SOCIETY OF ACTUARIES Financial Reporting Section

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## Solvency II and U.S. Equivalence

By Patricia Matson and Ronald Sleiman

Activity with respect to Solvency II is increasing in the United States. The implications vary depending on how directly impacted a given U.S. company is by Solvency II.

In the United States, the companies most interested in the development of Solvency II are U.S.-domiciled subsidiaries with parent companies located in the European Union (EU). In order for the parent company to meet the requirements, its subsidiaries must comply with the various components of Solvency II regarding calculating required capital, demonstrating strong Enterprise Risk Management (ERM) and governance, and providing required disclosures to the public and the regulators. Responding adequately to these new requirements will mean a major shift in thinking for many organizations.

One unknown with respect to U.S. subsidiaries relates to the "equivalence" rules under Solvency II. These rules lay out required characteristics of local regulatory regimes in order for the capital standards of those regimes to be considered "equivalent" to Solvency II. The National Association of Insurance Commissioners (NAIC) has embarked on a Solvency Modernization Initiative (SMI) to examine current solvency requirements, review international developments, move toward a principle-based approach to solvency regulation, and ultimately improve the U.S. solvency system. The SMI Task Force is planning some significant changes to the U.S. regulatory requirements which will likely increase the chance that the U.S. gains equivalence. While U.S. insurance solvency regulation is

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# LETTER TO THE EDITOR

By Carol Marler

This letter represents my own personal opinion, and it does not necessarily reflect the views of my employer.

I am writing about some concerns I see with the C3 Phase 3 initiative to update the calculation of Risk Based Capital (RBC) for life insurance.

First, when the principle-based approach was introduced, the emphasis was on using each company's own risk assessment to drive the process. Somehow along the way, we have veered off that desirable path. Instead of looking at all of a company's risk factors and prioritizing them, we have focused very narrowly on the interest rate and financial market risk. In addition, instead of a principle-based approach, we are now doing what some have characterized as a really complicated rules-based approach.

I think that one of the factors behind this narrowing has been the unfortunate and long-standing adversarial relationship between companies and regulators in the United States. I remember many years ago reading a humorous piece, perhaps it was in *The Financial Reporter*, which parodied a typical discussion between two actuaries, one from each camp. Instead of a dialogue, it was more like two parallel monologues. In effect one actuary kept saying, "You want to make the reserves too high," and the other responding, "You want to make the reserves too low." The same messages could be updated today by replacing the word **reserves** with the word **capital**.

The approach being taken by Solvency II is an interesting way to get around this impasse. A key element of the overarching structure of Solvency II is that companies are required to use the risk analysis and models in day-to-day management of the company. They must demonstrate that this is not just an exercise in compliance, but that the company has a culture which sets strategy and manages the business accordingly. This aligns the interest of company management with the goal of accurately assessing risk in ways that reflect the company's own risk profile, and making appropriate provisions for it.

Second, it appears to me that it is now time for a change from looking at capital ratios to asset ratios. We have already moved in the direction of analyzing Total Asset Requirements (TAR) in C3 Phase 2. Because the associated reserves were generally calculated in a homogeneous way, it was relatively easy to convert the TAR into a capital requirement. That situation is definitely not the case with C3 Phase 3.

For example, some of the early analysis for the Principle-Based Reserves (PBR) project showed that C3 Phase 3 would generate a lower TAR than existing RBC plus reserve balances for business currently reserved under Actuarial Guideline 38, also known as XXX. The discrepancy was so great that the calculated contribution of this business to the C3 Phase 3 capital was negative. On the other hand, similar products issued in earlier

years and reserved under the unitary method could produce much larger capital requirements than current rules prescribe. Although different levels of conservatism in reserves will also have an indirect impact on a TAR ratio, it will be much less extreme than if a required capital ratio continues to be used.

Regarding the lack of homogeneity in reserves brings me to my third point. Although an expanded field test is underway for the PBR project, it still focuses on new business—i.e., products currently being issued. It seems obvious to me that the C3 Phase 3 process needs more field testing than that. There are many products in company portfolios which are no longer being issued. A broader brush is needed to be sure that due consideration is given to these products. Moreover, I understand that the change to reserve requirements for PBR will be phased-in over a number of years. Once the RBC instructions are changed, there will be no opportunity at all for phase-in. To me, this suggests that field testing needs to be much more thorough than for PBR. It needs to begin, as was done for PBR, with a "final" version of C3 Phase 3. After testing, there will likely be a few iterations, depending on what each round of field testing identifies as significant inconsistencies.

At this time, the Solvency Modernization Initiative (SMI) work group is giving careful consideration to the future of RBC, and I am pleased to see this happening. Some have suggested that the current proposal for C3 Phase 3 might be merely an interim step on the way to the SMI version. Others suspect that the whole C3 Phase 3 approach is more of a distraction than a forward step. Perhaps it is time to stop further work on C3 Phase 3 and focus on work being done by SMI toward a more truly principle-based approach.

It's food for thought. ■

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# CHAIRPERSON'S CORNER

By Craig Buck

I want to dedicate this edition of Chairperson's Corner to update you on some of the research projects our section is currently conducting or sponsoring. Research and education are two of the main responsibilities of the section, and we strive to keep providing a steady flow of research to our members. As you will see, the research pipeline is looking very strong.

To ensure the research we conduct is relevant to our members, we recently conducted a survey of potential research topics. More on that later, but it is encouraging to see a few of the topics near the top of the list, such as IFRS and PBA, being addressed in some capacity in our current research projects. Here is a brief overview of some of our ongoing research:

**Mortality Improvement in the United States and Internationally**—A project to study mortality improvement in the United States and internationally continues. This project examines historical life insurance and annuity policyholder mortality improvement rates and trends and how they compare to that of the general United States and international populations. The project is nearing completion, and by the time you read this the report, will likely have been released and posted on the SOA website.

**IASB Financial Reporting For Insurance Liabilities**—This project is an extension of the project completed in 2010 and examines the impact to life insurance financial reporting from the IASB exposure draft on accounting of insurance contract liabilities. A research team has been selected, and this project is moving ahead quickly.

**Stochastic Modeling Efficiency**—In collaboration with the American Academy of Actuaries' Modeling Efficiency Work Group, this study investigates various potential methods for enhancing modeling efficiency. The project specifically examines how they might be applied to the required stochastic modeling under a principle-based framework for determining reserves and capital. The Project Oversight Group was recruited and has had several calls that included selecting the researcher. The research team has begun to recruit companies to participate in the study.

**Variable Annuity Guaranteed Living Benefits (VAGLB) Utilization Study**—The section will conduct an intercompany experience study to analyze policyholder utilization of the most common VAGLBs. Researchers will begin by designing and developing the specifications for the intercompany study. A researcher has been selected and this project is in the early stages.

**Comparative Failure Experience in the Insurance and Banking Industries**—This project will identify factors that have been effective for the insurance and banking industries in reducing failure rates. Co-sponsored by the Financial Reporting section, the Committee on Life Insurance Research and the American Academy of Actuaries, this project is in the early stages. A request for proposals was issued and a Project Oversight Group is being formed to select a researcher.

**Monograph on Rate Discounts**—The International Actuarial Association (IAA) is leading a project to develop an educational monograph on the concepts and practical methods that can be used in the application of the discounting process for insurance company financial reporting, capital assessment and internal management reporting as well as for pension and employee benefits obligations on the sponsor entity. The Financial Reporting section is one of the many sponsors of the research. The IAA has recently issued an RFP for a researcher to perform the work for this project.

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I am pleased with this strong line of research projects, and I encourage the members of the section to contribute both your ideas for other topics, as well as your time to conducting research.

Further to that point, I mentioned that the section recently conducted a survey of its members regarding their educational needs and ideas for potential topics for future webcasts and professional development meeting sessions. The results of this survey are being used by the Council to develop actions to better serve our members.

