



Institute of Actuaries of Australia

The Australian General Insurance Industry – Where to From Here?

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Presented to the Institute of Actuaries of Australia
16th General Insurance Seminar 9-12 November 2008
Coolum, Australia

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Abstract

This paper explores the recent performance of the general insurance industry. Themes that have been considered include the soft market conditions in a number of classes, benign weather, successful tort reforms, ongoing consolidation in the industry and (at least until 2007) strong investment market performance and economic conditions.

Specifically, we explore the industry's loss ratio and expense ratio performance at a class of business level since 2004 including consideration of the course of the insurance cycle against expectations set in 2005.

The paper also provides projections of industry loss ratio and profitability performance for the period 2008 to 2011, taking into consideration views on rate changes, claims inflation and reserve releases as well as the potential impact of the current financial market turmoil.

Key words: industry performance, profitability, insurance cycle

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Executive Summary

1 Purpose of the Paper

The purpose of this paper is to:

- examine the recent performance of the general insurance industry
- consider environmental factors that might affect future industry performance
- make some estimates of future industry profitability.

There are two previous publications on which our paper draws. These are as follows:

- “An Investigation into the Australian Insurance Cycle” (2005 Insurance Cycle paper), by Chidgey, Cohen, Priest and Stephan, presented at the Institute of Actuaries of Australia XVth General Insurance Seminar 16-19 October 2005
- “Pendulum – GI Review 2008” (Pendulum 2008), a publication issued jointly by Deutsche Bank and Finity Consulting on 1 July 2008.

We have segmented the industry into four broad groupings, consistent with the groupings used in the 2005 Insurance Cycle paper. These groupings are Personal Lines (PER), Commercial Short Tail (CST), Commercial Long Tail (CLT) and Compulsory Third Party (CTP).

2 A Review of the Recent Experience

The 2005 Insurance Cycle paper, which was based on data to December 2004, set out a number of projections of loss ratios (on an accounting year basis) and expense ratios for the industry.

While the 2005 Insurance Cycle paper concluded that the industry was well-placed to perform well, the extent of the strong performance over the last three years has been a welcome surprise. Key observations/themes that emerged from our comparison of actual performance over calendar years 2005 to 2007 and the predictions from the 2005 Insurance Cycle paper are as follows:

- In general terms, loss ratios over the three years were at or below the low end of expectations in the paper. In the long tail classes (CLT and CTP), this outcome was driven by strong levels of reserve releases. In the short tail classes (PER and CST), benign weather conditions were a key factor.
- Expense ratios tended to be drifting upwards, with quite strong increases in PER (contrary to the established downward trend in this class). While there are some measurement difficulties involved with using APRA data for expense ratios by line of business, we believe the soft market for commercial lines (rate reductions) and general inflationary pressures would be contributory factors to the increasing expense ratios.
- The 2005 Insurance Cycle paper noted the presence of cyclical performance in CST, CLT and CTP. The paper predicted a bottoming out of the cycle in 2005 (2006 for CLT) which would lead to increasing loss ratios thereafter. In CST there has been a strong upturn in loss ratios which was broadly predicted by the paper. However, in CTP and CLT the unexpected strength of reserve releases has kept loss ratios low and delayed any upturn.

3 Projections for the Future

The framework used in Pendulum 2008 to provide estimates of industry performance was used as the starting point for our projections. The key building blocks of this framework – exposure growth, premium rate changes, claims inflation and reserve release levels – enable various estimates of industry performance to be determined. These include gross written

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premium (GWP), loss ratios, combined operating ratios (COR), insurance trading results (ITR), net profit after tax (NPAT) and returns on equity (ROE).

In the four months since the publication of Pendulum 2008, we see two important changes as having occurred:

- The worsening economic outlook, including further severe falls in the stock market and a significant lowering of the yield curve
- Reduced expectations around the extent of further reserve releases in CTP and CLT (based on comments made by some of the listed companies).

Other than making adjustments for the above factors, the key themes of Pendulum 2008 remain valid and are a feature of our model. These themes, assumed to play out over the next three to four years, are:

- Reasonable levels of premium growth – reflecting the robustness of the industry's top line in a slowing economy, together with expectations of rate increases in a number of classes
- Inflationary pressures in a number of classes, with some areas of the CTP schemes and certain PER classes already showing signs of above normal levels of inflation
- A return to a lower level of storm-related loss activity, following the series of weather-related claim events which have significantly impacted insurer performance over 2007 and 2008.

With the above modelling framework and assumptions, our estimates of future industry performance in terms of ITR, NPAT and ROE are set out in Figures 1 and 2. Note that all historical data and future projections are set out in this paper on a calendar basis (for example, 2008F refers to projections for the 12 months ending 31 December 2008).

Figure 1 – ITR Estimates

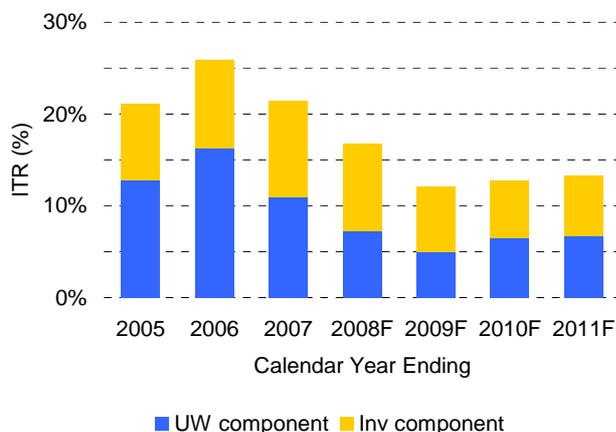
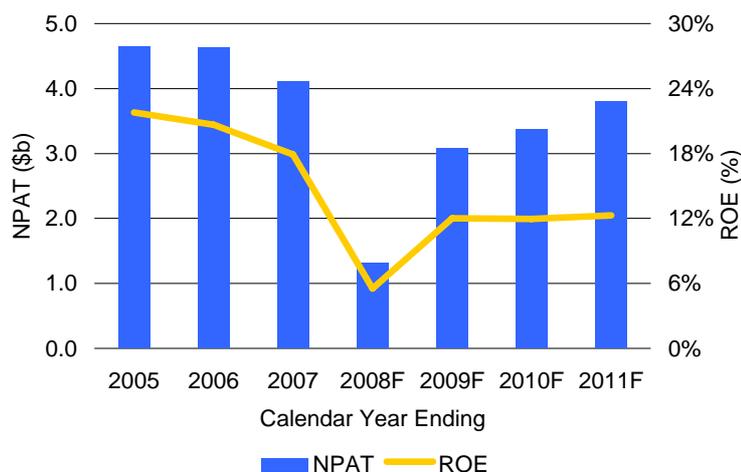


Figure 2 – NPAT/ROE Estimates



Our observations on Figures 1 and 2 are as follows:

- ITRs in 2008 are estimated to hold up well (17%), supported by perhaps the last set of strong prior year reserve releases for a while
- From 2009 onwards, the ITRs fall to the 12%/13% level. While well off the unusually high levels seen in 2004 to 2007, ITRs of this magnitude are within the range of an average of 11% to 15% targeted by listed insurers over the duration of the insurance cycle
- In terms of NPAT and ROE, 2008 is estimated to be a tough year, with an ROE of 6% estimated. While the ITR is reasonably strong, investment returns (including mark-to-market losses) will be a drag on NPAT and ROE
- We estimate NPAT and ROE will recover somewhat from 2009 onwards, with ROEs stabilising at 12%. While off the recent 20% plus highs, this is a reasonable outcome relative to longer term historical returns achieved by the industry.

4 Conclusion

Since the publication of the 2005 Insurance Cycle paper the insurance industry has experienced a concurrence of events which have resulted in unprecedented profitability for the insurance industry. These have included benign weather conditions, large reserve releases from prior years and strong investment returns.

In making our predictions for the future we have taken into account a slowing economy, a turnaround in the soft market for commercial lines, increasing pressure from claims inflation and the diminishing influence of reserve releases.

In light of the current volatility in the investment markets, we have allowed for significant losses for 2008 in the property and equity markets and the fall in the yield curve. A lower level of prior year reserve releases is also a feature of our projections.

While the projections to 2011 result in ITRs and ROEs for the future that are well below the experience of recent years, we still expect the insurance industry to return reasonable results.

1 Introduction

1.1 Background

Post HIH, the Australian general insurance industry enjoyed a period of relatively high profitability, which appears to have peaked in 2006. A number of factors contributed to this period of profitability including:

- tort reform
- strong economic conditions
- benign weather conditions
- strong investment markets
- market consolidation leading to a more disciplined approach to pricing and more rational competition in the industry.

The ongoing consolidation within the market (the most recent significant example of which was the merger of Suncorp and Promina) has led to rationalisation of competition in the market. Indeed, we note that some investment analysts refer to the Australian general insurance industry as an oligopoly. Nevertheless, we believe competition remains strong and the insurance cycle is alive and well. In large part this competitive environment is driven by:

- a relatively strong capital base within the industry
- a mature market with relatively few domestic growth opportunities .

1.2 Purpose

Against this background, the purpose of this paper is to:

- examine the recent performance of the general insurance industry
- consider environmental factors that might affect future industry performance
- make some estimates of future industry profitability.

There are two previous publications on which our paper draws. These are as follows:

- “An Investigation into the Australian Insurance Cycle” (2005 Insurance Cycle paper), by Chidgey, Cohen, Priest and Stephan presented at the Institute of Actuaries of Australia XVth General Insurance Seminar 16-19 October 2005
- “Pendulum – GI Review 2008” (Pendulum 2008), a publication issued jointly by Deutsche Bank and Finity Consulting on 1 July 2008.

