

Frequently Asked Questions Related to the Report Market Value Margins for Insurance Liabilities in Financial Reporting and Solvency Applications

Since the release in October 2007 of Ernst & Young's (E&Y's) report, Market Value Margins for Insurance Liabilities in Financial Reporting and Solvency Applications, the Group of North American Insurance Enterprises (GNAIE) and E&Y have had the opportunity to discuss the report with a number of regulators, standard setters, and industry organizations.¹ As a result of these discussions, GNAIE and E&Y compiled this list of frequently asked questions. We hope that the answers to the questions below will help to clarify some of the issues raised related to the report. These answers are not intended to amend the conclusions of the research by E&Y.

Note: While this paper discusses issues arising when calculating market value margins for insurance liabilities, this paper takes no position on whether such margins should or should not be part of the International Accounting Standards Board's Insurance Contracts Phase II standard when it is ultimately developed. See the last question and answer.

Q. Why does the paper suggest that the parameters in the Market Value Margin (MVM) calculation need calibration? As there are no deep and liquid markets for insurance risk, what markets can be used for this calibration?

A. The overall goal of a fair value liability valuation process is to obtain a market consistent valuation. Since insurance risk is valued on a mark to model basis, the paper presents the position that, where possible, the values of the variables used in the model, i.e., in the MVM calculation, should be based on values that can be supported by reference to the capital markets.

Pricing methods and practices for products, reinsurance and for whole company or line of business transactions routinely make explicit or implicit assumptions about the capital dedicated and its cost. The paper presents the view that, in the absence of more compelling information, this information can be used as a reference point for establishing model values for capital and costs that can be considered market consistent.

Q. The paper suggests that in computing the MVM, the use of the capital allocation and the costs thereof employed in pricing methods and practices would facilitate calibration of these parameters to the market. Is the paper suggesting that liability

¹ These groups included representatives or committees of the International Association of Insurance Supervisors, the National Association of Insurance Commissioners, the Committee of European Insurance and Occupational Pensions Supervisors, the European Commission, the International Accounting Standards Board, the CRO and CFO Forums, and the European Insurance and Reinsurance Federation (CEA).

values should be calibrated to premiums by computing MVM's using the pricing estimate of returns on capital (sometimes referred to as the pricing internal rate of return or IRR) instead of the cost of capital?

A. No. The paper does not suggest or recommend that the returns on capital flows estimated in a pricing exercise be used to compute the MVM. The paper clearly refers to the relevance of the "cost of capital" that often is an integral component of the pricing process. The cost of capital is very different than the pricing expectation of returns on capital. The former is a value creation threshold based on investor's demands for returns in the capital markets. The latter is the anticipated return (based on the pricing process and assumptions) that the insurance product market will allow. The paper refers explicitly to the *cost of capital* used by companies to set prices (of products or of transactions) as a useful reference point for setting the cost of capital used in the MVM calculation, thereby facilitating the outcome being considered 'market consistent.'

Q. The paper illustrates the effects of determining the initial capital base for the MVM calculation using both a one year and an ultimate time horizon. Is the paper suggesting that the MVM should be based on an ultimate time horizon?

A. No. The paper does not intend to take as position as to which is the preferred method. The primary observation being made is that the initial capital base and the rate of the cost of that capital are inter-dependent. Thus, the observed cost of capital rate in the market, which is the basis for the 6% placeholder risk premium (cost of capital in excess of the risk-free rate), is integrally related to the level of capital held by those companies. Using a level of capital in the MVM calculation that is different from that observed in the market must be accompanied by a change to the cost of capital rate observed in the market if margins consistent with market practices are to be obtained.

Q. In the absence of liquid markets for insurance liabilities, how can information observable in the capital markets be used to develop an MVM that can be considered 'market consistent'?

A. To illustrate this point, the paper refers to insurer product pricing practices and capitalization structures that may be based on capital levels that are different than the Solvency Capital Requirements (SCR), which in Solvency II as proposed is based on the one-year, 99.5% confidence level method. (For shorthand, we will refer to this as the '1 year BBB' level of capital.) For example, E&Y believes that most companies price products and transactions using a confidence level consistent with their actual capital levels and ratings objectives, generally higher than BBB. Pricing methods and capital standards also may use an ultimate capital measure for insurance risks. When insurance product market participants are capitalized at levels greater than BBB, and possibly using different time horizons, the cost of capital rates observed in the capital markets are influenced by and are related to that level of capitalization.

The paper asserts that to the extent the insurance product market's measure of margins is based on a capital level different than the SCR, e.g., a higher ratings level or an

ultimate measure of capital, then application of the market cost of capital rate to the 1 year BBB capital level will not produce market value margins that are consistent with corresponding capital market measures. To obtain consistent results from a calculation based on the 1 year BBB capital, the market rate of the cost of capital would need to be adjusted.