Not surprisingly, two of the top areas of interest among the respondents were the convergence of financial reporting standards (IFRS, U.S. Statutory and US GAAP) and principle-based approaches, including C3 Phase III. Other areas of interest involved best practices among the financial reporting processes and systems, model validation, and setting policyholder behavior and other non-economic assumptions.

Thanks to all of you who provided your feedback through the survey, and especially to those of you who volunteered to speak, write or conduct research on some of these topics. The section will use this information to steer our future research projects and we plan to address some of these topics in the coming months via webcast and/or sessions at the upcoming industry events.

Speaking of industry events, the Valuation Actuary Symposium and the Annual Meeting will be held in the coming months. Participating in these meetings as a speaker or session moderator is a great way to contribute your time to the actuarial profession, and a great way to network and meet other actuaries in your area of practice. If you make it, please stop by at one of the section's events and introduce yourself. I hope to see many of you there. ■

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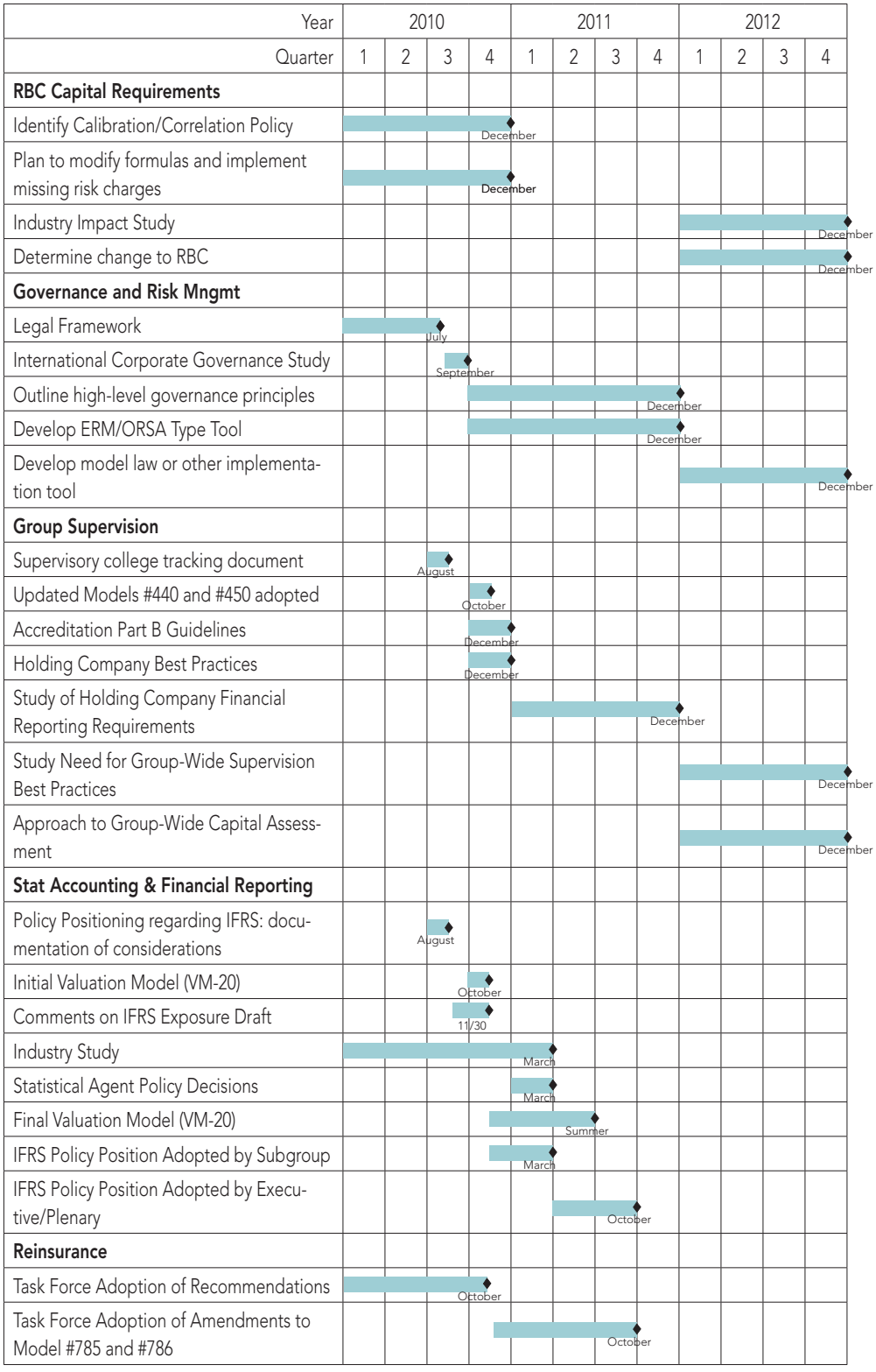
NAIC Solvency Modernization Initiative Timeline (based on the latest SMI Roadmap)




updated on a continuous basis, the Task Force will be focusing on five key areas:

- Capital requirements,
- Governance and risk management,
- Group supervision,
- Statutory accounting and financial reporting, and
- Reinsurance.

## SPECIFIC TIMELINES WITH ACTIONS IN KEY AREAS ARE SUMMARIZED BELOW:

If equivalence is met in the United States, the U.S. subsidiaries with EU parent companies could base their required capital on U.S. statutory capital requirements, and use that as a basis for local decision making. The U.S. subsidiary would still need to meet certain other requirements with respect to risk management and reporting; however, the level of effort for implementation would be somewhat lower, and more importantly the required capital may be lower for certain types of business. To the extent equivalence is not achieved, competitive issues are likely to result between U.S. domiciled companies and U.S. subsidiaries of EU parents, as the former will price products with a view toward U.S. statutory capital requirements, whereas the latter will be required to consider market-consistent, Solvency II capital requirements in their pricing.

Solvency II is a reality and will impact not only those companies with operations in the EU, but also the broader U.S. industry. Solvency II is likely to raise the bar for risk management practices for all insurers, and potentially disclosures as well. This will be fueled by regulators and rating agencies as they review the detailed analysis and disclosures for those companies that do implement Solvency II. S&P has already provided commentary that those companies that are effectively following Solvency II would likely be considered to have a "strong" ERM rating.

## THE BASICS OF EQUIVALENCE

Until recently, the guidance on equivalence appeared to indicate that the United States would not be deemed equivalent in advance of Solvency II implementation. In particular, the Commission of European Insurance and Occupational Pensions Supervisors (CEIOPS) guidance on equivalence included the following:

A set of six principles are outlined underlying the regulatory review process that need to be met in order for a jurisdiction to be considered equivalent. They are:

1. powers and responsibilities of the supervisory authority;
2. authorization requirements to undertake (re)insurance business;
3. system of governance and its regulatory oversight;
4. business change assessment;
5. solvency assessment; and
6. supervisory cooperation, exchange of information, and professional secrecy.

The U.S. regime does not currently meet all of these principles. We believe items 3, 5, and 6 are of particular challenge.

In general, the published guidance has created a major challenge for U.S. subsidiaries of European parent companies. Without knowing whether the United States might be granted equivalence, these companies cannot do appropriate capital planning nor is there a firm basis of understanding of requirements to allow for a robust Solvency II implementation plan.

A set of six principles are outlined underlying the regulatory review process that need to be met in order for a jurisdiction to be considered equivalent.

## POSITIVE EVOLUTION

More recently, the Solvency II Experts Group has been working on a consolidated set of Level 2 implementing measures taking into account the feedback received on the consultation papers, which aim at providing advice on the more detailed technical implementing rules. The current proposal in the consolidated measures is that if a local regime is moving toward solvency regulation that meets the Level 2 criteria, that regime could be granted a transitional period. The Level 2 criteria are the six principles referred to above. However, based on the latest draft, they no longer appear to require a market consistent measurement basis, just an "economic" one. There are three requirements in order to get there:

- Regime is risk-based or measures being taken to get there.
- Supervisors willing to engage in equivalence discussion and exchange information.
- The supervisors in the regime are bound by obligations of professional secrecy.

