STAFF PAPER

REG FASB | IASB Meeting

Project	**Insurance contracts**		
Paper topic	Discounting - liability for incurred claims		
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What is this paper about?

1. The purpose of this paper is to:

   (a) confirm the boards' earlier decision to require, when material, the discounting of the liability for incurred claims for contracts to which the insurer applies the premium allocation approach.

   (b) consider possible additional guidance on determining when discounting the liability for incurred claims would be immaterial.

   (c) consider a practical expedient for claims expected to be paid within a short time period from the date the loss is incurred for contracts to which the insurer applies the premium allocation approach.

Staff recommendations

2. Staff recommends that the boards:

   (a) confirm their earlier decision to require the discounting of the liability for incurred claims when the effects of discounting would be material.

(b) do not provide additional guidance on determining when the effect of discounting of the liability for incurred claims would be immaterial.

(c) as a practical expedient, for contracts to which the insurer applies the premium allocation approach, **not** to require discounting of incurred claims that are expected to be paid within 12 months of the claim occurrence date. However, insurers should discount incurred claims that are expected to be paid out after twelve months of the claim occurrence date if the effect is material.

Background

3. The IASB's exposure draft and the FASB's discussion paper proposed that insurance contract liabilities should be discounted to reflect the time value of money.

4. An extract of respondents input received on the ED/DP, as included in the March 2011 board paper (agenda paper 3E/58E), can be found in Appendix A.

5. Agenda paper 3E/58E from the 1 March 2011 joint board meeting segregated the liability for incurred claims into three buckets:

   (a) short-tail claims that are paid less than one year after the incurred date.

   (b) long-tail claims with expected payment patterns that are reasonably determinable at a portfolio level.

   (c) long-tail claims in which it is questionable if the insurer will have to pay, when they will have to pay, or how much they will pay.

6. At that meeting the boards tentatively decided to require discounting for all non-life long-tail claims and that discounting of insurance liabilities should not be required when the effect of discounting would be immaterial. The boards asked the staff to develop, as part of the papers on the premium allocation approach, additional guidance for determining when discounting a contract with a short-tail claim would be considered immaterial.

7. The primary reason for the boards tentative decisions was expressed in the axiom that the boards tentatively agreed on at the February 2011 joint board meeting:

> **Money has a time value and an entity more faithfully represents its position when it measures its liabilities in a way that reflects the time value of money.**

8. In addition the boards tentatively decided that uncertainty regarding the measurement of some claims (for example, long-tail claims in which it is questionable if the insurer will have to pay, when they will have to pay or how much) should not preclude discounting of the liability.
9. Under existing requirements the time value of money is reflected in the measurement of long-term insurance contract liabilities in most jurisdictions.

US GAAP requirements

10. Under current US GAAP the liabilities for incurred claims for insurance contracts that are accounted for using the short-duration model (e.g., non-life insurance) are typically not discounted. Many insurance entities follow the guidance prescribed by the Securities and Exchange Commission under Staff Accounting Bulletin Topic 5N, Discounting by Property-Casualty Insurance Companies, to determine which liabilities to discount and the rate to use for discounting. That guidance states the following:

> "The staff is aware of efforts by the accounting profession to assess the circumstances under which discounting may be appropriate in financial statements. Pending authoritative guidance resulting from those efforts however, the staff will raise no objection if a registrant follows a policy for GAAP reporting purposes of:
>
> (a) Discounting liabilities for unpaid claims and claim adjustment expenses at the same rates that it uses for reporting to state regulatory authorities with respect to the same claims liabilities, or
>
> (b) Discounting liabilities with respect to settled claims under the following circumstances:

(i) the payment pattern and ultimate cost are fixed and determinable on an individual claim basis, and

(ii) the discount rate used is reasonable on the facts and circumstances applicable to the registrant at the time the claims are settled”.

11. In practice for US GAAP reporting, non-life insurers have discounted only those insurance liabilities that meet the criterion above, such as workers’ compensation indemnity claims, structured settlements and medical malpractice settlements.

12. The staff performed an analysis to assess the impact discounting would have had on US insurers between 2006 and 2010. The detailed assumptions and analysis are in Appendix C. Based on the analysis, the staff noted that the liability for incurred claims would have been reduced by approximately 10% to 17% for those years. The impact on pre-tax income varied with the smallest impact in 2007 of a 3% reduction and the largest impact in 2008 of a 71% increase. The increase in surplus ranged between 9% and 18%, however, the change in discount was much smaller with the biggest change in surplus being 6% in 2009 due to the precipitous decrease in discount rates.

Other GAAPs

13. Divergence in practice exists under other GAAPs in discounting non-life insurance liabilities. This is noted in a paper published by the Securities and Exchange Commission (SEC) on 16 November 2011, titled “An analysis of IFRS in Practice”, in which it was stated on page 55:

> “The Staff also noted differences in whether non-life insurance liabilities were discounted by companies in the insurance industry.”

Staff analysis

14. The discounting of liabilities arising under life contracts is generally accepted to provide useful information to users of financial statements and is supported by respondents to the ED/DP.

