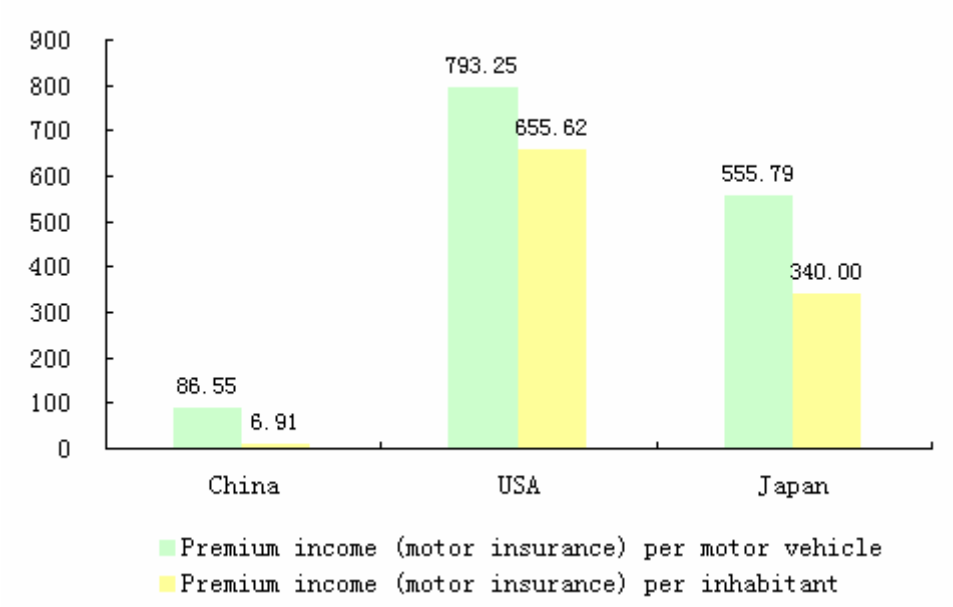


Illustration 2-8: Premium income (motor insurance) in $ per motor vehicle and $ per inhabitant

2.2.3 Premium income (Third Party Liability motor insurance) per motor vehicle and inhabitant

The histogram of TPL premium income per motor vehicle and inhabitant is similar in pattern to that of the motor insurance, but the differences among the countries are even larger. USA's TPL premiums in relation to the numbers of vehicles and inhabitants are about 18 and 185 times, respectively, that of China.

Because of the difference in purchasing power of money and exchange rate, the large apparent differences are caused by the macroeconomic factors partially, so the actual differences may be less than the apparent one.

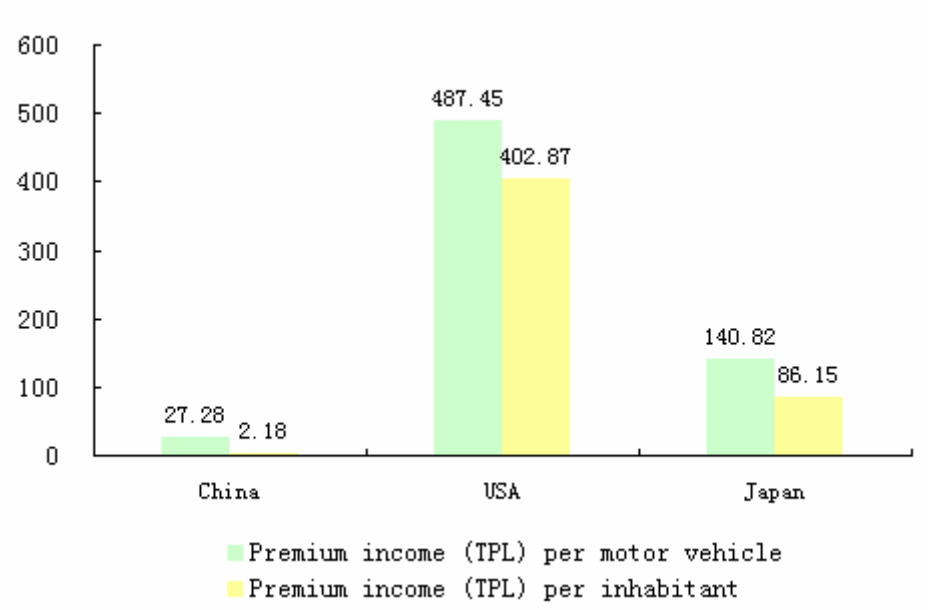


Illustration 2-9: Premium income (TPL) in $ per motor vehicle and inhabitant

3. Third Party Motor Insurance in China

In this section, we will describe Chinese third party motor insurance, focusing on the rating factors and rating factors and rate spreads for TPL.