If granted, the local regime would be treated as if equivalent for the three-year period.

The new guidance appears positive, in that two hurdles have been removed:

(1) the requirement to use a market consistent basis for the liabilities, which the U.S. regulators are strongly against, and

(2) the need to be assessed for equivalence before Solvency II adoption in order to use U.S. RBC as the basis for Pillar 1 (which would not have happened for the United States).

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In addition to the revisions to the Level 2 measures, a host of Solvency II developments occurred in the first month of the New Year. Some of these developments relate to equivalence for the United States:

As of Jan. 1, 2011, the Solvency II landscape was impacted by the introduction of a new regulatory body—the European Insurance and Occupational Pensions Authority (EIOPA). EIOPA is charged with carrying out activities to support policyholder protection (including pension plan participants), financial stability, and transparency of markets and financial products.

EIOPA replaces CEIOPS and will advise the European Parliament and the European Commission (EC) on issues and regulations for the insurance industry and the occupational pension plans. Some of EIOPA's responsibilities include drafting regulation and binding technical standards (BTS) for adoption by the European Commission, and will also have the power to issue guidelines and recommendations on the application of the binding technical standards. EIOPA will assist supervisors with the appropriate application of the rules of the European Union, and also assist in monitoring and reporting on compliance with those rules. The responsibilities of EIOPA and its coordination with EU member countries are in many ways similar to those of the National Association of Insurance Commissioners (NAIC) and its coordination with the states. However, it appears that EIOPA has more authority with respect to the promulgation of regulations and guidelines, as the standards are expected to be adopted by the EC largely as written and then will be applicable to the EU member countries.

One of the areas of focus for EIOPA will be third country equivalence and establishment of a transitional regime, both for third countries moving toward equivalence as well as for companies adopting the Solvency II requirements directly, to help ease the transition for companies that are struggling to meet the deadlines.

On January 19th, the "Directive of the European Parliament and of the Council amending Directives 2003/71/EC and 2009/138/EC in respect of the Powers of the European Insurance and Occupational Pensions Authority and the European Securities and Markets Authority," also known as Omnibus II, was issued by the European Commission. The proposed directive will now be sent to the Council and the European Parliament for consideration. The primary purpose of Omnibus II is to strengthen the supervision of the financial services industry. A specific component of this is broadening the authority of the key European Supervisory Authorities, including EIOPA. Another key component relates to transitional arrangements, including those related to equivalence.

Omnibus II specifies that the EC may adopt a transitional period, not to exceed five years, for subsidiaries in third countries in which it is unlikely that the third country will meet the requirements for equivalence by the end of 2012. It also specifies that the Commission may adopt requirements specifying conditions that must be met by the third country in order to qualify for the transitional regime. The conditions shall cover "commitments given by the supervisory authorities, their convergence to an equivalent regime over a set period of time, the existing or intended content of the regime, and matters of cooperation, exchange of information, and professional secrecy obligations."

Omnibus II also specifies that during this transitional period, the group solvency calculation may use, for the subsidiary in the third country, the Solvency Capital Requirement (SCR) and their own funds eligible to cover the SCR as required by that third country. In addition, parent company supervisors may, during the transitional period, rely on the group supervision of the third country supervisor.

## OTHER RECENT ACTIVITIES

In addition to the equivalence impacts mentioned above, there were several additional activities early in 2011 related to the overall Solvency II guidance.

## EIOPA ISSUES ITS WORK PLAN

The newly formed EIOPA got to work right away. On January 19th, EIOPA issued its Solvency II Medium Term Work Plan. The work plan is focused on activities related to the implementation of Solvency II, versus the

historical focus of the European regulators which was on the development of the regulations.

EIOPA has identified the following work streams to carry out their efforts:

- Valuation of Assets and Liabilities including Technical Provisions;
- Solvency Capital Requirements (SCR, MCR);
- Own funds;
- Governance and ORSA;
- Reporting;
- Disclosure;
- Group Supervision, Supervisory Cooperation, Coordination and Information Exchange, including Colleges of Supervisors;
- Internal Models;
- Supervisory Review Process and Risk Assessment Framework, including Supervisory Transparency and Accountability; and
- Equivalence.

As mentioned above, one of the key responsibilities of EIOPA is in the drafting of binding technical standards (BTS) for adoption by the EC, as well as drafting of non-binding guidance to assist supervisory authorities in their review and analysis of company's compliance with the standards. With respect to Solvency II, the work on the BTS is expected to run from April to December of 2011, and the work on the non-binding guidance will run through March of 2012 (drafting of this "Level 3" guidance has already started). The BTS are dependent on the finalization by the EC of the Level 2 implementing measures and the adoption by the European Parliament of the Omnibus II Directive discussed below. Adoption of Omnibus II by the European Parliament is targeted for November, 2011.

With respect to equivalence, which is clearly an area of keen interest for U.S. companies subject to Solvency II, the priority for the work stream will include the development of Level 3 guidance for supervisors to assist them in undertaking equivalence assessments of third countries. In addition, EIOPA is expected to provide the results of its equivalence assessment of the first wave of countries (Switzerland, Bermuda, and Japan) by September 2011. The second wave of assessments is planned for 2011–2012, and the third wave for 2013–2015. The timing of these assessments is being carefully coordinated with plans for a transitional regime, which is described in the section on Omnibus II below.

**Solvency II Framework and Levels**

| Level | What is it? | What does it include? | Who develops? | Who decides? |
|---|---|---|---|---|
| 1 | Solvency II Directive | Overall Framework Principles | European Commission | European Parliament, European Council |
| 2 | Implementing Measures | Detailed Implementation Measures | European Commission | EIOPC |
| 3 | Supervisory Standards | Guidelines to enhance Supervisory Convergence | CEIOPS (now EIOPA) | |
| 4 | Evaluation | Monitoring Compliance and Enforcement | European Commission | European Commission |

## OMNIBUS II IMPLICATIONS

As described above, Omnibus II was issued in January. Omnibus II makes the following general amendments to the existing Directives:

- Definition of the appropriate scope of **technical standards,**
- Inclusion of mechanisms for the authorities to **settle disagreements,** and
- **General amendments** to allow the directives to operate in the context of new authorities created (such as EIOPA).

In addition to these general amendments, several additional amendments were made specific to Solvency II which fall under the following main points:

1. *Transitional Requirements—this is a significant change with implications for the U.S. industry, and is discussed in more detail below;*

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2. *Amending Level 2 empowerments—empowering the EC to adopt measures to specify procedures for supervisory approvals in specific areas and also to take into account the new Lisbon Treaty, i.e., to ensure regulatory consistency and appropriate empowerment of the regulatory bodies involved in the Solvency II guidance; and*

3. *Extension of two months to implementation date—this officially extends the implementation date of Solvency II to Jan. 1, 2013.*

The specifics regarding transitional arrangements are covered by new sections inserted into the original Solvency II Directive. These new sections essentially provide for the following:

- timeframes during which specific requirements of the Solvency II Directive would not apply in the event that the Commission adopts transitional measures instead;
- authority for the Commission to adopt requirements ("delegated acts") allowing for a transitional regime for specific components of the Solvency II Directive, up to a specified maximum length of time; and
- certain limitations apply to the acts that may be adopted, for example with respect to the allowable level of the Solvency Capital Requirement.

