



SINGAPORE
ACTUARIAL
SOCIETY

10th SAS General Insurance Conference
The Next 10 years...

The Next 10 years of Motor Insurance

How will the landscape evolve?

- Alap Mehra, FIA

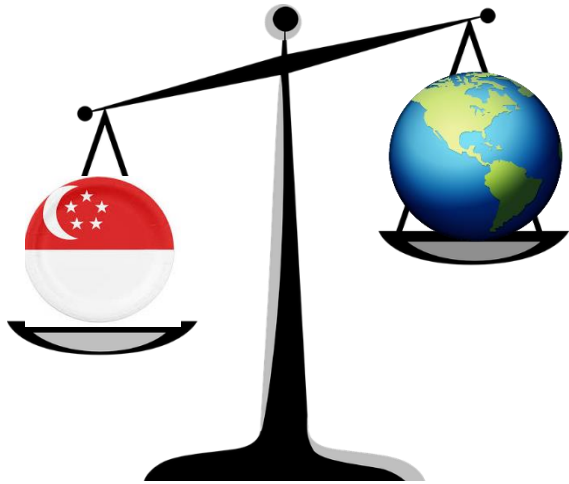
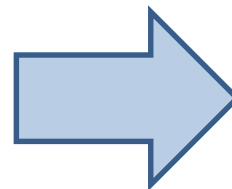
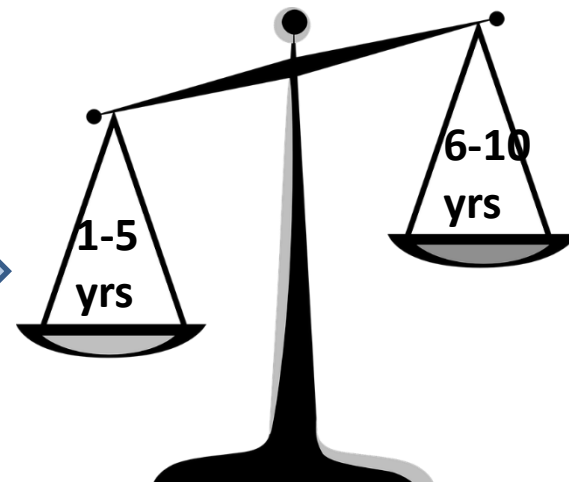
31th May / 1st June 2018
Sofitel Tanjong Pagar, Singapore

Agenda

- Sharing economy
- Claims side trends
- The distribution journey
- Connected cars
- Autonomous cars
- The underwriting cycle
- The Actuarial Role

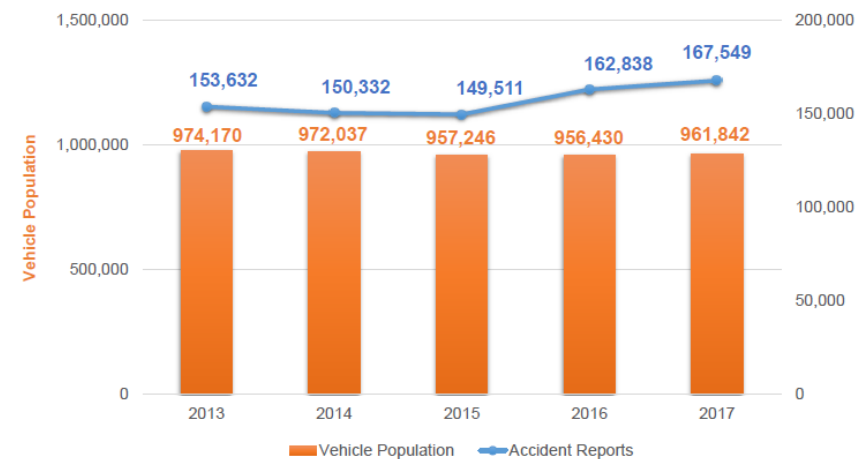


Before we get started..

