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September 2009



IFRS and Solvency II update





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INTRODUCTION

This report describes important developments within two converging paradigms: IFRS for insurance and Solvency II.

Convergence has been a buzzword for many years and in many contexts. It may have a geographic sense, as in the convergence of global standards, or can be used more with regard to functionality – for example, the development of reports and analyses that meet the needs of a wide range of stakeholders.

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Ongoing vibrant discussion is leading to a convergence of the methods and ideas underpinning IFRS and Solvency II. These discussions should ultimately assure the consistency of IFRS, which emerged from a need for periodic reporting, and Solvency II, with functional roots derived from the need for solvency protection and capital efficiency. From this functional convergence of IFRS and Solvency II, along with a growing global consensus towards IFRS, a new global paradigm is emerging.

Anticipating the global significance of these trends, Milliman has decided to combine our periodic updates on IFRS and Solvency II into this single document, presented in two parts.

INTERNATIONAL ACCOUNTING UPDATE: SUMMER 2009

This update focuses on two projects relevant to insurers: the FASB/IASB Insurance Accounting project and the IASB exposure draft on Classification and Measurement of Financial Instruments.

FASB/IASB Insurance Accounting Project

The joint project between the US Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) continued to make progress during the second quarter. The project's goal is to develop a complete accounting standard for insurance contracts that would replace the existing IFRS 4 and US GAAP accounting requirements for insurance contracts.

The IASB has set the end of 2009 as a firm deadline for an exposure draft and a June 2011 deadline for the final standard. This is driven by the timing of the turnover on the IASB, with several members who are close to the insurance project leaving their posts in June 2011. The ramifications of this are that certain topics may not be addressed in the exposure draft. The IASB Staff has proposed that policyholder accounting not be included in the exposure draft; however, the exposure draft is expected to address the accounting for reinsurance contracts for both parties. While the staff felt it was critical that the boards reach a conclusion regarding the measurement approach during their July meetings, due to a lack of consensus regarding the measurement objective, the IASB recently decided to include two measurement objectives in the exposure draft.

The FASB has a similar turnover of members in 2011, but has not committed to the same timeline. The IASB and FASB have been discussing this project separately, but using the same papers prepared by a joint staff group. A joint meeting in July 2009 did not produce any consensus on the measurement approach. The boards meet jointly again in October 2009.

Current exit value has left the building

Both the IASB and FASB have moved away from the current exit-value notion that was included in the IASB's Insurance Discussion Paper issued in 2007. The IASB has tentatively decided to focus on two measurement objectives: a transaction-based objective that is consistent with the impending revisions to IAS 37, and a fulfillment-value notion with a single aggregate margin. The IASB has tentatively decided to require an unearned-premium-reserve (UPR) approach for short term pre-claims liabilities. A description of the IAS 37 model and fulfillment value is provided later in this document.

The FASB has tentatively decided to focus on measurement objectives that involve the fulfillment notion, although it is not clear if they have ruled out the UPR approach in limited circumstances. The FASB seems to favor measurement objectives that are consistent with the recent work regarding revenue recognition.

While both boards have decided not to pursue current exit value, FASB has rejected it because it is not in favor of a transaction-based objective. The IASB is still considering a transaction-based objective in the form of the IAS 37 model.

IAS 37 measurement model

The measurement objective under this model can be stated as *what an entity would rationally pay to be relieved of a liability*. While there is further work to be done to define what *rationally* means, there are several elements of this model that are becoming clearer. The present obligation is the lesser of

- (a) the value to the entity of not having to fulfill the obligation.
- (b) the amount that the entity would have to pay to cancel the obligation or transfer it to a third party.

If there is no evidence that the entity could cancel the obligation or transfer it to a third party, the entity measures the obligation at the value of not having to fulfill it. The board discussed, but did not reach any decisions on, how an entity should measure the value of not having to fulfill an obligation.

