17TH EAST ASIAN ACTUARIAL CONFERENCE
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Succeeding in the rapidly changing Personal Lines Asian markets

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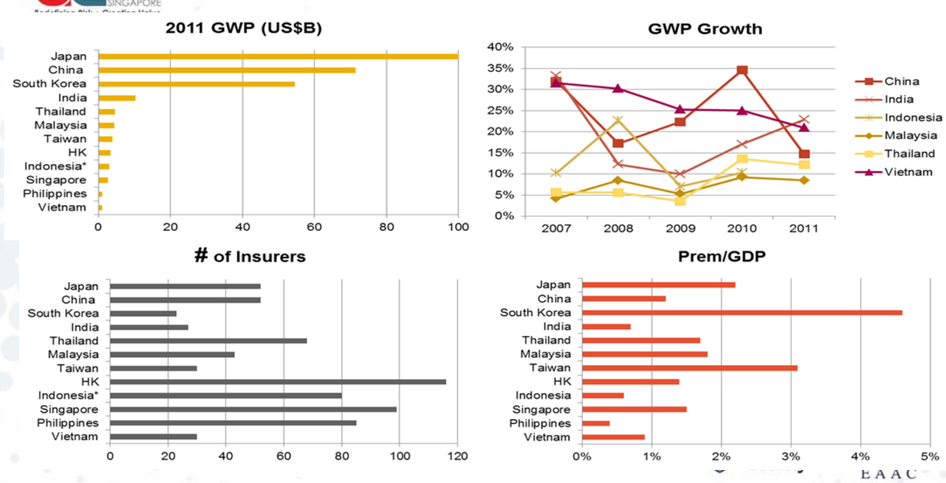
Agenda

- Outlook on Asia
- India
- China

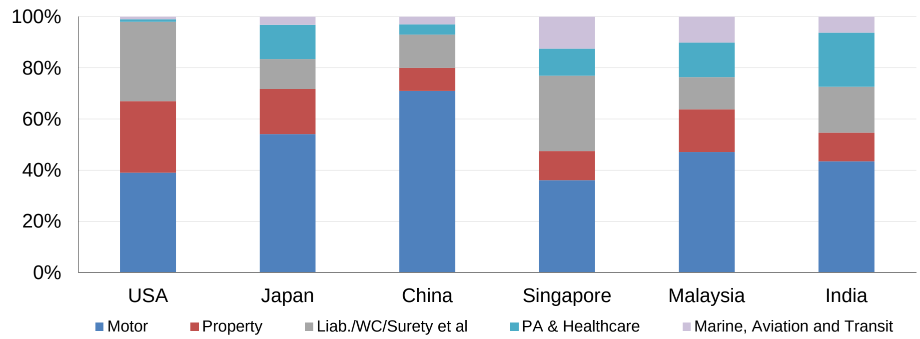
Agenda

Outlook on Asia

Understanding the Asian Non-life insurance markets



Asia's mix of business is more Motor, Marine, and Health



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Agenda

India

- Evolution of P&C industry
- Market snapshot
- Detariffication: background and outcome
- Changes: Rating structure, distribution
- Regulations: recent and expected

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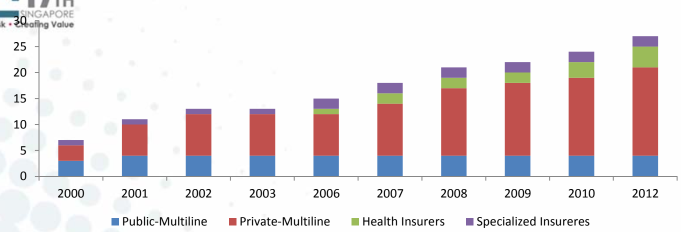
Evolution of Non-Life insurance in India

Late 1940s	Indian Government starts nationalizing a number of industries
1968	Tariff Advisory Committee (TAC) set up to provide rates to industry
1972	Nationalization of general insurance industry (107 cos. into 5 cos.)
1993	Committee on Reforms in the Insurance Sector (Malhotra Comm.)
2000	Insurance Regulatory and Development Authority Act was passed
2000+	New private insurers licensed
2007	Near complete detariffication (exception Motor CTPL)

Other than mandatory Motor Third Party Liability (MTPL) insurance, all classes of business have been detariffed

1994	Aviation, Personal Accident, Health and Marine Cargo
2005	Marine Hull
2007	Fire, Engineering, Motor (Own Damage), and Workers Compensation