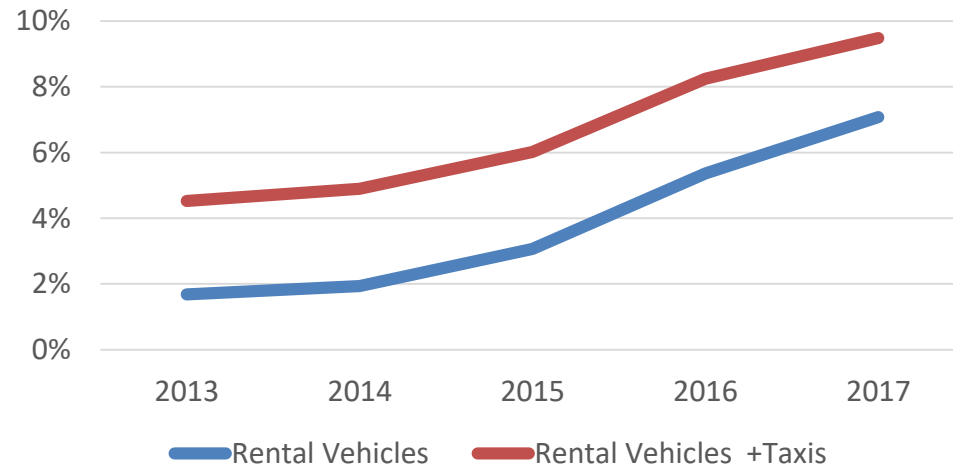


The Sharing Economy

Vehicle Population vs Number of Accident Reports



Proportion of Rental Vehicles



Visible Trends

- Higher number of Km's driven per year → higher exposure + Fatigue → higher number of accidents.
- Products have already evolved to cater to various models (pool etc.)
- Shift to commercial motor
- 1-2 Large Rental fleets → high pressure on premiums!
- Grab - Uber - Comfort – Transcab → Monopoly

Expectations of the future

Short Term

- Sharing economy here to stay → but reduction in number of cars expected → sold to private users (2018/19 COE + deregistration's?)
- Large fleet to result in concentration of annual results to 1 account → insurers likely to coinsure.
- success to depend on engagement with drivers on safety (could be either insurer led or fleet led).

Long Term

- Investment in Autonomous technology.



Claims Side Trends



Bodily Injury

- Whiplash control measures put in place:
 - Strict rules on qualification of diagnosing specialist
- Medical advancement making diagnosis more accurate (reducing the false positive rate).
 - Lower chance of “questionable” claims.

Long term view:

- Stability in BI claims to be expected
- Claims settlement guidelines / precedents to be adjusted every 5-7 years for CPI

Avg. Cost of Damage Claims

- Increase in “sub labor” items in bills, to check the computer system and various sensors.
- Overall increase in tech lead to high OD inflation in past 2/3 years (especially for new cars) .
- Pricing has been reactive (but slow)

Long term view:

- Audatex like software to be implemented
- Increasing complexity in technology will lead to labor cost inflation (Specialists), and longer repair times.
- Pricing should be proactive to tech changes.

Electric Cars

- High claims frequency:
 - Tesla → many “trivial” claims
 - “HDT taxi” -> ~ 1.5- 2x regular taxi freq.
 - Hybrid cars -> uneven acceleration
- High Severity:
 - Tesla -> expensive parts.
 - Less movable components.

Long term view

- Frequency issue to be resolved fast once a drivers get accustomed.
- New vehicle sales expected to grow 10 times form 2017-2025*



The Distribution Journey

(SG Market) Dist. Of Number of Cars by Car-Age					
Car Age	2013 &14	2015 & 16	2017 & 18	2019 & 20 (F)	2021 & 22 (F)
0-3	16%	23%	40%	43%	33%
4-7	49%	28%	16%	24%	45%
8-10	35%	45%	33%	17%	12%
10+	1%	4%	11%	15%	10%

Private Motor

Car Dealers:

- Continue dominance in new car segment till warranty period ends -> 90% + penetration rate

Agency

- Agents linked to second hand car dealers here to stay.
- Servicing slowly becoming less of a USP as purchase becomes easy (with digitization) and enhancement of claims and customer service.

Online Direct

- Online direct may see a revival post 2021 with increasing population out of the dealership “territory”.
- Sustainability of model under challenge with high digital marketing costs.
- Price competition and value destruction imminent .

Other channels

- “cross sell” of motor only → limited potential.

Commercial Motor:

- Dominance of existing agents and brokers to continue.



