Third Party Motor Insurance

Reserving Challenges for Actuaries post dismantling of the Motor Pool

A presentation at Indian Fellowship Seminar
by Hiten Kothari, Balakrishnan Iyer, Shivdani Shilwant

Guide: Saket Singhal

June 13, 2013

Agenda

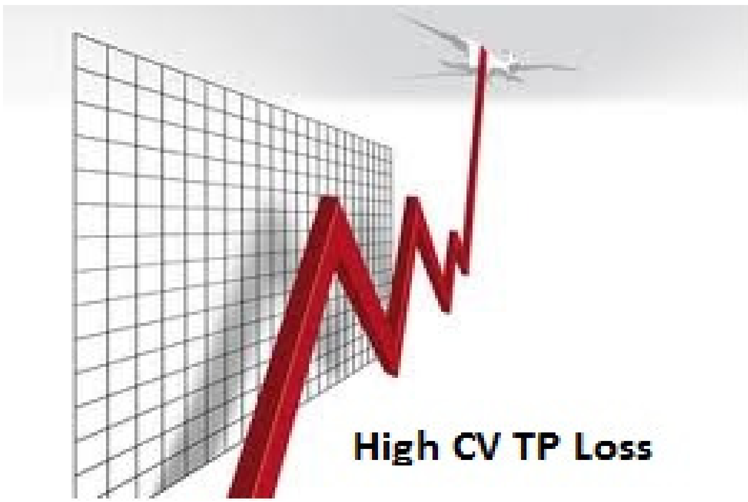
- Background and History of Indian Motor Third Party Insurance Pool (IMTPIP)
- Declined Risk Pool
- Professionalism Issues
- Reserving Challenges for Actuaries
- Mitigation Measures
- Conclusion

Background and History of IMTPIP

Background

- Motor Written Premium accounts for almost 40% of the total Non-life Written Premium
- Third Party motor insurance is the only insurance product in India mandated by law
- Premium increase for Commercial Vehicle Third Party (CV TP) liability was a challenge due to stiff opposition from the transporters lobby
- First Motor Third Party (TP) liability premium increase in 2002; very marginal.
- Next Premium increase in 2007; impact was around 33% for Private car TP liability and 69% for CV TP liability
- Motor TP liability continues to be tariff based even after 5 years of de-tariff act
- IRDA has revised Motor TP liability rates in each of the last three years (2011, 2012 and 2013)

Pre-IMTPIP Scenario



CV TP Insurance burden
borne by Public Insurers

IMTPIP Scenario

- Indian Motor Third Party Insurance Pool (IMTPIP) for commercial vehicle TP liability risks was created in April 2007
- All CV TP liability premium to be ceded to the pool after mandatory cession to GIC
- Premiums & Losses to be shared by all insurers in proportion to their Total GWP
- Insurers started writing large amount of CV business by retaining the profitable OD component
- Some companies benefited from this situation i.e. those that write more motor but less of the other classes and have a lower market share
- Focus was to grow the top line without consideration on the bottom line
- Increase in Pool provisions impacted profitability of the insurers as a whole with solvency ratio of four companies dropping below 150% for FY 2010-11

The Declined Risk Pool

Dismantling of IMTPIP

- The main reasons for dismantling of the IMTPIP were
  - Increased pressure from the top private sector insurance companies as the allocation was favorable to some players
  - The additional required provisions were threat for most Public and Private companies; need for fresh capital infusion
- The IMTPIP was dismantled starting April 1, 2012 and replaced with a Declined Risk Pool

The Declined Risk Pool - Features

- IMTPIP was dismantled from April 2012 and a Declined Risk Pool created for commercial vehicle TP liability risks
- Company files underwriting manual laying down the underwriting parameters for accepting or ceding risk to the pool
- Company retains 20% of the declined risk net of mandatory cession and the balance is ceded to the pool
- Company needs to write a minimum % of CV TP liability risks
- The transfer of risks between companies shall be on portfolio basis to members in deficit of obligations in proportion to their share of the pool with servicing of each risk by the policy issuing company
- The Pool size has reduced to ₹1.75bn from ₹35bn a year ago