Number of P&C insurance companies



- Significant growth in number of players since opening up of insurance sector to private sector competition in 2001
- Earlier, there was one holding company, General Insurance Corp. (GIC) of India, with 4 fully owned subsidiaries that constituted the industry during the nationalized era. GIC is now the only reinsurer (renamed GIC Re); the 4 public sector insurers are now independent
- Currently, there are 27 licensed Non-Life insurance companies: 2 specialized insurers, 21 multi-line insurers and 4 stand-alone health insurers

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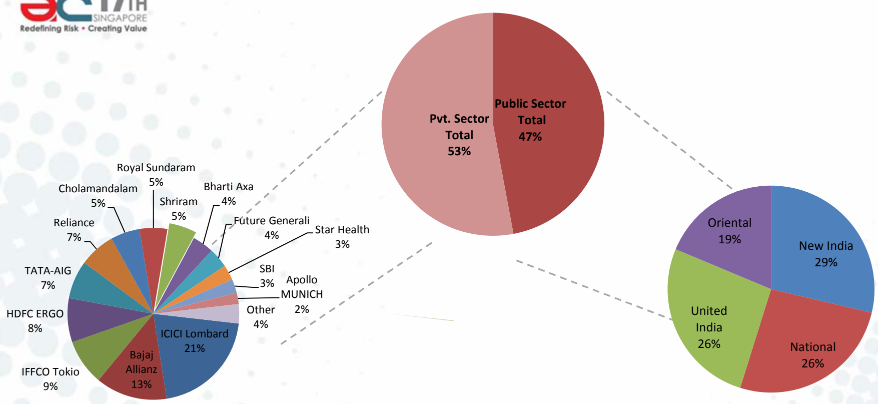
Market shares for FY 2012-13



Total P&C GWP: INR 74,398 Crores / USD 12 Billion

India Detariffication - Background

All tariffs were removed, except mandatory Motor Third Party Liability, effective April 1, 2007.

Further comments:

- Detariffication implemented by the Regulator in a phased manner
- **Phase I:** Variation in prices within +/- 20% of tariff rates allowed, subject to prior regulatory filing and approval of proposed rates under File & Use process
  - No flexibility in altering the tariff defined product
  - New parameters allowed for rating
- **Phase II:** Removal of restriction of +/- 20% variation; subject to prior regulatory filing and approval
- **Phase III:** Removal of restriction in product alteration, subject to regulatory File and Use process
  - Meant freedom for insurers in product design
- However, Motor Third Party (TP) risk continues to be governed. Regulators decided to set up **India Motor (TP) Pool for Commercial Vehicles (CVs)** in which all licensed GI companies were required to participate, subscribing to the extent of their respective market shares. This Pool is now disbanded and replaced with Declined Risk Pool.

India Detariffication - Results

- Intense price competition in almost all classes of business previously governed by tariff leads to near free fall in premium rates. Loss ratios progressively worsen
  - Fire/Engineering risks had the largest fall in pricing, up to 90% discount on erstwhile tariffs
  - In Motor, insurers decreased rates for Own Damage (OD) for select cars and commercial vehicles by 20% – 40%, depending on risk segment
- Car prices kept artificially low, causing low insurance premiums to be collected
  - Manufacturers under severe competition kept car prices artificially low but charged more for parts / labor. This twin effect led to sharp increase in loss ratios
- With the setting up of Motor TP Pool, nearly all insurers started competing for commercial vehicle business. Private sector insurers that historically shunned commercial vehicles due to very high loss ratio for Third Party (TP) risk, even though the OD experience was acceptable, now competed for this segment.
- Entry of new insurers led to competition getting fiercer. Older insurers from the private sector and PSUs who had built up benefited from the tariff regime pricing earlier were in a relatively better position initially to withstand the outcome of downward pricing spiral.

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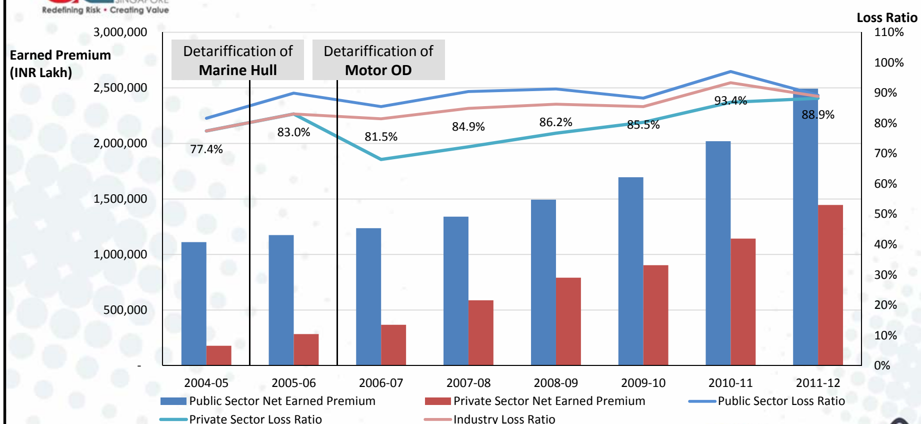
India Loss Ratios - All Lines



