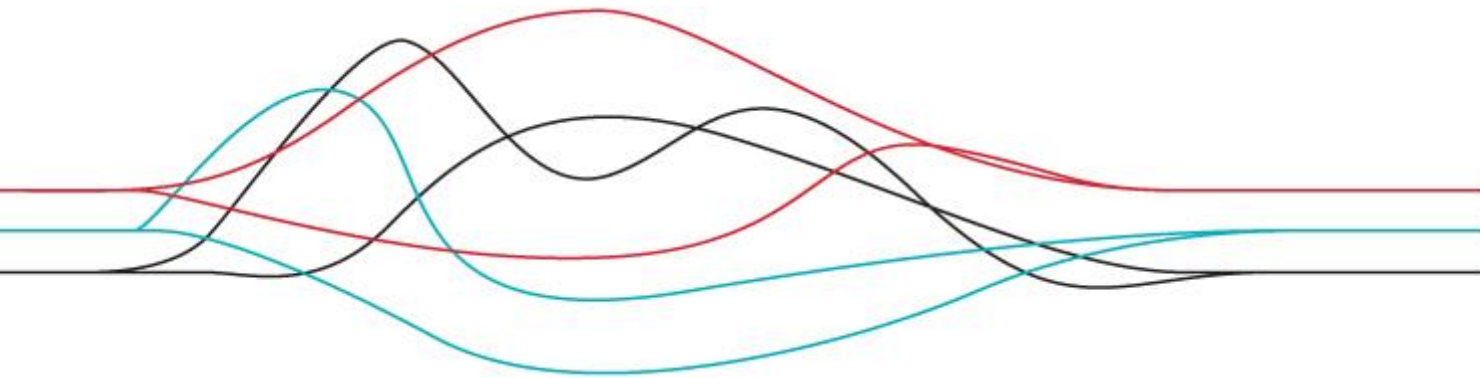# 2015 CAS Annual Meeting
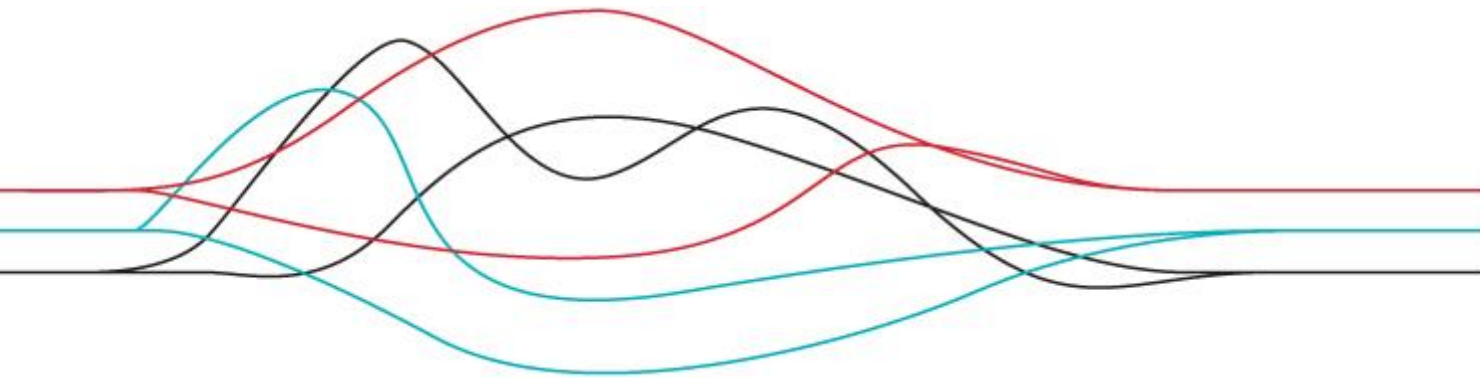
Lessons from
Auto Insurance Reforms

November 17, 2015

AGENDA

1. Med/Rehab and Attendant Care Benefit Limits
2. Company Data, Challenges and Adjustments
3. Reform Savings: Data and Data Adjustments
4. Develop and Trend Individual Claims
5. Reform Savings Estimation Methodology
6. Reserve Challenges