In the 2005 Insurance Cycle paper, the historical performance of the general insurance industry in Australia was considered with particular focus on the cyclical nature of that performance. Applying curve fitting techniques to the historical data enabled explicit projections of the insurance cycle expressed in terms of loss ratios and expense ratios. These were generated at a class of business level over the 5 years from 2005 to 2009 (inclusive).

Pendulum 2008 (and the inaugural Pendulum 2007) built on Deutsche Bank’s projection model which had a similar structure to the model underlying some of the findings of the 2005 Insurance Cycle paper. Pendulum 2008 provided a set of profitability projections for the industry over the period 2008 to 2010. While we have taken these projections as a starting point, in today’s “fast moving world” we have also considered information that has emerged since the publication of Pendulum 2008. This includes:

- Reporting from the major companies in respect of the 2007/08 financial year
- Information relating to the June 2008 renewal season
- The ongoing downturn in investment markets.

1.3 Structure of the Paper

This paper is set out as follows:

- Section 2 sets out a description of the information used
- Section 3 considers the performance of the industry since 2004, including comparison of outcomes against the projections made in the 2005 Insurance Cycle paper
- Section 4 provides a description of the projection framework used for Pendulum 2008 and sets out assumption changes we have made in response to events over the last 4 months
- Section 5 sets out the results of our “Base” scenario for the performance of the industry over the four calendar years ending December 2011. It also considers the outcomes for the industry under some alternative scenarios.

1.4 Use of This Paper

This paper is provided as general information only and does not constitute actuarial advice or investment advice. While we have taken reasonable care in compiling the information presented, we do not warrant that the information provided is relevant to a particular reader’s situation, specific objectives or needs.

The data used is aggregate industry data published by APRA (and its predecessors) over a number of years. In Section 2.3 we discuss some (although not necessarily all) of the limitations and difficulties of using this data.

2 Data and Information

2.1 Data sources

The APRA statistics have provided the primary source of data for this review. We have also used information from various analyst reports, broker surveys, published company financial statements and other industry reviews.

The quarterly APRA statistics are published at an industry level and not broken down by class of business. We have allocated the industry results to four high level classes (see Section 2.2) using a high level breakdown of net premium revenue and net claims expense contained in data published separately by APRA on a half yearly basis.

We have relied on the following data from APRA's quarterly publications:

- Underwriting statistics for direct insurers. This information includes written premium (gross and net of outward reinsurance premium), net claims incurred, underwriting expense and net outstanding claims liabilities.
- Profit and loss and balance sheets items for direct insurers.

Data relating to reinsurers and public sector insurers has not been included in our analysis.

While we have used APRA's statistics publications as the main source of information, we have also considered other sources of information to form our views on the performance of the insurance market. This includes:

- Financial statements and presentations to investors from the major Australian insurers in respect of the 2007/08 financial year
- Various investment analyst reports published during 2008.
- Broker surveys by Aon and NIBA in relation to the June 2008 renewal season. In particular, we have considered a survey of the industry's view of premium rate changes by classes of business
- Changes in the investment environment including the stock market and reductions in the yield curve.

2.2 Data Segmentation and Classes Used

Clearly, the different sectors of the industry have different characteristics and dynamics and, consequently, have different potential outcomes. Therefore, we have grouped the industry into four broad classes. This grouping, which was also used in the 2005 Insurance Cycle paper and for the Pendulum publications, is as follows:

- Personal lines (PER)
- Commercial Short Tail (CST)
- Commercial Long Tail (CLT)
- Compulsory Third Party (CTP).

Over the years the classes reported by APRA (and its predecessors) have varied. To enable consistent analysis of these classes over time, it was necessary to group the data. Details of the mapping of APRA's classes to these four groupings is set out in the 2005 Insurance Cycle paper, and for the sake of the completeness of this paper, is repeated here.

The APRA lines of business that have been allocated to Personal Lines (PER) are set out in Table 2.1.

Table 2.1 – Personal Lines (PER)

Houseowners/Householders
Domestic Motor Vehicle
Travel
Consumer Credit
Sickness and Accident
Other Accident

The APRA lines of business that have been allocated to Commercial Short Tail (CST) are set out in Table 2.2.

Table 2.2 – Commercial Short Tail (CST)

Fire
ISR
Aviation
Marine Cargo
Marine Hull
Commercial Motor
Construction
Contractors
Other
Trade Credit
Warranty

The APRA lines of business that have been allocated to Commercial Long Tail (CLT) are set out in Table 2.3.

Table 2.3 – Commercial Long Tail (CLT)

Professional Indemnity
Product Liability
Public Liability
Mortgage Insurance
Employers' Liability

No grouping was necessary for Compulsory Third Party (CTP) as this class has been modelled on a standalone basis and its definition and composition has not changed over the years.

2.3 Further Observations on the APRA Data Used

Our analysis uses APRA data which is reported on an accounting year rather than an underwriting year or accident year basis. Hence, for long tail lines in particular, the impact of reserve releases or strengthening will distort the underlying performance of the portfolio.

Some of the major insurance groups cede significant volumes of business written by one group company to other companies in the group. If this intra-group business is not adjusted for, a double count of gross premium occurs. Accordingly, we have made adjustments for this in our analysis. Nevertheless, such adjustments require some judgment and are therefore approximate.

From inspection of the data, there seems to be some variation in the way companies report expenses to APRA. In particular, we suspect that there are differences between companies around the way expenses are allocated to underwriting expenses and what APRA define as other items. For the purposes of our analysis, we have defined the expense ratio as the underwriting expenses only divided by net written premiums.

2.4 Data Limitations and Qualifications

While we have checked the data described in Section 2.1 for reasonableness and consistency where possible, such checks do not constitute an independent audit of the data. Our consideration of the historical experience and future projections based on that experience are necessarily reliant on the data described in Section 2.1.

The APRA data, in particular, is the main source of industry-wide information available for reviews of this nature. As noted in Sections 2.1 and 2.3 there are various adjustments and approximations to the data which are necessary to facilitate our analysis.

Our estimates of the future performance of the industry should bear these data limitations in mind.

In addition to limitations arising from the data available, any estimate of future industry performance is subject to inherent uncertainty as such estimates are dependent on the outcome of events yet to occur. While we have tried to take into account current economic and industry conditions, clearly significant uncertainty currently exists. In particular:

- the timing and strength of major shocks to the system (such as catastrophe claims incidence and severity) are always going to be impossible to predict
- in the current economic environment, there are considerable uncertainties (at higher than typical levels, in our view) around the course of economic variables such as inflation, interest rates and investment returns.

3 A Review of the Recent Experience

The 2005 Insurance Cycle paper sets out a number of projections for the industry, both at a class of business level and also for the industry as a whole. This analysis was based on APRA data to December 2004 and resulted, *inter alia*, in projections of loss ratios and expense ratios for calendar years 2005 onwards.

In this section we consider actual industry performance in the 2005, 2006 and 2007 calendar years, since 2007 is the last complete calendar year for which APRA data is available. In particular, we compare this actual performance against the estimates contained in the 2005 Insurance Cycle paper.

The High and Low scenarios set out in the Insurance Cycle paper are also considered. It should be noted that the High scenario is defined as the scenario that gives rise to higher returns on capital. It is therefore consistent with a lower loss ratio (hence the labelling in the graphs in this section and also in Section 5 which considers projections for the future). The Low scenario is defined similarly and is therefore consistent with a higher loss ratio.

2008 experience (which takes into consideration APRA's quarterly statistics publication as at June 2008, issued on 18 September 2008) and 2008 projections (for the full calendar year) are considered in Section 5.

3.1 Personal Lines

Recap of 2005 Insurance Cycle Commentary

In the 2005 Insurance Cycle paper, some of the key themes identified from the historical data available at the time and general information available in the market were as follows:

- As expected, there was no indication of a cycle in Personal Lines
- However, there was evidence of lower loss ratio levels post-1992 compared to pre-1992
- Loss ratios in 2003 and 2004 were viewed as being particularly low (lower than the post-1992 average levels) as a result of benign weather patterns
- Expense ratios had been reducing fairly consistently since 1992.

Against this background, the central scenario assumed:

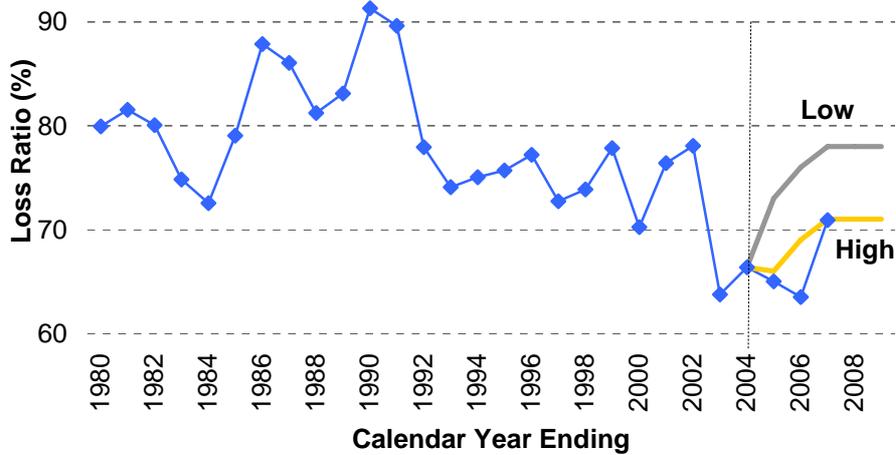
- Loss ratio – a gradual “normalisation” of weather patterns with loss ratios returning to the post-1992 average of 75%.
- Expense ratio – the trend was assumed to continue downwards with the ratio falling from 25% (actual) in 2004 to around 24% (estimated) in 2007.