Private sector companies still outperform public sector companies

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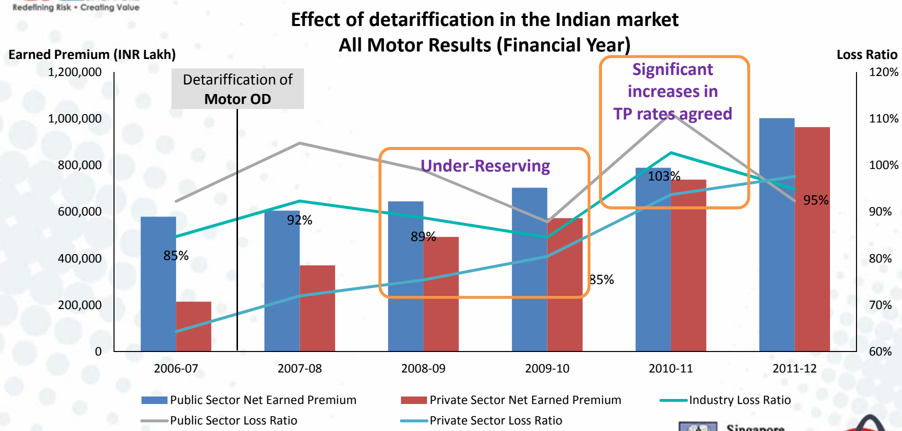
Detariffication - the India Experience



Significant under-reserving in 08/09 and 09/10 masked deteriorating results

Private Car Motor Rating Structure

Factor	Prior to Detariffication	Post Detariffication
General rules and regulations	As per provisions of All India Motor Tariff	Several key provisions — e.g., No Claim Bonus, Insured Declared Value, Short Period rates, depreciation, etc. still followed
Underwriting information, Proposal forms	As provided in the tariff	Most insurers now seeking additional information; additional underwriting data now being gathered and used for risk assessment and rating, but long way to go
Policy forms	As provided in the tariff	Several "add-on" covers, e.g., nil depreciation, loaner cars, roadside assistance now being offered but the original policy form still being used
Own Damage pricing: premium rate as % applied on Insured Declared Value	3 factors as provided in the tariff • Age of car — 3 groups • Cubic capacity of car — 3 groups • Location where used — 2 zones	Insurers are refining the earlier pricing in different ways: • Cubic capacities have given way to make/model of car • Location groupings have increased to 4 or more • Additional factors like gender, age and occupation of insured, no claim bonus level, etc. considered by some insurers • The weighted average rates initially went down by 20% and are now around 35% or more
Underwriting information	Limited to the 3 factors above	Additional parameters being sought over and above pricing factors differently by different insurers, e.g. • Type of parking • Average running
Third Party Liability pricing	Based on cubic capacity of car as per tariff: Below 1000 cc: INR 500 1000-1500 cc: INR 600 Above 1500 cc: INR 700	• All India Third Party Pool for Commercial Vehicles formed, later disbanded in 2012 to make way for Declined Risk Pool • Premium rates increased twice for respective engine sizes

Private Car Motor Insurance Distribution

Auto Manufacturers (e.g., Tata Motors, Maruti Suzuki)	Auto Dealers without direct role of Manufacturers	Others: Career Insurance Agents, Banks, Direct (Telemarketing, Internet etc.)	Retail Insurance Brokers
• Dominates insurance of new cars sales, > 50% penetration • Through dealers, usually on mandatory basis, with whom commission is shared • Allied with multiple select insurers • Renewal penetration recedes over time • Cost of acquisition highest among different channels • Ability to sell at higher premium compared to all other channels • Fast business build-up but generally unprofitable	• Direct relationships with select insurers • Penetration is high for insurance of new cars, say around 25% • Some have developed ability for renewal penetration • Fragmented volumes, hence lower cost of acquisition • Ability to charge higher premium than other conventional channels but not on par with Auto Manufacturers	• Relationships with fewer insurers • Modest penetration for insurance of new cars, say 15%, but higher for renewals • Ability to sell linked with price competitiveness • Lower cost of acquisition	• Sell on behalf of multiple insurers, mostly those excluded by Manufacturers and Dealers • Negligible penetration for insurance of new cars but much better for older cars and renewals. Also better at cross- selling non motor insurance • Ability to sell linked with price competitiveness • Lowest cost of acquisition