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INSURANCE

Med/Rehab and Attendant Care Benefit Limits

Standard Med/Rehab and Attendant Care (AC) Limit
- o <u>Current</u>: Med/Rehab - $50k limit ; AC - $36k limit separately
- o <u>June 1, 2016</u>: Combined Med/Rehab + AC Limit of $65K

CAT Med/Rehab and Attendant Care (AC) Limit
- o <u>Current</u>: Med/Rehab - $1M limit ; AC - $1M limit separately
- o <u>June 1, 2016</u>: Combined Med/Rehab + AC Limit of $1M

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Company Data

IFC (Intact) is the leading insurer in Ontario and Canada

Industry reform estimates published in the regulator's technical notes based on data from:
- GISA (**G**eneral **I**nsurance **S**tatistical **A**gency)
- HCAI (**H**ealth **C**laims for **A**uto **I**nsurance)

Intact has more granular and current data than GISA or HCAI (AY 2011 to 2014 as of August 15, 2015)

Intact estimated auto reform impacts by legal entity (broker, direct, group, non-standard, commercial, recreational)

Company Data Challenges

Missing / Inaccurate Injury Flags
- o Catastrophic claims closed w/o payment
- o Non catastrophic claims closed over $300K
- o Claims have an injury description but no injury flag

Split of General Damages
- o Judges make lump sum court awards
- o Additional Investigation - Claim file notes may provide clues to split general damages into pecuniary and non-pecuniary amounts.

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Reform Savings Data

o Claim/Claimant data summarized by company, AY, injury type and sub-file

o Provides split by **Injury type**: Minor, Basic, Catastrophic losses

o Provides split by **Sub file**: Medical Payments, Medical Examinations, Renovation (Rehab), Vocational (Rehab)

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Reform Savings Data Adjustments

o Any claim sub files where paid or incurred loss is <=0 is removed

o AB benefit limit is only applicable to indemnity losses, all ALAE are excluded from the savings calculation.

o Medical examinations requested **by the insured** are accounted as an indemnity costs. The insurer portion of the examination fees is accounted as ALAE.

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Develop and trend individual claims

- Loss development factors are applied by
  Company, Accident Year, Injury type and Sub-Coverage

- <u>Minor claims</u> - Med/Rehab claims capped at $3,500.
  Attendant Care (AC) claims are not capped.

- <u>Basic claims</u> (2 scenarios)
  1. <u>Hard limit</u> – Cap the development of Med/Rehab and AC claims **individually** to their respective limit. This is our **upper** end of the savings range
  2. <u>Soft limit</u> - **Do not cap** development of Med/Rehab and AC. This is our **lower** end of the savings range

- <u>CAT claims</u> - Cap the development for each claimant at $1.5M.

Develop and trend individual claims

Step 1: Calculate the expected indemnity savings as a % of **developed & trended indemnity losses** by **sub-coverage**

Step 1A: **Determine developed indemnity losses (Determine the IBNER)**
- o Calculate (IBNR/case reserve) ratio by Company, Accident Year, Injury type and Sub file
- o Assume % unreported claims = % of **PURE IBNR**
- o IBNER factor = IBNR Factor / Pure IBNR Factor
- o Developed Open Claim $ =
    Open Claim $ x IBNER factor
- o Cap claims based on the hard / soft limit cap scenarios

Develop and trend individual claims

Step 1B: **Allocate the IBNER to each individual claim (an iterative process)**

- o Since losses are capped some IBNER is not allocated.

- o Repeat the process until the remaining IBNER can no longer be allocated

- o The % of unallocated IBNER was very small.

Case Study 1 – Claim development / trend

Injury type: Basic ; Sub-coverage: Attendant Care (AC)
Paid Indemnity=$2,000 ; Case Reserve=$18,000 ;
IBNR Factor = 1.200 ; Trend Factor = 1.100

Ultimate Loss = Paid + Case * IBNR factor = $23,600
Total Remaining IBNR for the group = 0%
No additional allocation of IBNR is required

Trended / developed Indemnity = Ultimate Loss * Trend Factor = $25,960

Less than $36K AC limit so no capping is required.