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The objective is a transaction price from the point of the view of the reporting entity. This contrasts with current exit value, which is a transaction price from the point of view of a market participant. The value of the liability would normally be calculated using the same three building blocks that have been discussed previously (expected cash flows, the time value of money, and a margin), with a risk margin, a service margin, and a residual margin calibrated to produce no gain or loss at issue. If the premium is insufficient to cover the obligations, i.e. an onerous contract, a day-one loss will be recognized in profit or loss.

Two key concerns expressed by constituents in their comments on the IASB's Insurance Discussion Paper are alleviated with the IAS 37 model. The revision to IAS 37 removes the probability criterion for recognizing a liability. All liabilities are to be measured on the basis of expected value. Thus, this measurement basis will allow the recognition of future expected premiums. It is not yet clear how flexible premium contracts such as US styled universal life contracts will be treated.

Another key area of concern about the model included in the 2007 discussion paper was the inclusion of own credit risk in the measurement of the contract. As the new IAS 37 model uses a measure from the reporting entity's point of view, the liability would not reflect the impact of the entity's own credit risk.

There are numerous aspects of the application of this model to insurance that are not yet well defined. These include how it would apply to participating contracts and contracts with non-guaranteed credits or charges.

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Fulfillment value

Both boards are considering the idea of fulfillment value to measure insurance contracts. Generally, this is the expected present value of the cost of fulfilling the obligation to the policyholder over time. It is the value in the normal course of the insurance business where the insurer fulfills its obligations to the policyholder as contemplated in the insurance contract. The value is based on the insurer's perspective. As with the IAS 37 model, fulfillment value would be calculated using the three-building-block approach. While both boards have favored calibration of the initial liability such that there is no gain or loss at issue, separate margins or a single composite margin might be used. Based on discussion at the July meeting, FASB members seem in favor of a single composite margin. As with the IAS 37 model, an onerous contract would result in a day-one loss.

Field tests

The IASB staff intends to conduct targeted field testing during the period leading up to, and possibly beyond, the publication of the exposure draft. While they had noted that field testing cannot start until a decision is made regarding the measurement objective, both the IAS 37 and fulfillment value models will likely be tested. Field testing has long been supported by the insurance industry. At the June 2009 Insurance Working Group meeting, participants urged the staff to:

- define the issues to be tested with great specificity and narrow focus to ensure receiving useful feedback.
- utilize actual historical periods, such as 2007-2008, which encompass both good and bad economic environments.
- utilize actual, rather than hypothetical, blocks of business in the testing.

It was noted that the staff needs to be careful regarding the disclosure of testing results. Confidentiality needs to be maintained without violating the US SEC rules regarding making information selectively available to users of financial statements. The staff indicated they are well aware of the issue.

Financial Instrument Exposure Draft

At their joint meeting in April, the IASB and the FASB agreed to revise their respective accounting standards for financial instruments. Since that time the IASB has decided to accelerate the timetable for revising its standard, IAS 39. The board is working to update IAS 39 over the next year in several phases. The first phase is Classification and Measurement, with an exposure draft was released in July. This will be followed by an exposure draft on impairment testing in October and an exposure draft on hedging by December. The FASB is still working on the originally agreed timetable and expects to deal with the issues all together rather than in pieces. It may be difficult to pass judgment on the IASB's Classification and Measurement exposure draft without knowing how impairment testing would be done.

The exposure draft proposes to collapse asset valuation from four categories (loans and receivables, held to maturity or HTM, available for sale or AFS, and fair value) to two: an amortized-cost category and fair value. In order to be categorized as amortized cost, an asset must meet two requirements:

- 1) It has basic loan features – it pays principal and interest-like cash flows.
- 2) It is managed on a contractual yield basis – it is purchased to support cash flows from contracts, not for trading based on changes in market values

The new amortized-cost category will have three significant differences relative to the current AFS rules:

- 1) When a gain or loss is realized, it will not be run back through the income statement, but instead will stay in the equity account.
- 2) There will be no tainting rules. Sales of assets from the amortized-cost category will not affect the valuation of the rest of the assets in that category.
- 3) Only the senior-most tranche of any securitized asset will qualify for amortized-cost valuation. All other tranches, regardless of quality or features, will have to be measured at fair value.

