

# CAS Task Force on Fair Value Liabilities

## White Paper on Fair Valuing Property/Casualty Insurance Liabilities

### Section F - Implementation Issues

#### Introduction

Up to now, this paper has dealt primarily with two areas associated with fair valuing insurance liabilities. The first of these areas was contained in Sections C and D, “Fair Value Alternatives” and “Methods of Estimating Risk Adjustments.” Sections C and D discuss a variety of ways that a liability's fair value could be determined in theory. The second area addressed so far in the paper was that of presentation. This was the subject of Section E.

The current section, Section F, goes the next step, discussing issues arising from the implementation of these concepts and methods and presentations. Implementation issues can be categorized as:

- 1. Issues related to the availability and usability of market information.** These include:
  - 1.1. The robustness of the transactions occurring in the marketplace.
  - 1.2. Intangibles included in market prices that might not be relevant in a fair value liability valuation.
  - 1.3. Influence of information asymmetry on market prices.
  - 1.4. The existence of disequilibriums or temporary disruptions in market prices.
  - 1.5. The lag between event occurrence and the reporting of the event in the marketplace.
- 2. General issues related to developing parameters for fair value methods.** These are issues that are not related to any particular fair value methodology. Rather they deal with concepts that can be thought of as some of the theoretical underpinnings of fair value accounting. These include:
  - 2.1. Whether or not a risk charge should always be included in the fair value of a liability.
  - 2.2. What properties a risk charge should have, specifically related to the inclusion of a value for diversifiable risk and value additivity.
  - 2.3. Whether an adjustment for an entity's own credit risk should be included in that entity's fair value valuation of its liabilities.
  - 2.4. The issues that need to be weighted when deciding to use industry-wide data or company-specific data in a fair value calculation.
- 3. Application of fair value methodologies – general issues.** This section discusses issues that relate to questions that fair value practitioners will need to address when preparing fair value financial statements. These issues are ones that relate to how to physically create numbers to put on fair value financial statements, but that are not specific to any one methodology. Included under this heading are:
  - 3.1. The steps the actuarial profession might need to take to prepare for the implementation of a new requirement.

**CAS Task Force on Fair Value Liabilities**  
**White Paper on Fair Valuing Property/Casualty Insurance Liabilities**

**Section F - Implementation Issues**

- 3.2. What items should contain fair value adjustments in their carrying value?
  - 3.3. How renewal business ought to be considered when developing fair values.
  - 3.4. How judgment should be accommodated when developing fair value estimates.
- 4. Application of fair value methodologies — method-specific issues.** This section highlights issues associated with different methods that a practitioner ought to be aware of when choosing a fair value methodology. The specific issues being highlighted are:
- 4.1. Methods that rely on CAPM.
  - 4.2. Methods that rely on public data.
  - 4.3. Methods that produce results on a total company-basis only.
  - 4.4. Time period sensitivity of some methods.
  - 4.5. The inclusion or exclusion of a value for process risk in valuations created by different methods.
  - 4.6. The existence or lack thereof of value additivity in valuations created by different methods.
  - 4.7. The appropriateness of different methods for the valuation of volatile, short-tailed lines of business.
- 5. Presentation issues.** These are issues associated with the actual presentation of results in a fair value financial statement. Items include:
- 5.1. Updating carried values from valuation date to valuation date, especially between full-scale analytical re-estimations of appropriate carrying values (in accounting parlance, a “fresh-start” valuation).
  - 5.2. Issues associated with the initial development of exhibits that show historical development.

