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This handout supports the research effort of the Actuarial Profession's working party and is not written advice directed at the particular facts and circumstances of any given situation and/or data.

The materials contained in this presentation pack and any oral representation of it by the working party are explicitly outside the scope of the TAS.
# Acknowledgements for TPWP

**Working Party:**
- David Brown (Chair)
- John Berry
- Simon Black
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- Grant Mitchell
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- Niraj Shah
- David Slater
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**Data contributors:**
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- Aviva
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- The Cooperative
- Insurance
- esure
- Groupama
- LV
- NFU Mutual
- Provident
- RBS Insurance
- RSA
- Zurich

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---

# Acknowledgements for PPO Working Party

**Working Party:**
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...plus others we consulted and spoke with

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- Allianz *
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- Groupama*
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- Liverpool Victoria*
- NFU Mutual*
- Provident*
- RBS Insurance*
- RSA*
- Zurich Insurance*

* contributed to both working parties

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   • Benchmark Development Patterns
3. PPO WP survey results
4. $2 + 3 = 4$

Appendices

Industry results from TP and PPO working parties

• Second Industry Study with wider scope than First Study
• A significant number of insurers contributed a vast array of information on third party claims (injury and property damage) that made this happen
• In total, over 85% of FSA regulated companies (measured by 2009 premium volumes) contributed, and so the results form as complete a study as probably is possible
• Analysis of the above data carried out by Towers Watson on an anonymised basis
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Excess of Capped TPI Analysis
Introduction

• Data formats and analysis identical to IUA Bodily Injury Studies
• Anonymised data was provided for individual TPI claims relating to accident years 2000 through to 2010 (inclusive)
• Data was provided “as at” 31 December 2010
• The analysis investigated the cost of claims in excess of a threshold of £100,000 in 2010 money, indexed at 7% per annum
• The analysis was restricted to Private Car Comprehensive due to insufficient quantities of data in other lines of business
• Results are generally shown for accident years 2002 through to 2010, owing to reduced exposure for the 2000 and 2001 accident years.
Excess of Capped TPI Analysis

Introduction

- The threshold for the relevant accident years are based on £100k in 2010 money indexed at 7%
- The thresholds are slightly lower than those used in the capped claims analysis shown in the Capped Bodily Injury results (thresholds were equal to £50k in 1999 money indexed at 7% per annum, c.f. £47.5k in 1999 money)
- This was done to maximise consistency with the IUA Bodily Injury Studies

<table>
<thead>
<tr>
<th>Accident Year</th>
<th>Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>50,835</td>
</tr>
<tr>
<td>2001</td>
<td>54,393</td>
</tr>
<tr>
<td>2002</td>
<td>58,201</td>
</tr>
<tr>
<td>2003</td>
<td>62,275</td>
</tr>
<tr>
<td>2004</td>
<td>66,634</td>
</tr>
<tr>
<td>2005</td>
<td>71,299</td>
</tr>
<tr>
<td>2006</td>
<td>76,290</td>
</tr>
<tr>
<td>2007</td>
<td>81,630</td>
</tr>
<tr>
<td>2008</td>
<td>87,344</td>
</tr>
<tr>
<td>2009</td>
<td>93,458</td>
</tr>
<tr>
<td>2010</td>
<td>100,000</td>
</tr>
</tbody>
</table>

- The following charts show key features of the development of the claims
- Some prior years have been omitted from some of the charts in order to focus on the areas of greatest interest
- The horizontal axis shows the number of development months since the start of each accident year.

Excess of Capped TPI Analysis

Data Trends

- Drop in frequency since 2007; 2010 is down significantly

Inflation Rates

- 09-10: -21.6%
- 08-09: -0.3%
- 07-08: -7.3%
- 06-07: 6%
- 05-06: -1%
Excess of Capped TPI Analysis
Data Trends

Ratio of Excess BI to TPD reported numbers

With the exception of 2010, the ratios have been steady over time; drop in 2010 could be due to:
- Late reporting of large claims
- Lower levels of serious TPI due to low driving speeds in winter weather
- Fewer young drivers due to increased cost of motoring

Inflation Rates
- 09-10: -16.1%
- 08-09: 0.7%
- 07-08: -2.6%
- 06-07: 1%
- 05-06: -5.1%

Large claims frequency vs. petrol prices

Petrol price data from the Automobile Association
http://www.theaa.com/motoring_advice/running_costs/archive.html
Excess of Capped TPI Analysis
Data Trends

Excess of Capped Settled Average Cost
• Very few settlements in most recent years make it hard to establish a clear pattern other than a general inflationary trend

Excess of Capped Incurred Average Cost
• Clear inflationary trend which is arguably twice as strong as that seen for settled average costs
• Whilst this may reflect genuine inflation, it is possible that case estimate strength has increased at least in part due to some insurers strengthening for PPOs (see slide 40)

Inflation Rates
07-08: 19.6%  06-07:  -10.8%  05-06:  7.6%  04-05:  -4.5%  03-04:  10%
Excess of Capped TPI Analysis

Data Trends

- As would be expected, inflation on the open claims is the strongest of all measures (roughly three times the rate of settled inflation)
- This is consistent with the increased settlement rate for the oldest years, and means that there are cohorts dominated by the most severe claims

The earlier point on PPOs will also apply

Inflation Rates:
- 09-10: 1.9%
- 08-09: 17.3%
- 07-08: 11.7%
- 06-07: 1%
- 05-06: 23.4%
- 04-05: -10.4%
- 03-04: 42.8%

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Excess of Capped TPI Analysis
Projected Ultimate Claims – Uncertainty

- Rigorously straightforward mechanistic projection methodology
- No tail beyond 11 years as no data
- An x% tail factor would increase ultimates for all accident years by x% but with the same trend across years.
- The Ogden consultation and version 7 of the Ogden tables are most likely not reflected in insurers’ data:
  - Any increase in longevity assumptions or drop in the discount rate would lead to additional inflation
  - Such increases may however be mitigated at least partially by PPOs being less attractive to insurers.
- The PPO Working Party has found range of approaches to PPO case reserves. Quoted inflation rates may be overstated excluding PPOs but understated including PPOs
- 2010 Q4 had poor weather in December, bringing potential reporting delays & lower impact speeds and less TPI (see Appendix 1 Slide 128)
- The most recent accident years are immature in their development and as such are subject to material uncertainty
- Due to lack of development data, Paid triangles were not used. As such projections are subject to uncertainty caused by changes in case reserve strength over time

### Excess of Capped TPI Analysis
Projected Ultimate Claims

<table>
<thead>
<tr>
<th>Accident Period</th>
<th>Earned Exposure (millions of vehicle years)</th>
<th>Ultimate Excess of Capped Claim Frequency</th>
<th>Ultimate Excess of Capped Claim Severity</th>
<th>Ultimate Excess of Capped Burning Cost</th>
<th>Year-on-Year Change in Frequency</th>
<th>Year-on-Year Change in Severity</th>
<th>Year-on-Year Change in Burning Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>10.73</td>
<td>121</td>
<td>264,174</td>
<td>31.9</td>
<td>-9.3%</td>
<td>-9.3%</td>
<td>-17.7%</td>
</tr>
<tr>
<td>2003</td>
<td>12.23</td>
<td>110</td>
<td>239,715</td>
<td>26.3</td>
<td>-10.5%</td>
<td>17.2%</td>
<td>4.8%</td>
</tr>
<tr>
<td>2004</td>
<td>12.68</td>
<td>98</td>
<td>280,907</td>
<td>27.5</td>
<td>-1.0%</td>
<td>17.2%</td>
<td>4.8%</td>
</tr>
<tr>
<td>2005</td>
<td>13.13</td>
<td>101</td>
<td>294,703</td>
<td>25.8</td>
<td>3.5%</td>
<td>-9.3%</td>
<td>-6.1%</td>
</tr>
<tr>
<td>2006</td>
<td>13.11</td>
<td>100</td>
<td>305,617</td>
<td>30.6</td>
<td>-1.6%</td>
<td>20.0%</td>
<td>18.5%</td>
</tr>
<tr>
<td>2007</td>
<td>12.48</td>
<td>106</td>
<td>303,334</td>
<td>32.2</td>
<td>6.4%</td>
<td>-0.7%</td>
<td>5.8%</td>
</tr>
<tr>
<td>2008</td>
<td>12.27</td>
<td>102</td>
<td>342,928</td>
<td>34.9</td>
<td>-4.2%</td>
<td>13.1%</td>
<td>8.4%</td>
</tr>
<tr>
<td>2009</td>
<td>12.77</td>
<td>106</td>
<td>395,167</td>
<td>41.9</td>
<td>4.2%</td>
<td>15.3%</td>
<td>22.1%</td>
</tr>
<tr>
<td>2010</td>
<td>12.96</td>
<td>99</td>
<td>378,975</td>
<td>37.5</td>
<td>-6.6%</td>
<td>-4.1%</td>
<td>-10.5%</td>
</tr>
</tbody>
</table>