Based on the specifics of Omnibus II, below are the proposed maximum transitional periods that the Commission may grant by way of delegated acts for specific requirements of the SII Directive. The delegated acts would provide details of what would be provided in lieu of the requirements of the Directive during the transitional period, and any phasing-in of requirements:

- A three-year maximum transitional period for
  - An effective system of governance
  - Submission to EIOPA information about the level of capital add-ons
- A five-year maximum transitional period for
  - Companies to provide the supervisor with information to enable an assessment of the system of governance, the business they are carrying on, the valuation principles applied for solvency purposes, the risks faced and the risk management systems, and their capital structure, needs and management
- A 10-year maximum transitional period for
  - Relief from the supervisor to assess a capital add-on because the risk profile of the insurance or reinsurance undertaking deviates significantly from the assumptions underlying the SCR, as calculated using the standard formula. The transitional provisions to be adopted would instead specify requirements for the transitional SCR standard formula, and capital add-ons could be added based on deviation from those
  - The establishment of technical provisions. Any transitional requirements adopted with respect to technical provisions must require at a minimum that the insurer meet the regulations in place in their location of domicile as of the end of 2012
  - Having to specify an approach for calculating technical provisions
  - Having to specify the tiering requirements for own funds
  - Having to specify the standard formula approach for the SCR and that eligible own funds exceed the SCR
  - Having to specify the methodology to be used for calculating the group solvency capital requirement

## WHAT IT ALL MEANS FOR THE U.S. INDUSTRY

We believe that the official adoption of Omnibus II has a significant implication for U.S. companies that are subject, through their parent, to the requirements of Solvency II. To the extent the U.S. companies meet the applicable conditions (which are yet to be specified by the Commission) for a transitional regime, up to five additional years will be added to the timeline for Solvency II adoption, during which the U.S. companies may be assessed for equivalence. It appeared that a positive outcome of an equivalence assessment prior to the planned Solvency II adoption date of Jan. 1, 2013 was near impossible; however, such assessment by Jan. 1, 2018 (in the event the transitional period is set at five years) appears feasible, assuming positive progress in certain key areas by the U.S. regulatory bodies.

We also believe there are several key implications of the United States obtaining a transitional and ultimate equivalence decision by the European regulators:

- There will be continued pressure on the NAIC and the SMI Task Force to enact solvency regulations for U.S. insurers that contain most of the key principles of the Solvency II requirements. This will require some effort by U.S. companies to comply, in particular:
  - Implementation of a more robust and transparent ERM structure (including an Own Risk and Solvency Assessment process, which is currently being proposed by the SMI Task Force);
  - Significant revisions to determination of required capital in order to better reflect the underlying risks inherent in the business;
  - Greater linkage of Risk-Based Capital results to business decisions; and
  - Increased levels of disclosure regarding governance, risk exposures, risk management, and capital position.
- The playing field in the United States and globally will be more "leveled," in that the key gaps between the capital requirements for U.S.-based companies and those of European based companies will be closed.
- The management of required capital for U.S. companies with non-U.S. affiliates should be easier, as it will be on a more common basis across legal entities (in other words, the current need to manage capital on multiple and very different bases will be eliminated or at least reduced).
- Use of a more robust regulatory capital framework will influence company strategy, and create further incentives for diversification of portfolios and use of a wide range of risk management strategies (such as reinsurance and hedging) that are understood across the organization, to the board level.

In addition to the potentially positive implications on equivalence, the transitional requirements of Omnibus II will likely ease the pain on the global insurance industry, including U.S. subsidiaries, of being able to meet the very significant requirements of Solvency II by Jan. 1, 2013. It appears that Omnibus II, and the resulting guidance that will be developed by EIOPA, will likely/is expected to bring a welcome sigh of relief from the global insurance industry.

The next several years will be a period of significant regulatory change for the insurance industry globally, with some particular challenges for the U.S. industry depending on the exact outcomes of the NAIC's proposed changes. Close monitoring of global solvency requirements as well as the specificities of the U.S. regime can be beneficial in the long run to manage the steep learning curve and plan in advance for the sweeping changes to strategy, organization, operations, and infrastructure.

## LINKS:

**SMI Roadmap:**
http://www.naic.org/documents/committees_ex_isftf_summer_ntlmtg_meeting_smi_roadmap.pdf

**EIOPAs medium term work plan:**
https://eiopa.europa.eu/fileadmin/tx_dam/files/about-ceiops/WorkinProgress/SolvencyII-Medium-Term-Work-Plan-2011-2014.pdf

**Omnibus II:**
http://ec.europa.eu/internal_market/finances/docs/committees/supervision/omnibus2/com2011_en.pdf



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# Residual Margin Recalibration under the IASB Exposure Draft

By Albert Li, Andy Ferris and Darryl Wagner

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The current International Accounting Standards Board (IASB) Exposure Draft (ED) on insurance contracts establishes a building block model for the valuation of insurance liabilities, of which one of the building blocks is a residual margin. The ED calls for the residual margin to be set at contract issue as the amount which offsets any gain at issue that would otherwise be recorded, after accounting for fulfillment cash flows and an explicit risk adjustment. The residual margin is to be amortized over the coverage period, with no subsequent remeasurement or recalibration. Several comment letter respondents have suggested that the IASB consider the benefits of potentially re-determining the residual margin at subsequent reporting periods. The IASB recently discussed the topic of whether the residual margin should be locked in at inception as proposed in the ED or, if not, how it might be unlocked after inception.

The purpose of this article is to explore the re-determination of the residual margin and present examples of potential re-determination methods and their impacts. In general, the rationale for re-determining the residual margin is to achieve consistency with the other key components of the ED, namely the present value of fulfillment cash flows and risk adjustment, which are remeasured at each reporting date. The lack of re-determination of the residual margin may also result in more volatility in an insurer's reported results and could make it more difficult for financial statement users to assess the insurer's performance. In addition, redetermination of the residual margin results in a more appropriate representation of the economics of the insurer's business, particularly in the wake of significant changes to assumptions, than does a continued recognition of the residual margin on the basis of assumptions made at inception of the business.

The accounting model for related financial assets should be considered when deciding on an approach to residual margin re-determination for insurance contracts. If assets are measured at amortized cost, it would be appropriate to apply re-determination with respect to all assumptions. Conversely, if assets are measured at fair value, one would most likely remove from the calibration of the residual margin financial variables like interest rate risk, thus allowing the change in discount rates caused by movements in market interest rates to flow directly to net income.

The analysis in this article is also applicable to the composite margin approach put forth by the Financial Accounting Standards Board (FASB).

## PRODUCT DESCRIPTION

We modeled a simple 10-year level term life insurance product under the provisions of the ED, and have performed sensitivity tests to illustrate the impact of the potential residual margin re-determination. To enable a transparent view into the impacts of re-determination, we intentionally utilized a simple model:

- A single cell, male issue age 45 with face amount of $50,000
- Guaranteed fixed-level annual premium payments for 10 years
  - $4.5 per $1000 of face ($225 annually)
  - No explicit policy fee used to determine annual premiums
- Commission of 75 percent in year one and 5 percent thereafter
- No cash value
- No reinsurance

## SELECTED KEY ASSUMPTIONS AND MODELING APPROACH

In determining the fulfillment cash flows, the ED calls for all assumptions to be best estimate without provision for adverse deviation (PADs), unlike US GAAP FAS 60 which utilizes PADs. Selected key assumptions used include the following:

| Selected Key Assumptions | Best Estimate Value |
|---|---|
| Investment Yield | 6% |
| Mortality | 75% 2001 CSO |
| Lapse | 5% annually |
| Non Commission Acquisition Expense | $75 per policy (75% incremental) |
| Maintenance Expense | $10 per policy with 3% inflation |

Additional aspects of our model are described below:

- Probability Weighting of Multiple Scenarios
  The ED calls for the fulfillment cash flows to be an explicit, unbiased and probability-weighted estimate of the future cash outflows less the future cash inflows that will arise as the insurer fulfils the insurance contract. The ED goes on to prescribe that the starting point for an estimate of cash flows is a range of scenarios that reflects the full range of possible outcomes. For the purpose of keeping this model simple enough to isolate certain specific aspects, we elected to use a single scenario, rather than multiple scenarios. Furthermore, given the product design and relative lack of sensitivity to equity markets, interest rates and other parameters that are typically modeled using multiple scenarios, we estimated the impact of this approximation to be relatively minimal. This approach is consistent with the recent IASB tentative decision to clarify that not all possible scenarios need to be identified and quantified, provided that the estimate is consistent with the measurement objective of determining the mean.