High and low scenarios “bracketing” around the central scenario were also established, representing different views around the potential for the benign weather conditions to continue.

Loss Ratios

Figure 3.1 sets out the loss ratio outcomes for Personal Lines in recent years and places them in a historical context.

Figure 3.1 – Personal Lines Loss Ratios



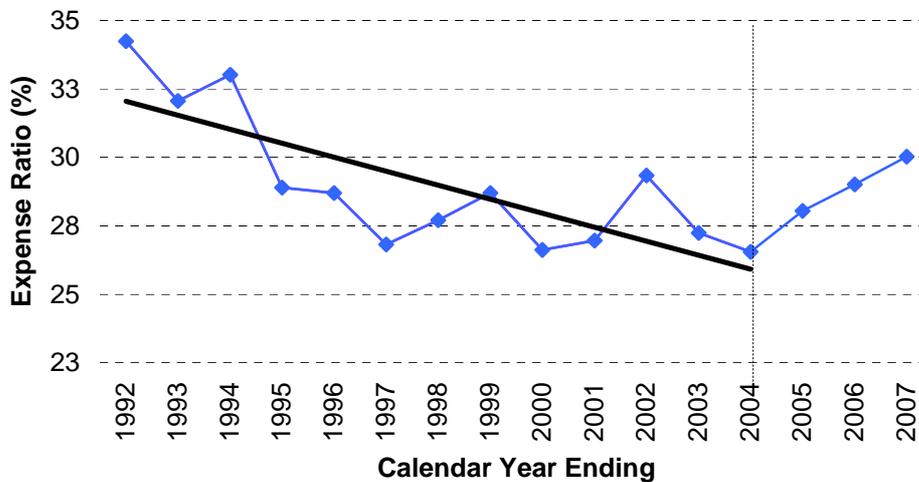
In the three calendar years to December 2007, the loss ratios for the Personal Lines classes have averaged in the mid 60s. Relative to the long term historical experience the loss ratios over the 5-year period 2003 to 2007 reflect the five best loss ratios for this class in almost 30 years. Loss ratios in the mid 60s are about 10% lower than the average loss ratio of 75% over the 10 year period 1993 to 2002.

The loss ratio outcomes for 2005 and 2006 were better even than the High (i.e. higher profitability) scenario outcomes in the 2005 Insurance Cycle paper. The 2007 loss ratio outcome shows a sharp increase relative to the low point of 2006, but is still a good result and is consistent with the High scenario estimate. Clearly, the very benign levels of weather claims in this period have been a factor in this outcome (despite the occurrence of Cyclone Larry and the Queens Birthday storms during the period).

Expense Ratios

Figure 3.2 sets out the expense ratio outcomes in recent years and places them in a historical context.

Figure 3.2 – Personal Lines Expense Ratios



At 2004, there was clear evidence in the data of a long term downward trend in expense ratios for this class. Consequently, the 2005 Insurance Cycle paper predicted a continuation of this trend.

However, the experience in 2005 to 2007 shows a sharp reversal of this trend. By 2007, the expense ratio had reached 30%, a level last attained prior to 1994. As a result, the industry expense ratio in Personal Lines is estimated to be 5% to 6% higher than originally projected.

As we have noted there may be some issues around the way companies report their expenses to APRA. While this may contribute uncertainty around the actual level of the expense ratio, we nevertheless believe there has been some upward pressure on expenses in recent years.

We note the relatively high levels of inflation recently putting pressure on the expense base and also the competitive environment in this and other classes which has dampened the extent to which the premium line has increased. Combined with general comments from insurers around a focus on containing the expense base, it is perhaps not surprising that expense ratios in the industry (across all classes) have been under pressure.

3.2 CTP

Recap of 2005 Insurance Cycle Commentary

In the 2005 Insurance Cycle paper, key themes identified from the historical data available were as follows:

- This class was assumed not to be subject to the drivers of the “classic insurance” cycle - high profitability, excess capital and capacity, increased competition, price reductions, low profitability etc
- However, there was some evidence of a cycle operating in this class. The cycle appeared to characterised by sharp increases in loss ratio, followed by legislative reforms, a period of lower loss ratios (a “honeymoon” period”), unwinding of the reforms etc
- The expense ratio appeared to have been relatively constant for a number of years at around 15%.

Against this background, the central scenario assumed:

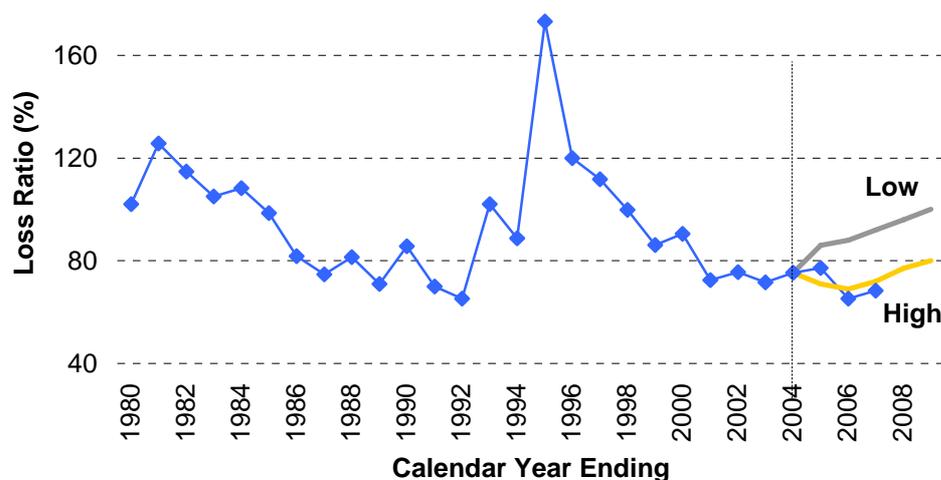
- Loss ratio - a continuation of the cycle fitted to the data resulted in a relatively modest increase in the loss ratio from 75% in 2004 (actual) to 80% in 2007 (estimated). This was assumed to be consistent with ongoing price reductions combined with a slowing in prior year reserve releases
- Expense ratio – consistent with the more recent historical experience, the expense ratio was maintained at 15%.

High and low scenarios “bracketing” around the central scenario were also established, representing different views around the degree of offset between premium rate reductions and the ending of the honeymoon period on the one hand and the strength of prior year reserve releases on the other hand.

Loss Ratios

Figure 3.3 sets out the loss ratio outcomes for CTP in recent years and places them in a historical context.

Figure 3.3 - CTP Loss Ratios



While the performance of the 2005 year was within expectations, outcomes in 2006 and 2007 were better than the High (i.e. higher profitability) scenario estimates. This outcome is despite a background of falling premium rates over the period December 2004 to December 2007.

The key driver of this performance has been the recognition of better than initially expected outcomes of legislative reform. This has more than offset the impact of rate reductions and the more recent emergence of some superimposed inflation pressures.

Recognition of outcomes from the reforms that were more benign than initially reserved for, has resulted in significant reserve releases on prior accident years. This has dampened the accounting year loss ratios in 2005 to 2007 which are shown in Figure 3.3 above. In addition, the benign and relatively dry weather conditions have contributed to a continuation of the downward trend in frequency over the period.

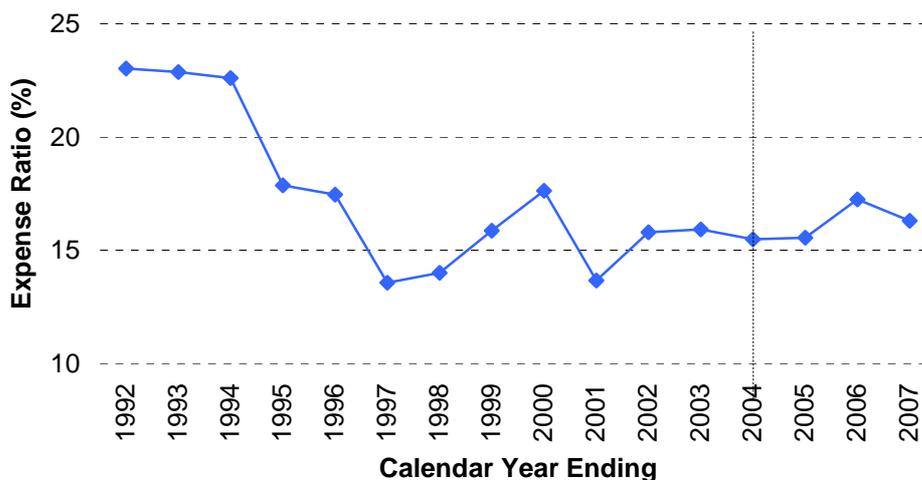
The strength of the reserve releases has been quite a surprise. Some analysis performed by APRA suggests that reserve releases in the CTP class reached a peak in the 12 months to June 2007 of around 30% of Net Earned Premium – resulting in strong downward pressure on loss ratios.

Clearly, such levels of releases mask the underlying performance of this class and we note there has been some evidence of superimposed inflation beginning to emerge. Indeed, focusing on 2007, if the reserve release impact of 30% is fully removed, an indication of the underlying loss ratio would be around 94%. We acknowledge this is a simplistic approach that does not reflect some of the inherent margins that potentially exist in this business (eg explicit risk margins and superimposed inflation allowances); nevertheless it does provide some indication of the recent importance of reserve releases in this class as a support for profitability.

Expense Ratios

Figure 3.4 sets out the expense ratio outcomes for CTP in recent years and places them in a historical context.