These changes may cause concern among industry participants. An accounting mismatch may develop for products issued by insurers that credit a return based on the expected return of an asset portfolio. Changes in liabilities will go through income, but realized gains and losses on assets will not. An option to use fair value for any asset will be available to help with any perceived accounting mismatches.

Allowing only the most senior tranche of a securitized asset to be valued at amortized cost will result in a much larger percentage of the unrealized gains and losses of an insurer's asset portfolio being recognized in income. This could also have a significant impact on the securitization market and how assets are pooled in the future.

The second category of assets will be fair value, which will apply to all other instruments. There will be an optional presentation in the income statement for any equity investment that is not held for trading. If elected, this treatment will recognize all changes in fair value in other comprehensive income. This is meant to address strategic investments that may be made for purposes other than to obtain an investment return, such as to gain entry into a market. Reclassification between amortized cost and fair value will be prohibited.

With this new categorization system, there will no longer be a need to bifurcate and separately value embedded derivatives. The entire contract will be measured on one basis. For hybrid contracts that have basic loan features and are managed on a contractual yield basis, the entire contract will

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be measured at amortized cost in income and fair value on the balance sheet. For all other hybrid contracts with financial hosts, the whole instrument will be valued at fair value in both income and on the balance sheet.

There are several types of contracts issued by insurers that are classified as financial instruments and measured according to IAS 39. These include guaranteed investment contracts (GICs), funding agreements, term-certain immediate annuities, and some deferred annuities. Some of these products may fall into the revised amortized-cost category and thus, in order to avoid accounting mismatches, the corresponding assets backing these contracts will also need to be valued at amortized cost.

While some industry participants favor maintaining both amortized-cost and fair-value asset categories, some jurisdictions that have already moved to full fair value, such as Australia, may find this a step backwards.

UPDATE ON SOLVENCY II

There has been much activity on Solvency II during the first part of 2009. On 22 April the European Parliament approved the proposed Solvency II Directive, including the proposed implementation date of 2012. The approval of the Solvency II Directive opened the door for the next phase, the development of the implementing measures. Where the Solvency II Directive defines the building blocks of the Solvency II framework, the implementing measures will fill in the details of that framework.

On 26 March 2009, the first wave of consultation papers on implementing measures was published by CEIOPS.¹ CEIOPS invited all stakeholders with any interest whatsoever to comment on the consultation papers, which will be used by CEIOPS to develop the implementing measures. Lessons from the financial crisis provide another source of inspiration for CEIOPS papers.

The table in Annex 1 illustrates the topics covered in the first and second wave of consultation papers. There was, and is, more emphasis on topics in Pillar I (Measurement of Assets, Liabilities, and Capital) than on topics in Pillar II (Supervisory Review Process, Governance) and Pillar III (Disclosures Requirements). The financial crisis has led to a fundamental review of the framework that CEIOPS developed up until mid-2008. Overall, the framework as proposed via the recent consultation papers is more severe and will lead to a significant deterioration of the solvency-capital ratios in the insurance industry. The solvency-capital requirement will increase significantly, and the amount of eligible-own funds will decrease. This paper focuses on the most noteworthy changes to Pillar I – the technical provisions, solvency capital requirement (SCR), and eligible-own funds.

Technical provisions

One of the basic principles is that insurance liabilities are valued at the amount for which they could be transferred, or settled, between knowledgeable willing parties in an arm's length transaction. The technical provision is equal to the sum of a best estimate and a risk margin.

Best estimate

An important proposed change to the calculation of the best estimate is that the current exit-value approach should be replaced by the settlement value. The best estimate should take into account all the cash in- and outflows required to settle the insurance liabilities over their lifetimes. Other than the economic assumptions, the assumptions used for the projection of the cash flows will be based on entity-specific observations. Companies will be asked to assess their own observations with relevant market data.