# CAS Task Force on Fair Value Liabilities

## White Paper on Fair Valuing Property/Casualty Insurance Liabilities

### Section F - Implementation Issues

#### 1. Issues related to the availability and usability of market information

This is the first item to be discussed because it is FASB's and the IASC's stated preference that market valuations be used wherever possible. However, we are skeptical as to the usability of market information for developing fair value valuations of insurance liabilities. The five specific reasons for this skepticism are as follows:

##### **1.1. Is the observed market active and robust enough for fair value estimation purposes?**

A key principle espoused by both FASB and the IASC is that the first choice for the development of fair values is from the marketplace.<sup>55</sup> However, there is not currently much of an active market that can be used to establish price comparisons. Moreover, the transactions that are being done may suffer from a lack of "market relevancy" whereby the marketplace transaction was for a block of liabilities that was similar but not exactly the same as the block of liabilities a company is trying to value. The company in this situation is faced with trying to decide how the market would respond to the differences between the company's liabilities and those that were involved the marketplace transaction.

**1.2. The observed market values may contain intangibles not relevant to the valuation at hand.** A similar but unrelated marketplace issue is the quantification of the value of noneconomic considerations in a market price. A company could have a variety of reasons for accepting one market price over another that are particular to that company. One example could be the nature of the relationship that exists with a particular reinsurer. The chosen reinsurer might not be the lowest cost option available to the company, but because the company trusts its relationship with the reinsurer, the company may feel the noneconomic "relationship value" is worth the extra cost. A different company looking to price a similar block of liabilities might not have the same relationship with a reinsurer. For the second company, then, the relationship value does not exist and the market price assigned to the first company's liabilities would not be appropriate valuation for the second company's liabilities.

---

<sup>55</sup> There is no universally accepted definition of "fair value" to-date, although they all follow the same general concept given by this short definition. The detailed definition that FASB is proposing can be found in FASB's Preliminary Views document titled "Reporting Financial Instruments and Certain Related Assets and Liabilities at Fair Value," dated December 14, 1999, and labeled "No. 204-B." The definition starts on paragraph 47, with discussion and clarification continuing through paragraph 83. Paragraph 47 states: "*Fair value is an estimate of the price an entity would have realized if it had sold an asset or paid if it had been relieved of a liability on the reporting date in an arm's-length exchange motivated by normal business considerations. That is, it is an estimate of an exit price determined by market interactions.*"

The IASC has a similar definition (found on page A181 of their Insurance Issues Paper, released November 1999). It reads: "*The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.*"

# CAS Task Force on Fair Value Liabilities

## White Paper on Fair Valuing Property/Casualty Insurance Liabilities

### Section F - Implementation Issues

- 1.3. Available market information, such as stock analyst estimates, or isolated reinsurance prices may not be reliable due to information asymmetry.** The market price for an actual liability traded on an active market is likely to be quite different than the market value of an insurer's entire portfolio of liabilities. It is the latter item that is important in fair value accounting, not the former. Unless all the insurer's liabilities are transferred, the assuming reinsurers will quite rationally believe that the ceding insurer is selecting against the reinsurer. This situation arises because the market (the reinsurers) does not have access to the insurer's private information on the liabilities. Thus, the "actual market price" might not be a better fair value representation than an internal cash flow-based measurement unless most of the insurer's liabilities are actually transferred.
- 1.4. Market data available at a given valuation date may be distorted by disequilibriums or temporary disruptions.** The existence of an underwriting cycle can be viewed as tangible evidence of the ongoing disequilibrium in the insurance marketplace, whereby product pricing swings back and forth between underpricing and overpricing generally over a seven-to-ten-year cycle. Market disruptions can be characterized as new events that lead to significant uncertainty and temporary disruption in the market for insurance products. Examples can include a threatening hurricane, a newly released wide-ranging court decision and new legislation (e.g., Superfund, or California Proposition 103). At such times, market prices right after the event may be wildly speculative, or the market may even be suspended, greatly complicating the use of market prices for fair value valuations.
- 1.5. The data available in the marketplace may be out of date.** Depending upon the source being considered, there are often lags between event occurrence and event reporting. For example, an insurer, on behalf of its participation in an underwriting pool, may be exposed to certain liabilities that will ultimately be shared by all members of the underwriting pool. If someone were to base a fair value estimate on the pool's reported financials, the fair value estimate could reflect a lag of anywhere from several months to several years between when the pool actually experienced the results being reported and the reporting of them.