3.1 Regulation development and present regulation situation

3.1.1 Regulation development for TPL

Statutory automobile liability insurance (SALI) has evolved rapidly in China over the past few years, as summarized in Table 3-1.

Date	Event
1999	Statutory automobile liability insurance was listed on the legislation program
May 1st 2004	Requiring all motor vehicles must be covered by SALI. In addition, owners of motor vehicles may buy voluntary TPL insurance on themselves.
March 28th 2006	Automobile traffic accidents statutory liability insurance clause was promulgated
July 1st 2006	SALI was promulgated formally and came into force on that day.

Table 3-1: Regulation development for TPL

3.1.2 Regulation of motor insurance items

Alongside the implement of SALI, in July 2006, the Insurance Association of China (IAC) published three regulations relating to commercial TPL (commercially purchased motor insurance), which are named regulation A, regulation B and regulation C, respectively. The regulations address third party motor insurance and physical damage insurance. Regulation A consists of six specific coverage. There are regulation for third party liability insurance, regulation for physical damage insurance of private motor vehicles, regulation for physical damage insurance of non business motors, regulation for physical damage insurance of business motor vehicles, regulation for insurance of motorcycles and tractors, regulation for insurance of special motors. Regulation B is a comprehensive regulation, including regulation for physical damage insurance and third party liability insurance of motor vehicles. Regulation C is comprehensive also but in addition it lists TPL and physical damage insurance separately. Each insurance company has the right to choose any one as its own commercial TPL regulation. Although the three regulations look different, they are almost the same on insurance coverage, primary tariffs and premium level. The most significant differences among these three ones are tariff criterion and deductible amount.

3.1.3 Marketization of motor insurance rates

The reform of motor insurance rate began in Guangdong on October 1st, 2001. On January 1st 2003, CIRC (China Insurance Regulation Commission) decided to cancel the national uniform insurance regulation and rate. Insurers in China now may have their own policy clauses and rates.

3.2 Third party motor insurance

The law on road traffic safety of The People's Republic of China, implemented May 1, 2004, articulated the principle that it is necessary to set up a system of compulsory automobile liability insurance in China. Under the operation of the law, the State Council promulgated the insurance act of statutory automobile liability insurance (SALI for short) on March 28, 2006. The act was implemented on July 1, 2006.

As a result of this act, there are now two kinds of third party motor insurance for any policyholder in China now, SALI, and commercial TPL.

3.2.1 Introduction to SALI

a) General information

Under the SALI system, any automobile that is not insured by the SALI contract as specified under the law must not be operated. SALI covers the third party liability for bodily injury, property damage and death.

Only domestic companies specifically permitted by CIRC are qualified for selling SALI. At present, the number of the qualified companies is twenty-two. The insured has the right to choose the insurers among the companies which are qualified for SALI, but the insurer is prohibited from refusing any application for a SALI contract. The purpose of the clause is to ensure a situation in which every automobile is insured by SALI.

Each motor vehicle that is covered by SALI will receive a symbol which represents that the vehicle is covered by SALI. The symbol must be taken onboard any time the vehicle is being operated. Any motor vehicles that are not covered by SALI will be subject to paying a financial penalty which may be as much as two times the annual SALI premium.

SALI is normally issued for one year and renewal is subject to offer and acceptance of terms at the policy date.

b) Limit of insurance liability

SALI limits of insurance liability are the same across China. The limit of liability includes payment for death, injury and medical expense and property loss. The limits

of insurer’s liability currently in force are as follows:

- When the insured is at-fault
  - For death 50,000RMB
  - For medical expense 8,000RMB
  - For property loss 2,000RMB
- When the insured is not at fault
  - For death 10,000RMB
  - For medical expense 1,600RMB
  - For property loss 400RMB

3.2.2 Commercial third party liability insurance

a) Coverage

When the insured or the permitted legal drivers have accidents which cause the third parties bodily injuries or property damage, the insured will apply to the insurers for help. The insurer will pay for the claim amount that is above SALI.

b) Limits of liability

With regard to commercial third party liability coverage, the limits of the insurance amount are not split separately for bodily injury versus property damage. Policyholders can choose the payment limits of the commercial TPL. There are eight different insurance limits in China motor insurance industry: 50 thousand, 100 thousand, 150 thousand, 200 thousand, 300 thousand, 500 thousand, 1 million and more than 1 million but less than 50 million (in RMB). The higher the limit is, of course, the higher the premium will be.

c) Policy period

Commercial policies are normally issued for one year and renewal is subject to offer and acceptance of terms at the policy date.

d) Notes

If an insured is covered by more than one insurer on commercial TPL, each insurer only assumes partial responsibility. The proportion is calculated by the limits of insurance liability taken by each insurer.