- 2009 was a bad year with burning cost inflation of 20%. More typical inflation might be 5-10%. Improvements seen in 2010 may be a return to normal levels of claims experience after 2009 but may be distorted due to winter weather
- Burning cost trends are driven by severity rather than frequency
Excess of Capped TPI Analysis
Projected Ultimate Claims

- Claim numbers and claim amounts were projected in a series of (unindexed) layers:
  - A seventh layer between £100k unindexed and £100k indexed was used to calculate results in excess of £100k indexed. Results for this layer are not included in analysis of layers.
  - The definition of the layers is such that a claim of £1m contributes £150k to the lowest layer, £250k to next layer and £500k to the next layer.
  - This approach allowed the estimation of claim frequencies, average costs and burning costs within layers to be estimated for each accident year.
  - Note that although the nominal £100k-250k frequency is increasing, slide 34 shows that the frequency of claims in excess of the indexed threshold has been falling. The increase in frequency seen on an unindexed basis is due to underlying natural inflation.

- Development pattern consistent with the exception of 2010, which may have been distorted due to winter weather
- In later development there is redundancy as some claims are settled beneath the capping threshold
- Average development patterns for Excess TPI triangles are shown in Appendix 1, Slides 101-105

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On a proportional basis:

- No change for layers beneath £1m
- £1-2m layer reducing
- Higher frequencies for >£5m and >£2m

- An increasing proportion of the total cost now falls into the >£2m layers
- Claims >£1m now represent almost half of the cost of excess claims
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Excess of Capped TPI Analysis
Analysis of Largest Claims

• Average incurred claim cost triangles were constructed for the following subsets of data:
  • Largest 2000 claims for each accident year
  • Largest 1000 claims for each accident year
  • Largest 200 claims for each accident year
  • Largest 200 claims for each accident year, excluding the largest 20
• By taking the largest n claims in each year, the intention is to consider injuries of similar severity to get a measure of inflation for large claims that is undistorted by an increasing frequency of small or mid-range claims or the indexation of thresholds.
• We show the annualised average increases of claim costs over several periods for each of the above subsets
Excess of Capped TPI Analysis
Analysis of Largest Claims

Claim severity triangle for Private Car Comprehensive (largest 200 claims per accident year)

<table>
<thead>
<tr>
<th>Loss Year</th>
<th>Development Year (Figures in £000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2003</td>
<td>883</td>
</tr>
<tr>
<td>2004</td>
<td>817</td>
</tr>
<tr>
<td>2005</td>
<td>828</td>
</tr>
<tr>
<td>2006</td>
<td>758</td>
</tr>
<tr>
<td>2007</td>
<td>803</td>
</tr>
<tr>
<td>2008</td>
<td>1,008</td>
</tr>
<tr>
<td>2009</td>
<td>1,190</td>
</tr>
<tr>
<td>2010</td>
<td>1,080</td>
</tr>
</tbody>
</table>

Annualised Escalation Rates

5 Year Periods
- 2003 - 2008: 9% 11% 12%
- 2004 - 2009: 8% 14%
- 2005 - 2010: 11%

3 Year Periods
- 2003 - 2006: 5% 7% 13% 9% 11%
- 2004 - 2007: -10% 5% 7% 7%
- 2005 - 2008: 17% 15% 17%
- 2006 - 2009: 18% 22%
- 2007 - 2010: 21%

Costs have increased particularly in 2008-10 and inflation rates have touched 20% in recent years.

Escalation rates for the top 200 claims are generally higher than for the top 1000/2000 claims (where they were 7-10% and 7-13% respectively).

The increasing prevalence of PPOs may be one of the drivers for this increase.

Excess of Capped TPI Analysis
Analysis of Largest Claims

• Information on the largest 25 claims (by latest incurred value) for each accident year is also presented
• Latest incurred costs for the most recent years are likely to be under-developed
• In addition to listing the claims below, they are grouped into bands of £1m in size so that the distributions of the largest claims can be assessed by accident year.
Excess of Capped TPI Analysis
Analysis of Largest Claims

Private Car Comprehensive - Distribution of largest 25 claims by latest incurred

<table>
<thead>
<tr>
<th>Accident Year</th>
<th>£2m - £3m</th>
<th>£3m - £4m</th>
<th>£4m - £5m</th>
<th>£5m - £6m</th>
<th>£6m - £7m</th>
<th>£7m - £8m</th>
<th>£8m - £9m</th>
<th>£9m - £10m</th>
<th>£10m+</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>2</td>
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<tr>
<td>2003</td>
<td>11</td>
<td>4</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>4</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>-</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>10</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>-</td>
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<tr>
<td>2006</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>2</td>
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<tr>
<td>2008</td>
<td>-</td>
<td>8</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<td>-</td>
<td>1</td>
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<tr>
<td>2009</td>
<td>-</td>
<td>10</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>9</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

• In 2008 the 25th largest claim exceeds £3m for the first time.
• In 2009 the 25th largest claim is over £4m.
• In 2010, 9 of the top 25 claims are currently estimated at below £3m, which is very out of line with 2008 and 2009, but it may be that estimates for 2010 are very under-developed and will grow over time.
• The largest claim in each year has been over £8m, with four years including claims costing more than £10m.

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Excess of Capped TPI Analysis
Adequacy of Case Estimates

• We extracted claims from the data which had been reported before the end of development year one, and tracked their further incurred development relative to the year one position.

• This removes the effect of IBNR claims, allowing the impact of IBNER to the deterioration of claims experience to be separately assessed.

• An element of IBNER may be the identification of additional claimants on claims already reported.

• The calculation is then repeated using development year two to obtain a view of incurred development relative to the year two position.

• We show here only development beyond year 2.

Excess of Capped TPI Analysis
Adequacy of Case Estimates

• By the end of the second year, case reserves much more adequately reflect the ultimate cost.

• However, all years still show some adverse development of up to 20%.

Incurred development relative to month 24 (IBNER only)

Percentage of month 24 incurred amount

24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72
Development Month

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PPO Working Party Industry Survey 2011

Profile of a PPO

Additional measures in 2011
- Propensity
- MIB experience
- Liability PPOs
- Nature of Injury

Current reserving practice

Update

Number of PPO claims by settlement quarter
Update

Number of PPO claims by settlement quarter

![Graph showing number of PPO claims by settlement quarter for 2008, 2009, 2010, and 2011.]

Industry Survey 2011

Profile of a PPO

Additional measures in 2011

- Propensity
- MIB experience
- Liability PPOs
- Nature of Injury

Current reserving practice
Profile of a PPO

Number of PPOs by type of injury

- Brain
- Spinal
- Other

Profile of a Motor PPO

- Brain or spinal injuries
- Average age at settlement: 34
Profile of a PPO

Number of PPOs by age at settlement

![Graph showing number of PPOs by age at settlement for males and females.]