The time value of money, using the relevant risk-free interest-rate-term structure at the valuation date, will be considered in determining the best estimate. Prior to the financial crisis, the swap rates were considered to represent the risk-free rate. The financial crisis resulted in dislocated financial markets with increased credit and liquidity spreads and started the quest to redefine the risk-free rate. CEIOPS considers AAA-rated government bonds the benchmark for credit-risk-free financial instruments. It is likely that CEIOPS will set and provide the risk-free rate for Euro-denominated assets and liabilities. For other currencies, or maturities exceeding the supplied term structure, the risk-free rate can be determined by the local supervisor or the company (to be decided) using the following risk-free rate criteria: no credit risk, realism (possibility to earn the rate), reliability (prices derived from a deep and liquid market under all conditions), high liquidity, and no technical bias.

Risk margin

The risk margin is meant to cover the costs of the transfer of risks from the policyholder to the company. A cost of capital calculation is applied for the calculation of the risk margin. The capital is equal to the amount of SCR, taking into account the underwriting risk, counterparty-default risk of ceded reinsurance business, operational risk, and unavoidable market risk. The latter component is proposed by CEIOPS in Consultation Paper 42. Examples of unavoidable risks are cash

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¹ Committee of European Insurance and Occupational Pensions Supervisors

flows with maturities exceeding the risk-free term structure or options in insurance contracts with maturities exceeding the duration of tradable equity options. The unavoidable market risk is already considered in the CFO Forum Market-Consistent Embedded Value Principles^{©2} as part of the non-hedgeable risks. The inclusion of this risk will impact companies writing insurance liabilities with long durations – for example, group pensions. The risk margin will be calculated per line of business, and diversification among lines of business will not be accounted for. The restriction of the diversification effect is based on the principle of a stand-alone calculation of the technical provision.

A three-step procedure was developed to assess the cost of capital rate. In practice, this three-step approach is difficult, and the minimum level is considered to be too low.

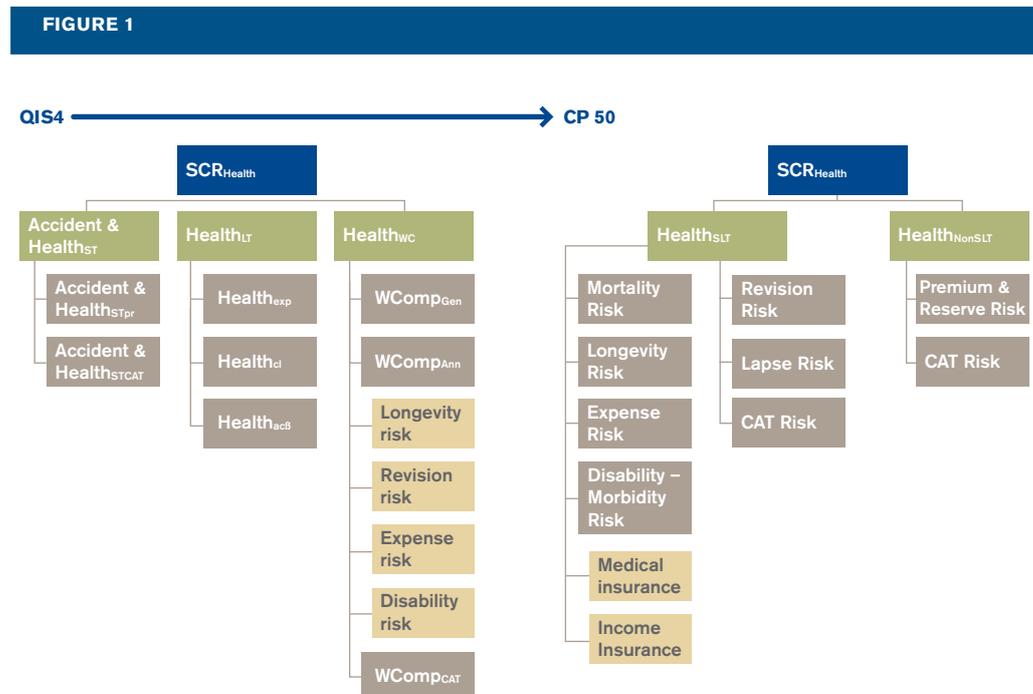
The cost of capital rate has been an object of investigation by many companies and individuals. CEIOPS proposes that the rate be at least 6%. A three-step procedure was developed to assess the cost of capital rate. The first step is the determination of the shareholder-return models, like CAPM and FF2M. Second, the shareholder returns are adjusted to reflect the solvency context. The final step is the calibration of the cost-of-capital rate to market prices. In practice, this three-step approach is difficult, and the minimum level is considered to be too low. A number of companies disclosed their embedded results and used a cost-of-capital approach to quantify the cost of non-hedgeable risks. The cost-of-capital rate varies between 2% and 6%, with a mean of approximately 3.6%.