3.2.3 Distinctions between SALI and commercial TPL

SALI is an entirely new kind of insurance. It is different from commercial TPL which is well known to customers. The differences are as follows:

a) SALI is compulsory

Before SALI, the proportion of motor vehicles covered by TPL is only about 35% in year 2005. SALI, by contrast, is compulsory insurance. As specified under the law,

each motor vehicle must be covered by SALI. On the other hand, insurers are prohibited from refusing any application for a SALI contract.

b) SALI is a no-fault coverage

The commercial TPL only covers the bodily injury (or death) and property damage caused by accidents in which the insured is at-fault. SALI is a no-fault coverage: no matter whether the insured is at fault or not, the SALI insurers will pay for the loss caused by traffic accidents.

c) SALI covers more risks

Commercial TPL contracts contain numerous exclusions and deductible. In contrast, SALI exclude only loss caused by malicious intent and a few other special situations. SALI covers almost all of the road traffic risks. Moreover, it has no deductible.

d) No-loss, no-profit

SALI is intended to be a non-profit insurance product, and its account should be independent of the insurance company's other insurance accounts. The "no-profit" rule is reflected in the rating process. The profit factor is excluded from the SALI premium. Commercial TPL is managed quite differently: profit is the one of the most important principles considered in pricing the commercial TPL coverage. The account of commercial TPL is mixed with the other voluntary insurance.

e) Different liability matches along with different liability limits

With respect to commercial TPL, the limits of bodily injury payment and property damage are same. But under the system of SALI, the limits of bodily injury, death, medical expense and property damage are different.

f) Uniform premium and renewal premium

The rules and rates of commercial TPL among different insurance companies may have many differences. But regulations and primary tariffs of SALI are uniform all over China. Moreover, in order to encourage safe driving, BMS will be used when motor vehicle SALI coverage are being renewed. If the insurance policy covered many accidents for an insured this year, the premium will increase significantly next year. On the other hand, if there is no accident under the policy, the premium will decrease next year. The renewal premium also is correlated with motor's safety condition, motoring fines, and other factors, as well as the number of accidents incurred. The regulation of SALI rates will be the responsibility of the national China Insurance Regulatory Commission (CIRC).

4. Motor vehicle insurance rating

4.1 Rating of SALI

The regulation and primary tariffs of SALI are uniform in China. Under the law of Road Traffic Safety, it is stipulated that premium rates should be set at the lowest possible level that may cover the cost of insurance incurred under efficient management. This aim of this provision is to prohibit the insurer from making any profit out of the operation of SALI. This means the rate is set under "no-loss, no-profit" rules. The management and account of SALI must be independent of the other lines of insurance accounts. Furthermore, if there is any underwriting loss or profit from SALI operations, the result of such underwriting is to be adjusted by a revision of future SALI premium rates.

4.2 Rating of commercial TPL

There are three main classes of automobile risk rating factors: the risk factors of motor vehicles, the risk factors of drivers and the risk factors related to the driving environment. The premium rate for TPL begins with a primary tariff in China, which is based on a motor vehicle's usage, vehicle type and limit of insurance liability.. The primary tariff is multiplied by the relevant adjustment coefficients, to calculate the final rate. The mathematical expression is as follows:

$\text{Final rate} = \text{Primary tariff} \times \text{C}_1 \times C_2 \times \cdots \times C_n$, where $\text{C}_1, C_2, \cdots, C_n$ are adjustment coefficients.

4.2.1 Primary tariff

The major rating factors for motor insurance in China are the usage of the motor vehicle, number of seats, tonnage, limit of insurance liability, and place of registration/residence (region). Here, we illustrate the Commercial TPL primary tariff in Beijing for example. With respect to the primary tariff, the three regulations (A, B, and C) are the same.

For the limit of liability which is more than 1 million, the primary tariff is calculated by the following formula:

$$premium = A + A \times N \times (0.1 - 0.0025 \times N)$$

"A" represents the premium with 1 million limit of liability in the same level. N= (limit of liability in thousands -1000)/500, where the limit of liability in the formula

must be an integer multiple of 50.