Profile of a PPO

Number of PPOs by age of driver

![Graph showing number of PPOs by age of driver for males and females.]

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Profile of a PPO

Age of driver against age of claimant at the time of the accident

Profile of a Motor PPO

- Brain or spinal injuries
- Average age at settlement: 34
- Delay to settlement: 6 years
Profile of a PPO

Distribution of delay to settlement

Profile of a Motor PPO

- Brain or spinal injuries
- Average age at settlement: 34
- Delay to settlement: 6 years
- Future life expectancy at settlement: 41
- Life expectancy reduction: 10 years
Profile of a PPO

Distribution of future life expectancy at the time of settlement

- Average age at settlement: 34
- Delay to settlement: 6 years
- Future life expectancy at settlement: 41
- Life expectancy reduction: 10 years
- Indexation linked to ASHE 6115
- Annual PPO payment: £80k
- Lump sum: £2m
Profile of a PPO

Distribution of initial PPO payment amount

Profile of a PPO

Distribution of lump sum payment amounts
Industry Survey 2011

Profile of a PPO

Additional measures in 2011
  – Propensity
  – MIB experience
  – Liability PPOs
  – Nature of Injury

Current reserving practice

Overall propensity

Number of large claims (>£1m) which settle as PPOs
**Industry Survey 2011**

**Profile of a PPO**

**Additional measures in 2011**
- Propensity
- MIB experience
- Liability PPOs
- Nature of Injury

**Current reserving practice**
Industry Survey 2011

Profile of a PPO

Additional measures in 2011
- Propensity
- MIB experience
- Liability PPOs
- Nature of Injury

Current reserving practice

Brain Injury PPOs

Initial payment amount (£)

<table>
<thead>
<tr>
<th>Initial Payment Amount (£)</th>
<th>Count</th>
<th>Ave Claim</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brain - Moderate</td>
<td>10</td>
<td>20,000</td>
</tr>
<tr>
<td>Brain - Severe</td>
<td>30</td>
<td>40,000</td>
</tr>
<tr>
<td>Brain - Very Severe</td>
<td>50</td>
<td>60,000</td>
</tr>
<tr>
<td>Brain - Unknown</td>
<td>70</td>
<td>80,000</td>
</tr>
<tr>
<td>Brain - Very Severe</td>
<td>90</td>
<td>100,000</td>
</tr>
<tr>
<td>Brain - Severe</td>
<td>110</td>
<td>120,000</td>
</tr>
<tr>
<td>Brain - Unknown</td>
<td>130</td>
<td>140,000</td>
</tr>
</tbody>
</table>
### Brain Injury PPOs

#### Lump sum amount (£)

- **Brain - Moderate**
- **Brain - Severe**
- **Brain - Very Severe**
- **Brain - Unknown**

#### Percentage reduction in life expectancy

- **Brain - Very Severe**
- **Brain - Severe**
- **Brain - Moderate**

Reduction in life expectancy as a percentage of unimpaired expected lifetime.
Industry Survey 2011

Profile of a PPO
Additional measures in 2011
- Propensity
- MIB experience
- Liability PPOs
- Nature of Injury

Current reserving practice

Reserving practice

Claims can be split into different elements for reserving purposes

- Claims settled as PPO (in payment)

- Future PPOs
  - Claims notified but not yet settled as PPO: IBNER
  - Claims not yet notified: IBNR
Current reserving practice

PPOs in payment

- Similar practice across the industry
  - Reserves calculated on an individual basis
  - NPV cashflow approach

- Differences in assumptions used
  - Earnings inflation
  - Life expectancy
  - Investment return

Reserving practice

Annuity certain approach

- Assume payments will be made with certainty for every year of future life expectancy

Probabilistic approach

- Take into account probability of survival for all future payments
Reserving practice

Reserves may increase from year to year
- Once survived a year, an individual's life expectancy will have increased
- Effect of the discount unwinding

Current reserving practice

- Claims settled as PPO (in payment)
- Future PPOs
  - Claims already reported but not yet settled as PPOs
  - IBNR claims
Current Reserving Practice

Future PPOs
• No consistent approach in the market
• Significant element of the reserves – delay to settlement
• Almost all respondents monitor open claims for likelihood of turning into a PPO
  – Variety of ways this is achieved

Observations
• Lack of consistency in / disclosure of assumptions
  – Economic assumptions
  – Life expectancy
• Nature of injury
• Life insurance methodologies
  – (Re)education needed
## Contents

1. Scope of Work
2. Excess of Capped TPI results
   - Data Trends
   - Projected Ultimates
   - Analyses of Largest Claims
   - Adequacy of Case Estimates
   - Benchmark Development Patterns
3. PPO content
4. \[2 + 3 = 4\]

### Appendices

---

**2 + 3 = ?**

**Projected Ultimate Number of PPOs**

<table>
<thead>
<tr>
<th>Accident Year</th>
<th>£1m - £2m</th>
<th>£2m - £5m</th>
<th>&gt; £5m</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>6.9</td>
<td>3.0</td>
<td>0.8</td>
</tr>
<tr>
<td>2003</td>
<td>5.7</td>
<td>2.3</td>
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<tr>
<td>2004</td>
<td>5.8</td>
<td>3.1</td>
<td>0.7</td>
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<tr>
<td>2005</td>
<td>6.0</td>
<td>2.8</td>
<td>0.6</td>
</tr>
<tr>
<td>2006</td>
<td>6.8</td>
<td>3.7</td>
<td>1.0</td>
</tr>
<tr>
<td>2007</td>
<td>6.4</td>
<td>3.2</td>
<td>1.0</td>
</tr>
<tr>
<td>2008</td>
<td>6.9</td>
<td>3.9</td>
<td>1.6</td>
</tr>
<tr>
<td>2009</td>
<td>9.7</td>
<td>5.8</td>
<td>2.2</td>
</tr>
<tr>
<td>2010</td>
<td>7.2</td>
<td>4.3</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Ultimate number of PPOs (as at now):
2 to 4 times* the current settled number

*Based on a number of 'herioc' assumptions - see overleaf
2 + 3 = ?
Considerations

• The propensity rate changes over time, so selecting a single rate will not necessarily be appropriate. In particular there is a suggestion that there has been a slow down in the number of PPOs being settled in 2011.
  – The TP WP data is on an accident year basis, and the PPO WP has propensities by settlement year – and which can be seen to vary by settlement year.
  – The exposure data used only goes back to 2002 – delays can occur up to 15 years (especially where minors are concerned).
  – Similarly (and with opposite effect) some of the PPOs already settled and in the PPO WP survey data will relate to accident years prior to 2002.
  – The propensity rates vary significantly from insurer to insurer.
  – Central propensity rates selected were lower than the 2010 settlement year rates from the PPO WP survey
• The large claim frequencies from the TP WP only relate to private car comprehensive policies, which is only ~57% of PPOs in the PPO WP survey. There may be differences in experience and hence propensities with Commercial and Non Comprehensive type exposures.
• This analysis does not include PPOs emerging from liability covers, nor the whole of the UK motor market.

Questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.
The views expressed in this presentation are those of the presenter.
Appendices

1. Raw output from Working Party, including more granular results on large claims analysis
2. Slides from Pricing Seminar
Update from the Third Party Working Party
Raw outputs from Working Party

Contents

1. Additional statistics for Private Car Comprehensive Capped TPI
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Private Car Comprehensive
Reported claimants per claim

Reported Claimants per Claim (inc nils)

Development month

Inflation Rates
09-10: -2.2%  08-09: 4.1%  07-08: 5.3%  06-07: 3.8%  05-06: 7.6%

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Private Car Comprehensive
Reported claimant frequency

Private Car Comp - All Distribution Channels - TPI Capped
Reported Claimant Frequency (incl nils)

Development month

Inflation Rates
 09-10: -0.7%  08-09: 16.7%  07-08: 10.3%  06-07: 12.9%  05-06: 15.7%

Contents

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Private Car Comprehensive Experience by TV Region

- Latest reported claim numbers and incurred claim amounts were provided split by geographic region
- These data were aggregated and a set of industry statistics produced that shows how key statistics vary by location in the UK
- These statistics are based on latest positions (ie on claim information excluding any estimate for IBNR or IBNER claims or amounts) which should be considered when interpreting any results
- The analysis was restricted to Private Car Comprehensive due to insufficient quantities of data in other lines of business
- Some differences in absolute level of KPIs compared with last year’s analyses are present
- These differences are caused by there being a different basket of contributing companies this year
- Relative trends generally reinforce the trends identified last year.

TPI / TPD numbers by TV region (Private Car Comprehensive)

![Graph showing TPI / TPD numbers by TV region for Private Car Comprehensive]
TPI / TPD numbers by TV region (Private Car Comprehensive) – 2010 analysis for comparison

TPI / TPD Numbers

Policy Years

Accident Year

Total Exposure

London + South East and Kent and Essex

Central

Kent + Essex (Excl M25)

North East

Yorkshire

Total Exposure

North West

East Anglia

Border

Scotland

North East Scotland

Total
TPI / TPD numbers by TV region (Private Car Comprehensive) – 2010 analysis for comparison

Change in TPI / TPD Numbers (Private Car Comprehensive)
Change in TPI / TPD Numbers (Private Car Comprehensive) – 2010 analysis for comparison

Change in TPI / TPD Numbers (Private Car Comprehensive)
Change in TPI / TPD Numbers (Private Car Comprehensive) – 2010 analysis for comparison

Third Party Injury average cost by TV region (Private Car Comprehensive)
Third Party Injury average cost by TV region (Private Car Comprehensive) – 2010 analysis for comparison

Third Party Damage average cost by TV region (Private Car Comprehensive)
Third Party Damage average cost by TV region (Private Car Comprehensive) – 2010 analysis for comparison

TPI Frequency by TV region (Private Car Comprehensive)
TPI Frequency by TV region (Private Car Comprehensive)

TPI Frequency

Policy Years

Accident Year

Total Exposure

East Anglia

Border

North East Scotland

Wales

Yorkshire

West + West Country

Scotland

Total

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TPI Frequency by TV region (Private Car Comprehensive)

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Notes to Accident Year Triangles

- Most of the graphs show industry accident year triangulation progressions
- This facilitates the comparison of experience on a “like-for-like” basis (at least in relation to development)
- Inflation rates shown are the latest point in the year compared to the previous accident year at the same point in development

Motorcycle exposure
Motorcycle

Motorcycle - All Distribution Channels - TPD

Average Cost of Settled Claims - per claim (inc nils)

Development month

Inflation Rates
09-10: -12.5%  08-09: 4.2%  07-08: 5.1%  06-07: -0.1%  05-06: 11.6%

Motorcycle

Motorcycle - All Distribution Channels - TPD

Settlement Rate (inc nils)

Development month

Inflation Rates
09-10: -0.2%  08-09: 1.1%  07-08: 0.8%  06-07: 0.1%  05-06: 0.2%
Non Fleet Commercial Vehicles (CV) and Fleet - Data Quality

- The Working Party has decided not to release charts where prior year trends have changed significantly from last year’s analysis where this has been due to contributors providing data which Towers Watson (or the contributors) do not believe to be accurate. Such decisions have typically followed discussions between Towers Watson and individual data contributors on their data. In such cases we have sometimes been able to create a chart which excludes the contributor in question.
- Very few contributors have been able to provide data on settlement rate this year.
- Generally, data availability and quality for CV & Fleet is significantly inferior to private car business, which makes it very challenging to produce results for prior years which are consistent with those presented last year.

**CV**

*CV - All Distribution Channels - TPD*

Reported Claim Frequency (inc nils)

Development month

Inflation Rates

08-10: 22.2%  08-09: -7.5%  07-08: -7.2%  06-07: 4.8%  05-06: 1.9%
## Contents

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   • Adequacy of Case Estimates  

## Benchmark Development - Incurred

### Private Car Comprehensive - Excess BI Incurred Claims Development Pattern

<table>
<thead>
<tr>
<th>Development Month</th>
<th>0</th>
<th>0.1%</th>
<th>0.8%</th>
<th>3.5%</th>
<th>4.2%</th>
<th>7.6%</th>
<th>12.3%</th>
<th>14.9%</th>
<th>15.5%</th>
<th>23.4%</th>
<th>29.8%</th>
<th>35.2%</th>
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<td>Start Month</td>
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<td>58.1%</td>
<td>64.3%</td>
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<td>80.3%</td>
<td>82.3%</td>
<td>83.3%</td>
<td>85.4%</td>
<td>87.1%</td>
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<td>23</td>
<td>58.2%</td>
<td>90.0%</td>
<td>91.3%</td>
<td>91.5%</td>
<td>92.2%</td>
<td>92.9%</td>
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<td>94.9%</td>
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<tr>
<td>37</td>
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<td>97.5%</td>
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<td>98.5%</td>
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<td>100.5%</td>
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<td>97.5%</td>
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<td>98.1%</td>
<td>98.2%</td>
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<tr>
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<td>98.5%</td>
<td>98.8%</td>
<td>99.0%</td>
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<td>99.5%</td>
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</tr>
<tr>
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<td>99.5%</td>
<td>99.5%</td>
<td>99.5%</td>
<td>99.5%</td>
<td>99.5%</td>
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<td>99.6%</td>
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<td>99.9%</td>
<td>99.9%</td>
<td>99.9%</td>
<td>99.9%</td>
</tr>
</tbody>
</table>

- The table above shows the selected incurred development pattern for claims in excess of £100k (indexed)  
- The table shows the cumulative development within the first year within the first row, the second year within the second row, and so on...
Benchmark Development - Incurred

Benchmark Development - Reported

The table above shows the selected reported numbers development pattern for claims in excess of £100k (indexed).

The table shows the cumulative development within the first year within the first row, the second year within the second row, and so on...
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Excess of Capped TPI Analysis
Introduction

- Data formats and analysis identical to IUA Bodily Injury Studies
- Anonymised data was provided for individual TPI claims relating to accident years 2000 through to 2010 (inclusive)
- Data was provided “as at” 31 December 2010
- The analysis investigated the cost of claims in excess of a threshold of £100,000 in 2010 money, indexed at 7% per annum
- The analysis was restricted to Private Car Comprehensive due to insufficient quantities of data in other lines of business
- Results are generally shown for accident years 2002 through to 2010, owing to reduced exposure for the 2000 and 2001 accident years.