15. However, as noted in the appendix a number of respondents to the ED/DP believe that the time value of money should not be reflected in the measurement of some insurance contract liabilities (predominately non-life liabilities).

16. Consequently, staff reconsidered respondents' feedback to the ED/DP and feedback received as part of outreach activities, etc. The following are arguments for not discounting insurance liabilities:

    (a) Some users do not discount the claim liabilities in their analyses. The main metric analysed by users of non-life insurance is underwriting performance (eg the premiums that were charged to cover the claims and expenses to process those claims). In addition, users analyse how accurately an insurer estimates their liability for incurred claims by comparing the trends in the undiscounted liability. Changes in the estimate of the liability for incurred claims are more likely to be due to a change in frequency or severity assumptions than due to a change in the timing of when the claims is to be paid.

    (b) Other users discount the claim liabilities independently, using rates they believe are appropriate and do not want to attempt to unwind the discount applied by insurers.

        Staff acknowledges that some users' request for information on a nominal basis in the statement of financial position. However, the standard will require insurers to disclose a claims development table on an undiscounted basis that will be reconciled to the carrying amount of the insurance contract liabilities recognised in the statement of financial position.

    (c) Some respondents to the ED/DP stated that discounting an already uncertain estimate adds more uncertainty to the measurement of the liability for incurred claims. For some non-life lines of business there is uncertainty about whether or not the claim falls within the insurance contract (i.e., medical malpractice or general liability). These claims typically depend on facts and circumstances and are subject to litigation. The primary drivers of the variability of the amount to be paid are tort reform, societal views of litigation (propensity to sue), court interpretations and political pressures. The primary drivers of timing of pay-out are the speed of reporting, latency of claims (adverse event is not known for several years, eg asbestos, silicone implants, drug exposures) and the legal process, including trends and jury awards as well as medical advances for certain claims. Based on these drivers, many preparers and users of the financial statements believe it is difficult to determine a reliable pay-out pattern given that historical experience will not necessarily predict the future. As noted in paragraph 11, the boards considered this argument at their joint meeting in March 2011 and tentatively decided that uncertainty regarding the measurement of a liability should not preclude discounting.

(d) Discounting would add complexity (to preparers and to users of the financial statements) without increasing the usefulness of the information. Staff acknowledges that discounting adds complexity. However, staff observes that other industries are also required to reflect the time value of money in the measurement of their liabilities. Staff believes an exception should not be made to the insurance industry where the effect of discounting could be more material than in other industries.

(e) Discounting does not align with certain insurers' (predominantly property and casualty) business model (see Appendix B for characteristics of the business model). Staff believes that the boards should consider an accounting and not business model in developing the future insurance contracts standard.

(f) Discounting may increase income statement volatility.

(g) Discounting the insurance contract liability could dramatically decrease recognised insurance contract liabilities. Many constituents expressed concerns about "under-reserving" in this situation. Staff believes the fact that insurance contract liabilities are not discounted should not be used as a "buffer" for when the unbiased expected cash flows (statistical mean), risk adjusted for the IASB, proves to be inadequate. Staff notes also that the liquidity disclosures proposed by the boards will also address concerns that users have insufficient information about future cash outflows.

17. Staff thinks that the extent of users' preference for not discounting the liability for incurred claims is potentially influenced by the interest rate environment a particular insurer operates in. Staff believes that preparers and users are interested in the information that is provided by discounting in a high-interest rate environment. Furthermore, staff believes that even with a low interest rate, the effect of discounting could be material on an aggregated basis.

18. Staff note that the effect of discounting could introduce significant differences with current requirements given that the liability for incurred claims under current GAAP in many jurisdictions (including US GAAP) are recognized on an undiscounted basis. This significant difference impacts both a) the financial position (a lower insurance contract liability and higher equity) and b) performance of the insurer if there are changes in the discount rate. For a stable book of business, the net income should not be affected materially if the discount rate is stable because the unwind of the discount from prior years would offset the discounting for the new business. However, the underwriting margin will be different given that the measurement of the liability for incurred claims is on a discounted basis and the unwind of the discount will be reported with investment income which will be outside of the underwriting margin as tentatively decided by the boards.

19. While these arguments against discounting were considered when the boards made their tentative decisions earlier in the year to require discounting, some of these arguments have been further articulated, especially by some US users.

20. However, staff continues to believe that there is a time value to money and therefore recommend that the boards reconfirm their previous decision that–as a general principle–an entity should reflect the time value of money in the measurement of the liability for incurred claims for all insurance contracts including contracts accounted for using the premium allocation approach.

Question 1 – Money has a time value
Do the boards reconfirm their earlier decision to require the discounting of the liability for incurred claims when the effect of discounting would be material?

Materiality

18. At the 1 March 2011 joint board meeting, the boards tentatively decided that discounting of insurance liabilities would not be required if the effects of discounting would be immaterial. At that meeting, the boards asked the staff to develop guidance for determining when discounting would be considered immaterial.