Internet sales are still insignificant; current experience points to internet shopping but not closure

India P&C Market — Regulatory update

Some of the recent and expected developments:

- Amendments in the Insurance Act allowing higher cap on foreign equity (FDI) from 26% to 49% awaited for a long time but held up due to political issues
- Lowering of obligatory cession to GIC Re, the national reinsurer
- Regulators have recently set up Insurance Information Bureau (IIB) as the official source of all information at transaction level on industry-wide basis. IIB will seek, analyze and disseminate relevant information to stakeholders
- Product filing and approval process expected to be eased, some fast tracked
- Revised guidelines issued: health insurance, listing, bancassurance.
- Consolidation of players in the market expected. The owner of four public sector insurers, viz. Min. of Finance, Govt. of India, intends to disinvest but not immediately. Some partners in new private sector companies have exited, some more expected to follow
- RBC / Solvency committee set up by to ensure enhanced risk and capital management in line with developed markets

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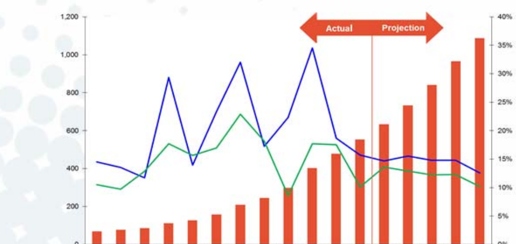
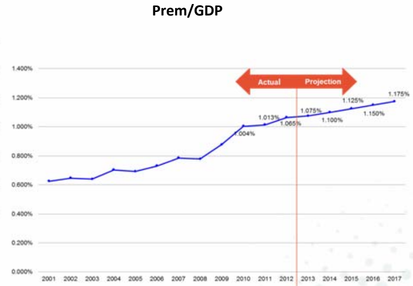
China

Growth in GDP and GWP



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
P&C GWP (RMB bil)	69	78	87	112	128	158	209	245	299	403	478	553	634	733	841	965	1,087
GWP growth rate	15%	14%	12%	29%	14%	23%	32%	17%	22%	35%	19%	16%	15%	16%	15%	15%	13%
GDP growth rate	11%	10%	13%	18%	16%	17%	23%	18%	9%	18%	18%	10%	14%	13%	12%	12%	10%

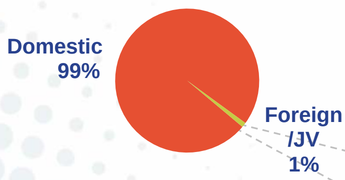


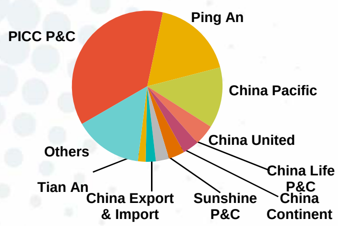
- Close relationship between GDP and GWP
- Growth in the next five years will slow down

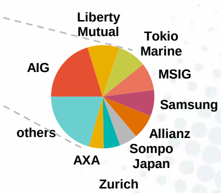
Data Resource: National Bureau of Statistics of China (NBSC), CIRC, Towers Watson.

Market share

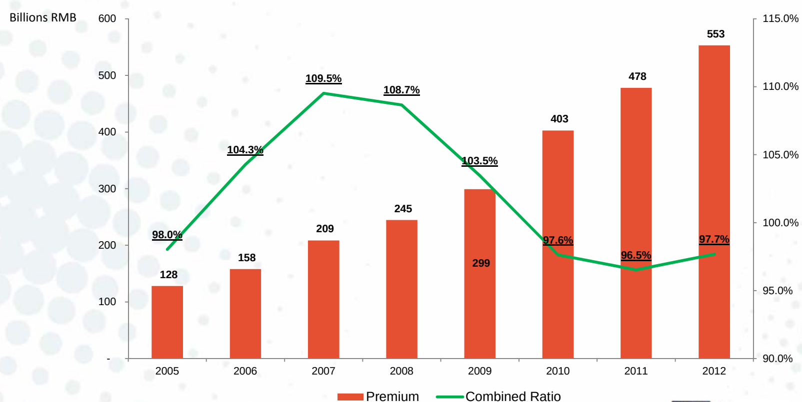
Total 2012 P&C Premium: US$89 billion
# of Non-Life Insurers: 62
Domestic insurers: 41
Foreign insurers: 21