The Declined Risk Pool – Example

Total CV TP Premium	150
Declined Risk Pool Premium	15

Company Name	**A**	**B**	**C**	**Total**
Total Premium	200	300	500	1,000
Total Motor Premium	100	125	175	400
Min CV TP Obligation (%)	22.5%	30.6%	46.9%	100.0%
Min CV TP Premium Obligation	33.8	45.9	70.3	150
CV TP net Written Premium	50	40	45	135
Deficit w.r.t Obligation	-	5.9	25.3	31
Declined Pool Share	0%	19%	81%	100%
Declined Pool Premium	0	2.85	12.15	15

Professionalism Issues

Professionalism Issues

- Motor CV TP liability business has historically suffered heavy LR (excess of 200%) resulting in solvency issues for the company
- Possible Conflict of interest issues with respect to reporting higher reserves than acceptable to the management
- Compliance with Guidance Notes while carrying out the reserving
- The actuarial report should clearly identify the source of data, adjustments, assumptions and methodology used in determining the reserves
- Need to maintain audit trail of the work carried out

Reserving Challenges for Actuaries

Declined Risk Pool

Reserving Challenges

The major challenges faced by the Actuaries pertain to the following:

- Data availability
- Change in Mix of Business
- Changes in Payment Pattern
- Reserving Methodology
- Orphan and Fraudulent claims
- Inflation and Court ruling

Data

- Non existent data
  - No historical RI arrangements and hence determining net reserves will be challenge
  - Data might not exist for all vehicle type or claim type (E.g. injury and death)
- Incomplete data
  - All rating factors might not have been captured
  - Plausible rating factors might not have been captured

Mix of Business

- Companies will target profitable commercial vehicle class e.g. LCV have better LR as compared to HCV
- Historically there was no incentive for companies to do selective underwriting as the risk was pooled by everyone
- Business mix might also change by geography, vehicle type etc.

Payment Pattern

- CV TP liability claims are long tail with significant settlement and reporting delays
- Payment pattern has slowed down over the years on account of judicial process and late notification
- Historical payment patterns would need to be adjusted

Reserving Methodology

- Standard chain ladder method might lead to underestimation (or overestimation) of reserves
- Consistency of the reserving method over time
- Selecting prior loss ratio for Bornhuetter Ferguson method
- Inflation and rate change assumption across the years
- Selecting the payment pattern for bootstrapping to determine the reserve uncertainty
- Exercising appropriate actuarial judgement and validating these over period of time

Orphan and Fraudulent claims

- Claims where the details of vehicle, insurance details are not available are called Orphan claims
- Companies have witnessed increased reporting of orphan and fraudulent claims

Court Ruling and Inflation

- Uncertainty in MACT awards in terms of amount and settlement delay
- Court awards have increased multipliers as prescribed in the motor vehicles Act
- TP liability claims have witnessed higher Inflation factor which has been difficult to determine

Mitigation Measures

Mitigation Measures

- Data from IIB data can be used
- Using data belonging to similar class e.g. Private Motor TP liability with suitable adjustments
- Using different Actuarial methodologies with consistent assumptions to determine range of reserves

Conclusion

- The increase in premium rates for TP liability risk has resulted in private sector companies accepting CV TP liability risks and the CV TP pool size has reduced significantly in comparison to the previous year
- With the Declined Risk Pool, the Actuary needs to determine his own reserve estimates for retained CV TP liability risks
- Actuary needs to consider data availability, mix of CV TP liability business and appropriate actuarial method while determining reserves
- Actuary will need to exercise suitable judgement based on his experience and market knowledge while determining reserves
- The claims experience needs to be monitored over the years and the reserves needs to be adjusted in light of the experience

Thank You!!

Questions??

Contact Details

- **Hiten Kothari**
  - Actuary & Vice President, Almondz Reinsurance Brokers Pvt. Ltd.
  - +91 (0) 720 880 7975
  - hitkothari@gmail.com

- **Balakrishnan Iyer**
  - Vice President Actuarial, HDFC ERGO General Insurance Co. Ltd.
  - +91 (0) 9769 886 411
  - balakrishnan.Iyer@hdfcergo.com

- **Shivdani Shilwant**
  - Head of Reserving, Odyssey Reinsurance Company
  - +44 (0) 2070 901 783
  - sshilwant@OdysseyRe.com