19. Staff notes that a general principle in IFRS is that standards need not be applied to immaterial items. Paragraph QC11 of the IASB's Conceptual Framework states the following:

> Information is material if omitting it or misstating it could influence the decisions that users make on the basis of financial information about a specific reporting entity. In other words, materiality is an entity-specific aspect of relevance based upon the nature or magnitude or both of the items to which the information relates in the context of an individual entity's financial report. Consequently, the Board cannot specify a uniform quantitative threshold for materiality or predetermine what would be material in a particular situation

20. US GAAP contains a comparable general principle that standards need not be applied to immaterial items. For example, as stated in CON 2, paragraph 161,

"Each Statement of Financial Accounting Standards issued by the Board has concluded by stating that: 'The provisions of this Statement need not be applied to immaterial items.' Rule 3-02 of the Securities and Exchange Commission's (SEC) Regulation S-X, 'Form and Content of Financial Statements,' states that if an 'amount which would otherwise be required to be shown with respect to any item is not material, it need not be separately set forth.' "

21. The glossary of CON 2 defines materiality in a manner similar to the IASB Conceptual Framework as follows, "The magnitude of an omission or misstatement of accounting information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement" and, although CON 2 doesn't attempt to specify a quantitative threshold, it acknowledges that "a 'rule of thumb' of 5–10 percent of net income is widely used as a general materiality criterion".

22. As a consequence of this, the boards do not normally provide guidance on when a particular item would be considered material.

23. Staff notes that it is common practice that, in applying the materiality principle, reporting entities set a minimum threshold. These thresholds are determined by management and discussed and cleared with the auditors. Staff believes that the boards should not provide additional guidance on making these decisions as each individual insurer is best qualified to determine whether the effects of discounting would be material.

24. However, the liability for incurred claims is the largest liability on most insurers' statement of financial position. Therefore, the impact of discounting of a significant balance could be material. For example, assume a health insurance company has CU10 billion of liability for incurred claims, 100% of which are paid off within an average of six months. Using the 2010 Citibank AA Corporate Credit Curve one-year rate of 1% to discount this liability would result in a discount of CU 50 million. Using the 2006 one-year rate of 5.4% would result in a discount of CU 272 million. Depending on other factors, these discount amounts could be deemed material even though the liability for each claim is paid off within an average of six months.

25. In addition, staff acknowledge that if no guidance is provided on the meaning of 'material', individual insurers will be required to prove to themselves and their auditors that the effects of discounting are likely to be immaterial. Staff considers that requiring the insurer to prove that the effect of discounting is immaterial may be complex and burdensome.

26. However, staff believes that these concerns are better addressed by developing a practical expedient rather than in attempting to provide guidance regarding when discounting is material. A recommended practical expedient is discussed in paragraphs 27-39.

Question 2 – No additional guidance to be provided for when the effect of discounting is immaterial.
Do the boards agree that **not** to provide additional guidance on determining when the effect of discounting of the liability for incurred claims would be immaterial?

Practical Expedient

27. The premium allocation approach introduced a number of simplifications to the measurement of the liability for remaining coverage in the ED/DP, but provided no simplifications for the measurement of the liability for incurred claims.

28. Within this section, staff considers whether limiting the situations in which discounting should or should not be applied could simplify the measurement of the liability for incurred claims.

29. Under the proposals in the ED/DP, the liability for incurred claims was accounted for using the building blocks approach. Consequently, the measurement of the liability for incurred claims reflected the time value of money (ie it was discounted). In Agenda paper 8B for the July 2011 meeting, IASB staff noted the IASB's assumption that the liability for incurred claims would be measured using the building block approach.

30. Furthermore, on 7 September 2011, the FASB discussed at a FASB only meeting the measurement of the liability for incurred claims, including whether the

liability for incurred claims should be discounted (FASB agenda paper 72A). The FASB tentatively decided that the liability for incurred claims should be measured as the present value of unbiased expected cash flows (statistical mean) without a single margin. The discount rate should reflect the characteristics of the liability when the effect of discounting is material. The FASB also indicated that they will consider at a future meeting whether to include an exception to when discounting is required.

31. Staff agrees that removing the requirement to discount the liability for incurred claims would reduce the complexity and costs for contracts to which the insurer applies the premium allocation approach to the liability for remaining coverage. Staff considers that, for some of the contracts that qualify for the premium allocation approach, the period between the occurrence of an adverse event (when the liability for incurred claims is first recognised) and its settlement (when the liability is extinguished) is likely to be short. However, this is not always the case, for example disability or workers compensation claims may be settled over many years. The effect of discounting for these types of contracts is likely to be significant. Consequently, staff considered the inclusion of a practical expedient not to require discounting in *some* situations.

32. Staff identified that the only feasible practical expedient is one that is time based. Staff acknowledges that a time based criteria will introduce a “bright line” rule. Such a “bright line” rule could produce arbitrary outcomes in some cases.