The threshold for the relevant accident years are based on £100k in 2010 money indexed at 7%

<table>
<thead>
<tr>
<th>Accident Year</th>
<th>Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>50,833</td>
</tr>
<tr>
<td>2001</td>
<td>54,385</td>
</tr>
<tr>
<td>2002</td>
<td>58,201</td>
</tr>
<tr>
<td>2003</td>
<td>62,275</td>
</tr>
<tr>
<td>2004</td>
<td>66,634</td>
</tr>
<tr>
<td>2005</td>
<td>71,380</td>
</tr>
<tr>
<td>2006</td>
<td>76,290</td>
</tr>
<tr>
<td>2007</td>
<td>81,630</td>
</tr>
<tr>
<td>2008</td>
<td>87,344</td>
</tr>
<tr>
<td>2009</td>
<td>93,458</td>
</tr>
<tr>
<td>2010</td>
<td>100,000</td>
</tr>
</tbody>
</table>

This was done to maximise consistency with the IUA Bodily Injury Studies
# Excess of Capped TPI Analysis

## Data Summary

### Summary of Excess of Capped Data

<table>
<thead>
<tr>
<th>Accident Period</th>
<th>Earned Exposure (millions of vehicle years)</th>
<th>Percentage of market (% of market)</th>
<th>Reported Excess of Capped Claim Numbers</th>
<th>Reported Excess of Capped Claim Frequency (claims per million units of exposure)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>10.7</td>
<td>71%</td>
<td>1,295</td>
<td>120.7</td>
</tr>
<tr>
<td>2003</td>
<td>12.2</td>
<td>74%</td>
<td>1,345</td>
<td>110.0</td>
</tr>
<tr>
<td>2004</td>
<td>12.7</td>
<td>73%</td>
<td>1,250</td>
<td>98.6</td>
</tr>
<tr>
<td>2005</td>
<td>13.1</td>
<td>75%</td>
<td>1,355</td>
<td>103.2</td>
</tr>
<tr>
<td>2006</td>
<td>13.1</td>
<td>75%</td>
<td>1,350</td>
<td>103.0</td>
</tr>
<tr>
<td>2007</td>
<td>12.5</td>
<td>72%</td>
<td>1,388</td>
<td>111.2</td>
</tr>
<tr>
<td>2008</td>
<td>12.3</td>
<td>70%</td>
<td>1,210</td>
<td>98.6</td>
</tr>
<tr>
<td>2009</td>
<td>12.8</td>
<td>70%</td>
<td>1,169</td>
<td>91.5</td>
</tr>
<tr>
<td>2010</td>
<td>13.0</td>
<td>72%</td>
<td>575</td>
<td>44.4</td>
</tr>
<tr>
<td>Total</td>
<td>112.3</td>
<td>73%</td>
<td>10,937</td>
<td></td>
</tr>
</tbody>
</table>

---

### Excess of Capped TPI Analysis

#### Background to following charts

- The following charts show key features of the development of the claims
- Some prior years have been omitted from some of the charts in order to focus on the areas of greatest interest
- The horizontal axis shows the number of development months since the start of each accident year.
Excess of Capped TPI Analysis
Data Trends

Excess of Capped Claim Frequency

Inflation Rates
08-09: -21.6%  08-09: -0.3%  07-08: -7.3%  06-07: 6%  05-06: -1%

Excess of Capped Settlement Rate

Inflation Rates
08-09: -3.7%  07-08: -3.1%  06-07: -7.5%  05-08: 2.2%  04-05: -4.1%
Excess of Capped TPI Analysis
Data Trends

**Excess of Capped Settled Average Cost**

Inflation Rates
07-08: 19.6%  08-07: -10.8%  05-06: 7.6%  04-05: -4.5%  03-04: 10%

**Excess of Capped Incurred Average Cost**

Inflation Rates
09-10: 1.7%  08-09: 17.5%  07-08: 11.9%  06-07: 1.1%  05-06: 18.1%  04-05: -10%  03-04: 18.2%
Excess of Capped TPI Analysis
Data Trends

Excess of Capped Average Cost of Open Claims

Inflation Rates
09-10: 1.9%  08-09: 17.3%  07-08: 11.7%  06-07: 1%  05-06: 23.4%  04-05: -10.4%  03-04: 42.8%

Ratio of Excess BI to TPD reported numbers

Inflation Rates
09-10: -16.1%  08-09: 0.7%  07-08: -2.6%  06-07: 1%  05-06: -5.1%
Excess of Capped TPI Analysis
Projected Ultimate Claims

• Claim numbers and claim amounts were projected in a series of (unindexed) layers:
  • £100k to £250k
  • £250k to £500k
  • £500k to £1m
  • £1m to £2m
  • £2m to 5m
  • £5m+
• A seventh layer between £100k unindexed and £100k indexed was used to calculate results in excess of £100k indexed. Results for this layer are not included in analysis of layers.

Excess of Capped TPI Analysis
Projected Ultimate Claims

• The definition of the layers is such that a claim of £1m contributes £150k to the lowest layer, £250k to next layer and £500k to the next layer.
• This approach allowed the estimation of claim frequencies, average costs and burning costs within layers to be estimated for each accident year.
• Note that although the nominal £100k-250k frequency is increasing, the frequency of claims in excess of the indexed threshold has been falling. The increase in frequency seen on an unindexed basis is due to underlying natural inflation.
Excess of Capped TPI Analysis
Projected Ultimate Claims - Uncertainty

- Rigorously straightforward mechanistic projection methodology
- No tail beyond 11 years as no data
- An x% tail factor would increase ultimates for all accident years by x% but with the same trend across years.
- The Ogden consultation and version 7 of the Ogden tables are most likely not reflected in insurers' data:
  - Any increase in longevity assumptions or drop in the discount rate would lead to additional inflation
  - Such increases may however be mitigated at least partially by PPOs being less attractive to insurers.

Excess of Capped TPI Analysis
Projected Ultimate Claims - Uncertainty

- The PPO Working Party has found range of approaches to PPO case reserves. Quoted inflation rates may be overstated excluding PPOs but understated including PPOs
- 2010 Q4 had poor weather in December, bringing potential reporting delays & lower impact speeds and less TPI
- The most recent accident years are immature in their development and as such are subject to material uncertainty
- Due to lack of development data, Paid triangles were not used. As such projections are subject to uncertainty caused by changes in case reserve strength over time
# Excess of Capped TPI Analysis

Projected Ultimate Excess of Capped TPI Results for Private Car Comprehensive

<table>
<thead>
<tr>
<th>Accident Period</th>
<th>Earned Exposure (millions of vehicle years)</th>
<th>Ultimate Excess of Capped Claim Frequency (claims per million vehicle years)</th>
<th>Ultimate Excess of Capped Claim Severity (£)</th>
<th>Ultimate Excess of Capped Burning Cost (£)</th>
<th>Year-on-Year Change in Frequency (% pa)</th>
<th>Year-on-Year Change in Severity (% pa)</th>
<th>Year-on-Year Change in Burning Cost (% pa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>10.73</td>
<td>121</td>
<td>264,174</td>
<td>31.9</td>
<td>-9.3%</td>
<td>-9.3%</td>
<td>-17.7%</td>
</tr>
<tr>
<td>2003</td>
<td>12.32</td>
<td>110</td>
<td>239,715</td>
<td>28.3</td>
<td>-10.5%</td>
<td>17.2%</td>
<td>4.6%</td>
</tr>
<tr>
<td>2004</td>
<td>12.68</td>
<td>98</td>
<td>280,907</td>
<td>27.5</td>
<td>-3.5%</td>
<td>-9.3%</td>
<td>-6.1%</td>
</tr>
<tr>
<td>2005</td>
<td>13.13</td>
<td>101</td>
<td>234,733</td>
<td>25.8</td>
<td>-1.8%</td>
<td>20.0%</td>
<td>18.1%</td>
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<tr>
<td>2006</td>
<td>12.48</td>
<td>106</td>
<td>303,324</td>
<td>32.2</td>
<td>6.4%</td>
<td>0.7%</td>
<td>5.8%</td>
</tr>
<tr>
<td>2007</td>
<td>12.27</td>
<td>102</td>
<td>342,029</td>
<td>34.9</td>
<td>-4.2%</td>
<td>13.1%</td>
<td>8.4%</td>
</tr>
<tr>
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<td>12.77</td>
<td>106</td>
<td>395,167</td>
<td>41.9</td>
<td>4.2%</td>
<td>15.2%</td>
<td>20.1%</td>
</tr>
<tr>
<td>2009</td>
<td>12.56</td>
<td>99</td>
<td>378,975</td>
<td>37.5</td>
<td>-6.6%</td>
<td>-4.1%</td>
<td>-10.5%</td>
</tr>
</tbody>
</table>

