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A Liquid/Illiquid Financial Instrument Reporting Paradigm and its Application to the IASB Preliminary Views on Insurance Contracts

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The IASB invited comments from the public in 2007 on its Preliminary Views on Insurance Contracts (the Views). The FASB is contemplating a joint project with the IASB on a new comprehensive accounting standard for insurance based on the Views. The Views propose a version of a market-consistent valuation of insurance contracts to fulfil the following objective:

> … the Board will pay particular attention to the need for users of an insurer's financial statements to receive relevant and reliable information, at a reasonable cost, as a basis for economic decisions. (paragraph 9)

To meet this objective, the IASB Views propose a market-consistent, exit value valuation, incorporating a three building block method:

1. unbiased, current, best estimate of future cash flows
2. effect of time value of money
3. risk margin

The Views suggest that risk margins under this method should incorporate assumptions consistent with market values. However, because insurance liabilities do not currently trade in deep and liquid markets, the Views suggest that industry parameters should be estimated for the risk margin. The Views further suggest that the assumptions underlying the estimates should be set at an individual product portfolio level rather than at the company level (the company level would reflect diversification between product portfolios).

This article suggests that the best way to achieve the IASB objective is to use an explicit liquid/illiquid economic valuation and reporting paradigm. Under this paradigm, a company would be required to report the value of liquid financial instruments using an external model (market value) and illiquid financial instruments using its own internal economic model (consistent with market information to the extent possible, and using company-wide risk diversification).

In order to meet the objective of providing reliable information at a reasonable cost, it is imperative to meet the following criteria:

1. clarity in the classification of reported values into "facts" and "estimates," i.e., external and internal model results,
2. to resist the temptation to manufacture and report as "market values" those values that are derived from internal models.

Accounting systems that do not meet these criteria are likely to be an expensive burden, as the information generated by them is not transparent or fully credible. The manufacture of opaque information is not only expensive, but damaging to the actuarial profession as a whole, as the users of financial data migrate to other financial professionals in pursuit of actionable information.

The adoption of mark-to-market methods in financial instrument valuation reflects a dominant economic valuation theme of our times—that the use of an external model based on market values is superior to the use of an internal model. This paradigm has been adopted due to the frequently demonstrated positive bias in mark-to-model valuation, among other reasons. Stated another way, mark-to-market risk is materially less than mark-to-model risk (and quite a bit less than mark-to-nothing risk, a term attributed to Maurice Greenberg in the press).

For the purposes of this article, a liquid financial instrument is loosely defined as a financial product with a reported market price in a reputable financial publication. In addition, a significant simplifying assumption is that there is a clear delineation between liquid and illiquid financial instruments. A more rigorous treatment of classification of financial instruments into liquid/illiquid categories is omitted

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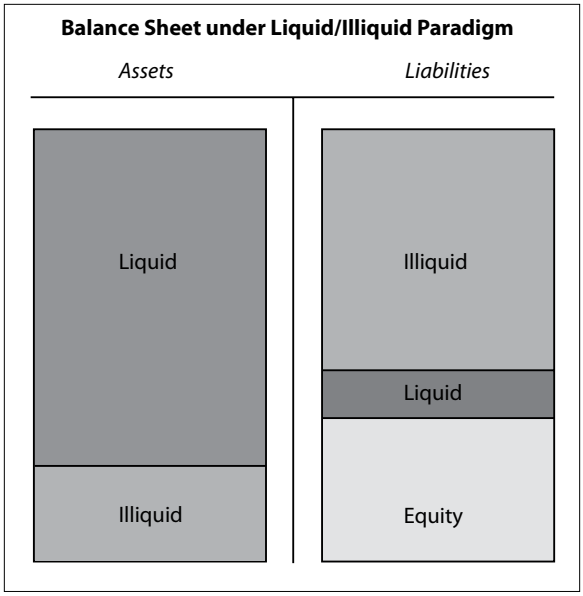
due to extensive discussion that such a classification requires. Furthermore, guidance on this question would presumably be provided by the IASB or other regulatory institution.

Rationale for the Liquid/Illiquid Valuation Paradigm

Financial analysis of a company's condition generally follows an analysis of the balance sheet, split between assets and liabilities. Further, insurance company liabilities are generally assumed to consist of illiquid financial instruments. This is the paradigm incorporated in the Views, which are restricted to a discussion of the treatment of insurance contracts.

From an economic modelling perspective, the asset/liability balance sheet paradigm is less useful than a liquid/illiquid financial instrument paradigm because the liquidity attribute defines the class of valuation tool to be used. Under current economic valuation principles, liquid instruments are valued using an external model (marked-to-market) and illiquid instruments are valued using internal models (marked-to-model, using market-consistent valuation principles). These tools have profound differences in their model risk attributes and thus their results should be reported separately to reflect this risk.

The liquid/illiquid classification could be disclosed through a simple enhancement to the existing asset/liability reporting structure. A typical insurance company balance sheet could be constructed as follows:



An economic income statement could be produced that separately reports changes in liquid and illiquid positions in the balance sheet over the reporting period and connects those changes to the actual cash flow realized by the company. This goes a long way towards meeting the IASB objective given at the beginning of this article: "… relevant and reliable information, at a reasonable cost, as a basis for economic decisions."

The advantage of this system lies in its clarity:

1. Clarity of valuation framework.
2. Explicit disclosure of verifiable facts versus model estimates.

Clarity in economic methodology, modelling and reporting naturally leads to the rational resolution of the questions that inevitably arise when valuing complex financial instruments. Discussions of issues tend to focus on the choice and application of the best tool(s) available to obtain a market consistent result. It is the author's experience that discussions regarding the best valuation tool are frequently intense, but in almost every case may be resolved through a fact-based evaluation of the alternatives. Resolution of issues is much more difficult when the principles themselves are unclear.