- Risk Adjustment
  The ED describes three potential methods for the Risk Adjustment—Confidence Interval, Conditional Tail Expectation (CTE), and Cost of Capital. The ED requires the use of one of those three methods, which is another aspect of the ED that attracted comments. For this model, we elected to utilize a simplified version of the Cost of Capital approach. In this simplified approach, the future annual economic capital values are estimated using proxy factors of 0.18 percent of face amount and 6.16 percent of premium. The risk adjustment at each valuation date is 6 percent of the Net Present Value of the future economic capital values.

- Discount Rates
  While the IASB is now considering other more principle-based alternatives, the ED calls for a "bottom up" approach to the discount rate—that is the market-consistent risk-free rate, adjusted for the liquidity characteristics of the liability cash flows. For this model, we use a simplified approach for the discount rate—a fixed rate was used to discount all cash flows, regardless of duration. In other words, we did not use a spot rate curve to discount cash flows at varying rates by duration. We did utilize the risk-free rate as of a recent valuation date and selected a liquidity premium (37 basis points).

## MODEL RESULTS – BASE CASE

In the base case model results, all future experience is assumed to emerge consistently with the initial assumptions. The chart below shows projected results in the income statement presentation format proposed by the ED. Consistent with the ED, the non-incremental acquisition expenses ($19 in this example) in the first year are expensed immediately, creating a drag on income in the first year.

As shown, the total residual margin is determined at issue to be $168, and is amortized over the coverage period. The principle-based ED does not prescribe the exact methodology for the amortization, but calls for the amortization to be "… a systematic way that best reflects exposure from providing insurance coverage. …" In this example, we elected to amortize the residual margin in proportion to the change in the present value of future benefits in each year. We believe this reasonably represents the pattern by which the issuer is released from risk exposure, and therefore meets the amortization principles mentioned in the ED.

CONTINUED ON **PAGE 14**

In the model, invested assets are equal to baseline statutory reserves and required capital, with distributable earnings released as earned. Investment income is then modeled as an earned rate (we assume 6 percent as noted above) applied to those invested assets. For this particular exercise, we did not attempt to vary the invested assets for each sensitivity run. Therefore, investment income in the mortality shock scenario presented later remains unchanged from the base case.

The interest on insurance contract liabilities projections, which one would intuitively expect to be negative (as the discounting of insurance contract liabilities unwinds), is actually positive in most years since the present value of cash flows is negative in most years.

The total net income for the 10-year period is $378.

| Base Case | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ***(a) Underwriting margin*** | | | | | | | | | | | |
| Change in risk adjustment | 6 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | **43** |
| Amortization of Residual Margin | 13 | 14 | 15 | 15 | 15 | 16 | 17 | 18 | 20 | 22 | **168** |
| Increase/Decrease of Residual Margin | - | - | - | - | - | - | - | - | - | - | **-** |
| ***(b) Gains / losses at initial recognition*** | - | - | - | - | - | - | - | - | - | - | **-** |
| ***(c) Acquisition costs that are not incremental*** | (19) | - | - | - | - | - | - | - | - | - | **(19)** |
| ***(d) Experience variances and changes in estimates*** | | | | | | | | | | | |
| Experience adjustments | - | - | - | - | - | - | - | - | - | - | **-** |
| Changes in estimates of cash flows | - | - | - | - | - | - | - | - | - | - | **-** |
| Changes in discount rates | - | - | - | - | - | - | - | - | - | - | **-** |
| Impairment losses on reinsurance assets | - | - | - | - | - | - | - | - | - | - | **-** |
| ***(e) Interest on insurance contract liabilities*** | 6 | 9 | 7 | 5 | 3 | 2 | 2 | 0 | 0 | 0 | **33** |
| ***(f) Investment Income*** | (1) | 16 | 18 | 19 | 19 | 19 | 19 | 17 | 15 | 12 | **153** |
| ***Net Income*** | 4 | 44 | 44 | 44 | 43 | 42 | 41 | 40 | 39 | 37 | **378** |

In the model, invested assets are equal to baseline statutory reserves and required capital, with distributable earnings released as earned.

## MODEL RESULTS—MORTALITY SHOCK

The first sensitivity run assumes that actual mortality experience in year six and beyond is 10 percent higher than our original assumption, or, in other words, a permanent mortality shock occurs beginning in year six. In this run, all other factors are assumed to emerge consistently with initial assumptions. The chart below shows how this scenario would be reflected in the income statement proposed by the ED in years six and beyond. The first five years of experience are not shown as those are assumed to have been already reported as shown in the base model results.

The first impact is that the residual margin amortization pattern is updated to reflect the new pattern of the present value of future benefits due to the increased mortality assumptions for years six–10. Note that consistent with the ED, while the amortization pattern is changed, there is no explicit adjustment or re-determination of the residual margin. The amortization pattern change has essentially no impact on the bottom line (changes in total amortization over five years versus the baseline are due to rounding).

The ($11) adjustment shown on the "Experience Adjustment" line reflects the difference between the actual mortality experience and the mortality assumption for the current year only. The ($47) adjustment shown on the "Changes in estimates of cash flows" line reflects the increased mortality expected to occur in future years as reflected in the updating of fulfillment cash flows based on new best estimate assumptions.

A key observation here is the impact of the expected mortality increase in all future years is immediately and fully recognized into income, causing net income in year six to be ($16), or $58 less than the year six income in the base case. In addition, the residual amortization pattern is essentially unchanged, such that the margin identified at issue continues to emerge, despite the identification of significant reductions to that margin based on adverse mortality experience and expectations.

The total net income for the 10-year period is $317, which is less than the $378 in the base case by $61, reflecting the $58 recognized in year six and minor changes in other items such as interest on insurance contract liabilities.

| **Mortality Shock** | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ***(a) Underwriting margin*** | | | | | | | | | | | |
| Change in risk adjustment | | | | | | 4 | 4 | 4 | 4 | 4 | **43** |
| Amortization of Residual Margin | | | | | | 16 | 17 | 19 | 20 | 22 | **168** |
| Increase/Decrease of Residual Margin | | | | | | - | - | - | - | - | **-** |
| ***(b) Gains / losses at initial recognition*** | | | | | | - | - | - | - | - | **-** |
| ***(c) Acquisition costs that are not incremental*** | | | | | | - | - | - | - | - | **(19)** **-** |
| ***(d) Experience variances and changes in estimates*** | | | | | | | | | | | |
| Experience adjustments | | | | | | (11) | - | - | - | - | **(11)** |
| Changes in estimates of cash flows | | | | | | (47) | - | - | - | - | **(47)** |
| Changes in discount rates | | | | | | - | - | - | - | - | **-** |
| Impairment losses on reinsurance assets | | | | | | - | - | - | - | - | **-** |
| ***(e) Interest on insurance contract liabilities*** | | | | | | 2 | 0 | (1) | (1) | (1) | **29** |
| ***(f) Investment Income*** | | | | | | 19 | 19 | 17 | 15 | 12 | **153** |
| ***Net Income*** | | | | | | (16) | 40 | 39 | 38 | 37 | **317** |

CONTINUED ON **PAGE 16**

## RE-DETERMINATION OF THE RESIDUAL MARGIN—PROSPECTIVE METHOD

As noted above, the examples provided to this point are consistent with the ED in that the total amount of residual margin was set at issue and remained unchanged regardless of changes in assumptions that may occur after issue. In other words, the residual margin was not re-determined. Only the amortization pattern changed, due to the change in assumed experience.

In the examples that follow, we explore two methods that could be used to re-determine the residual margin subsequent to issue, based on then-current assumptions.

The chart below presents one possible residual re-determination method, which we call the Prospective Method. In this example, the residual margin is recalibrated in year six to reflect changes in assumptions affecting the expected present value of fulfillment cash flows. The residual margin balance at the end of year six is adjusted downward by the amount in the line item for "Changes in estimate of future cash flows," which is the change in the present value of expected future fulfillment cash flows arising from changes in assumptions updated during the reporting period ($47 in this example). This adjustment is shown on the "Increase/Decrease of Residual Margin" line and generates additional income in the period.