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---

# Excess of Capped TPI Analysis

Projected Ultimate Claim Claims

**Excess TPI Claim Numbers - Percentage of Ultimate**

- **2005**: Yellow line
- **2006**: Green line
- **2007**: Blue line
- **2008**: Red line
- **2009**: Dark blue line

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### Excess of Capped TPI Analysis

**Projected Ultimate Claims**

#### Excess TPI Incurred Claims - Percentage of Ultimate

| Development Month | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 31 | 33 | 35 | 37 | 39 | 41 | 43 | 45 | 47 | 49 | 51 | 53 | 55 | 57 | 59 | 61 | 63 | 65 | 67 | 69 | 71 |

#### Excess of Capped TPI Analysis

**Projected Ultimate Claims – By Layer**

<table>
<thead>
<tr>
<th>Accident Year</th>
<th>£1bn - £2bn</th>
<th>£2bn - £5bn</th>
<th>£5bn - £10bn</th>
<th>£10bn - £25bn</th>
<th>£25bn - £50bn</th>
<th>£50bn +</th>
</tr>
</thead>
<tbody>
<tr>
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<td>68.3</td>
<td>27.7</td>
<td>14.1</td>
<td>6.9</td>
<td>3.3</td>
<td>2.9</td>
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<td>67.3</td>
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<td>13.0</td>
<td>5.7</td>
<td>2.3</td>
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<tr>
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<td>68.5</td>
<td>29.1</td>
<td>13.7</td>
<td>5.8</td>
<td>3.1</td>
<td>3.1</td>
</tr>
<tr>
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<td>28.0</td>
<td>13.5</td>
<td>6.8</td>
<td>3.7</td>
<td>1.2</td>
</tr>
<tr>
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<td>83.5</td>
<td>31.3</td>
<td>16.7</td>
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<tr>
<td>2007</td>
<td>82.5</td>
<td>32.4</td>
<td>14.8</td>
<td>6.9</td>
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<td>1.4</td>
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<td>90.7</td>
<td>30.5</td>
<td>19.4</td>
<td>9.7</td>
<td>5.6</td>
<td>2.3</td>
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<tr>
<td>2009</td>
<td>97.6</td>
<td>33.0</td>
<td>17.7</td>
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<td>6.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>

#### Average Cost (£000s)

<table>
<thead>
<tr>
<th>Year</th>
<th>£1bn - £2bn</th>
<th>£2bn - £5bn</th>
<th>£5bn - £10bn</th>
<th>£10bn - £25bn</th>
<th>£25bn - £50bn</th>
<th>£50bn +</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>93</td>
<td>171</td>
<td>343</td>
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<td>1,643</td>
<td>3,802</td>
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<td>2003</td>
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<td>174</td>
<td>321</td>
<td>586</td>
<td>1,524</td>
<td>1,358</td>
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<td>92</td>
<td>170</td>
<td>339</td>
<td>718</td>
<td>1,532</td>
<td>1,712</td>
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<td>88</td>
<td>175</td>
<td>328</td>
<td>635</td>
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<td>1,736</td>
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<td>1,880</td>
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<td>92</td>
<td>171</td>
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<td>635</td>
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<td>2,838</td>
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<td>90</td>
<td>173</td>
<td>320</td>
<td>630</td>
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<td>2,271</td>
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<td>90</td>
<td>176</td>
<td>302</td>
<td>697</td>
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<td>1,842</td>
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<td>176</td>
<td>320</td>
<td>681</td>
<td>1,808</td>
<td>2,302</td>
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</table>

#### Burning Cost (£)

<table>
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<th>Year</th>
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<th>£2bn - £5bn</th>
<th>£5bn - £10bn</th>
<th>£10bn - £25bn</th>
<th>£25bn - £50bn</th>
<th>£50bn +</th>
</tr>
</thead>
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<td>6.3</td>
<td>4.7</td>
<td>4.6</td>
<td>6.2</td>
<td>6.9</td>
<td>3.3</td>
</tr>
<tr>
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<td>6.2</td>
<td>4.8</td>
<td>4.2</td>
<td>5.2</td>
<td>5.6</td>
<td>1.1</td>
</tr>
<tr>
<td>2004</td>
<td>6.2</td>
<td>4.6</td>
<td>5.3</td>
<td>5.2</td>
<td>5.6</td>
<td>1.1</td>
</tr>
<tr>
<td>2005</td>
<td>6.4</td>
<td>4.7</td>
<td>4.9</td>
<td>6.6</td>
<td>6.1</td>
<td>1.6</td>
</tr>
<tr>
<td>2006</td>
<td>7.2</td>
<td>5.7</td>
<td>5.3</td>
<td>5.1</td>
<td>6.8</td>
<td>2.4</td>
</tr>
<tr>
<td>2007</td>
<td>7.9</td>
<td>6.3</td>
<td>5.9</td>
<td>6.4</td>
<td>7.2</td>
<td>5.4</td>
</tr>
<tr>
<td>2008</td>
<td>8.1</td>
<td>6.2</td>
<td>4.8</td>
<td>6.6</td>
<td>5.5</td>
<td>4.1</td>
</tr>
</tbody>
</table>
Excess of Capped TPI Analysis
Projected Ultimate Claims

- In parallel to these projections, a scenario was considered that took into account the weather event of December 2010.
- Under the hypothesis that December 2010 values were backlogged due to processing delays, the input data to our modelling was adjusted.
- The results of the scenario are given in the table below.
- Under this scenario the projected burning cost for accident year 2010 increases from £37.5 to £40.2.

Private Car Comprehensive - scenario excess of capped results for accident year 2010

| Frequency (claims per million vehicle years) | 108 |
| Severity (£) | 371,881 |
| Burning Cost (£) | 40.2 |
Excess of Capped TPI Analysis
Analysis of Largest Claims

- Average incurred claim cost triangles were constructed for the following subsets of data:
  - Largest 2000 claims for each accident year
  - Largest 1000 claims for each accident year
  - Largest 200 claims for each accident year
  - Largest 200 claims for each accident year, excluding the largest 20

- By taking the largest n claims in each year, the intention is to consider injuries of similar severity to get a measure of inflation for large claims that is undistorted by an increasing frequency of small or mid-range claims or the indexation of thresholds.

- We show the annualised average increases of claim costs over several periods for each of the above subsets

### Claim severity triangle for Private Car Comprehensive (largest 2,000 claims per accident year)

<table>
<thead>
<tr>
<th>Loss Year</th>
<th>Development Year (Figures in £000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>134 172 189 218 222 211 213 216</td>
</tr>
<tr>
<td>2004</td>
<td>135 187 213 226 225 230 231</td>
</tr>
<tr>
<td>2005</td>
<td>123 191 207 225 233 232</td>
</tr>
<tr>
<td>2006</td>
<td>134 200 229 257 268</td>
</tr>
<tr>
<td>2007</td>
<td>130 229 262 280</td>
</tr>
<tr>
<td>2008</td>
<td>172 259 294</td>
</tr>
<tr>
<td>2009</td>
<td>203 320</td>
</tr>
<tr>
<td>2010</td>
<td>171</td>
</tr>
</tbody>
</table>

### Annualised Escalation Rates

3 Year Periods

- 2003 - 2006: 0% 5% 8% 6% 7%
- 2004 - 2007: -1% 7% 7% 7%
- 2005 - 2008: 12% 11% 11%
- 2006 - 2009: 15% 17%
- 2007 - 2010: 9%

5 Year Periods

- 2003 - 2008: 5% 9% 6%
- 2004 - 2009: 9% 11%
- 2005 - 2010: 7%
Excess of Capped TPI Analysis
Analysis of Largest Claims

Claim severity triangle for Private Car Comprehensive (largest 1,000 claims per accident year)