For example, if the premium with 1 million limit of liability is 1000, the limit of the insured liability is 2 million, then N= (2000-1000)/500=2. the premium of the insured liability is:

$$1000 + 1000 \times 2 \times (0.1 - 0.0025 \times 2) = 1190 .$$

4.2.2 Adjustment coefficients

The premium adjustment coefficients for the three TPL regulations in China are different from each other. We will introduce them respectively.

a) Adjustment coefficients for regulation A

The spread with regard to the primary premium differentiation is approx. 1 to 7.78 under regulation A.

Premium differentiation factor	**spread**
Driver/owner classification	
gender	*
additional Contract with insurer	5%
age of driving license	*
public transport user	*
loyalty bonus	-10%
Use classification	
place of registration/residence(region)	*
commercial use	*
low-mileage discount	-10%～20%
region of use	-5%～-7%
Motor vehicle classification	
type of car/model	*
Additional classifications	
no rental car	*
sales channel	0～－10%
full information provided	-3%
safely driving	-5%

**The blanks in this sheet mean that the premium differentiation factor is listed on different sheets in the regulations, and the spreads for them cannot be readily calculated..*

Table 4-1: Adjustment coefficients for regulation A

b) Adjustment coefficients for regulation B

The spread with regard to the primary premium differentiation is approx. 1 to 7.41 under regulation B.

Premium differentiation factor	classes	spread
Driver/owner classification		
gender	2	-4%
age	5	-5%～10%
age of driving license*3	3	0~5%
additional Contract with insurer*5	2	-8%～-10%
public transport user		
Use classification		
place of registration/residence(region)	35	*
commercial use		*
user group(No. of drivers)*1	3	0～－8%
region of use4	2	-5%
Motor vehicle classification		
type of car/model	7	*
age of car	2	*
Additional classifications		
no rental car		*
sales channel	2	0～-10%
renew or not	2	-15%
No. of insurants	4	0～-10%
motorcade management*8		-30%～30%
goods loading	3	0～10%
franchise *6	3	0～20%
experience/excepted payment rate*7	5	-40%～100%

**The blanks in this sheet mean that the premium differentiation factor is listed on different sheets in the regulations, and the spreads for them cannot be readily calculated..*

1 for non business private motors only

2 for non business private motors only

3 for non business private motors only

4 for commercial motors only

5 for non business private motors only

6 not for private commercial motors

7 for enterprise motors only

8 for enterprise motors only

Table 4-2: Adjustment coefficients for regulation B

c) Adjustment coefficients for regulation C

The spread with regard to the primary premium differentiation is approx. 1 to 7.78 under regulation C.

Premium differentiation	classes	spread
Driver/owner classification		
public transport user		*

additional Contract with insurer	2	-5%～10%
loyalty bonus	5	-15%～0
Use classification		
Place of registration/residence(region)		*
commercial use		*
low-mileage discount	5	-10%～50%
region of use	5	-30%～50%
Motor vehicle classification		
type of car/model		*
Motor fines		-10%～100%
age of car		*
Additional classifications		
no rental car		*
sales channel	4	-15%～5%
full information provided	2	-0.05
No. of insurants	4	-15%～0
renewal coefficient		10%～100%
motorcade management**		*
record of protection and maintenance		-8%～-3%

**The blanks in this sheet mean that the premium differentiation factor is listed on different sheets in the regulations, and the spreads for them cannot be readily calculated.*

***if the number of motors insured by one policyholder is more than five, then the premium will be adjusted accordingly.*

Table 4-3: Adjustment coefficients for regulation C

d) Primary tariff factors in China, USA and Japan

The following table contains a list of the tariff criteria used our three comparison countries.

Tariff Criterion	China A	China B	China C	USA	Japan
Driver/owner classification					*
gender	√	√		√	
age		√		√	
occupation					*
nationality					*
marital status				√	*
owner-occupied Home					√
additional Contract with insurer	√	√	√	√	*
compr. insurance discount					√
age of driving license	√	√			√
motoring fines				√	
safety training				√	√
public transport user (railcar, etc)	√	√	√		

membership in automobile club				√	
state of health					√
sign of zodiac					√
loyalty bonus	√	√	√	√	√
Use classification					
place of registration/residence(region)	√	√	√	√	
commercial use	√	√	√	√	
low-mileage discount	√		√	√	
user group (No. of drivers)		√		√	
garaging					
second car use				√	
region of use	√	√	√		√
Motor vehicle classification					
type of car/model	√	√	√	√	
age of car		√	√	√	
engine power/cubic capacity					
maximum speed					√
accelerating speed					*
type of fuel					**
fuel consumption per 100 km					*
power-weight ratio					
weight of car					
color of car					*
safety equipment				√	*
catalytic converter					*
structural modifications					√
left-hand steering					*
Additional classifications					√
no rental car	√	√	√		√
sales channel	√	√	√		
full information provided	√		√		√