The fundamental observation in this area is that a single rate of cost of capital applied to alternative capital balances will not produce the same MVM. As market consistent valuations of a given liability should converge to a common value, adjustments to the rate of cost of capital are needed when alternative capital allocations are utilized.

Q. Similarly, is the paper suggesting that the SCR be calculated on the basis of an ultimate time horizon?

A. No. The paper states that the one year measure has many desirable qualities and supports its use for the purpose of establishing required capital standards. As noted above, the paper also indicates that its use in computing the MVM should be accompanied by a validation to assure that the rate of the cost of capital used is consistent with this level of capital. If market measures, i.e., either market cost of capital and capitalization levels or pricing practices that are indicative of the markets view of risk margins, vary significantly, then the cost of capital rate to be applied to the 1 year SCR may need to be modified to obtain a value that may be considered market consistent.

Q. The paper notes that the 6% risk premium is a placeholder and suggests that it be calibrated to the market. Do you believe the 6% is inappropriate? As there are not deep and liquid markets for insurance liabilities, how can this parameter be calibrated?

A. Sufficient research into insurers' cost of capital has not yet been completed to conclude that 6% is or is not appropriate. However, some published studies in North America indicate that the total cost of equity capital (i.e., including the risk free rate and the equity risk premium) is in the 12 -13% range. Anecdotal evidence suggests that European insurers' cost of equity capital is approximately the same. This suggests that the 6% may not be consistent with the market's view of the cost of equity.

The paper also notes several other issues that should be addressed in developing support for the cost of capital used in the MVM calculations. The primary two items are:

- The treatment of taxes. The above costs of equity capital are after corporate taxes have been incurred. The MVM appears to be used to develop a pre-tax liability value. While tax regimes vary, the release of the MVM is likely to be subject to tax. Thus, for the investor to obtain the desired after tax return, the MVM may need to be developed on a pre-tax basis. We believe that this is a complex area requiring significant study.

- The determination of whether the cost of capital to be used is the cost of equity capital or the weighted average cost of debt and equity capital (the WACC).

Q. The paper states that there are tax issues that should be addressed in setting the cost of capital rate. Why is an adjustment necessary? Is the paper proposing a standard adjustment be made to the cost of capital to recognize tax costs?

A. No. As noted above, the paper is simply noting a potential inconsistency in the basis of the observed market rate of cost of capital, i.e., the 6% market risk premium or other similar rate based on adequate research, and the manner in which it is used in the MVM and technical provision calculations. The paper only notes that this is a complex issue that needs further study.

Q. The paper suggests that risk margins in the distress scenario used for determining total capital requirements should be increased from the pre-distress level of margins. Why do you believe this is necessary and on what information would such adjustments be based?

A. In the Solvency II application, the SCR is a function of the change in the BEL only. The standard formula and internal model applications do not attempt to quantify the impact of a change in risk margins after a distress event. The paper notes that experience indicates that the amount of capital and the rate of cost of that capital are likely to change following a severe event.

The paper refers to the Katrina experience and the current credit crisis as supportive of this view. Following both events the market demanded more capital for the same rating and wanted a higher return. Higher returns are seen in cat bond pricing following Katrina and in the cost of the capital raised by financial institutions as a result of the current credit crisis.

The paper suggests that a market consistent valuation of the liability that a third party would accept following a distress event would recognize these changes in risk and cost thereof.

Q. The paper states that approximations and estimates used in calculations of technical provisions and capital should be validated. Specifically, to what does this refer?

A. This is simply referring to the need to assure simplified risk measures can be supported as being consistent with the one year measure and the 99.5% confidence level structure for solvency calculations. Risk measures that are easy to use by all companies, especially smaller companies, are likely to replace or supplement internal models and may be factor-based measures or measures based on the immediate impact of sudden changes in experience on estimated liabilities (the effect of “shocks” on liability values). Such simplified risk and capital measures are seldom easy to compare to the one year

and 99.5% framework and, prior to their finalization, should be supported as being consistent with the framework's measurement objectives.

Q. The paper addresses certain matters that are related to the issues being considered in the IASB Phase II discussion regarding the valuation of insurance contracts. Some of these open IFRS issues include the measurement attribute to be used, whether results should be calibrated to premium levels, the use of a single or a dual model for valuing insurance liabilities, and the discount rate to be used in performing the calculations. Does the paper address these issues?

A. The paper does not directly address these questions. The paper only discusses certain aspects of the risk (or market value) margin calculation, focusing exclusively on how the cost of capital method might be used for this purpose. While the calculations and examples in the paper are based on the use of expected cash flows for life and non-life products and use a risk free discount rate throughout, these illustrative calculation techniques should not be viewed as supporting a particular view on these or other matters for IFRS purposes.