Figure 3.4 – CTP Expense Ratios



While not as strong an increase as was evidenced in Personal Lines, recent expense ratios for CTP have shown an increase in the three years since 2004, and have exceeded by 1% to 2% the forecast of 15% in the 2005 Insurance Cycle paper.

3.3 Commercial Short Tail

Recap of 2005 Insurance Cycle Commentary

In the 2005 Insurance Cycle paper, key themes identified from the historical data available were as follows:

- There was evidence of an insurance cycle in this class with some support for the length of the cycle being around 10 years.
- The most recent high point of the loss ratio cycle was 2000 (i.e. the point at which a maximum loss ratio was reached) when the loss ratio was 81%
- In 2004, the loss ratio hit 51% which was assumed to be a low point
- Expense ratios have tended to vary within the band 32% to 38%.

Against this background, the central scenario assumed:

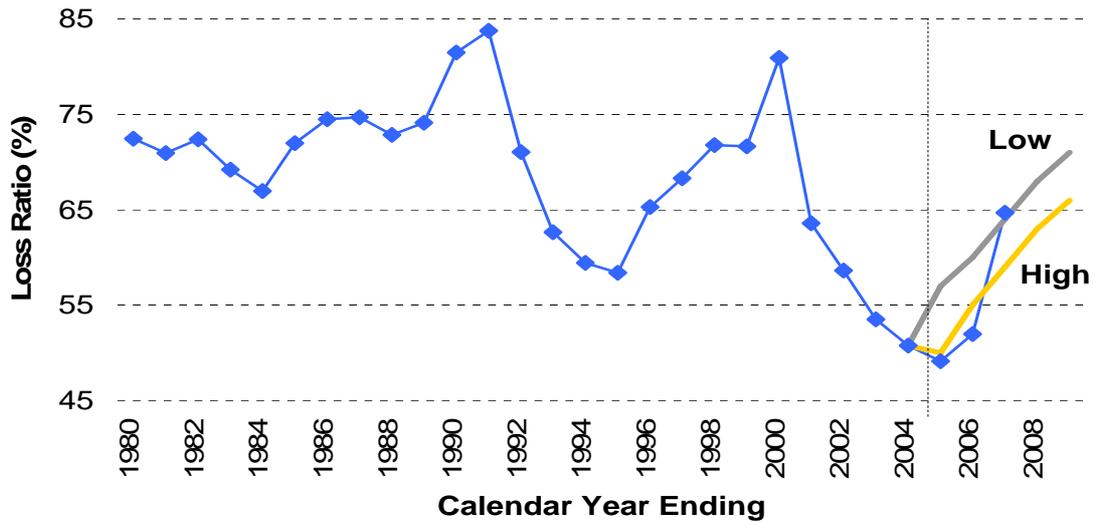
- Loss ratio – it was assumed that 2004 was a low point for the loss ratio, with rate reductions a factor in the expected upward pressure on the loss ratio
- Expense ratio – consistent with the range of ratios within the recent historical experience, an expense ratio of 36% was assumed.

High and low scenarios “bracketing” around the central scenario were also established, representing different views around the timing and strength of the turnaround in the cycle for this class.

Loss Ratios

Figure 3.5 sets out the loss ratio outcomes for Commercial Short Tail in recent years and places them in a historical context.

Figure 3.5 - Commercial Short Tail Loss Ratios



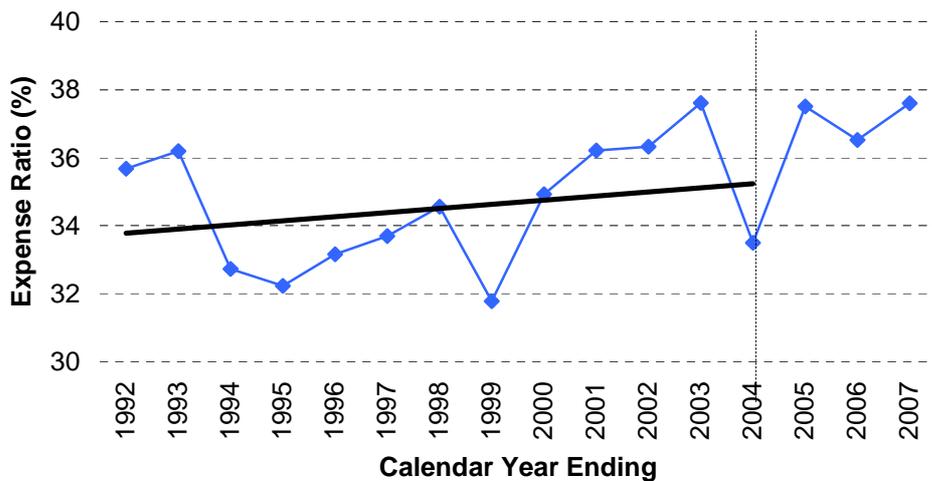
The loss ratio outcomes in this class were broadly within the range anticipated by the 2005 Insurance Cycle Paper. In other words the low point for the loss ratio was reached in 2005 - consistent with the view expressed above that the cycle in this class has a duration of around 10 years.

The upturn in the loss ratio from its 2005 low point was strong, perhaps a bit stronger than upturns in previous cycles. By 2007, the loss ratio of 65% was at the high end of expectations and 16% higher than the low point reached in 2005.

Expense Ratios

Figure 3.6 sets out the expense ratio outcomes for Commercial Short Tail in recent years and places them in a historical context.

Figure 3.6 – Commercial Short Tail Expense Ratios



The 2005 Insurance Cycle paper assumed an expense ratio of 36% post-2004, based on a range of historical outcomes of between 32% and 38%. In the three years to December 2007,

actual expense ratios averaged 38%, at the high end of this range, driven in part by ongoing rate reductions in this class.

3.4 Commercial Long Tail

Recap of 2005 Insurance Cycle Commentary

In the 2005 Insurance Cycle paper, key themes identified from the historical data available were as follows:

- There was evidence of an insurance cycle in this class with some support for the length of the cycle being around 12 to 14 years.
- The most recent high point of the loss ratio cycle was in 1999, when a maximum (accounting year) loss ratio of 132% was reached.
- Since this time, the collapse of HIH, a change in the regulatory environment, tort reform and the dominance of listed insurers in the market are major events which shape the current market. These factors were considered in selecting estimates for the level of the cycle post-2004
- Expense ratios have tended to vary quite narrowly in the band 24% to 26%.

Against this background, the central scenario assumed:

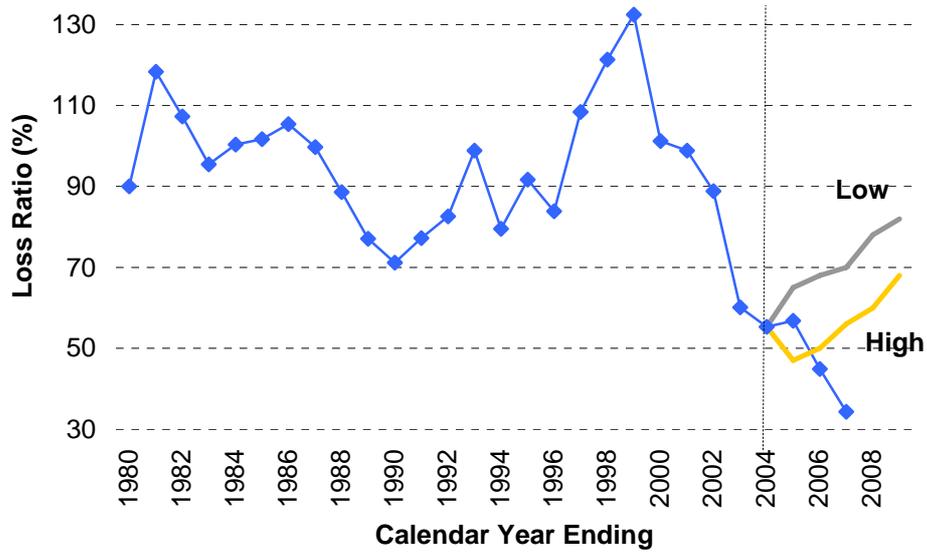
- Loss ratio – it was assumed that 2004 was a low point for the loss ratio. A continuation of the cycle fitted to the data resulted in an increase in loss ratios from 2004 onwards with the loss ratio reaching 63% by 2007
- Expense ratio – consistent with the range of ratios within the recent historical experience, an expense ratio of 25% was assumed.

High and low scenarios “bracketing” around the central scenario were also established, representing different views around the timing and strength of the turnaround in the cycle for this class. As noted, the general assumption in this class was for a turning point in the cycle to occur. However, the Low Scenario assumed that 2005 (rather than 2004) would be the turning point.

Loss Ratios

Figure 3.7 sets out the loss ratio outcomes for Commercial Long Tail in recent years and places them in a historical context.

Figure 3.7 - Commercial Long Tail Loss Ratios



The ongoing and unexpected strength of reserve releases on prior years has been a key factor in the continuing reductions in (accounting year) loss ratios. These reserve releases have more than offset the continuing rate reductions which have occurred in recent years. As a result, the predicted turn in the loss ratio cycle has not yet been seen.

Some analysis performed by APRA suggests that reserve releases in the Commercial Long Tail class reached a peak in the 12 months to June 2007 of around 25% of Net Earned Premium – resulting in the strong downward pressure on loss ratios.