#### **2. General issues related to the development of parameters for fair value methods**

These issues are ones that do not specifically pertain to any one fair value method. These are "concept-type" items. Some of these, such as risk charge and credit risk, are items that relate to the general concepts that will underlie fair value implementation. Others, such as the use of industry-wide versus company-specific assumptions are issues that can not be resolved with a global decision and instead will need to be considered each time that a fair value methodology is applied.

- 2.1. Should a risk charge always be incorporated into the fair value of a liability?** Most of the guidance to date (from the FASB and IASC) mandates including such a risk charge when it is material and estimable, and can be "estimated" from market information.

# CAS Task Force on Fair Value Liabilities

## White Paper on Fair Valuing Property/Casualty Insurance Liabilities

### Section F - Implementation Issues

Paragraph 62 of FASB's Statement of Financial Accounting Concepts No. 7, Using Cash Flow Information and Present Value in Accounting Measurements, says:

*"An arbitrary adjustment for risk, or one that cannot be evaluated by comparison to marketplace information, introduces an unjustified bias into the measurement. ... in many cases a reliable estimate of the market risk premium may not be obtainable.... In such situations, the present value of expected cash flows, discounted at a risk-free rate of interest, may be the best available estimate of fair value in the circumstances."*

Given that there is no active market for many insurance liabilities, there is no readily available, direct information on the market risk premium associated with their fair value. The market risk premium would have to be estimated. It is unclear as to what marketplace information would be required under such guidance for an acceptable estimate of the risk premium. Would the information have to be insurance specific or even insurance product specific, or could it be based on overall market pricing for risk in general financial markets? It is also unclear how much judgment may be used to produce an acceptable estimate of this risk premium.

If the guidance is worded and interpreted too stringently, then it may never be possible to include a risk premium in the fair value of insurance liabilities. Liabilities of high risk would be indistinguishable from liabilities of low risk, as long as the present value of expected cash flows was the same. More lenient interpretations may allow risk premiums for the more common liabilities, but the more unusual or higher risk liabilities may not qualify for a risk premium. This would result in a lower liability value (due to absence of a risk premium) for the highest risk items, a counterintuitive result. Attempts to always include a risk margin may raise reliability and auditability issues.

- 2.2. What properties should risk margins have?** The following two items are separate, but related. They are separate in that each is an issue in its own right, but they are related in that it may only be possible to reflect one or the other, depending upon the fair value methodology that is chosen. For example, a methodology that reflects process risk in each line of business within a company might result in a series of fair values for each line, that when added together, produce a fair value in excess of the fair value that would be applicable to the company as a whole. This would be a reflection of process risk that violates value additivity. Both of these are discussed in greater detail in Section D.
- Should a value be placed on process (diversifiable) risk in the valuation?
  - Should results have value additivity or not?
- 2.3. Should an adjustment for an entity's credit risk be incorporated into that entity's fair value of its liabilities?** Section H contains the discussion of this issue.

# CAS Task Force on Fair Value Liabilities

## White Paper on Fair Valuing Property/Casualty Insurance Liabilities

### Section F - Implementation Issues

**2.4. Use of industry-wide assumptions.** The two options for data and assumptions to be used in the methodologies described in Sections C and D are industry-wide or company-specific ones. Consideration must be given to the balance between the greater reliability of the industry data and the greater applicability of the company-specific data. Availability of data at the industry or company level is also a factor in selecting data for risk adjustment computations. Industry-wide data provides more consistent and reliable results, but may overlook important differences between the risks underlying the industry data and the company-specific risks being valued. Company-specific data will be more reflective of the underlying nature of the risks being valued, but the volume and the volatility of the data must be considered. If the company-specific data is too sparse or too volatile, it might not be usable. This is an issue that will need to be addressed on a situation by situation basis.

