De-Tariffication:
Lessons from Across the Pacific and the English Channel

Presentation to ARECA Conference

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Our World Tour

- Broad understanding of changes in China Motor market
- Some United States history
  - Brief history of U.S. Non-Life insurance rate regulation
    - Rating bureaus and anti-trust
    - Rise of independents in personal insurance
    - Current general competition
  - California and Proposition 103
    - Environment before 103
    - Major provisions of Proposition 103
    - Impact on
      - Motor
      - Workers compensation
- From across the Channel, description of British Motor market and evolution of the actuary’s role
- What can we learn for China?

China Motor De-Tariffication

- This and next two slides are from a presentation at the 2015 CAS Rating and Product Management (RPM) Seminar.

2015 CAS RPM Seminar, International Track

Current Regulatory and Market Advancements in the China P&C Insurance Market

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Two Types of Auto Insurance Policies in China's Auto Insurance

- Compulsory "Take All Comers" Third Party Liability Insurance
  - Provides minimum liability coverage required by law. It covers BI with indemnity for death, medical expense, and property damage. No automobiles can be operated on the road without it.
  - The same limits ($122K RMB limit for BI&PD&MP Staggered) are applied for all vehicles types, both personal and commercial.
  - Premium is regulated and is stipulated by a simple rating table. The premium is differed by vehicle types and few other variables with no territory differentiations at all.
  - Overall, the industry compulsory insurance has suffered UW loss in recent years due to an increasing severity trend and no rate changes, but the performance varies widely by region due to the loss cost differentiations of fatal accident between poor regions vs. rich regions.
- Voluntary Auto Insurance for Excess Liability and Physical Damage
  - Covering both excess liability and physical damages
  - Currently, there are 4 government approved rating plans, but they are fairly similar to each other regarding structure and rating variables.
  - There are two parts in each of the 4 rating plans:
    - By coverage base rate and the associated class plan
    - Regulated discount and surcharge rules on all coverage combined policy level premium: the maximum allowed discount is typically 30% with some variations by risk and by region
- One vehicle could have two policies, one for compulsory third party liability and the other one for voluntary excess liability and physical damage. Two policies could have different effective dates.

Auto Insurance Pricing Reform on Voluntary Auto Insurance

- "Allow insurers to determine their premium; allow customers to choose their insurer" – major changes with the recent Voluntary Auto Insurance Reforms include:
  - Personal auto and commercial auto still share a similar rating structure
  - The current 4 rating plans will be integrated into a single rating plan
  - A "No Claim Discount" (NCD) schedule for voluntary insurance is explicitly specified and has to be part of the base premium:
    - NCD is similar to MVR surcharges/discounts in US
    - NCD is different between compulsory liability and voluntary insurance
    - NCD is applied on the vehicle basis, not on the driver basis
  - Vehicle symbol rating is added to the physical damage premium
  - Two types of risk based adjustments are allowed in the final policy level premium:
    - Underwriting adjustment: (-15% , 15%)
    - Additional adjustment by distribution channel: (-15% , 15%)
  - Agent commission can vary within an overall ceiling
- Reforms for Compulsory Third Party Liability insurance is planned for 2015-2016
- P&C insurers will leverage the two risk premium adjustments in competition:
  - Rate inefficiency for the compulsory policy will be considered in determining the voluntary policy adjustments for a customer
  - Additional data resources and advanced analytics tools have become popular for auto pricing

Brief U.S. Insurance History

- U.S. non-life insurance companies long recognized that rate accuracy for non-life insurance could be greatly improved if insurers pooled loss data
- By the early half of the 20th Century the non-life market was characterized by a fairly large number of “bureau” companies who pooled their data through organizations known as rating bureaus, and “independents” who chose not to join bureaus.
- In the early 1944 an anti-trust suit made to the U.S. Supreme Court who ruled that insurers were subject to anti-trust laws (Southeastern Underwriters Association ruling)
- Congress passed the McCarran – Ferguson Act exempting insurance from anti-trust laws to the extent insurance is regulated by the States

Brief U.S. Insurance History

- Rating bureaus had considerable power
- Bureaus would file rates for approval with the states
- Due to complexity of the rate filings and often the lack of credible data, insurers often followed bureau rates
- Where a company could argue they had different expenses than what was in bureau rates they could apply for an expense deviation, allowing the company to charge rates a uniform proportion below (or above) bureau rates
- Bureaus had much power. Though there was no law requiring this, the bureau system looked a lot like a uniform tariff system.
- There were independents generally larger personal lines companies with enough data to go it alone