Connected Cars



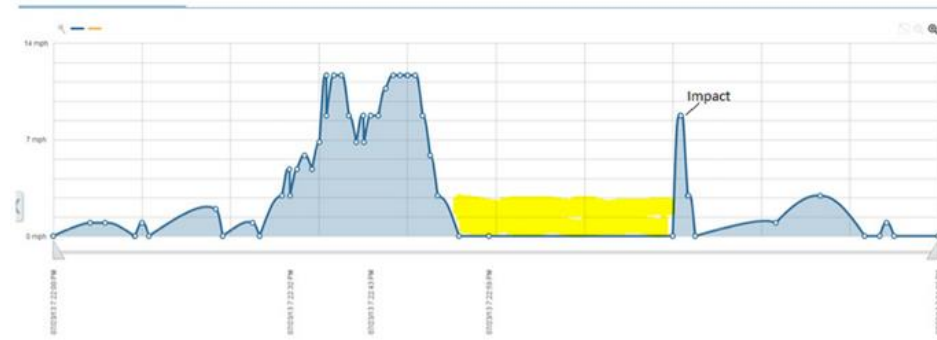
Pricing and U/W

- Device based offers not taken off.
- High proportion of new Cars are connected, with a subset collecting all info on driving behavior.
- Value of additional data to depend on extent of “dampening” done by commercial pricing
- In MY telematics gaining traction because of theft detection features. (can be disrupted).
- Other value propositions (weather alerts) to be offered by car manufacturers and not insurer.

Long term view:

- Success will depend on
 - solving the data ownership/ privacy issues
 - manufacturers willingness to share data
 - Creation of a standardized schema and a centralized “repository”

Speed Profile Siam GO7



Claims

- R&D labs of insurers working on accident Reconstruction for use as an additional source of information to determine liability (at fault party) .
 - Currently there are car cameras which are considered reasonably effective.
 - Understanding the data of a reconstruction can be tricky and needs training.
 - lesser use. For KFK countries

Long term view:

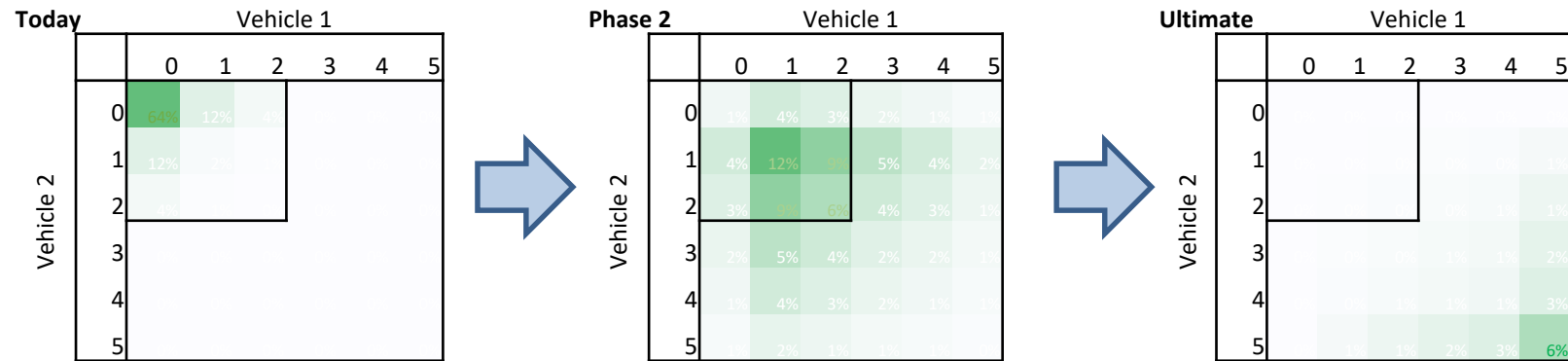
- Slow take up rate among insurers.
- Success will depend on a turn key solution being provided by a vendor using car manufacturer data.



Autonomous Cars

Will it destroy the Motor Line of business?

- Premiums to first go up before the go down → Heavy RI costs & additional risks
- New Cyber Risk as well as interactions between various states of automation.



The Liability Question

- Slow progress worldwide on resolving the liability question → LTA has made very limited progress in 1 year.

Will Product Liability insurance take over ?