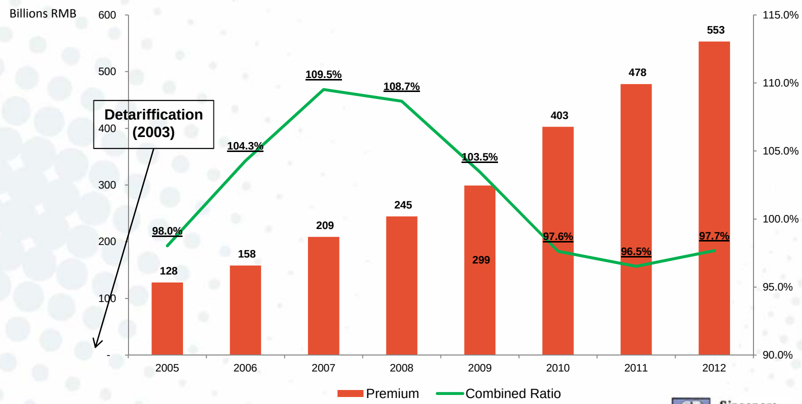


Effect of detariffication…



Data Resource: CIRC, China Insurance Year Book, Annual Statements for P&C insurers, Towers Watson.
Data are for all domestic P&C insurers combined.

Effect of detariffication…



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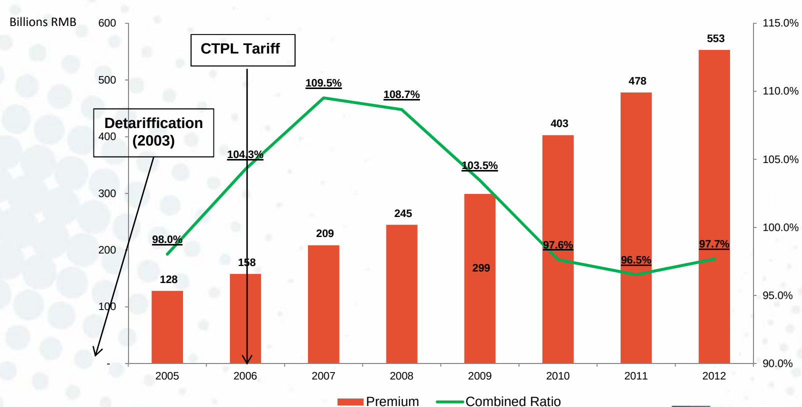

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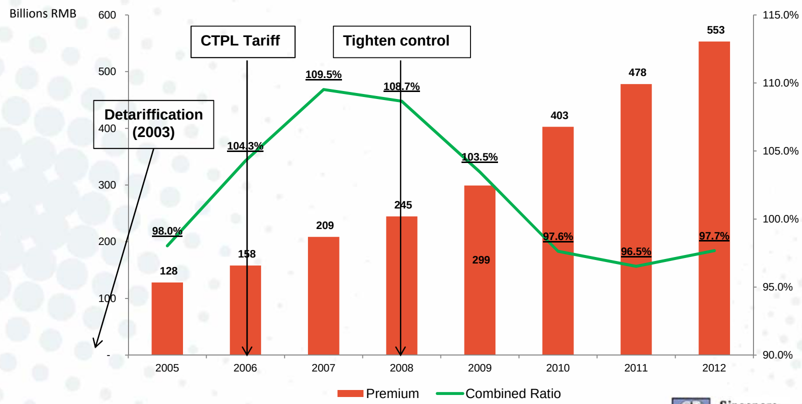

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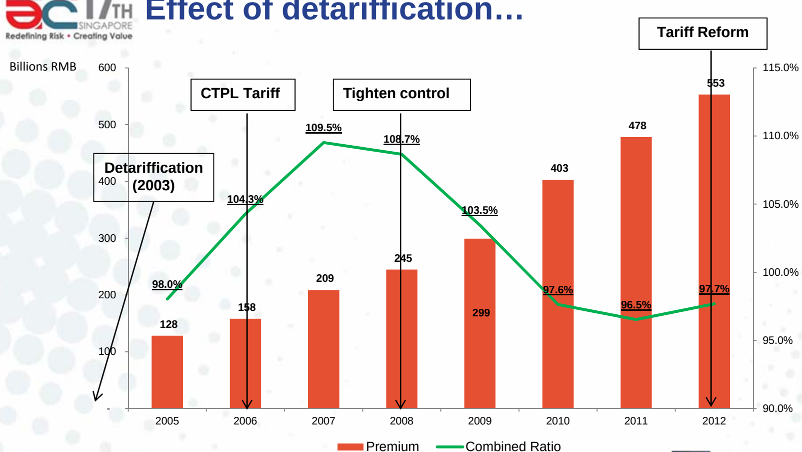