Solvency capital requirement (SCR)

One of the complaints of the SCR structure as used in QIS4 was the lack of clarity in which module risks of health business should be quantified. In CP50, CEIOPS proposes a clearer structure and definition. Except for a change of the health module, the SCR structure remains unchanged.

Health underwriting risk

The graph below shows the change of the structure. The main change is that distinction is made between the types of health business: similar to life Insurance (SLT) and not similar to life insurance (non-SLT).



Changes of quantification of risks

On top of the proposed change of the structure, the second wave of consultation papers proposes a drastic change of the quantification of the risks. The stakeholders will be consulted on the correlation factors used to aggregate the risks and the market-risk factors in the third wave of consultation papers. Below is an overview of the most notable proposals of CEIOPS.

Non-life-underwriting risk

The non-life-underwriting risk module consists of two sub-modules: the premium risk module and the catastrophe risk module. The premium risk module captures the risks related to in-force, including renewals, during the one-year horizon period and to unexpired risks on existing contracts (also known as reserve risk). The major changes in this sub-module are the inclusion of the risks generated by multiyear contracts, the replacement of the ability to use credibility-weighted standard deviations by CEIOPS estimates, and the exclusion of the effects of non-linear risk-mitigating measures, such as excess of loss reinsurance. The use of the effect of risk-mitigating measures is allowed as part of internal models. These proposed changes make the requirements stricter.

CEIOPS proposes a change to the catastrophe-risk sub-module. The catastrophe risk should be quantified using a standardized formula supplied by CEIOPS. However, an alternative factor-based method should be used under any one of the following conditions:

- exposure outside the EU (CEIOPS will supply EU cat scenarios)
- non-proportional reinsurance
- coverage of risks where CEIOPS' scenarios are not applicable or the footprint of the relevant scenario is not applicable

Given the wide application of non-proportional reinsurance by the industry, the majority of the companies will be forced to use the factor-based approach or to move away from the standard formula and embark on an internal model. The factor-based approach is considered to be extremely onerous.

Market risk

The market-risk module is still under construction. The consultation paper does not include information about the calibration of the risk factors, correlation factors, or the equity-risk module. More information about these parts will be supplied in the third wave of consultation papers in October/November 2009. Worth mentioning in this summary are the following:

- The market-interest risk is quantified via two pre-defined scenarios: an upward shock and a downward shock. The shocks are supposed to cover the risks caused by changes in level, slope, curvature, and volatility.
- The currency risk is measured from the perspective of the currency in which the regulatory accounts are prepared. The risks of all currencies are quantified separately and aggregated without considering correlations. For companies with a well-managed currency mismatch, the currency risk will be severe. Some currencies are strongly correlated. For example, the Chinese currency and many Caribbean currencies are strongly correlated with the US dollar.
- A change of the credit-spread risk proposed by CEIOPS will include both a rating- and duration-dependent scenario.
- The concentration risk is relatively complex. The changes are minor, with the exception of the concentration threshold. Until mid-2008, the threshold at which capital requirements became applicable was 5% (AAA-A) to 3% (BBB and lower). The proposal is to lower the threshold to 2% and 1% respectively.

On top of the proposed change of the structure, the second wave of consultation papers proposes a drastic change of the quantification of the risks.

CEIOPS recommends three different simpler methods for the quantification of the loss-given default. The simplified methods are relatively conservative, as those methods do not facilitate any diversification among the risks of derivatives, reinsurance, and other counterparties.

Counterparty-default risk

The financial crisis has taught us much about counterparty-default risk. The counterparty-default-risk module quantifies the risk of default of debt or risk-mitigating instruments, receivables from intermediaries, and any other credit exposures which are not covered in the spread risk.