Presenters Opinion

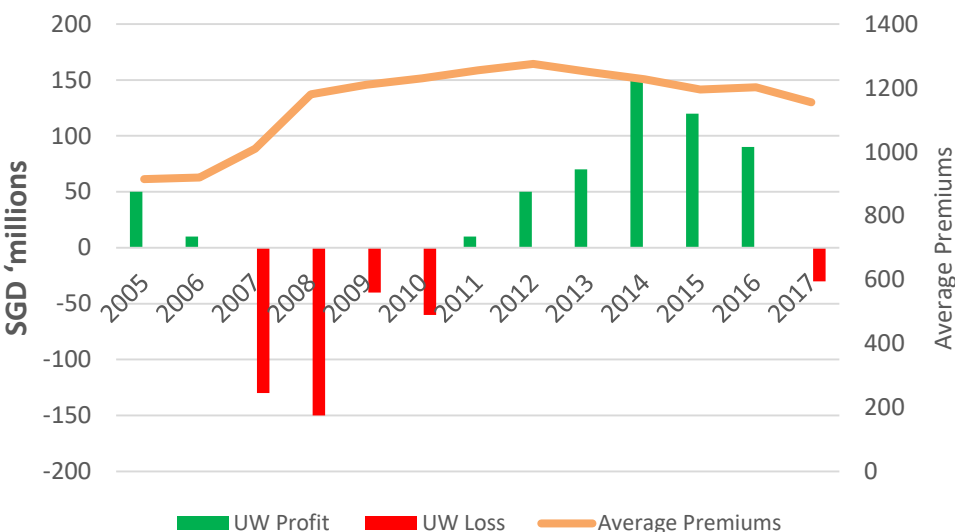
- Even if product liability is purchased, a local policy in the name of the car owner will have to be mandatory → for fast settlement of a high volume of claims.
- The product liability would be then triggered as a subrogation as a bulk settlement / class action → could take years to resolve (reserving nightmare!)

8. Adoption in KFK countries even slower.

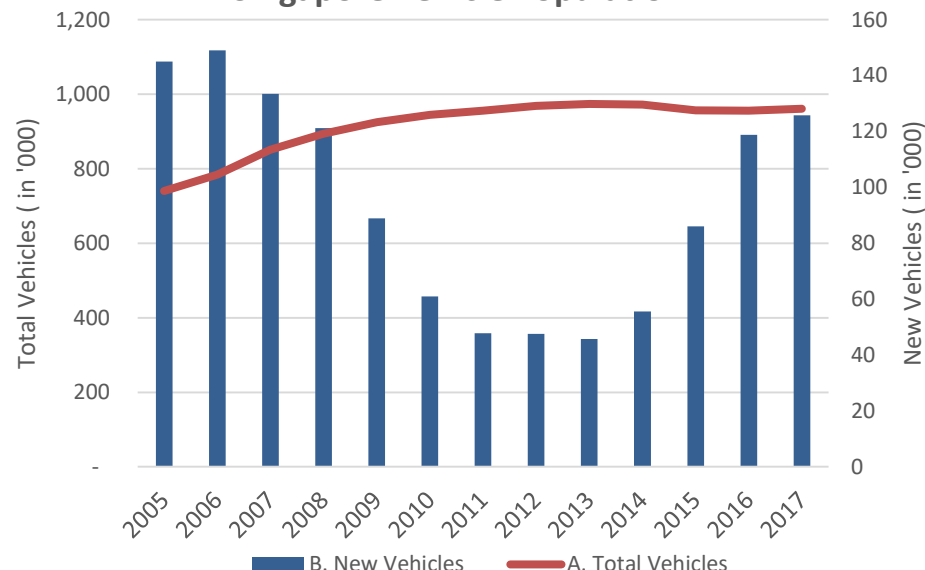


The Underwriting Cycle in SG

Singapore Motor U/W Cycle



Singapore Vehicle Population



Does Singapore have a 10 year U/W cycle?

Observations

- U/W losses happened after new car sales picked up.
 - Mix of new cars in population was the same in 2007-10 as in 2017-2020 (projected)
- Some of the losses of 2007-2010 was released as profits in 2014/15
- If correct premium is 1300 -> inflation of 5% pa over 13 yrs (inflation distorted by mix change)

Difference between 2007 and 2017

- Starting point of average premiums much higher → large shift in mix to commercial vehicles/ private hire.
- Market hardening to the tune of 20% not expected though it is necessary in some segments



A few thoughts about Actuarial tasks

Pricing and U/W

- Actuaries to take over the traditional Motor U/Ws role. U/Ws to be more market facing/ ops related
- Use of External data: Merimen to be utilized more
→ can a real time interphase (API) be developed?
- “Modern” predicative methods to be used in pricing subject to system implement ability -> to start first for renewals.
 - GLMs to be replaced by brute force BC models for ELR estimations.
- Bespoke pricings to continue / increase in number (large fleets, AV trials etc.)
- Disruptions (AVs, technology's) will result in pricing to be more reactive then proactive

Reserving

- More granularity in analysis of development:
 - Triangles Depending on extent of liability.
 - Triangles split by “business segment”.
- IBN”E”R to be the result of a predictive model.
- Autonomous cars and subrogation/ recovery to add to complexity.



In 2020 Apple will unveil their first car.



@Sloondadon



Engine & key sold separately.

Thank You!

Feel free to contact me on:
alap.mehra@axa.com.sg