33. However, staff believes that the boards faced a similar challenge during their redeliberations as part of the *Revenue from Contracts with Customers* project. In that project, the boards concluded that the relief from discounting could produce arbitrary outcomes in some cases. However, the boards decided, to exempt entities from accounting for the effects of the time value of money on contracts with an expected duration of one year or less, as was concluded in paragraph BC148:

Exceptions to accounting for the effects of the time value of money

BC148 Some existing standards require an entity to recognise the effects of financing only if the time period exceeds a specified period, often one year. For example, ASC paragraph 835-30-15-3 excludes those ‘transactions with customers or suppliers in the normal course of business that are due in customary trade terms not exceeding approximately one year'. The boards decided to include similar relief from the requirement to account for a financing component that is significant to the contract. The boards noted that the relief could produce arbitrary outcomes in some cases because the time value of money could be material for short-term contracts with high implicit interest rates and, conversely, may be immaterial for long-term contracts with low implicit interest rates. However, the boards were persuaded to exempt entities from accounting for the effects of the time value of money on contracts with an expected duration of one year or less for the following reasons:

(a) compliance with the revenue standard would be simplified. This is because an entity would not be required to:

(i) conclude whether those contracts contain the attributes of a financing component that is significant to the contract (as outlined in paragraphs BC146 and BC147 above).

(ii) determine the interest rate that is implicit within those contracts.

(b) the effect on the pattern of profit recognition should be limited because the exemption includes only those implicit financing arrangements that are expected to expire no later than during the following annual reporting period (ie when either the customer pays or the entity performs).

What period for the practical expedient?

34. If the boards decide to specify a minimum period when time value of money does not need to be considered, the boards would need to determine for which period.

35. The boards could provide a scope exclusion that is for a fixed period of time. As mentioned earlier, defining the period for which the expedient is to be applied is arbitrary, however, the boards have provided similar practical expedients in other areas of IFRS and US GAAP. As noted above, the boards decided in the Exposure Draft on the *Revenue from Contracts with Customers* that:

> **As a practical expedient, an entity need not adjust the promised amount of consideration to reflect the time value of money if the entity expects at contract inception that the period between payment by the customer of all or substantially all of the promised consideration and the transfer of the promised goods or services to the customer will be one year or less.**

36. With that precedent in mind, the staff recommend that the boards include a practical expedient that states that discounting need not be considered for the portion of the liability for incurred claims that is expected to be paid out within twelve months of the claim occurrence date (eg the period between a claim being incurred (whether reported or not) and is expected to be settled in less than twelve months). The portion of the liability for incurred claims that is expected to be paid out after twelve months should be discounted if material.

37. As noted in the prior paragraph, staff believes that the practical expedient should be based on the expected period of time between the date the claim is incurred and the expected pay-out. This is the outstanding period of time for which the payment could be due; prior to the claim being incurred the insurer has no obligation to pay a claim. Staff believes this period is equivalent to the period between "the payment by the customer of all or substantially all of the promised consideration and the transfer of the promised goods or services to the customer" in the *Revenue from Contracts with Customers* project.

Question 3 – Discounting of the liability for incurred claims
Staff recommends for contracts to which the insurer applies the premium allocation approach, not to require discounting of incurred claims that are expected to be paid within 12 months of the claim occurrence date. However, insurers should discount incurred claims that are expected to be paid out after twelve months of the claim occurrence date if the effect is material. Do the boards agree?

Whether to apply the expedient for all insurance contracts

38. The practical expedient proposed applies only to contracts for which the insurer applies the premium allocation approach. The question arises as to whether the practical expedient as formulated in Question 3 should also apply for all insurance liabilities, and not only for contracts for which the insurer applies the premium allocation approach to the liability for remaining coverage.

39. The same arguments for a practical expedient apply to the discounting for all incurred claims, including when an insurer applies the building block approach to the whole contract. However, there is limited benefit in a practical expedient for contracts that are not eligible for the premium allocation approach, because the insurer would need the systems to apply discounting in any case. That is not the case for many insurers that would apply the premium allocation approach for the liability for remaining coverage.

Appendix A - Overview of comments on the DP and ED (as included in the February board paper)

Overview of comments on the DP and ED

A1. The majority of property and casualty insurance preparers in the U.S. opposed discounting insurance contract liabilities. They argue that the business model of non-life insurers is fundamentally different when compared to life insurers and therefore warrants a different measurement model. They commented that the business model of a life insurer focuses a considerable amount of time on asset and liability management over the long term through investment strategies to manage the profitability of the business. Non-life business focuses primarily on underwriting results, which does not include investment income, and insurers are not dependent on investment income to pay claims.

A2. In general, most non-life insurers believe the discounting of such contracts would be immaterial for short-tail claims. Therefore, discounting these amounts would add complexity and costs that would outweigh the benefits gained. Furthermore, the payments to policyholders are known amounts and discounting would not be appropriate.

A3. For long-tail claims, when the amount and timing of payments are unpredictable (eg catastrophe), non-life insurers believe that discounting is not appropriate because of the uncertainty over the amount and timing of the cash flows. They believe that discounting these uncertain amounts does not provide useful and understandable information. For these types of contracts, the undiscounted amounts provide the user of the financial statements with a faithful representation of what the insurer expects to pay to the policyholder to settle the liability.