Rise of Independents

- Rates regulated by various states, many requiring prior approval before rates could be put in place, others open competition
- Difference between commercial and personal lines
  - Personal lines are marked by a large number of relatively small and reasonably similar insureds
  - Commercial lines are marked by a smaller number of quite varied, larger insureds
- It is much easier then for an individual company to assemble enough data for credible personal lines rates than for commercial line insureds
- Independents thus tended to be personal lines companies
- As these companies grew they got more data and were able to better and better understand their risks

Rise of Independents

- In the U.S. the hold of the bureaus, particularly in personal lines is almost non-existent though bureaus let smaller niche players get enough data to compete
- Even though there is rate regulation in (nearly) all states, there is a great degree of competition among insurers in personal lines
- In personal lines big data and predictive analytics has been used to set rates and identify favorable and unfavorable risks
- Some companies actually advertise they show competitor rates on their web sites. Not as altruistic as it seems – they are sure competitor rates are lower for risks they do not want.

California and Proposition 103

- Prior to Proposition 103
  - Workers compensation had a minimum rate law – insurer <u>must</u> charge <u>at least</u> the bureau rate. Insurers competed primarily on service and dividends
  - All other lines (personal and commercial) had open competition with the requirement to have a “desk filing” (a rate filing that could be shown to regulator if asked)
- Proposition 103 turned both of these around
  - Instituted open competition for workers compensation
  - Instituted strict prior approval for other lines of business with special rules for motor
    - Roll back of rates
    - Rating must give most weight to driving record, annual miles driven, driving experience in that order, other factors allowed but less weight

California Motor After Proposition 103

- Not a tariff system
- Very strict regulation on rates
- Creative and sophisticated methods developed to comply with the letter of requirements in law yet still differentiate risks
- Profits initially suffered, but later companies adapted
- Result is still a competitive though restricted market for motor insurance

California Workers Comp. after Prop. 103

- Workers compensation a different story.
- Result of de-tariffication was rampant and fierce competition
- Rating bureau still published expected loss costs (loss portion of premium)
- Competition drove prices down.
- Some insurers were charging rates below the expected loss costs published by the rating bureau
- There were a number of high profile bankruptcies
- There was also reform of workers compensation laws and finally some discipline returned to the market.

Motor in the UK

- In contrast to the regulated environment motor insurance market fully competitive
- Because of wide open competition insurers have every incentive to innovate
- Before GLMs were even spoken about in non-life ratemaking discussions in U.S. they were widely used in UK motor rating allowing for very fine market segmentation and risk identification
- Insurers can have “flash sales” where prices are in effect for a short amount of time, sometimes measured in minutes so they can determine price elasticity allowing for price optimization (a “dirty word” in some quarters in the U.S.)
- Aggregators a big force in the market
- More concentrated market than U.S. (53% vs 45% top 5, 73% vs 62% top 10)

Actuary’s Role in London Market

- London Market is term for the various reinsurers operating in and around “The City” and Lloyds
- Largely reinsurers and writers of large commercial risks
- As early as the 1980s actuaries were seen as “back room” clerks with much of the rating and risk selection being done by underwriters
- Much has changed in the last 30 – 40 years
- Actuaries have shown their worth and are now taken more seriously by underwriters and are more often showing up in top management roles
- Actuaries in management is common in the U.S. and Europe as well

What About China?

- New regulations in China seem to be more akin to U.S. after McCarran Ferguson than U.K. or even California.
- There are only two means to deviate from manual rates
  - Underwriting adjustments -15% to +15%
  - Distribution channel adjustments -15% to +15%
- Similar to bureau rates mid 20th Century U.S. where companies could deviate because of expenses that at least in part pertain to distribution channel, i.e. acquisition costs or commissions
- Underwriting adjustments give some flexibility but within limits
- Opportunity to use predictive analytics to identify desirable and undesirable risks and price accordingly

What About China?

- If U.S. experience is any guide territorial differences and other differences between insureds can be substantial, well beyond the range allowed for in underwriting adjustments
- Cross subsidies are possible (likely?) unless differences addressed in underlying tariff system
- Unless insurers are required to take all comers this may result in some (undesirable) insureds having difficulty finding insurance
- In the U.S. this spawned the "residual market." Often state-created mechanisms to insure risks not wanted in the voluntary market