Clearly, such levels of releases mask the underlying performance of this class. To investigate this further, we have previously performed some broad analysis of the Liability class of business (a component of the Commercial Long Tail class) on an underwriting basis. The results of this analysis, which are set out in Pendulum 2008, estimate that Liability underwriting year loss ratios bottomed out in 2003 at around 30%. Since then, we estimate that underwriting year loss ratios (undiscounted and without risk margins) may have increased to just over 50% by 2008, driven in large part by ongoing rate reductions. While quite an increase from the low point in 2003, a loss ratio of around 50% suggests good levels of profitability remain in this class.

4 Projection Framework and Assumptions

4.1 Introduction

In Section 3, we considered the historical experience up to December 2007 and compared this experience to the predictions made in the 2005 Insurance Cycle paper.

Now we look beyond December 2007. In this section we provide more detail of the projection framework and accompanying assumptions that underpin our projections of the industry's performance.

4.2 The Pendulum Framework

The Deutsche Bank projection framework was used in Pendulum 2008 to provide estimates of industry performance. This was used as the starting point for our projections.

The key components of the framework are:

- Exposure growth
- Premium rate changes
- Claims inflation
- Reserve release levels.

For the most part the analysis is performed at a class of business level, using the same class of business groupings we have investigated in Sections 2 and 3.

The key outputs are the standard performance measures for the general insurance industry. These include:

- Gross written premium (GWP)
- Net loss ratios, expense ratios and combined operating ratios (COR)
- Insurance trading results (ITR)
- Net profit after tax (NPAT) and return on equity (ROE).

We have selected assumptions for a Base (or central) scenario and also for High and Low scenarios relative to the Base scenario.

4.3 Responses to Experience and Events in the Last 4 Months

The assumptions used in Pendulum 2008 provided a solid starting point for our analysis. Pendulum was issued on 1 July 2008 with much of the analysis and decision-making around assumptions taking place in the second quarter of this year. Since this time, some new information has emerged (in particular, the listed companies have reported their 2007/08 financial results) and the economic environment and outlook has deteriorated further. In response to this, we have made some changes to the “best estimate” assumptions in Pendulum 2008 and these are described below.

Reserve releases – subsequent to the issue of Pendulum 2008 the listed companies have presented their financial results. The commentary around these results appeared to dampen expectations around the level of future reserve releases. Hence, while we have taken the view that further releases will still come through in the future, we have assumed these will be at a lower level in 2009 and 2010 than was assumed in Pendulum 2008.

Investment return – in light of recent events in the investment markets, notably the ongoing falls in the stock market and significant reductions in the yield curve, we have adopted alternative investment assumptions to those assumed in Pendulum 2008. More specifically,

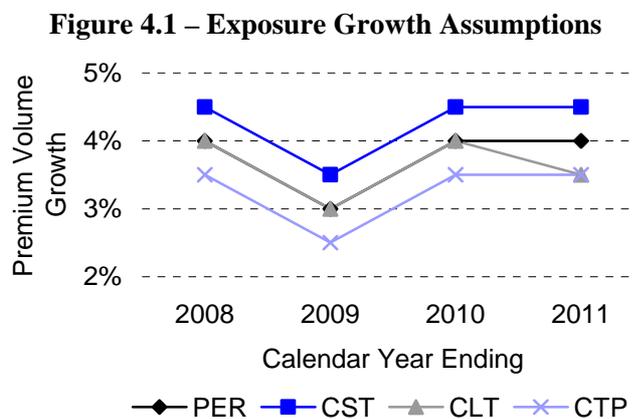
we have assumed the equities/property investment returns in calendar year 2008 will be much lower (i.e. more negative) than assumed in Pendulum 2008. We have also assumed lower returns on cash and fixed interest rates in 2009 and 2010, reflecting expectations contained in the current yield curve.

A key theme in Pendulum 2008 was the impact of inflation in certain classes. While the fight against inflation has arguably taken a backseat to the response to the global market turmoil in the last 4 months, our current view is that the inflation outlook over the next few years is unchanged. As a result, the claims-specific and CPI/AWE inflation assumptions adopted in Pendulum 2008 are unchanged in this paper.

4.4 Key Assumptions

Exposure Growth

Figure 4.1 sets out the assumptions for exposure growth adopted for each class of business modelled.

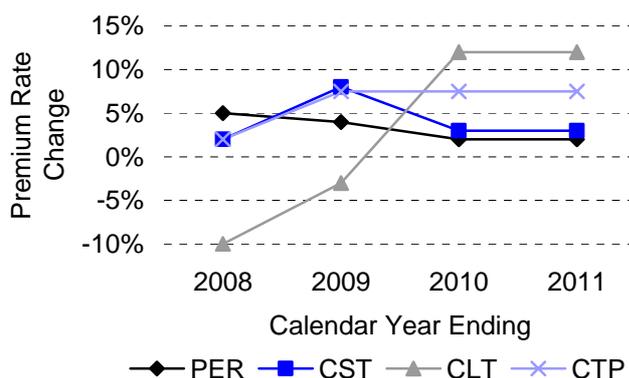


The projections allow for relatively low but stable growth in each class, reflecting the generally mature Australian economy. With the economy slowing down, a lower rate of growth coming through in 2009 has been assumed. Nevertheless, over the projection period, exposure growth is assumed to continue, reflecting the relative robustness of premium volumes in the insurance sector despite the tougher economic times ahead.

Premium rate changes

Figure 4.2 sets out the assumptions for premium rate changes adopted for each class of business modelled.

Figure 4.2 – Premium Rate Change Assumptions



The assumptions around premium rate changes are less stable than for premium volume growth. This reflects the cyclical nature of many of the classes of business modelled, as noted in Section 3. The assumptions vary by line of business as follows:

- **PER:** initial premium rate changes of 5% have been assumed, reducing over the projection period to 2%. We note that a number of insurers have put through premium rate changes in this class, partly in response to increasing claims inflation (particularly in the Buildings class). The higher level of weather related claims in the last 18 months is also likely to be a factor.
- **CST:** after a number of years of rate reductions, this is one of the first commercial classes to come under profitability pressure and the recent spate of weather-related events will have added to this pressure. Rate increases, particularly strong in 2009, are assumed throughout the projection period, reflecting a view that the bottom of the cycle in this class is about to be reached.
- **CLT:** despite a series of rate reductions, profitability in this class remains strong prolonging the existing downward phase of the cycle. Against this background, rate reductions, albeit at a lower level, are assumed for 2009. It is assumed that the cycle will turn in 2010 with double digit rate increases expected.
- **CTP:** after a period of rate reductions, we have assumed that the increase in rates emerging in 2008 will continue into future years. Given the erosion in margins from previous rate reductions and the emergence of pockets of superimposed inflation, the assumed increases will be a useful counter to the assumed reduction in the strength of reserve releases.

While not reflected in the projection assumptions at this stage, there is the potential for rate increases in the commercial classes to be “brought forward” relative to the assumptions set out above. The effects of the global market turmoil (including some damage to balance sheets which companies will want to repair) and some comments from reinsurers around increasing rates by double digit percentages may lead to some “earlier” upward pressure on direct premium rates compared to the assumptions modelled.

Price and Wage inflation

Table 4.1 sets out the assumptions for the underlying inflation rates adopted for each class of business modelled.

Table 4.1 – General Inflation Assumptions

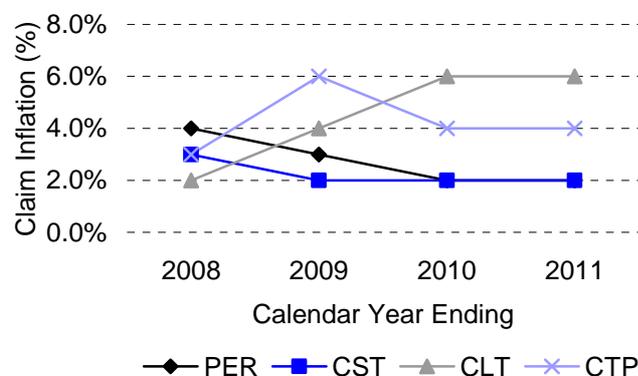
CPI/AWE	All Yrs
PER	3%
CST	3%
CLT	4%
CTP	4%

We have assumed a constant rate of underlying inflation for each class over the projection period.

Claims Inflation

Figure 4.3 sets out the assumptions for cost per policy inflation in each class of business modelled. Note that these inflation rates are expressed as rates over and above CPI.

Figure 4.3 – Cost Per Policy Inflation Assumptions



In all classes some element of claims inflation above underlying inflation is expected. More specifically:

- **PER:** It would be expected that generally claims costs would increase broadly in line with CPI. In recent years we have seen strong inflationary pressure, particular in Buildings, but also in Contents. We see this as continuing, albeit at reduced levels from 2009 onwards
- **CST:** Some element of above-CPI levels of claims inflation is assumed, albeit at relatively low levels
- **CLT:** Claims inflation in this class is associated more with wage inflation so some element of above-CPI inflation would be expected. While there is little evidence of superimposed inflation above wage inflation at present, we note that, post tort reform, the claims environment has been benign but there are some early signs of pressure in this class. For our projections, we have assumed that this “honeymoon period” will gradually unwind and that more significant inflationary pressures will be felt in this class during 2010
- **CTP:** Like CLT, claims inflation in this class is associated more with wage inflation so some element of above-CPI inflation would be expected. However, we are seeing signs of superimposed (above wage) inflation in CTP, particularly in Queensland. Our assumptions take this trend into account and assume ongoing inflationary pressures with a peak in 2009.

Reserve Releases

Reserve releases on prior years have provided a strong support to industry profitability over the last few years. Based on analysis released by APRA during 2008, reserve releases have contributed to a reduction in accounting year loss ratios for the overall industry of 4% in 2003/04, increasing to 9% in 2006/07.