A4. Although some insurers opposed discounting of all non-life contracts, most agreed that discounting may be appropriate for other long-tail line claims in which the amount and timing of payments are fixed and reliably determinable on an individual claim basis. Still some respondents conditionally agreed with discounting provided that it was in line with the business model of the insurer.

A5. Although the majority of U.S. respondents disagreed with discounting in all situations regardless of the type of non-life contract, the majority of respondents from other countries agreed that the non-life insurance contract liabilities should be discounted.

A6. The decision of whether or not to discount short-duration insurance contracts (at least from the perspective of the SEC) appears to primarily focus on whether the payment pattern and ultimate costs are fixed and determinable on an individual claim. In practice, based on this guidance, for U.S. GAAP reporting, non-life insurers have discounted only those insurance liabilities that met this criterion, such as workers compensation indemnity claims, structured settlements, medical malpractice settlements, etc. This criterion also appears to be the focus of many respondents to the ED and DP.

Appendix B – Characteristics of the business model

Below is an excerpt from Agenda Paper 8C/71C from the July 2011 joint board meeting that identifies particular characteristics that differentiate between non-life and life insurance contracts which some refer to as the continuous risk re-underwriting business model. These characteristics were further discussed in paragraphs 18-22 of that Agenda Paper.

Characteristic	**Non-life**	**Life**
Coverage duration	Shorter-duration	Longer-duration
Type of risk	Can cover various commercial and personal losses with relatively short durations	Ongoing risks for a determined benefit to individual policyholders over time with significant time from inception of contract to incurrence of event and therefore payment of benefit
Primary performance indicators and metrics managed	Combined loss ratios, claims development	Margin analysis for investments, mortality, and morbidity; Actual to expected experience measures; Growth indicators based on premium volume
- Investment results	- Secondary consideration	- Primary consideration
- Matching of asset and liability cash flows	- Not the primary focus as shorter duration assets are required to fund liabilities that could become due immediately. Primary focus is underwriting.	- Primary focus of the model because of the need to fund long duration liabilities over time.
- Primary risk exposure	- Frequency and severity of claims; increased uncertainty of cash outflows	- Investment, mortality and morbidity experience
- Amount of insurance risk	- Variable up to policy limits	- Amount of insurance coverage specified in contract
- Premiums	- Typically single and fixed; profitability issues typically addressed through pricing of future contracts; Insurance risks re-underwritten and re-priced annually or more frequently; Contracts cancelable during coverage period with mandatory pro-rata refunds	- Premiums and Discretionary premiums may continue over multiple periods; Discretionary premiums can change the amount of benefit payout; Risks not re-underwritten or re-priced annually or more frequently

Appendix C - Description of staff analysis of effect of discounting on the liability for non-life insurance incurred claims

A7. As part of the staffs' consideration of the effect of discounting of the liability for incurred claims, we performed an analysis in which we estimated the effect on the US non-life insurance industry's historical liabilities for incurred claims. The data used in this analysis consisted of: the 2005 through 2010 aggregated industry recorded liabilities for incurred claims, on an accident year and line of business basis, as reported in publically available regulatory filings (i.e., Schedule P Part 1 data); and the December 31, 2005 through 2010 Citibank AA Corporate Credit Curve. The staff selected the five year period ended December 31, 2010 for the assessment, in part, because it incorporated the associated volatility in interest rates arising out of the 2008 "financial crisis". The staff utilized the pay-out patterns implicit in the Schedule P tables to determine cash flow timing expectations for the liabilities for incurred claims. These cash flow expectations were than matched up to the respective yield curves to determine an estimate of the amount of discount that would have been applied to the five years' liabilities for incurred claims.

A8. The analysis adjusted the industry composite statutory basis statements of financial position and statements of comprehensive income to identify the effect of discounting on pre-tax income and surplus (equity) for each of the five years ended December 31, 2010.

A9. In considering the results of the staff analysis one should be aware of the following assumptions and caveats.

(a) Because the analysis is based on a composite of the industry Schedule P data, it will not necessarily reflect the effect for any individual insurer, some of which will inevitably experience a larger relative discount and some of which will experience more volatility than is presented within the tables (i.e., due to the entity specific mix of business, portfolio constitution, etc).

(b) The analysis was based on statutory basis industry data. Although the measurement of the liabilities for incurred claims is substantially similar under US GAAP and US statutory bases of accounting, there are a number of GAAP to STAT differences to other assets and liabilities and income that influence the implied effects on pre-tax income and surplus identified in the previous paragraph.

(c) Due to the constraints of the number of periods required to be presented in the Schedule P regulatory filings, the staff extrapolated the pay-out pattern beyond that implicit in the Schedule P tables. The periods in which an extrapolation was used in our assessment are identifiable based on the shaded figures in the pay-out pattern chart. As the supermajority of the pay-out pattern used by the staff was based on the implicit pay-out pattern objectively identifiable from Schedule P, the staff do not believe the extrapolation has a significant effect on the results of the analysis.