### 3. Application of fair value methodologies – general issues

These issues relate to the questions that fair value practitioners will need to address when preparing fair value financial statements. These issues are ones that relate to how to physically create numbers to put on fair value financial statements, rather than concept issues such as “what does fair value mean?” In this section, application issues are divided into two groups: issues that are not specific to any one methodology (“general” application issues) and those that are methodology specific. This segment will address the general issues. The methodology-specific issues are discussed after the general issue discussion.

**3.1. What steps will the actuarial profession need to take to prepare for the implementation of a new requirement?** As with any new requirement, the switch to a fair value valuation standard for property/casualty insurance liabilities would probably result in many unanticipated consequences. Many of these consequences would not be evident at first, and may take time to resolve once they are discovered. This may involve refinement of existing and development of new actuarial models and revisions to the initial accounting standards.

**3.2. Fair value accounting will affect more than just loss reserves. Should the same methodologies that are being used for loss reserves also be used for other items? How can consistency of underlying assumptions be maintained in the valuation of all items with fair value adjustments?**

Examples of the items that might warrant fair value adjustments include:

- The liability associated with the unexpired portion of policies in-force at the valuation date
- Liability associated with the unexpired portion of multi-year contracts
- Reinsurance contracts with embedded options, including commutation terms, cancellation terms, contingent commission provisions, etc.
- Differences between the fair value of liabilities on a net basis versus a gross basis
- Accrued retrospective premium asset or liability

# CAS Task Force on Fair Value Liabilities

## White Paper on Fair Valuing Property/Casualty Insurance Liabilities

### Section F - Implementation Issues

- Salvage and subrogation

The real issue is not so much *what* contains fair value adjustments as *how* the adjustments are to be made. The accounting standards will determine those items that should contain fair value adjustments. The challenge will be to quantify the adjustments for these different items in a manner that is consistent with the adjustments underlying loss reserves. The implementation issue facing fair value practitioners is to keep in mind that there should at least be consistency of assumptions when producing fair value adjustments for all those items requiring adjustments.

#### 3.3. Should renewal business be considered in the fair value estimate and if so, how?

While future accounting guidance will include some discussion of what renewal guarantees are required for renewals to be included in fair value estimates, there undoubtedly will be areas of gray, such as how far a contractual provision regarding renewals has to go before it is considered a *guarantee* of renewal. For example, would a guarantee of a renewal at a price no more than the full policy limit (i.e. a riskless contract for the insurer) be considered a renewal guarantee?

#### 3.4. How should judgement be accommodated in the development of fair value estimates?

All fair value methodologies have at least some judgmental elements within them. One of the objectives of fair value is to have the same liability held by two different entities have identical carrying values on each of the entities financial statements. The inclusion of judgement in the development of fair value estimates could result in situations in which different analysts are looking at similar liabilities but produce different results solely because of the judgmental elements.

### 4. Application of fair value methodologies – method-specific issues

Clearly from the pros and cons that accompany each of the methods discussed in sections C and D, no one method is appropriate in all situations. Each method has its strengths and weaknesses that may make it more or less appropriate as a technique for quantifying a liability's fair value. Rather than repeating the methods in sections C and D and identifying each method's implementation challenges, this section will describe implementation issues that are common across methods. A table summarizing the implementation issues associated with each method follows the descriptions.

**4.1. Methods that rely on CAPM:** as described in section D, the CAPM beta has been subject to criticism from both finance and actuarial sources. Finance theorists note that CAPM only recognizes nondiversifiable risk, assuming an efficient, friction-free market. However, insurance is not characterized by an efficient, friction-free market, which throws into question CAPM's applicability to insurance. Additionally, subsequent research has shown that more factors than just beta are needed to explain company stock returns. From the actuarial perspective, the concern is that estimates of underwriting betas have shown great volatility as well as the possibility of becoming negative.