CEIOPS proposes new parameters and an adjusted loss-given-default formula. CEIOPS recommends three different simpler methods for the quantification of the loss-given default. The simplified methods are relatively conservative, as those methods do not facilitate any diversification among the risks of derivatives, reinsurance, and other counterparties. Recovery rates are also reduced to 40% for reinsurance arrangements (from 50%) and to 10% for derivatives (from 50%).

CEIOPS proposes to adjust the parameters for the probability of default to a more conservative set. The alpha/tau ratio (Ter Berg method applicable for rated and non-diversifiable risks) is equal to four and is considered to be approximately five times worse than the ratio in a stable financial market situation. For unrated companies and those not under supervision of an EU supervisor, the probability of default is set at 10%.

Life underwriting risk

CEIOPS and local supervisors reviewed the life underwriting risk module, and based on their review, a number of adjustments are proposed by CEIOPS. No change to the structure of the module is proposed; the proposed changes are to the parameters. Overall, the proposed parameters lead to a significantly higher life-underwriting risk.

- An increase of the mortality-risk parameter from 10% to 15% is proposed as a permanent increase of the mortality rates. The parameter covers the level, trend, and volatility risk.
- The longevity-risk parameter remains at a 25% annual decrease of the mortality rates. However, most companies have already taken the expected improvements of the life expectancy in their best-estimate assumptions into account. This may lead to double counting. Furthermore, there is the risk of arbitrage, given the fact that the mortality-risk and longevity-risk parameters are not same.
- The proposal is to update the morbidity-risk sub-module by including the recovery risk more explicitly and to increase the morbidity rates at inception. The recovery rates decrease permanently by 20%. The disability rates for the first year increase by 15% (35% to 50%), meaning that the morbidity parameter in the stress scenario is 150% of the best-estimate assumption.
- The lapse-risk sub-module has been adjusted by incorporating a cap and floor and by adding a mass-lapse risk for non-retail business (pension-fund services). The maximum lapse rate is equal to 100% (cap) and the minimum lapse is rate 0%, or the best-estimate lapse rate minus 20 basis points (applicable for BE lapse rates > 40%).
- The proposed life-catastrophe risk is 2.5 per mille, instead of the 1.5 per mille which was used previously.

Operational risk

The operational risk is quantified via a factor-based calculation. In this calculation, premiums and technical provisions are the main risk drivers. CEIOPS has advised on how to adjust the formula and factors. The changes will lead to a material increase of the capital requirement for operational risk. The main proposed changes are summarized in the following table.

FIGURE 2

	TECHNICAL PROVISION LIFE	TECHNICAL PROVISION NON-LIFE	EARNED PREMIUM LIFE	EARNED PREMIUM NON-LIFE	UNIT LINKED EXPENSE FACTOR	BSCR FACTOR CAP LIFE	BSCR FACTOR CAP NON-LIFE
OLD FACTORS	0.3%	2.0%	3.0%	2.0%	25%	30%	30%
PROPOSED FACTORS	0.9%/1.0% ³	4.4%	7.6%	4.1%	50%	60%	60%

In addition to the proposed factors, a capital charge will apply for external services on financial investments. The charge is 0.5% of the investments managed externally.

Eligible-own funds

The amount of eligible-own funds must be calculated in order to measure the surplus or deficit in the solvency position of the company. The solvency ratio is calculated as eligible-own funds divided by the SCR. There are several limitations on the eligible elements.

CEIOPS proposes an increase in the average quality of the eligible-own funds by

- increasing the amount and quality of Tier 1.
- increasing the quality of Tier 2.
- decreasing the amount and increasing the quality of Tier 3.

The list of restrictions is too extensive to cover in this document.

Other consultation papers cover requirements on disclosures, internal models, capital add-ons, and group positions. The consequence of the proposed changes is a significant increase of the SCR, lower eligible-own funds, and worse solvency ratios.

³ Where management actions are taken in account for the calculation of the technical provision, the 1.0% charge will apply.



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