Case Study 2 – Claim development/trend capped

Injury type = Basic ; Sub-coverage = Med/Rehab
Paid Indemnity = $30,000
Case Reserve = $15,000

IBNR Factor = 1.800
Ultimate Indemnity = Paid + Case * IBNR factor = $57,000

Since this amount exceed the $50K limit, the trended and developed Indemnity = $50,000

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Case Study 3 – More than 1 iteration

Injury type = Basic ; Sub-coverage = Med/Rehab
Paid Indemnity = $15,000 ; Case Reserve = $30,000
IBNR Factor = 1.200 for AY 2012
Total Case reserve for the group = $240,000 ; Total Paid = $100,000

Total IBNR to be allocated = (IBNR Factor – 1) * Total Case reserves = $40,000
Total Ultimate losses without capping = $100,000 + $240,000 + $40,000 = $380,000

1st iteration:
Ultimate of claim amount = $15,000 + $30,000 x 1.200 = $51,000
Total Group Ultimate losses after first round of allocation = $350,000
IBNR remaining to be allocated = $380,000 - $350,000 = $30,000
Since indemnity is < $50K limit and there is more IBNR to be allocated, iterate again.

2nd iteration:
Case reserve of claim = $40,000 ; Total Case reserve **of open claims** = $160,000
Ultimate of claim amount = $51,000 + (40,000/160,000 * $30,000) = $58,500
Since the claim amount is over the limit of $50,000, we stop iterating for this claim and set its developed and trended amount to $50,000

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Reform Savings Estimation Methodology

Step 2: Calculate the expected ALAE savings as a % of **developed & trended ALAE losses** by **sub-coverage**

Step 3: Calculate the projected indemnity and ALAE by **sub-coverage** (by company and accident year)

Step 4: Estimated Accident Benefit Savings =
    (Indemnity %) x (Indemnity Savings)
    + (ALAE %) x (ALAE Savings)

Given: Ult indemnity=70% and Ult ALAE=30%
Savings: Ult indemnity=10%, Ult ALAE=0%
Reform Impact: 70%*10% + 30%*0% = 7%

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Company Observations – Auto Reform Impact

Direct Insurers – Slightly higher expected savings as younger insureds have less minor injury claims.

Group Insurers – Lower expected savings as the auto product is usually the second payer

Non-Standard Insurers – Higher expected savings as these companies tend to have higher CAT claims

Recreational Vehicles - Higher expected savings as these companies tend to have higher CAT claims

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Reserve Challenges

Principle 1 - An unpaid claims estimate is reasonable if it is derived from reasonable assumptions and appropriate methods

o Can a reserving actuary trust the historical Accident Benefit link ratios?
       (place heavy reliance on the ELR method)

o How will Bodily Injury claims change - lower CAT limits trigger BI losses?

o What will the frequency and severity trends look like going forward?
     (Is the post 2010 experience applicable to the 2016 experience?)
     (Claimant or Stakeholder behaviour change – liaise with claims)

Reserve Challenges

Principle 2 – An unpaid claims estimate is inherently uncertain. This uncertainty stems from circumstances that are unknown when the estimate is made. Thus the unpaid claims estimate implies that a rate of estimates can be reasonable.

o Use many methods to try and evaluate the proper ULR

o Collaboration is key to provide 'best estimates' of unpaid claims in a very uncertain / evolving environment

o Examples:
   • Separate CAT / non-CAT claims - expected claims mix change
   • Quarterly monitoring of apriori reform impact assumptions

Reserve Challenges

Principle 3 – The actual amounts paid will likely differ from the estimated future payments. The actual future payments can be known with certainty only when all the payments for such claims have been made.

o   Are we there yet? (We are getting closer)
o   Case law changes – Kusnierz (2011), Pastore (2012)
o   Major product reform being introduced in 2016 (Here we go again!)