Most of these releases can be assumed to be attributable to long tail classes – CTP and CLT. Hence, the impact on the loss ratio for these classes would be much higher, in percentage terms, than the 4% to 9% range quoted above.

The 2007/08 results of major insurers continued to exhibit reserve releases; however, there was some implication that the level of releases going forward will not be as strong as the levels seen in the recent past.

Against this background we have assumed reserve releases (as a percentage of net earned premiums across all classes) as follows:

- 6% in 2008
- 2% in 2009
- 1% in 2010.

These have been allocated to the CLT and CTP classes.

Investment Returns

Our assumptions in relation to investment returns recognise the recent fall in the yield curve, ushering in a period of lower interest rates. In addition, the current turmoil in the stock market has been reflected by assuming a high negative return in 2008 for equities and property.

Our estimates of the ITR are dependent on the allocation of investments to the assets backing the technical reserves and also to the assumed returns on those investments. The assumptions adopted are as follows:

- All assets backing technical reserves are assumed to be invested in cash or fixed interest
- The returns assumed are 6.5% in 2008, falling to 5% in 2009 and 4.3% in 2010 (based on consideration of the current yield curve).

Our estimates of NPAT and ROE are also dependent on the investment allocation of shareholders' funds investments as well as the assumed returns on those investments. The assumptions adopted are as follows:

- 40% of shareholders' funds are assumed to be invested in equities or property, with the remaining 60% in cash and fixed interest
- Returns on equities and property are assumed to be -30% in 2008, but returning to more normal levels of 8% thereafter.

4.5 Scenarios

Section 4.4 sets out the key assumptions adopted for the Base scenario. Clearly, there are significant uncertainties in the future performance of the insurance industry, particularly so in the current turbulent environment. Accordingly, we have investigated some alternative scenarios, reflecting better and worse outcomes to those expected under the Base scenario.

Table 4.2 sets out the assumptions underlying the additional scenarios modelled, with a comparison to the Base case scenario assumptions.

As we noted in Section 3, the High scenario is defined as the scenario that gives rise to higher profitability and returns on capital.

Table 4.2 – Average Assumptions (2008-2011)

Scenario	Base	Low	High
Exposure Growth	3.8%	2.3%	4.8%
Rate Changes			
PER	3.3%	3.3%	4.8%
Others ¹	4.4%	3.4%	5.9%
Claim Inflation (above CPI) ¹	3.1%	3.9%	2.5%
Reserve Releases ¹	1.9%	1.3%	2.1%
Investment Returns (Equities/Properties)			
2008	-30.0%	-30.0%	-25.0%
2009	8.0%	3.0%	12.0%
2010	8.0%	5.0%	10.0%
2011	8.0%	8.0%	10.0%
Investment Returns (Cash/FI)	5.1%	4.9%	5.1%

¹ Weighted by NWP

Further commentary on the scenario assumptions follows:

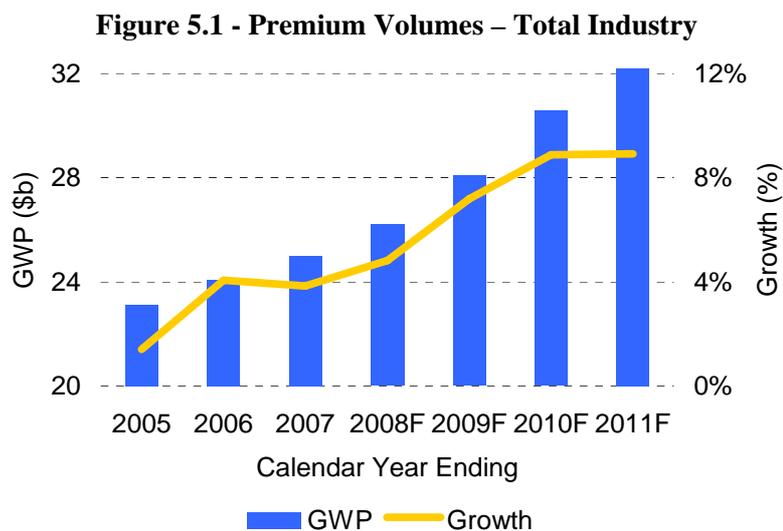
- **Exposure Growth** – the scenarios consider underlying exposure growth 1% higher or 1.5% lower than the Base case projection. The exposure scenarios allow more downside than upside. In essence, these scenarios consider uncertainty around the robustness of the industry’s underlying premium pool in the face of the weakening economy.
- **Rate Changes** – the scenarios considered are more weighted to the upside, reflecting the potential for PER rate increases to be stronger than in the Base scenario and for rating in the commercial classes to turn around earlier and be stronger than in the Base scenario.
- **Claim Inflation:** the range of forecasts provided by economists is indicative of the degree of uncertainty in any predictions of economic variables, particularly so in the current environment. This uncertainty feeds into claims-specific inflation outcomes also. The High and Low scenarios consider claims inflation at, respectively, levels 20% below and 25% above the Base scenario.
- **Reserve Releases:** The Base scenario allowed for continuing but reduced reserve releases through to 2010. The High scenario allows for some modest upside (around 10%) to the Base case. However, given recent comments by major companies, there appears to be more potential for a downside outcome and therefore we have modelled a Low scenario which assumes reserve releases around 30% lower than the Base scenario.
- **Investment Returns:** The Low scenario allows for below average returns on equities and property in 2009 and 2010, with a return to more normal levels of investment return not occurring until 2011. The High scenario assumes a rebound in the equities and property markets during 2009, with above average returns in 2009 to 2011.

5 Projection Outcomes

5.1 Base Case

Gross Written Premium

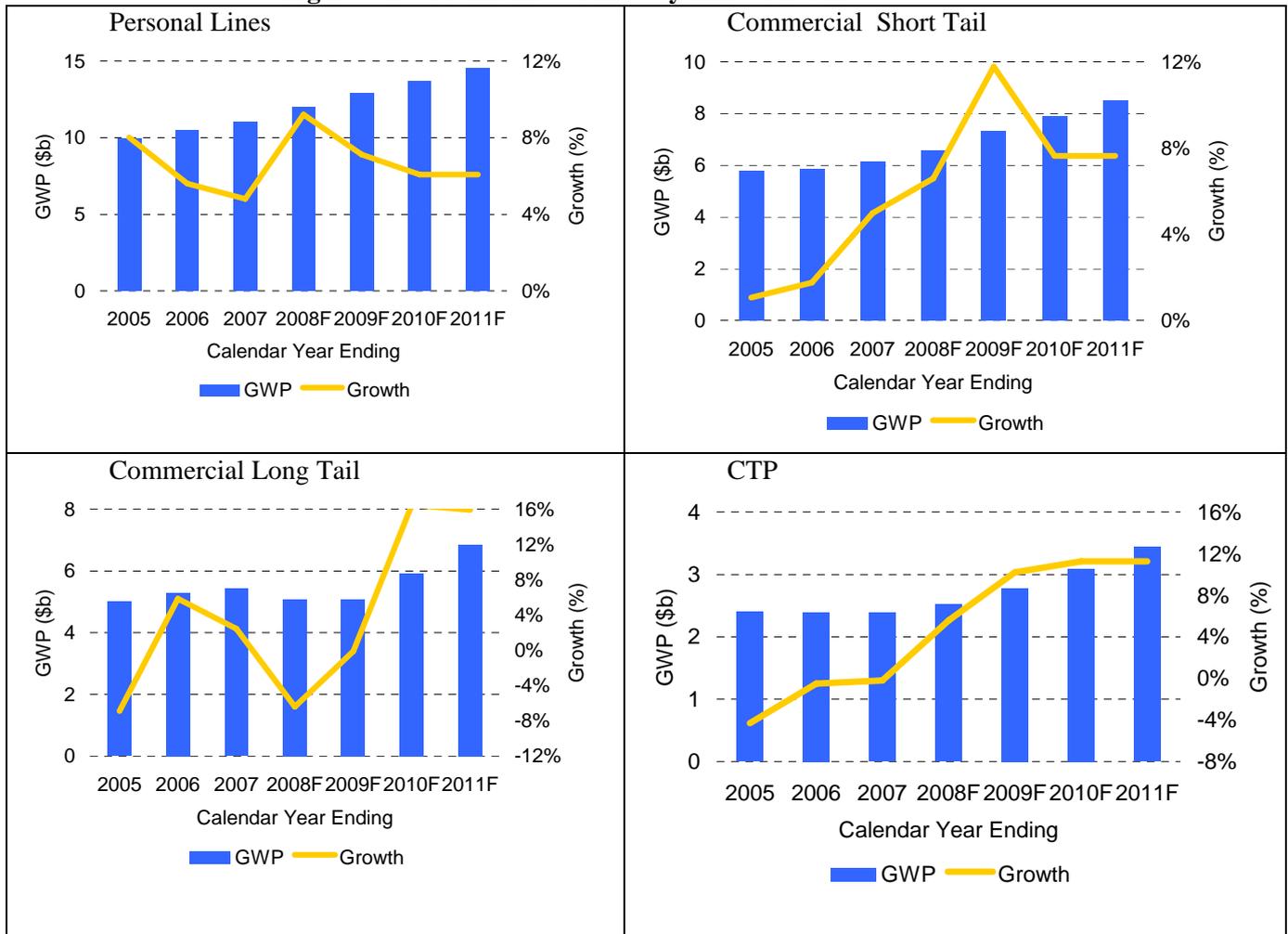
The combination of exposure growth and rate changes enables an estimate of future premium volumes to be determined. Figure 5.1 sets out estimates of future premium volumes at a total industry level.