A new amortization pattern for the remaining residual margin balance is established from the end of year six forward, again with amortization in proportion to the changes in the present value of future benefits for remaining periods.

As compared to the previous example, a greater amount of residual margin is released in the current year. This leaves less residual margin to amortize in future years, and therefore net income is lower in future years. Just as in the previous example, the total net income over the 10-year period is $317, proving that this is only an adjustment to the timing of income, not the amount of income to be recognized.

The basic rationale for this approach is that it achieves a more balanced presentation of financial performance by adjusting the residual margin balance (and therefore, the future amortization of that margin) at the same time it reflects the impact of prospective changes to expected future cash flows that affect the measurement of the margin of the business. This also serves to dampen volatility of net income by mitigating the effects of adjustments in the current year and moderating changes in profitability in future years. An advantage of this approach is that the residual margin adjustment ties directly into the financial statement presentation (in this case, to "Changes in estimates of cash flows"), creating transparency as to the amount of residual margin re-determination.

| **Prospective Method** | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ***(a) Underwriting margin*** | | | | | | | | | | | |
| Change in risk adjustment | | | | | | 4 | 4 | 4 | 4 | 4 | **43** |
| Amortization of Residual Margin | | | | | | 16 | 7 | 8 | 8 | 9 | **121** |
| Increase/Decrease of Residual Margin | | | | | | 47 | - | - | - | - | **47** |
| ***(b) Gains / losses at initial recognition*** | | | | | | - | - | - | - | - | **-** |
| ***(c) Acquisition costs that are not incremental*** | | | | | | - | - | - | - | - | **(19)** **-** |
| ***(d) Experience variances and changes in estimates*** | | | | | | | | | | | |
| Experience adjustments | | | | | | (11) | - | - | - | - | **(11)** |
| Changes in estimates of cash flows | | | | | | (47) | - | - | - | - | **(47)** |
| Changes in discount rates | | | | | | - | - | - | - | - | **-** |
| Impairment losses on reinsurance assets | | | | | | - | - | - | - | - | **-** |
| ***(e) Interest on insurance contract liabilities*** | | | | | | 2 | 0 | (1) | (1) | (1) | **29** |
| ***(f) Investment Income*** | | | | | | 19 | 19 | 17 | 15 | 12 | **153** |
| ***Net Income*** | | | | | | 31 | 30 | 28 | 26 | 24 | **317** |

## RE-DETERMINATION OF THE RESIDUAL MARGIN—RETROSPECTIVE METHOD

Another approach, which we refer to as the Retrospective Method, is to perform the re-determination of both the amount of the residual margin and the amortization pattern as of time of issue, rather than as of the time of adjustment in future cash flow expectations (as of year six, in our example). This could be done in each reporting period, comparable to the manner in which true-up and unlocking exercises are performed for DAC amortization under FAS 97.

In this particular example, when it is concluded in year six that mortality will be 10 percent higher in that year and all future years, a new residual amortization amount and pattern is established from issue. In this case the new residual margin amount at issue, based on updated cash flow projections for years six through 10, is $119, and a new amortization pattern from time of issue is established based on the new pattern of the changes in present value of future benefits. The amount of residual margin released in year six is the difference between the residual margin balance based on the original scale and the balance based on the revised scale, both measured as of the end of year six. Once again, the total income of the 10-year period remains unchanged at $317.

An advantage of this approach, particularly for U.S. companies, is that it leverages familiar and accepted concepts, approaches, and processes from US GAAP. ...

This method achieves the same basic result as the Prospective Method, adjusting the residual margin to reflect expected future cash flow changes and moderating volatility of net income. The amount of the residual margin adjustment, $41, is consistent with the $47 adjustment in the prior example. It is less since the retrospective method shifts amortization of the residual margin from the first five years to the second five years, based on the increased level of benefits in the second five years. An advantage of this approach, particularly for U.S. companies, is that it leverages familiar and

| Retrospective Method | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ***(a) Underwriting margin*** | | | | | | | | | | | |
| Change in risk adjustment | | | | | | 4 | 4 | 4 | 4 | 4 | **43** |
| Amortization of Residual Margin | | | | | | 16 | 8 | 9 | 10 | 11 | **127** |
| Increase/Decrease of Residual Margin | | | | | | 41 | - | - | - | - | **41** |
| ***(b) Gains / losses at initial recognition*** | | | | | | - | - | - | - | - | **-** |
| ***(c) Acquisition costs that are not incremental*** | | | | | | - | - | - | - | - | **(19)** |
| ***(d) Experience variances and changes in estimates*** | | | | | | | | | | | **-** |
| Experience adjustments | | | | | | (11) | - | - | - | - | **(11)** |
| Changes in estimates of cash flows | | | | | | (47) | - | - | - | - | **(47)** |
| Changes in discount rates | | | | | | - | - | - | - | - | **-** |
| Impairment losses on reinsurance assets | | | | | | - | - | - | - | - | **-** |
| ***(e) Interest on insurance contract liabilities*** | | | | | | 2 | 0 | (1) | (1) | (1) | **29** |
| ***(f) Investment Income*** | | | | | | 19 | 19 | 17 | 15 | 12 | **153** |
| ***Net Income*** | | | | | | 25 | 31 | 30 | 28 | 26 | **317** |

CONTINUED ON **PAGE 18**

accepted concepts, approaches, and processes from US GAAP. In addition, as compared to the Prospective Method, this approach may be viewed as a more natural extension of the building block method which already provides for the updating of assumptions and cash flow estimates each period.

## CONCLUSION

We hope that this article has been informative in illustrating some of the considerations and impacts involved in locking-in or re-determining the residual margin. Assuming the residual margin and/or composite margin becomes part of IFRS and/or US GAAP, amortization and any permitted re-determination of these items will become an important part of the actuarial valuation process for insurance contracts. While the ED would only establish a residual margin for new business written after transition to IFRS, the IASB, in response to numerous comments, has indicated an intention to permit residual margins to also be established for in-force business at transition, making the re-determination of residual margin a question of even greater impact.

The IASB and FASB held joint board meetings in March, 2011, in which the staff provided background information to the boards on margin re-determination. The boards discussed whether the residual or composite margin should be locked-in at inception as proposed in the ED and if not, how the margin might be unlocked. While the staff expressed an informal initial preference toward unlocking or re-determination for future estimate changes, the boards were not asked to make any decisions on this topic. Stay tuned for further developments in this area as the IASB seeks to come to a final decision on this and other issues related to insurance contracts by the third quarter of 2011. ■

# Solvency II Update—QIS5 Results

By Steeve Jean, Seong-min Eom, Patricio Henriquez

Solvency II is an economic and risk-based regulatory framework for the supervision of European insurance companies. As such, Solvency II capital requirements reflect the specific risk profile of an enterprise as well as the risk management framework employed to manage these risks. The primary difference from Solvency I is the treatment of the balance sheet. Solvency II mandates that assets and liabilities be measured on a market consistent basis.

Solvency II specifies two target levels of capital: Minimum Capital Requirement (MCR)[1] and Solvency Capital Requirement (SCR).[2] The purpose of Solvency II is to promote sound risk management practices through the explicit quantitative measurement of the specific risks faced by the enterprise. MCR defines the threshold below which regulatory action is authorized.

## EUROPEAN INSURANCE AND OCCUPATIONAL PENSIONS AUTHORITY FIFTH QUANTITATIVE IMPACT STUDY

In advance of Solvency II implementation in January of 2013, the European Insurance and Occupational Pensions Authority (EIOPA) has been conducting a series of quantitative impact studies (QIS). The objectives of these studies are:

- to identify areas of the directive where further improvements are necessary, for example, finalizing the standard formula; and
- to encourage insurance companies and regulatory authorities to prepare for Solvency II in advance of the implementation deadline.

The Fifth Quantitative Impact Study (QIS5) is likely the last of these exercises before Solvency II implementation.