A far more sophisticated discussion of the nature of useful accounting information than is given in this article is contained in a paper by Ross L. Watts, of the Sloan School at MIT ("What Has The Invisible Hand Achieved," dated Jan. 27, 2006). Although Watts is quite pessimistic for a number of reasons regarding the current direction of the IASB (and the FASB under Fair Value), presumably he would approve of the clear differentiation of verifiable information from estimates under the framework suggested in this article.

Suggestions for Modifications of the IASB Views

The Views likely are intended to generate a more faithful estimate of market value for illiquid insurance liabilities than is possible with the use of own company risk assessments. However, in the absence of true market values it would be an error to manufacture the suggested estimated market values for the following reasons:

- management makes decisions based on internal assessment of value—and in the absence

of true market values, this is far more useful information than an estimate;
- the proposed estimate of market value suffers from "double" mark-to-model risk—the model used by the company to produce internal value plus the enhancement used to estimate market parameters;
- a range of values exist in illiquid markets, and those transactions that are executed between companies are based on each company's diversified internal risk and expense assessments—not fixed at an individual product level; and
- the use of different estimates of market value parameters produced by each company may lead to a loss of credibility in the accounting system.

The following modifications to the Views are suggested:

1. Addition of an explicit statement that insurance contracts traded in a liquid markets should be valued at market value. This would clarify the market-consistent framework underlying the valuation methodology.
2. For insurance contracts that are illiquid financial instruments, specify the use of own-company economic valuation and expense models (including fully diversified risk assessment) rather than the suggested market value estimation method.
3. Require the reporting of these two types of financial instruments separately, as suggested in the first part of this article.

Further discussion of market-consistent valuation of insurance assets and liabilities may be found in "The Economics of Insurance: How Insurers Create Value For Shareholders," published by Swiss Re in 2001, and downloadable from SwissRe.com.

New Business Assessment—Entry Value and Exit Value

The above discussion may be illustrated with an analysis of economic value approaches to the calculation of the value of new business at the time of issue of a contract.

Approach #1: Some financial professionals have suggested an entry value approach, which yields a zero value under a no-arbitrage principle. The problem with this approach is simple; it omits critical information. Companies do not generally transact business for zero value, or price on a zero gain basis.

Approach #2: The suggested position in the Views is an exit value approach, using estimated industry parameters. Presumably, if the insurance contract were tradable in a liquid market, this approach would produce the observed exit market value of the contract. It would be useful if this were explicitly stated in the Views. For illiquid contracts, for the reasons mentioned in the section above, the IASB approach is fundamentally flawed in that it involves a kind of double mark-to-model risk—an internal model used to estimate a non-specific external market value. Furthermore, the suggested method does not fully reflect the company's ability to price its business activities, as nominal assumptions would obscure this assessment.

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Approach #3: The use of a company's internal economic model to assess the value of new business provides the most useful information available in the absence of a liquid market. This information is the company's best estimate of the value of the business activity, reflecting pricing assumptions of risk and expense at the time of sale. Granted, this method incorporates mark-to-model risk. However, the result conveys the full economic rationale for the transaction, as evaluated by the company, using the values it uses for internal decision-making. This is truly useful information. It can be easily explained to the users of financial information—it is the estimated risk-adjusted economic value to the company of the new business activity.

Further, the evolution of the company's estimates over time, as required in an economic accounting system, allows for an assessment of the strength of the company's internal models. This is an extremely valuable result that may be evaluated by investors, rating agencies, regulators and management. It also presumably will enhance the value of those professionals producing the models and model results—including the readers of the Financial Reporter.

New Business Value—Present Value of Future Profits

A frequent objection to booking a positive value for an insurance contract at issue is that the value has

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not yet been earned, and that this is inconsistent with accounting treatment in other industries.

For example, it has been reported that Hewlett Packard may be selling its consumer printers at a loss in order to realize the profit gained from supporting the printers after sale. Presumably, under GAAP accounting, HP reports a loss at sale, and then profits from supplies and service only as they are realized.

Consider how useful it would be for investors to receive the estimated value of the printer and subsequent product support, reported at time of sale. It would be surprising if the HP management does not itself produce this information and manage its business accordingly.

After the sale of the printer, disclosure of the anticipated economic impact of any developments that threaten projected future profits would be similarly useful to investors.

The answer to the objection raised at the beginning of this section therefore may be that investors should require all industries to adopt accounting frameworks disclosing the present value of future estimated profits associated with current sales—but only within a framework that clearly discloses changes in liquid assets/liabilities, illiquid contractual estimates, and illiquid non-contractual future estimates.

Conclusion

Under economic accounting, large fluctuations in reported insurance liability values over time are probably inevitable. Even if assets are selected to hedge interest rate and other market risk in a book of insurance contracts, small changes in assumptions such as future mortality or morbidity may generate a large change in the value of the book. This is frightening for reporting professionals in view of the punishment the market often inflicts on stocks of companies reporting earnings volatility.

However, it is reasonable to assume that the market relationship with volatility may evolve under economic reporting methods. In the future, the market may inflict punishment on the valuation of companies that exhibit persistent bias in mark-to-model valuations, and reward companies that exhibit relatively neutral and/or controlled behavior. This behavior would be a reflection of effective modelling and management of the risks embedded in the insurance business. The liquid/illiquid valuation and reporting paradigm suggested in this paper would provide the information necessary for this market evolution in a clear and transparent manner. $

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