**CAS Task Force on Fair Value Liabilities**  
**White Paper on Fair Valuing Property/Casualty Insurance Liabilities**

**Section F - Implementation Issues**

- 4.2. Methods that rely on public data:** not all companies' data is publicly available. This makes any method that relies on publicly available data subject to whatever distortions might exist from using a subset of all companies. Additionally, the data that is publicly available can contain distortions arising from systematic overstatement or understatement of liabilities by the entities providing the data. Lastly, there could be data compatibility issues arising from changes in the available data sets due to such things as mergers, insolvencies, divestitures, acquisitions, restructurings, etc. that alter the entities included in the data sets.
- 4.3. Methods that produce results only on a total company basis:** if a method is used that produces results on an all-company basis but presentation requires that fair value results be displayed at a more detailed level, the methodology must be adapted to the presentation needs.
- 4.4. Time period sensitivity:** the selection of the historical time period used as the basis for determining future parameters and assumptions could greatly influence the results.
- 4.5. Incorporates process risk:** not all methods produce results that include a value for process risk.
- 4.6. Value additivity:** not all methods produce results that are value additive.
- 4.7. Nature of the line of business:** some methods are not well suited to the development of fair value estimates of liabilities arising from volatile short-tailed lines. All of the methods can be used for the development of fair value estimates of long-tailed lines' liabilities.

**CAS Task Force on Fair Value Liabilities**  
**White Paper on Fair Valuing Property/Casualty Insurance Liabilities**

**Section F - Implementation Issues**

List of Considerations when Selecting an Estimation Method							
Method	Reliance on CAPM	Reliance on Public Data	Produce Results only on a Total Company Basis	Time Period Sensitivity	Incorporates Process Risk	Is Value Additive	Not Designed for Short Tail Volatile Lines
Undiscounted Value						X	
Present Value at a risk-free interest rate						X	
Present Value at a conservative interest rate						X	X
Entity-specific measurement						?	
Cost-accumulation measurement							
CAPM	X	X		X		X	X
Internal Rate of Return	X <sup>*</sup>			X		X	X
Single Period RAD	X <sup>*</sup>		X	X		X	X
Using Underwriting Results		X		X	X	X	
Based on Probability Distributions				X	X		
Based on Reinsurance		X <sup>**</sup>		X	X		
Direct Estimation		X	X	X		X	X
Distribution Transforms		X		X	X	X	
Naive Methods		X				X	?

<sup>\*</sup> Can use other methods to develop the parameter input for the required return on equity.

<sup>\*\*</sup> Public data is required when using public reinsurance quotes. Public data is not needed if the fair value estimates are derived from quotes made specifically for the entity that is developing the fair value estimate.

**CAS Task Force on Fair Value Liabilities**  
**White Paper on Fair Valuing Property/Casualty Insurance Liabilities**

**Section F - Implementation Issues**

**5. Presentation issues**

The items presented here relate to the actual presentation of fair value results in a financial statement. These items are not “actuarial” in nature, but rather relate to the mechanics of financial statement presentation and disclosures required within the financial statement framework.

- 5.1. The selected method or methods may be appropriate for fresh-start valuations but not interim valuations.** Fresh-start in this context refers to the accounting concept, not the tax one. The accounting concept of fresh-start involves “remeasuring an item using current information and assumptions” at each valuation date. (IASC Insurance Issues Paper, page A182.)

For example, suppose a company performs a full-scale actuarial review of reserves for a block of business twice a year. The company must publish financial statements quarterly, though. The liabilities booked after each full-scale review would be viewed as fresh-start valuations. However, for the financial statements produced between reviews, the company will need to have some other method of quantifying the proper liability value to record. The company can’t just keep the same liability value from the previous financial statement. At a minimum, the company will need to adjust the recorded value to reflect payments made, unwinding of discount, and changes in the discount rate between the two statement dates. This process of updating the reported value without undergoing a full-scale analysis is an example of an interim valuation.

- 5.2. How should a restatement of historical exhibits to reflect historical fair value estimates be done?** Any exhibits that show historical data would need to be restated to a fair value basis the first time fair value financial statements are produced. The question is how to do the restatement. Fair value should reflect conditions and market perceptions at the valuation date. It is difficult, if not impossible, to reconstruct these items after the fact, when what the outcomes of situations that were then uncertain are now known.