Sixty-eight percent of insurance companies participated in QIS5, greater than the EIOPA's target participation rate. This corresponds to 95 percent of reserves and 85 percent of premium for companies subject to Solvency II. The high participation rate for small- and medium-size companies helped EIPOA recognize the need for more simplicity in certain areas.

## RESULTS

Overall, the reduction in the surplus is approximately 12 percent compared to Solvency I (this includes solo and group participants). This was driven by an increase in capital requirements offset by a decrease in technical provisions and an increase in own funds[3], although the results vary widely depending on the size of the company, utilization of an internal model or the standard formula, and the company's line of business (life, P&C or health).

Fifteen percent of the participants failed to meet the Solvency Capital Requirement, and 5 percent could not meet the Minimum Capital Requirement. Failure in meeting SCR can bring a regulatory action, and an insurance authority may step in when a company cannot cover MCR.

Figure 1 below illustrates the impact of SCR and MCR relative to the current framework, Solvency I, by comparing the surplus under each (this includes solo participants only).

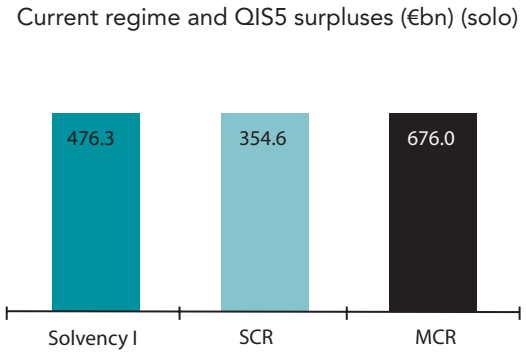


**Figure 1** (Source: EIOPA Report on the fifth Quantitative Impact Study (QIS5) for Solvency II)

### FOOTNOTES

1 The Minimum Capital Requirement is defined as the potential amount of own funds that would be consumed by unexpected events whose probability of occurrence within a one-year time frame is 15 percent. In order to ensure the smooth functioning of graduated supervisory intervention (often referred to as "the ladder of intervention"), the result produced by the MCR calculation is bounded between 25 percent and 45 percent of the SCR, subject to an absolute minimum.

2 The Solvency Capital Requirement is defined as the potential amount of own funds that would be consumed by unexpected large events whose probability of occurrence within a one-year time frame is 0.5 percent. This definition allows (and sometimes mandates) the replacement of all or part of the standard formula with an internal model in cases where it can be shown to be better able to fulfill the directive requirements with respect to an undertaking's particular risk profile.

3 Own funds: the excess of assets over liabilities and subordinated liabilities, valued in accordance with the directive.

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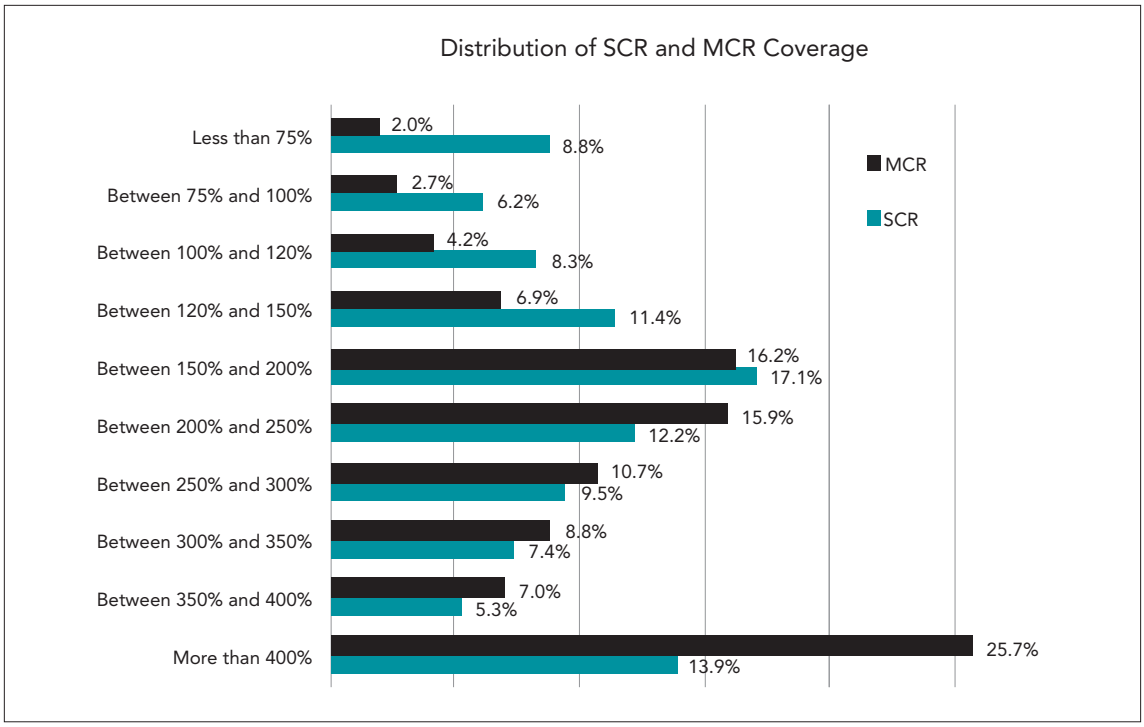


**Figure 2** (Source: EIOPA Report on the fifth Quantitative Impact Study (QIS5) for Solvency II)

Figure 2 below shows the distribution of SCR and MCR coverage. For example, 8.8 percent of participating companies failed to meet even 75 percent of SCR.

To calculate the SCR, insurance companies can choose either the standard formula or a full or partial internal model. Generally, solo[4] insurance companies' required capital results calculated using an internal model are not significantly different than those calculated by the standard formula. For groups[5] however, the internal model calculation results in an overall capital requirement 20 percent lower than from the standard formula. Groups tend to utilize the deduction and aggregation method more often than account consolidation method to calculate SCR. The former approach results in significantly higher surplus due to the application of diversification effects.

Although QIS5 results indicate that 96 percent of the group participants have plans to use internal models, the EIOPA does not believe that all participants' internal models follow the guidelines. The difference between partial and full internal model, needs to be better understood by insurance companies as QIS5 responses have shown that a misunderstanding exists. When a company declares a full internal model, it must be certain that all risks are considered. For example, some participants touted their model as a full internal model even though operational risk was not included. In other cases, the use of the standard formula with some Undertaking-Specific Parameters (USPs), which allow the replacement of certain risk parameters in the standard formula with company specific parameters, is misunderstood as an internal model.

Many participants used external models for natural catastrophe modeling, Economic Capital Scenario

## FOOTNOTES

4 A solo insurance company is any independent business entity. A solo insurance company may be a member of a group.

5 This group information is on a worldwide basis and includes non-insurance business. Because some group information overlaps with solo, group and solo results are reported separately.

Generators, or tools for the calculation of best estimates. These external models can be a black box and as such do not comply with the directive.

For life insurance companies the primary driver of the SCR is market risk. In standard formula calculations, 67 percent of the SCR is due to market risk. For health and P&C companies, underwriting risk is the most significant factor. Among underwriting sub-risks, disability is the key component for health insurance, and number of claims and potential estimation errors on reserves are the key components for P&C insurance.

Figure 3 illustrates the composition of the Basic Solvency Capital Requirement (BSCR) and SCR for solo companies. BSCR is the sum of market risk, counterparty default risk, life underwriting risk, health underwriting risk, P&C underwriting risk, and intangible assets, reduced by the effect of diversification. The total SCR is the sum of BSCR and Operational Risk less an adjustment for risk absorbing capacity, deferred taxes, and adjustment for the notional SCR of RFF.[6] Results for group companies are similar except for a higher diversification benefit of 46 percent compared to 32 percent for solo companies.

Figure 4 shows the contribution of each risk to the BSCR before taking into account the impact of diversification.