**Means that whether this factor has effect on ratings of TPL is not clear.*

***Some impact for the fleet pricing*

Table 4-4 Adjustment coefficients in the three different countries

4.2.3 Bonus-Malus System

In the Chinese automobile insurance system, the Bonus-Malus System (BMS, or no claim discount model, NCD for short) is a very important premium determination factor. The insurance companies in China have made many reforms to the original Bonus-Malus System. There were only four to five classes in the 2003 Bonus-Malus System; now there are 10 BMS classes each in the three regulations promulgated by Insurance Association of China (IAC) in June 2006. The Chinese BMS are as follows. The class adjustments occur each year, based on the number of claims in the prior

year.

a) Bonus Malus System of Regulation A

			Downgrading*							
			after0**	after2**	after3	after4	after5	after6	after7	after8***
No.	class	premium	claims to the class							
1	10	200%	9	10	10	10	10	10	10	10
2	9	180%	8	9	10	10	10	10	10	10
3	8	160%	7	8	9	10	10	10	10	10
4	7	140%	6	7	8	9	10	10	10	10
5	6	120%	5	6	7	8	9	10	10	10
6	5	110%	4	5	6	7	8	9	10	10
7	4A	100%	3	4	5	6	7	8	9	10
8	3	90%	2	3	4	5	6	7	8	9
9	2	80%	1	2	3	4	5	6	7	8
10	1	70%	1	1	2	3	4	5	6	7

A: Initial classification.

**Downgrading is generally 1 class per claim.*

***including 0 or 1 claim*

****including more than 8 claims.*

Table 4-5: Regulation A Bonus Malus System

The spread with regard to the BMS in regulation A is 1 to 2.857.

b) Bonus Malus System of Regulation B

			Downgrading*						
			after0	after1	after2	after3	after4	after5	after6**
No.	class	premium	claims to the class						
1	10	150%	3	5	6	7	8	9	10
2	9	130%	3	5	6	7	8	9	10
3	8	120%	3	5	6	7	8	9	10
4	7	110%	3	5	6	7	8	9	10
5	6	105%	3	5	6	7	8	9	10
6	5	100%	3	5	6	7	8	9	10
7	4A	100%	3	5	6	7	8	9	10
8	3	90%	2	5	6	7	8	9	10
9	2	80%	1	5	6	7	8	9	10
10	1	70%	1	5	6	7	8	9	10

A: Initial classification

***including more than 6 claims.*

Table 4-6: Regulation B Bonus Malus System

The spread with regard to the BMS in regulation B is 1 to 2.143.

c) Bonus modulus System of Regulation C

No.	class	premium	Downgrading						
			after0	after Claims*	after claims but loss ratio less than70%**	after1***	after2***	after3***	after4***
			claims to the class						
1	10	200%	5		6	7	8	9	10
2	9	150%	5		6	7	8	9	10
3	8	130%	5		6	7	8	9	10
4	7	110%	5		6	7	8	9	10
5	6*A*	100%	5		6	7	8	9	10
6	5	90%	4		6	7	8	9	10
7	4	80%	3		6	7	8	9	10
8	3	70%	2	5					
9	2	70%	1	4					
10	1	70%	1	3					

A: Initial classification

**once there are claims (no matter how many times), downgrading to class 3, 4 or 5 as shown.*

***there are claims (no matter how many times) and the total loss ratio is less than 70%.*

****there are claims and the total payment rates are over 70%*

Table 4-7: Regulation C Bonus Malus System

The spread with regard to the BMS in regulation C is 1 to 2.857.

The three bonus-malus systems currently in use in China have some common characteristics. One of the common things is that the bonus and malus are relatively insensitive to the claim frequency, as compared with optimal BMS described in the literature, i.e., the bonuses and penalties do not correlate with differences in driver risk levels based on their claims histories. Therefore, the financial balance of a company is not guaranteed in the long term, and it is likely that the average BMS rating could be less than 100%. The premium income might decrease in the first several years if the policy group is closed, and the premium income is likely to be less than 100% of the initial income when the BMS is stable.