Despite the slowing economy and the maturity of the industry, the industry’s premium pool is expected to grow at reasonable levels. Driven by assumed premium rate increases in most classes, top line growth is expected to exceed the relatively low levels experienced in recent years. While the levels estimated may appear strong, Pendulum 2008 noted that average annualised top-line growth at previous turning points in the cycle has been above 10%.

Figure 5.2 drills down into the premium volume estimates at a line of business level.

Figure 5.2 – Premium Volumes by Line of Business



Our observations on Figure 5.2 are as follows:

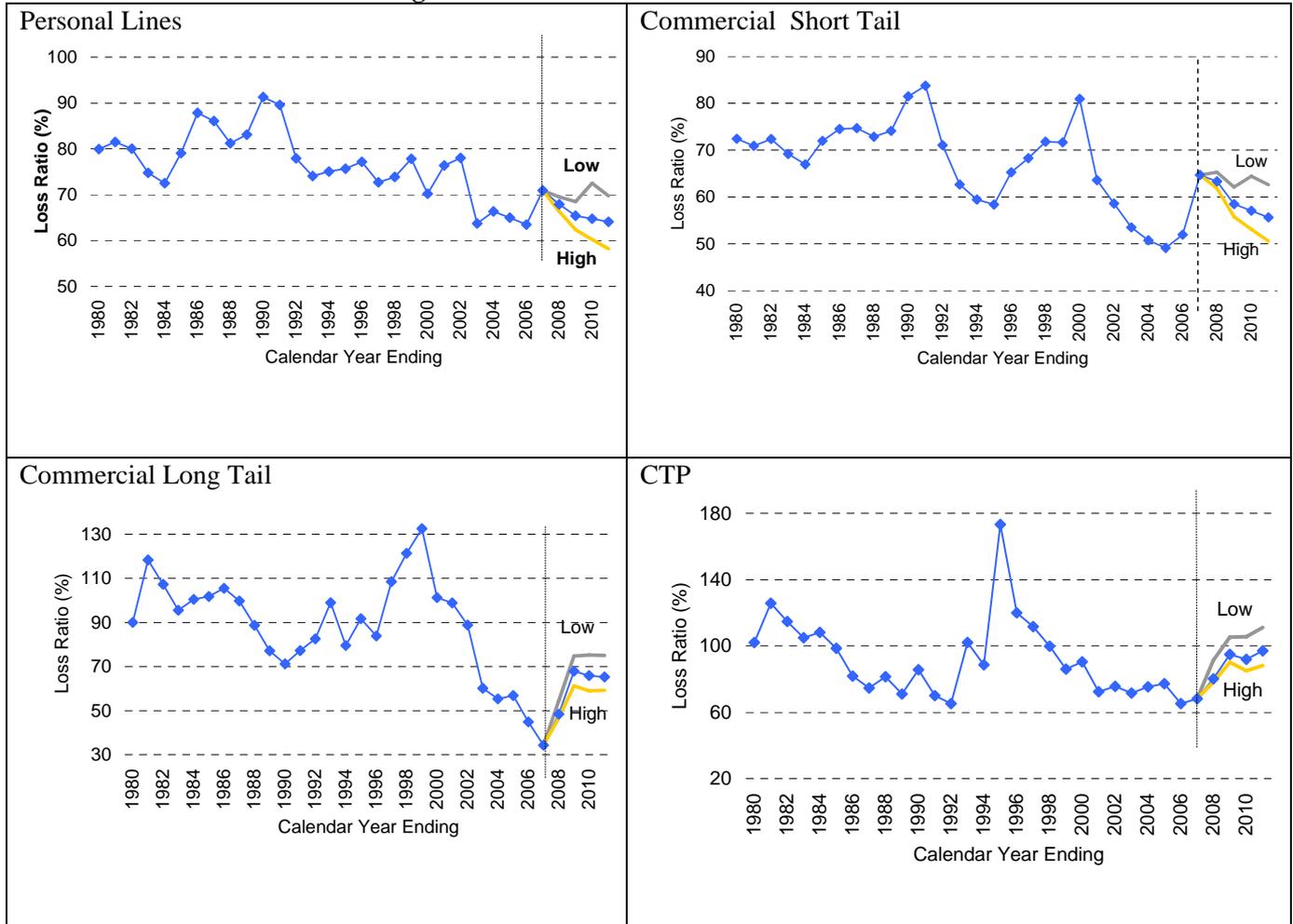
- **PER:** Strong growth in 2008 in particular is expected and there is already clear evidence of various rounds of rate increases being put through to support this view. Beyond 2008, volume increases are assumed to continue at reasonably strong levels
- **CST:** we anticipate modest growth in 2008, with volumes in this class still battling against the soft cycle. Beyond 2008, and in 2009 in particular, we see strong premium volume increases as the market hardens in this class
- **CLT:** With profitability still robust in this class, strong competition persists with the result that rate reductions continue to drive volumes down in this class in 2008. In 2009 we see a flattening out of the cycle with a strong hardening of the market in 2010 and 2011
- **CTP:** In recent years, volumes in this class have been flat, with exposure growth having to act as an offset to rate pressures. There is now recent evidence of rate increases in NSW and QLD. These are assumed to continue going forward leading to reasonably strong top line growth in this class.

Loss Ratios

Bringing claims into the equation (i.e. allowing for underlying loss ratios, reserve releases and claims inflation), estimates of loss ratios by class can be derived.

Figure 5.3 sets out estimates of future loss ratios, including consideration of the High (profitability) and Low (profitability) scenarios.

Figure 5.3 – Loss Ratio Estimates



Our observations on Figure 5.3 are as follows:

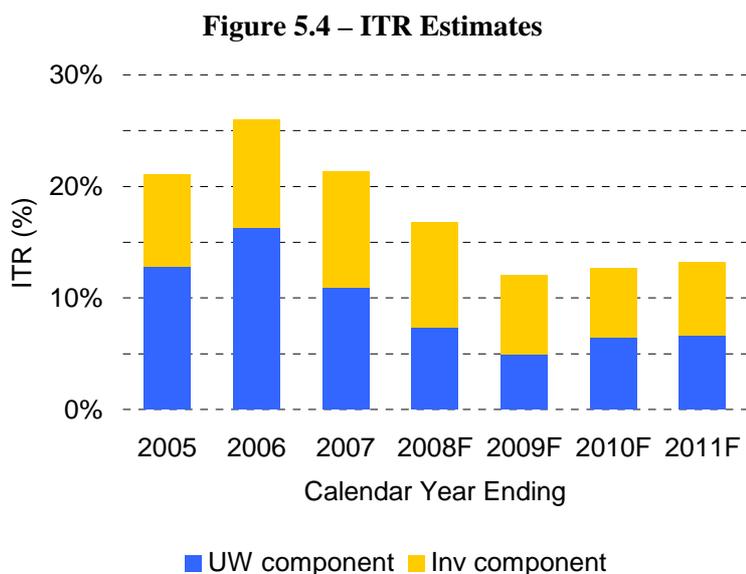
- PER:** The relatively high loss ratios in 2007 and 2008 are driven by the impact of a series of weather-related events. With an assumed return to more benign weather impacts than seen in 2007 and 2008 combined with the impact of strong rate increases progressively coming through, the Base scenario shows the loss ratio trending back towards the immediately pre-2007 levels. We note the more concentrated market structure in place now as well as the current financial challenges facing some of the major participants in this market. Hence, while projected loss ratios appear low compared to pre-2003 levels these dynamics suggest (in the absence of major weather events) lower loss ratio outcomes, driven by rate increases, are possible.
- CST:** the recent strong upturn in loss ratios is assumed to reverse slowly. This is due to the impact of rate increases coming through and an assumption that the recent poor weather experience that has impacted this class will not recur.

- **CLT:** With loss ratio support from reserve releases expected to dampen and the soft part of the cycle expected to continue a little longer, a repeat of the very low recent loss ratios is not expected. Accordingly, quite strong increases in loss ratio are estimated for this class. Given some of the “fallout” from the recent market turmoil, the potential impact of a spike in Professional Indemnity/Directors and Officers claims should also be noted, although much of this may be reinsured.
- **CTP:** While recent rate reductions will improve margins on new business, this will take some time to feed through into accounting loss ratios. In the meantime, the reduction in support from reserve releases on prior years will lead to a significant deterioration in loss ratios in the short term.

Insurance Trading Result

The Insurance Trading Result (ITR) allows for the impact of expenses and investment returns on the assets backing the technical reserves. Hence, the ITR can be considered as having two components – an underwriting profit component (i.e. 1 – the Combined Operating Ratio) and an investment component.

Figure 5.4 sets out our estimates of the ITR, with the ITR expressed here as a ratio relative to net written premium.



The listed companies often give “guidance” on expected ITRs. Current trends are for these companies to comment that they are targeting margins which average 11% to 15% over the length of the insurance cycle.

Figure 5.4 shows margins in 2008 to 2011 within the target range quoted. In the context of inflation pressures in a number of classes, expectations of a reduction in reserve releases and lower investment returns we would suggest this is a reasonable outcome for the industry. The anticipated recovery in premium rates to mitigate these pressures would appear to be coming just in time.