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Rapid development in call centers

PICC 中国人民财产保险股份有限公司
中国平安 PING AN
中国太平 CHINA TAIPING
华泰保险 Huatai Insurance
中华联合财产保险股份有限公司 CHINA UNITED PROPERTY INSURANCE COMPANY LIMITED
太平洋保险 CPIC
天平保险 TIANPING INSURANCE
安邦保险 ANBANG INSURANCE
阳光保险集团股份有限公司 Sunshine Insurance Group Corporation Limited
民安财产保险有限公司 Minan Property And Casualty Insurance Company Limited
渤海财产保险股份有限公司 Bohai Property Insurance Co.,Ltd.
中国大地财产保险股份有限公司 CHINA CONTINENT PROPERTY & CASUALTY INSURANCE COMPANY LTD.
长安责任保险股份有限公司 CHANG AN PROPERTY AND LIABILITY INSURANCE LTD.
中国人寿财产保险股份有限公司 China Life Property & Casualty Insurance Company Limited
中银保险 BOC INSURANCE
永诚保险 ALLTRUST INSURANCE
英大泰和财产保险股份有限公司 YINGDA TAIHE PROPERTY INSURANCE CO., LTD.
永安保险 YONG AN INSURANCE
大众保险 DAZHONG INSURANCE
华安保险 SINOSAFE INSURANCE

Online sales become common

Evolution of motor insurance market in China

	To 2002	2003 – 20061H	20062H – 2008	2009 – 2011	2012+
Rate regulation	Tariff	File and use	CTPL, tariff	CTPL, tariff, strengthened implementation	Deregulation
Pricing technology		Basic risk segmentation		Some adopt GLM	GLM and more advanced skills a must to play
Distribution	Traditional direct	Traditional direct, agency	Traditional direct, agency	Traditional direct, agency, call center, cross sell	Traditional direct, agency, call center, cross sell, online?

- History is short
- Market changes dramatically and rapidly

China P&C market — motor insurance deregulation

Key changes:

1. One set of base rates calculated on industry experience (by China Insurance Association)
2. Maximum expense loading 35%
3. Companies meeting criteria can partially set own prices
   - a. Good corporate governance, have operated auto insurance for at least three years
   - b. Combined ratio below 100% for at least two consecutive years
   - c. Solvency ratio above 150% for at least two consecutive years
   - d. At least 300,000 cars insured in the last year
   - e. Have specialized auto insurance product development team
4. Floating factors include type of car, use of car and different repair cost in different region (other factors not mentioned)
5. Stop own pricing if solvency ratio falls below 150% or combined ratio above 100% for two consecutive years

China P&C market — motor insurance deregulation

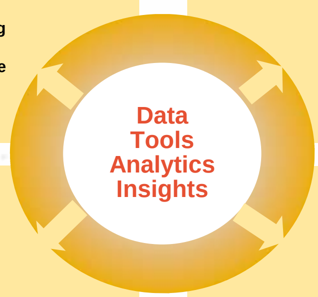
Implications for insurers:

- Some companies will be allowed to set own prices on lower criteria
- Not all insurers may be ready systemwise
- Rates based on industry allow rates to go up if experience deteriorates (but also may remove “super profit”)
- Safeguards introduced — so if insurers do not make profits in two consecutive years, will no longer be allowed to set own prices
- Sum insured now current value, not new car value (may have price implications as based on rate-on-line)

Chinese P&C Insurers have started to explore predictive modelling in other areas

Pricing
Underwriting
Use predictive modeling for pricing and risk segmentation; Establish underwriting rules according to the risk segments.

Renewal
Market Science
Analyse consumer behavior; improve renewal rate and conversion rate; Optimize customer management and media



Claims Management
Fraud Detection
Improve claims management efficient and resource planning; Detect and control fraud effectively; Reduce claims cost

Usage Based Insurance
Improve pricing based on usage and driving behavior; provide value added services; product differentiation