(d) Certain of the Schedule P Part 1 data, notably workers' compensation indemnity reserve, is net of tabular discounts determined based on reference to actuarial tables. Therefore, there is a limited amount of "double counting" that has occurred relating to the discount.

(e) Finally, because the Schedule P information is based on accident year rather than underwriting year data, the pay-out pattern we applied is somewhat skewed towards a longer pay-out pattern than exists in reality. For instance, pay-outs within 13-24 months may actually be within one year of the incurred date. Consider the following example: a one year insurance policy has an effective date of July 1; a claim is incurred in December but is not paid out until January; because the payment is in a different year than the accident year, the pay-out is in the two year bucket. For analysis purposes, the staff believe that 50% of the payments in the year two pay-out buckets should be considered paid out within one-year of the incurred claim, 50% of the payments in the year three pay-out buckets should be considered paid out between one and two years of the incurred claim, etc. (assuming claims are incurred evenly throughout the year). The staff did not attempt to adjust for this pay-out pattern skewing by adjusting the results.

Impact of discounting on the liability measurement of US property and casualty insurers between 2006 and 2010

CHANGE SUMMARY - No Additional Discounting (i.e. current accounting basis) vs. Discounting						
(in 1,000,000s USD)		2006	2007	2008	2009	2010
Effect of discounting on net income		13,799	(2,624)	8,266	(24,827)	(11,065)
% Change on net income		15.5%	-3.1%	71.3%	-60.9%	-23.9%
Effect of discounting on total surplus (i.e., additional discount)		88,795	83,414	76,471	56,691	47,494
% Change on total surplus		17.9%	15.8%	16.6%	11.0%	8.5%

Income statements (with and without additional discounting):

(in 1,000,000s USD)		Income Statement with no additional discounting (i.e. current accounting basis)				
		2006	2007	2008	2009	2010
Net Premiums Earned		440,721	444,639	443,534	426,987	424,651
Net Loss and LAE Paid		(276,103)	(281,060)	(319,294)	(314,051)	(306,630)
Net Change in Loss and LAE Reserve		(11,322)	(21,380)	(24,035)	5,470	(5,907)
		153,297	142,199	100,205	118,406	112,115
Net Investment Income		53,142	56,499	53,133	48,402	48,465
Other		(117,486)	(115,219)	(141,741)	(126,009)	(114,318)
Net Income before tax		88,952	83,479	11,596	40,799	46,263

(in 1,000,000s USD)		Income Statement with discounting				
		2006	2007	2008	2009	2010
Net Premiums Earned		440,721	444,639	443,534	426,987	424,651
Net Loss and LAE Paid		(276,103)	(281,060)	(319,294)	(314,051)	(306,630)
Net Change in Loss and LAE Reserve		2,477	(24,004)	(15,770)	(19,357)	(16,972)
		167,096	139,574	108,470	93,579	101,050
Net Investment Income		53,142	56,499	53,133	48,402	48,465
Other		(117,486)	(115,219)	(141,741)	(126,009)	(114,318)
Net Income before tax		102,751	80,854	19,862	15,972	35,198

Balance sheets (with and without additional discounting):

(in 1,000,000s USD)		Balance Sheet with no additional discounting (i.e. current accounting basis)				
		2006	2007	2008	2009	2010
Total Assets		1,452,521	1,506,299	1,447,814	1,491,673	1,548,523
Loss and LAE Reserve		523,861	544,220	567,403	564,274	569,498
Other Liabilities		431,578	432,945	418,654	411,595	417,196
		955,439	977,165	986,057	975,870	986,694
Total Surplus		497,082	529,134	461,757	515,803	561,829

(in 1,000,000s USD)		Balance Sheet with discounting				
		2006	2007	2008	2009	2010
Total Assets		1,452,521	1,506,299	1,447,814	1,491,673	1,548,523
Loss and LAE Reserve		435,065	460,806	490,932	507,584	522,004
Other Liabilities		431,578	432,945	418,654	411,595	417,196
		866,643	893,751	909,587	919,179	939,200
Total Surplus		585,878	612,548	538,227	572,494	609,323

Effect on the liability for incurred claims, by line of business and year:

(in 1,000,000s USD)	2005			2006			2007		
	Loss Reserve	Discount	%	Loss Reserve	Discount	%	Loss Reserve	Discount	%
Homeowners	19,830	1,395	7.0%	17,998	1,435	8.0%	19,068	1,383	7.3%
Private Passenger Auto Liability	85,146	7,746	9.1%	85,017	8,301	9.8%	86,458	7,843	9.1%
Commercial Auto Liability	25,924	3,034	11.7%	26,603	3,360	12.6%	26,328	3,137	11.9%
Workers' Compensation	94,162	16,756	17.8%	102,671	20,216	19.7%	108,826	22,611	20.8%
Commerical Multi-Peril	36,579	4,724	12.9%	36,667	5,120	14.0%	37,527	5,244	14.0%
Medical Professional Liability - Occurrence	11,660	2,378	20.4%	11,993	2,641	22.0%	11,702	2,653	22.7%
Medical Professional Liability - Claims Made	17,431	2,552	14.6%	18,234	2,952	16.2%	18,755	3,024	16.1%
Special Liability	6,521	691	10.6%	6,599	780	11.8%	6,934	801	11.5%
Other Liability - Occurrence	78,297	15,051	19.2%	82,814	17,479	21.1%	87,192	18,325	21.0%
Other Liability - Claims Made	30,016	4,697	15.6%	32,772	5,711	17.4%	35,581	6,353	17.9%
International	635	68	10.7%	475	68	14.3%	350	29	8.3%
Reinsurance - Non Proportional - Property	11,218	1,116	9.9%	8,555	994	11.6%	6,095	597	9.8%
Reinsurance - Non Proportional - Liability	44,161	9,314	21.1%	43,863	13,832	31.5%	43,844	7,916	18.1%
Reinsurance - Non Proportional - Financial	801	98	12.2%	792	113	14.3%	744	117	15.8%
Product Liability - Occurrence	15,604	3,234	20.7%	15,249	3,415	22.4%	15,019	3,399	22.6%
Product Liability - Claims Made	1,021	220	21.6%	1,017	189	18.6%	1,185	227	19.2%
Special Property	15,212	871	5.7%	14,091	1,009	7.2%	13,052	737	5.6%
Auto Physical Damage	5,714	274	4.8%	5,331	282	5.3%	5,573	260	4.7%
Fidelity & Surety	4,554	364	8.0%	4,987	445	8.9%	4,794	402	8.4%
Other	4,911	305	6.2%	4,882	323	6.6%	5,721	335	5.9%
Financial & Mortgage Guaranty	3,488	251	7.2%	3,392	272	8.0%	12,371	919	7.4%
Warranty	-	-	0.0%	-	-	0.0%	-	-	0.0%
INDUSTRY TOTAL	512,886	75,139	14.65%	524,003	88,938	16.97%	547,120	86,314	15.78%

Effect on the liability for incurred claims, by line of business and year:

(in 1,000,000s USD)	2008			2009			2010		
	Loss Reserve	Discount	%	Loss Reserve	Discount	%	Loss Reserve	Discount	%
Homeowners	22,300	1,781	8.0%	20,656	747	3.6%	22,071	603	2.7%
Private Passenger Auto Liability	87,354	8,363	9.6%	90,626	4,376	4.8%	93,794	3,559	3.8%
Commercial Auto Liability	25,921	3,271	12.6%	25,628	1,862	7.3%	24,461	1,417	5.8%
Workers' Compensation	109,340	23,737	21.7%	113,987	20,417	17.9%	117,291	18,977	16.2%
Commerical Multi-Peril	38,755	5,875	15.2%	37,458	3,530	9.4%	37,003	2,915	7.9%
Medical Professional Liability - Occurrence	11,442	2,765	24.2%	11,212	2,105	18.8%	11,049	1,843	16.7%
Medical Professional Liability - Claims Made	18,567	3,226	17.4%	18,493	2,158	11.7%	18,196	1,764	9.7%
Special Liability	7,509	909	12.1%	7,192	537	7.5%	6,696	423	6.3%
Other Liability - Occurrence	87,746	19,006	21.7%	89,233	14,989	16.8%	91,854	13,919	15.2%
Other Liability - Claims Made	36,096	6,807	18.9%	37,724	4,951	13.1%	37,785	4,002	10.6%
International	475	76	15.9%	400	34	8.5%	437	20	4.5%
Reinsurance - Non Proportional - Property	7,133	767	10.8%	6,399	376	5.9%	6,934	365	5.3%
Reinsurance - Non Proportional - Liability	40,150	7,467	18.6%	38,256	8,077	21.1%	36,516	4,614	12.6%
Reinsurance - Non Proportional - Financial	727	119	16.4%	791	103	13.0%	644	76	11.8%
Product Liability - Occurrence	15,500	4,003	25.8%	15,434	3,182	20.6%	15,397	2,712	17.6%
Product Liability - Claims Made	1,142	243	21.2%	1,147	161	14.0%	1,313	164	12.5%
Special Property	16,422	966	5.9%	12,733	247	1.9%	12,401	169	1.4%
Auto Physical Damage	5,652	269	4.8%	5,152	72	1.4%	4,977	53	1.1%
Fidelity & Surety	4,876	457	9.4%	5,420	233	4.3%	5,258	140	2.7%
Other	5,777	331	5.7%	5,935	124	2.1%	5,785	89	1.5%
Financial & Mortgage Guaranty	42,415	4,120	9.7%	33,200	1,466	4.4%	30,565	861	2.8%
Warranty	215	20	9.5%	261	4	1.6%	263	3	1.1%
INDUSTRY TOTAL	585,511	94,579	16.15%	577,335	69,752	12.08%	580,691	58,687	10.11%

Yield curve and claim pay-out pattern used in analysis:

5 Year Average Payout Pattern and Reserve Amount

Percentage of total payout in months	Homeowners	Private Passenger Auto Liability	Commercial Auto Liability	Workers' Comp	Commerical Multi-Peril	Medical Professional Liability - Occurrence	Medical Professional Liability - Claims Made	Special Liability	Other Liability - Occurrence	Other Liability - Claims Made	International
181+				6.6%					4.4%		
169-180				0.9%					0.1%		
157-168				1.3%					1.4%		
145-156				1.8%					1.4%		
133-144			0.3%	1.8%	1.0%	1.0%			1.4%		
121-132			0.5%	2.3%	1.9%	3.4%		0.7%	1.9%		
109-120			0.5%	2.3%	1.9%	3.4%		1.5%	1.9%	2.5%	
97-108	0.7%	1.0%	0.6%	2.3%	1.9%	3.4%	5.1%	1.5%	2.3%	5.3%	
85-96	0.4%	0.4%	0.9%	2.3%	2.1%	5.1%	2.5%	2.2%	2.0%	3.8%	3.0%
73-84	0.7%	0.8%	1.5%	3.1%	2.0%	9.0%	4.4%	2.6%	4.4%	5.0%	6.9%
61-72	1.3%	1.5%	3.1%	3.9%	3.6%	12.8%	6.2%	2.8%	6.6%	7.6%	1.3%
49-60	2.1%	3.1%	5.7%	5.8%	7.0%	16.5%	10.9%	4.1%	9.7%	9.6%	1.9%
37-48	3.7%	6.9%	11.7%	8.3%	10.9%	18.2%	15.8%	7.8%	14.2%	14.4%	9.0%
25-36	5.9%	13.0%	18.4%	11.5%	13.6%	15.7%	18.9%	11.5%	16.9%	17.5%	20.7%
13-24	13.0%	22.3%	25.2%	17.1%	16.9%	8.0%	20.0%	21.8%	16.5%	17.8%	21.1%
0-12	72.1%	51.1%	31.5%	28.8%	37.2%	3.5%	16.2%	43.6%	15.1%	16.5%	37.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	101.7%
		Manual extrapolation to compensate for development and limitation of 10 or 2 year tables									
% of Total Industry Reserves (5 year average)	3.6%	15.8%	4.6%	19.6%	6.7%	2.0%	3.3%	1.2%	15.6%	6.4%	0.1%

Percentage of total payout in months	Reinsurance - Non Proportional - Property	Reinsurance - Non Proportional - Liability	Reinsurance - Non Proportional - Financial	Product Liability - Occurrence	Product Liability - Claims Made	Special Property	Auto Physical Damage	Fidelity & Surety	Other	Financial & Mortgage Guaranty	Warranty
181+											
169-180											
157-168				2.8%							
145-156				2.6%							
133-144				3.0%							
121-132		5.9%		3.0%							
109-120		8.5%		3.4%							
97-108	1.4%	8.5%	4.6%	3.2%	5.8%						
85-96	2.0%	8.6%	2.1%	4.0%	4.0%						
73-84	3.4%	5.0%	4.1%	7.2%	6.5%						
61-72	1.6%	5.3%	6.5%	9.7%	8.8%						
49-60	3.7%	4.8%	12.3%	11.4%	19.5%						
37-48	6.5%	10.9%	16.2%	15.1%	17.3%						
25-36	11.3%	12.1%	22.2%	15.4%	13.0%			30.1%		27.7%	
13-24	22.2%	13.9%	14.6%	11.7%	15.2%	28.9%	2.1%	33.0%	30.5%	33.2%	62.9%
0-12	47.8%	16.6%	17.3%	7.6%	9.8%	71.1%	97.9%	37.0%	69.5%	39.1%	37.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
% of Total Industry Reserves (5 year average)	1.3%	7.2%	0.1%	2.7%	0.2%	2.4%	1.0%	0.9%	1.0%	4.2%	0.0%

YIELD CURVE DATA (as of 12/31)		2006	2007	2008	2009	2010
Yrs						
20.0		5.987	6.639	7.217	6.204	5.887
15.0		5.872	6.593	7.068	6.259	5.673
14.0		5.832	6.578	6.980	6.198	5.574
13.0		5.767	6.539	6.876	6.106	5.446
12.0		5.690	6.434	6.750	5.980	5.284
11.0		5.610	6.240	6.589	5.812	5.078
10.0		5.532	6.021	6.373	5.596	4.823
9.0		5.459	5.881	6.249	5.280	4.516
8.0		5.402	5.758	6.093	5.020	4.228
7.0		5.359	5.583	5.868	4.728	3.984
6.0		5.308	5.391	5.617	4.290	3.666
5.0		5.276	5.259	5.424	3.841	3.224
4.0		5.227	5.029	5.391	3.237	2.563
3.0		5.186	4.678	5.358	2.567	1.872
2.0		5.201	4.580	5.097	1.896	1.267
1.0		5.432	4.806	4.904	1.389	1.039

Source: http://www.soa.org/professional-interests/pension/resources/pen-resources-pension.aspx