<table>
<thead>
<tr>
<th>Loss Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>228</td>
<td>251</td>
<td>318</td>
<td>385</td>
<td>357</td>
<td>361</td>
<td>369</td>
<td>375</td>
</tr>
<tr>
<td>2004</td>
<td>229</td>
<td>318</td>
<td>393</td>
<td>387</td>
<td>400</td>
<td>405</td>
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<td>2005</td>
<td>201</td>
<td>315</td>
<td>345</td>
<td>395</td>
<td>397</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>227</td>
<td>335</td>
<td>403</td>
<td>436</td>
<td>465</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2007</td>
<td>220</td>
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<td>452</td>
<td>490</td>
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<td></td>
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<tr>
<td>2008</td>
<td>305</td>
<td>455</td>
<td>494</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>358</td>
<td>565</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>304</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Annualised Escalation Rates

3 Year Periods
- 2003 - 2006: 0% 5% 7%
- 2004 - 2007: -1% 7% 7%
- 2005 - 2008: 15% 13% 12%
- 2006 - 2009: 16% 19%
- 2007 - 2010: 11%

5 Year Periods
- 2003 - 2008: 6% 9% 9%
- 2004 - 2009: 9% 12%
- 2005 - 2010: 9%

Excess of Capped TPI Analysis
Analysis of Largest Claims

Claim severity triangle for Private Car Comprehensive (largest 200 claims per accident year)

<table>
<thead>
<tr>
<th>Loss Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>683</td>
<td>890</td>
<td>923</td>
<td>1,007</td>
<td>1,121</td>
<td>1,222</td>
<td>1,316</td>
<td>1,345</td>
</tr>
<tr>
<td>2004</td>
<td>817</td>
<td>1,007</td>
<td>1,121</td>
<td>1,201</td>
<td>1,222</td>
<td>1,316</td>
<td>1,345</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>628</td>
<td>995</td>
<td>909</td>
<td>1,122</td>
<td>1,308</td>
<td>1,248</td>
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<td></td>
</tr>
<tr>
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<tr>
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<td>1,394</td>
<td>1,463</td>
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<tr>
<td>2008</td>
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<tr>
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<td></td>
</tr>
</tbody>
</table>

Annualised Escalation Rates

3 Year Periods
- 2003 - 2006: 5% 7% 13% 9% 11%
- 2004 - 2007: 10% 5% 7% 7%
- 2005 - 2008: 17% 15% 11%
- 2006 - 2009: 16% 22%
- 2007 - 2010: 21%

5 Year Periods
- 2003 - 2008: 9% 11% 12%
- 2004 - 2009: 8% 14%
- 2005 - 2010: 11%
Excess of Capped TPI Analysis
Analysis of Largest Claims

Claim severity triangle for Private Car Comprehensive (largest 200 claims, excluding largest 20 claims, per accident year)

<table>
<thead>
<tr>
<th>Loss Year</th>
<th>Development Year (Figures in £000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
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<td>2003</td>
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<tr>
<td>2009</td>
<td>946</td>
</tr>
<tr>
<td>2010</td>
<td>635</td>
</tr>
</tbody>
</table>

Annualised Escalation Rates

3 Year Periods
- 2003 - 2006: 9% 11% 13% 9% 10%
- 2004 - 2007: -4% 3% 6% 6%
- 2005 - 2008: 15% 14% 16%
- 2006 - 2009: 19% 20%
- 2007 - 2010: 9%

5 Year Periods
- 2003 - 2008: 12% 12% 10%
- 2004 - 2009: 10% 14%
- 2005 - 2010: 9%

Excess of Capped TPI Analysis
Analysis of Largest Claims

- Information on the largest 25 claims (by latest incurred value) for each accident year is also presented.
- Latest incurred costs for the most recent years are likely to be under-developed.
- In addition to listing the claims below, they are grouped into bands of £1m in size so that the distributions of the largest claims can be assessed by accident year.
### Excess of Capped TPI Analysis
#### Analysis of Largest Claims

**Private Car Comprehensive - Distribution of largest 25 claims by latest incurred Accident Year**

<table>
<thead>
<tr>
<th>Accident Year</th>
<th>£2m - £3m</th>
<th>£3m - £4m</th>
<th>£4m - £5m</th>
<th>£5m - £6m</th>
<th>£6m - £7m</th>
<th>£7m - £8m</th>
<th>£8m - £9m</th>
<th>£9m - £10m</th>
<th>£10m+</th>
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<td>1</td>
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<tr>
<td>2006</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>2007</td>
<td>9</td>
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<td>6</td>
<td>1</td>
<td>1</td>
<td>-</td>
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<td>1</td>
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<tr>
<td>2009</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>-</td>
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<tr>
<td>2010</td>
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<td>5</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>-</td>
</tr>
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### Excess of Capped TPI Analysis
#### Analysis of Largest Claims

**Private Car Comprehensive - Latest incurred value (£000s) of largest 25 claims per accident year (settled claims in red)**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<td>8,991</td>
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<td>17,102</td>
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<td>7,969</td>
<td>7,507</td>
<td>9,989</td>
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<td>6,796</td>
<td>7,585</td>
<td>6,957</td>
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<tr>
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<td>7,383</td>
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<td>6,512</td>
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Excess of Capped TPI Analysis
Adequacy of Case Estimates

- We extracted claims from the data which had been reported before the end of development year one, and tracked their further incurred development relative to the year one position.
- This removes the effect of IBNR claims, allowing the impact of IBNER to the deterioration of claims experience to be separately assessed.
- An element of IBNER may be the identification of additional claimants on claims already reported.
- The calculation is then repeated using development year two to obtain a view of incurred development relative to the year two position.
- We show here only development beyond year 2.

Excess of Capped TPI Analysis
Adequacy of Case Estimates

In incurred development relative to month 12 (IBNER only)

- Percentage of month 12 incurred amount
- Development Month

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Excess of Capped TPI Analysis
Adequacy of Case Estimates

Incurred development relative to month 24 (IBNER only)

Appendices

1. Raw output from Working Party, including more granular results on large claims analysis
2. Slides from Pricing Seminar
Update from the Third Party Working Party
General Insurance Pricing Seminar, 21 June 2011

Third Party Working Party - Contents

1. Scene Setting
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4. Next Steps of the Working Party
Comp Exposure up over time: Non-Comp declining strongly

Since 2005
- Comp exposure has increased by 4.2%
- Non-Comp has declined by 63.7%
- Total exposure has reduced by 2.5%

Notes on Data

1. Claim Numbers Reported in calendar period as % of exposure
2. Private Car Comprehensive development graphs of key trends, TPD and TPI Capped (at £50k in 1999 money, indexed at 7% p.a.), including a refresh of last year’s position based on the latest data for ease of comparison
   - Reported claim frequency
   - Incurred average cost
   - Claim settlement rate
   - Paid to incurred ratio
   - Average cost of settled claims
   - Ratio of TPI to TPD claim numbers.
3. Note that “2009 statistic” refers to the position, as given in the current data, of accident years 2009 and prior as at 2009 year end. This will differ in detail from last year’s working party data.
Comprehensive

TPD - Reported in calendar period as % of exposure (rolling 12 month)

Implied 3.3%pa decrease since 2007 Q3

Comprehensive

TPI Capped - Reported in calendar period as % of exposure (rolling 12 month)

Implied 6.2%pa increase since 2008 Q1
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2. Key Developments since the Last Study

1. Data from the Compensation Recovery Unit
2. An Update on CMCs
3. Update on MOJ
2.1 Data from the Compensation Recovery Unit

- Insurers must notify the CRU of all claims for compensation in order that the CRU can recover any state benefits paid from the liable insurer.
  - It may be possible for the insurer to offset some of the recoverable benefits paid to the CRU by deducting them from the amount of compensation paid to the claimant to avoid double compensation.
  - This offsetting is restricted within heads of damage so, for instance, claims for loss of earnings can be offset by any jobseeker’s allowance, whilst claims for cost of care can be offset by any attendance allowance paid by the Department of Work and Pensions.
- The number of claims notified to the CRU therefore provides a good measure of the total number of injury claims arising from road traffic accidents.
- The recovery of the costs of NHS treatment is also administered by the CRU under a separate scheme.
- A process map for the CRU is shown on the next slide.
CRU Data

- Number of motor cases registered to the Compensation Recovery Unit has increased in each year.
- The number registered in the 2010-11 financial year was 17% higher than in the previous year, the highest recent level of year-on-year growth, but sits in the context of a long term 10% trend.
- This is based on registration so may reflect an element of speeding up.