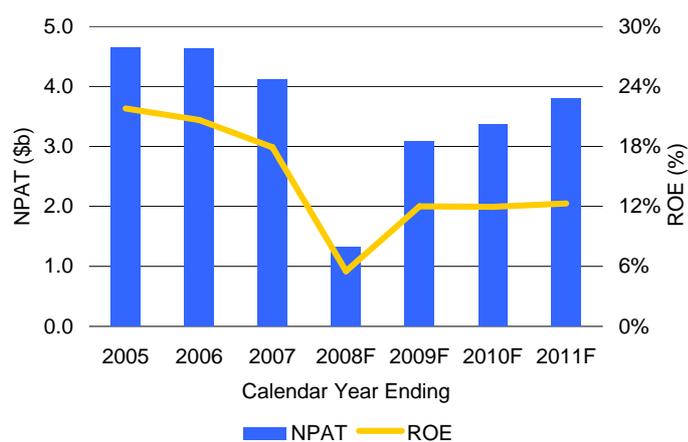
The 2005 to 2007 years were extremely profitable years for the industry with ITRs over 20%. This exceeds, by a good margin, the ITR levels experienced historically and demonstrates the potential profitability of the industry in the post-HIH, post-tort reform, post-consolidation environment.

As we have noted above, the listed companies have commented on a target ITR range of 11% to 15% over the cycle. We have estimated the ITR for the industry over the 10 year period 2003 to 2012 (inclusive) to be 17%.

Net Profit After Tax/Return On Equity

The final component of the “equation” is the inclusion of investment income from the shareholder fund assets. This results in estimates of Net Profit After Tax (NPAT) and Return on Equity (ROE). Figure 5.5 sets out our estimates of NPAT and ROE.

Figure 5.5 – NPAT and ROE Estimates



Our observations on Figure 5.5 are as follows:

- From a high point in 2005 to 2007, profits in 2008 are estimated to reduce significantly – from \$4 billion in 2007 to \$1.3 billion in 2008. There are a number of drivers of this reduction including continuing rate reductions in commercial lines, the impact of weather events and reduced investment returns (including the impact of mark-to-market losses)
- From 2009 onwards, profit levels recover, although not reaching what we consider to be the unusually high levels of 2005 to 2007. Post tax ROEs also recover from an estimated 6% in 2008 to a reasonably healthy 12% in subsequent years.

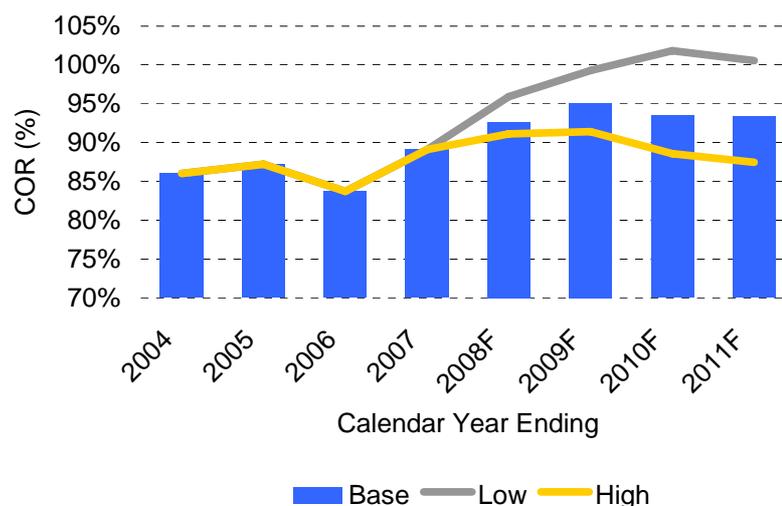
5.2 Scenarios

In this section we have considered the impact of scenarios higher and lower than the Base scenario. We have focused on three performance measures – the Combined Operating Ratio (COR), the ITR and ROE.

Combined Operating Ratio

Figure 5.6 sets out the COR outcomes under the Low and High scenarios, with a comparison to the Base scenario.

Figure 5.6 – Scenario Analysis - COR



In the High (profitability) scenario we have assumed:

- stronger exposure growth - greater resistance of the industry to the slowing economy
- stronger premium rate increases - a more robust turnaround in the rating cycle for commercial classes and more aggressive rate increases in personal lines
- lower claims inflation, particularly in personal lines and CTP
- reserve releases 10% higher than the Base scenario.

Not surprisingly, the combination of all the positive factors above has a beneficial impact on the COR. Focusing on the more short term projections, the industry's COR under the High (more profitable) scenario is estimated to be 91% in 2009, 4% lower than under the Base scenario.

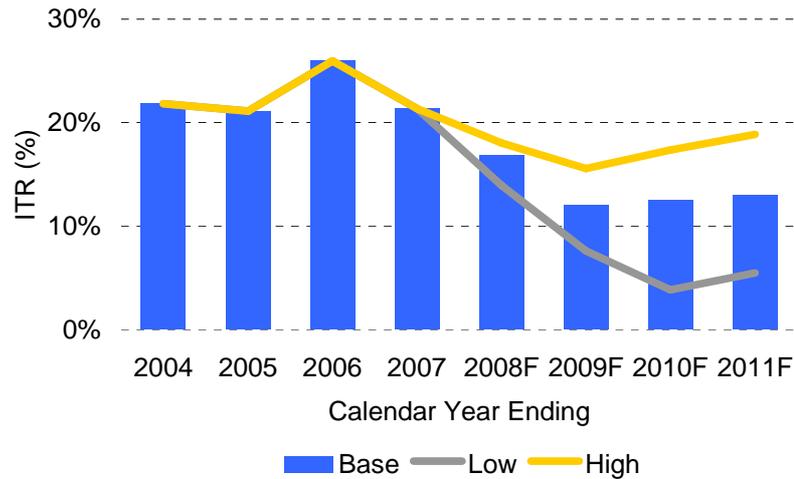
In the Low scenario, the combination of lower exposure growth, higher claims inflation and a lower level of reserve releases results in an estimate of a COR of 99% in 2009 (4% higher than the Base scenario).

Insurance Trading Result

We have also modelled alternative scenarios around different cash and fixed interest returns on the assets backing the technical liabilities. In considering the ITR, these assumptions aggregate with the upside and downside assumptions that are incorporated into the COR scenario outcomes discussed above.

Figure 5.7 sets out the ITR outcomes under the Low and High scenarios modelled.

Figure 5.7 – Scenario Analysis – ITR



The High and Low scenario assumptions around the investment returns on cash and fixed interest are not too dissimilar from those adopted in the Base scenario. As a result, the “gap” between the High, Base and Low scenario outcomes for the ITR is similar to that seen in the COR analysis. Again focusing on the more short-term projections, we estimate 2009 outcomes as follows:

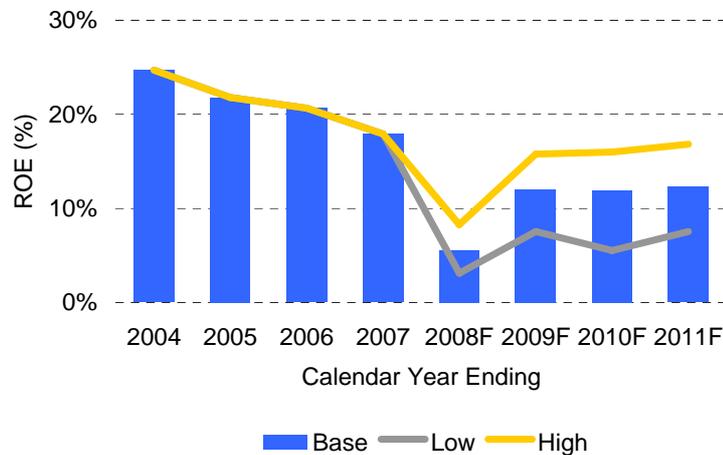
- the ITR under the Low (profitability) scenario is 8%. This is around 4% below the Base scenario and below the target range of 11% to 15%
- the ITR under the High (profitability) scenario is 16%. This is around 4% above the Base scenario, is just above the target range of 11% to 15% but off the ITR highs experienced over the period 2004 to 2007.

Return on Equity

In considering scenarios for ROE, the final set of assumptions varied from the Base scenario are assumptions relating to the future course of equity/property markets and the impact the returns in these markets will have on shareholders’ funds.

Figure 5.8 sets out the ROE outcomes under the Low and High scenarios modelled. Again note that the assumptions for equity and property investment returns aggregate with the scenario assumptions for the COR and ITR.

Figure 5.8 - Scenario Outcomes - ROE



The Australian General Insurance Industry – Where to From Here?

Under the High (profitability) scenario, the negative equity/property returns in calendar year 2008 are “only” -25% and a reasonably strong recovery in markets is expected in subsequent years (returns of +10% to +12%). While the series of investment returns assumed over 2008 to 2011 might appear bullish, we note that these assumptions imply the investment position at December 2011 is only 2% ahead of the position at December 2007.

With the strong recovery in investment markets (combined with the other upsides in the insurance component of the business already discussed), ROEs in the High scenario are estimated to be in the range 16% to 17% over the projection period. While lower than the highs of 2004 to 2007, returns on capital at these levels are reasonably strong for the industry.

In the Low scenario, the equity/property markets are assumed to continue with below average returns in 2009 and 2010. This scenario implies, by December 2011, the investment position is still almost 20% below the position at December 2007.

Combined with the downsides from the underwriting component of the business, the Low scenario results in ROEs of between 6% and 8%.

Appendix A.1: Information and Reference Material Used

- Pendulum GI Review 2008 – a joint publication between Deutsche Bank and Finity on the state of the Australian insurance industry, 1 July 2008
- Insurance and Superannuation Commission ‘Selected Statistics on the General Insurance Industry’ from 1977 to 1997
- APRA quarterly publications from 1997 to June 2008
- APRA half yearly publications from 1977 to December 2007
- “An Investigation into the Australian Insurance Cycle”, by Chidgey, Cohen, Priest and Stephan, presented at the Institute of Actuaries of Australia XVth General Insurance Seminar 16-19 October 2005
- Reserve Bank of Australia risk-free government bond yields