The policyholders with different claim frequencies can get different discounts or punishment if they choose different Bonus-Malus Systems. The policyholders might reduce their premium by choosing among the different BMS plan. On the company's position, the difference among the three Bonus-Modulus Systems may result in the adverse selection. The BMS is relatively more attractive to the high risk policyholders than the low risk ones.

4.2.4 Overall spreads of BMS in the three regulations

The following table sets out some statistics for BMS of the three different regulations in China.

Country	China A	China B	China C
Number of Classes	10	10	10
Premium Range in %	200%-70%	150%-70%	200%-70%
Spread	2.86	2.14	2.86
Initial Classification in %	100%	100%	100%

Table 4-8: Statistics of the Bonus-Malus Systems

The data contained in Table 4-8 refer to a common type of BMS within a particular TPL in China.

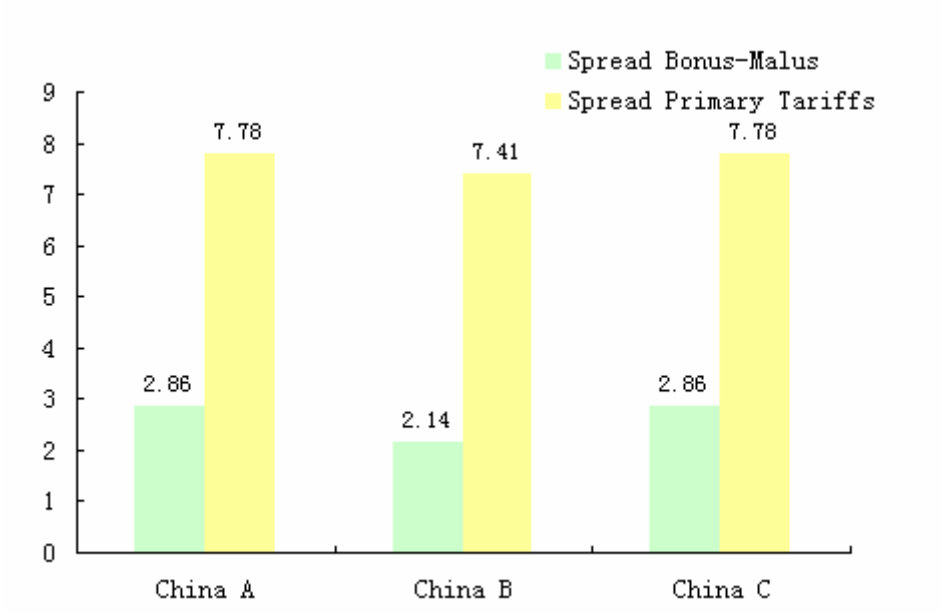


Illustration 4-1: Spreads with regard to primary tariffs and Bonus-Malus Systems

Illustration 4-1 underlines the differences in spread. The spread factor with regard to the BMS is the same for regulation A and regulation C (2.86). It is about 1.34 times that of regulation B (2.14).

The spread for the primary tariff criteria is much greater than that for the BMS. The spread with regard to primary tariff criteria is the greatest in regulation A and C (7.78). Regulation B displays the lowest spread with regard to primary rating (7.41).

The overall rating spread is the product of primary tariff spread and bonus-malus spread. Regulation A and regulation C shows the same overall rating spread (22.25). It is about 1.4 times that of regulation B (15.86).

Although regulation A has the same overall spread as regulation C, the bonus-malus

system of regulation A is much slower to respond to claims than the BMS of regulation C.

5. Final Considerations

From all of the above analysis we may see that, in China, the market for third party motor insurance has enormous future potential, especially after the promulgation of SALI. The market needs further development, as do the actuarial technologies of premium rating. With respect to the rating factors of TPL in China, we may see that many potentially important factors are not considered significantly, such as safety training of motor drivers, motoring fines and so on. Regarding BMS of commercial TPL, the classes of the three regulations (10 classes) in China are far less than that in Japan (20 classes) and the BMS spreads of the three regulations in China are likely not large enough.

The introduction of SALI also presents many uncertainties for the market. The primary rate of SALI is determined by CIRC, and the rating factors and Bonus-Malus System for SALI are not yet clear. Is the rate level equitable and adequate? Who will take the financial risk for the operation of SALI, for example if the current SALI rates are not adequate or if some insurers end up with an adverse mix of policyholders for SALI? How will the SALI rate change upon renewal? The answers to these questions will affect the success of the insurers in the marketplace, and the appetite of future entrants. Much further data collection and research remains to be done.

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