CMCs Update: bucking the general economic trend - Authorised CMCs increased by circa 20% (2600 vs 2150)

Areas of previous high density are also areas of significant growth: 
- Top 20 areas from 2010 grew by 20% 
- Manchester/Liverpool by 50%
CMCs: growth continues; +50% turnover, +20% number

Turnover to Nov 2010 increased by 50% to £377m.
Count of authorised CMCs increased by 20% to 2600 in year to June 2010
Known hotspots continue to see growth:
• the top 20 areas from 2010 have seen around 20% increase
The highest % increases in density are more diverse geographically:
• Manchester and Liverpool both show increases of close to 50%
• strong growth in North East, West of London as well as the likes of Norwich, Exeter and Plymouth.
Some areas have reduced:
• Blackburn and Huddersfield are unusual in showing a reduction in the number of CMCs since 2010.

2.3 Update on Ministry of Justice Reforms

• Came into effect 30th April 2010
• For every £1 paid in compensation, 43p is paid in legal fees
  – for motor claims under £5000, this figure rises to 88p
• Aims to speed up the process of claims settlement and remove duplication of work and costs on the part of solicitors
• Applies to motor injury claims between £1000 and £10000 occurring in England or Wales.
• Strict timescales for an insurer to admit/deny liability and to make offers of settlement. If timescales not met then the claim falls out of the process
• The reduction in legal fees should also mean that solicitors have less capacity to pay referral fees to CMCs

However, Insurers have some concerns
Civil Justice: Consultation, England & Wales

- First major overhaul of the civil justice system in 15 years and reform of 'no win no fee' deals
- To prevent expensive / unnecessary litigation
- Proposals to make the system simpler, quicker, cheaper and more effective launched for consultation.
- Include plans to improve how court judgments are enforced
- Other measures include
  - Raising the maximum value for small claims from £5,000 to £15,000

Taken from MOJ press release, 30 March 2011

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2010 Statistic

Private Car Comp - All Distribution Channels - TPD
Reported Claim Frequency (inc nils)

- Accident frequencies are down year on year
- Record drop in 2010 of 6%

Unsurprisingly there is a clear relationship between road usage and the number of accidents
2010 Statistic

Private Car Comp - All Distribution Channels - TPD
Incurred Average Cost - per claim (inc nils)

• Inflation had eased in 2009 but has picked up in 2010

2010 Statistic

Private Car Comp - All Distribution Channels - TPD
Average Cost of Settled Claims - per claim (inc nils)

• Settled inflation is broadly consistent with incurred inflation

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2010 Statistic

Private Car Comp - All Distribution Channels - TPD
Claim Settlement Rate (inc nils)

- Settlement appears to have increased across all years
- Any distortions due to settlements at nil are not material

Private Car Comp - All Distribution Channels - TPD
Paid to Incurred Ratio

- Although settlement rate has increased it has not led to faster payments

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2010 Statistic

Private Car Comp - All Distribution Channels - TPI Capped
Reported Claim Frequency (inc nils)

- Frequency appears broadly flat but there were fewer accidents
- MOJ reforms introduced 30 April 2010
- Frequency inflation is lagging indications from CRU data however
  - Timing differences
  - CRU include claimant/claim inflation
  - Exposure has increase by 1.4%

Inflation Rates
09-10: 1.4%  08-09: 11%  07-08: 0.4%  06-07: 8.3%  05-06: 6.2%
2010 Statistic

Private Car Comp - All Distribution Channels
Ratio of TPI to TPD Reported Claim Numbers (inc nils)

Inflation Rates
09-10: 9.1%  08-09: 13.2%  07-08: 12%  06-07: 6.5%  05-06: 4.1%

Incurred Average Cost - per claim (inc nils)
Private Car Comp - All Distribution Channels - TPI Capped

Inflation Rates
09-10: 1.1%  08-09: 2.2%  07-08: 6%  06-07: -0.3%  05-06: 2.4%

• Inflation on an incurred basis continues to be low
2009 Statistic (using latest data)

- Inflation rates on settled claims were showing extremely higher inflation rates, particularly bearing in mind that 2007 to 2009 have similar settlement rates.
- There was evidence of calendar year changes since the end of 2008 which is arguably even evident in 2005.

But how has this picture progressed with 2010 data?

• Settled inflation was very high up to 2009 and higher than incurred inflation.
• But no or limited inflation in 2010 consistent with incurred inflation.
2010 Statistic

**Private Car Comp - All Distribution Channels - TPI Capped**

**Claim Settlement Rate (inc nils)**

- Whilst MOJ only affects 2010 all years show an increase in the latest quarter.
- Any distortions due to settlements at nil are not material.

**Paid to Incurred Ratio**

- Speeding up of payments is faster than speeding up of settlements and is faster than TPD.
- 2010 affected by MOJ phase 1 legal fees.

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4. Next Steps of the Working Party

2010 Statistic

**Private Car Non-Comp - All Distribution Channels - TPD**

Incurred Average Cost - per claim (inc nils)

- Absolute average cost is higher than Comp (£1400) but inflation is roughly half that of Comp

Inflation Rates

09-10: 3.4%  08-09: 3%  07-08: 3.3%  06-07: 10%  05-06: 10.1%
2010 Statistic

Private Car Non-Comp - All Distribution Channels - TPD
Average Cost of Settled Claims - per claim (inc nils)

• Incurred experience corroborated by average settled cost

Inflation Rates
09-10: 3.2%  08-09: 3.7%  07-08: 6.1%  06-07: 10.7%  05-06: 9.9%

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      b) TPI
4. Next Steps of the Working Party
2010 Statistic

Private Car Non-Comp - All Distribution Channels - TPI Capped
Reported Claim Frequency (inc nils)

- Claim frequency is double that of Comp
- Inflation was zero between 2009-2010

Development month
Inflation Rates
09-10: 0.2%  08-09: 8.3%  07-08: 8.1%  06-07: 7.6%  05-06: 11.6%

2010 Statistic

Private Car Non-Comp - All Distribution Channels
Ratio of TPI to TPD Reported Claim Numbers (inc nils)

- Overall ratio significantly higher than Comp
- Inflation rates lower than Comp but remain material

Development month
Inflation Rates
09-10: 4.9%  08-09: 7.8%  07-08: 9.1%  06-07: 7.6%  05-06: 8.9%
2010 Statistic

Private Car Non-Comp - All Distribution Channels - TPI Capped
Incurred Average Cost - per claim (inc nils)

- Broadly consistent with Comp

2010 Statistic

Private Car Non-Comp - All Distribution Channels - TPI Capped
Average Cost of Settled Claims - per claim (inc nils)

- Inflation inconsistent with Comp particularly in 2010
- Average settled inflation in 2010 is 16%
2010 Statistic

Private Car Non-Comp - All Distribution Channels - TPI Capped
Claim Settlement Rate (inc nils)

- Strong speeding up to 2008 and stable since then
- No material distortion due to nils

Inflation Rates
09-10: 3%  08-09: 2.2%  07-08: 4.2%  06-07: 2.1%  05-06: 1.2%

2010 Statistic

Private Car Non-Comp - All Distribution Channels - TPI Capped
Paid to Incurred Ratio

- Inflation consistent with Comp but this was not the case with settled claims

Inflation Rates
09-10: 15.5%  08-09: 5.1%  07-08: 5.1%  06-07: -0.9%  05-06: 8.2%