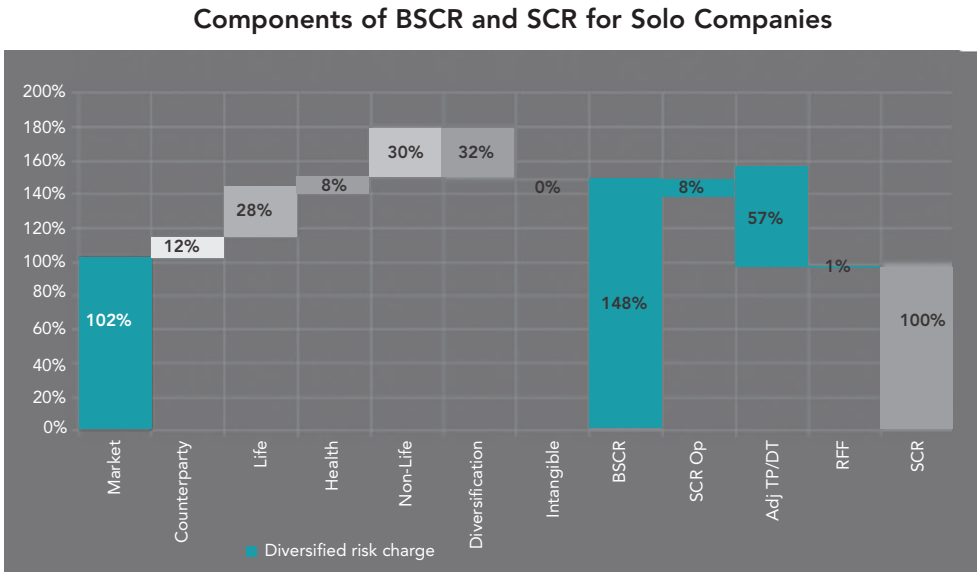


**Figure 3** BSCR Structure (Solo) (Source: EIOPA Report on the Fifth Quantitative Impact Study (QIS5) for Solvency II)

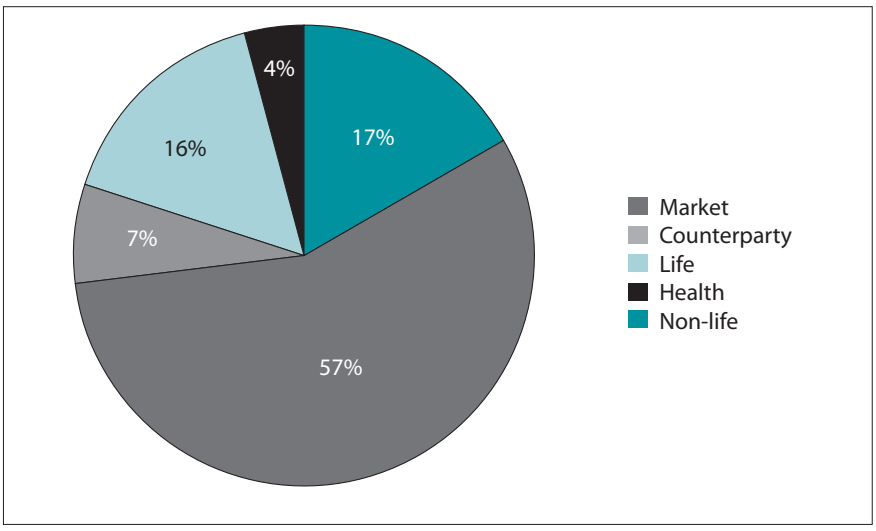


**Figure 4** BSCR Detail (Source: EIOPA Report on the fifth Quantitative Impact Study (QIS5) for Solvency II)

## FOOTNOTES

[6] RFF: Ring-Fenced Funds. This includes profit participation business where assets can only be used to cover losses for particular policyholders. There are restrictions on the use of assets to meet losses outside of the funds and any excess assets are usually maintained within the fund, which provides only a limited capacity of absorbing losses. An adjustment is required to eligible own funds and to the SCR. A notional SCR is calculated for each RFF and an SCR for the risks arising from the rest of the business outside the RFF. Any restricted own funds (i.e., those in the ring-fenced fund) that are in excess of the notional SCR of each RFF are deducted from the total SCR.

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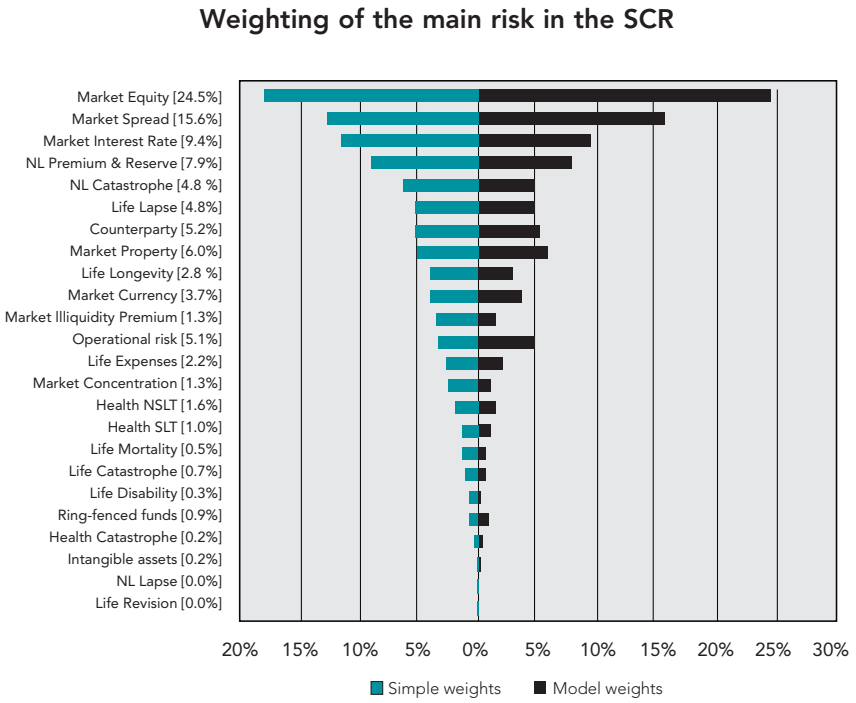


Figure 5 (Source: EIOPA Report on the fifth Quantitative Impact Study (QIS5) for Solvency II)

The main concern of QIS5 participants was complexity of the risk modules. All major components of the capital requirement were criticized by participants for their complexity. The spread risk sub-module was also criticized for its calibration methodology.

In addition, the life underwriting lapse risk sub-module, and the catastrophe risk module generated a variety of comments.

Many participants reported difficulty in determining Undertaking-Specific Parameters (USP). These difficulties were due to a lack of suitable data and strict methodology. Some participants suggested the use of country-specific parameters instead of USP or the option to use alternative methods.

Concerns were voiced regarding operational risk, but due to the difficulty of developing operational risk models, most participants will choose to use the standard formula. Consequently, many companies will use a partial internal model even if they implemented a full internal model for all of the other risks.

From Solvency I to QIS5, technical provisions decreased by 1.4 percent. For the first time an illiquidity premium was applied to the discount rate. This change on average reduced technical provisions by 1 percent.

Because of its complexity, only a few participants were able to fully calculate the risk margin. Many participants commented on its complexity and the effort required especially considering its immateriality, and requested guidance for a consistent simplification.

Participants also raised the need to clarify the definition of contract boundaries to prevent misinterpretations. The current document from EIOPA does not provide consistent guidelines.

## IMPLEMENTATION CHALLENGES

Most participants are not fully ready for Solvency II, but plan to complete the preparation by the end of 2012. Some reported that they might not be able to meet the deadline.

The main roadblock reported was the quantity and quality of resources, particularly actuarial and risk management resources.

The following graph and the table below show the overall estimated cost and the estimated resource costs to prepare for Solvency II in the United Kingdom.

## CONCLUSION

Overall QIS5 results and participant's comments were positive, but highlighted areas requiring further work. These include:

1. Reducing complexity while appropriately reflecting risks.
2. Refining the calibration of certain risk modules.
3. Development of internal models and transition rules.
4. Developing guidance for ambiguous specifications.

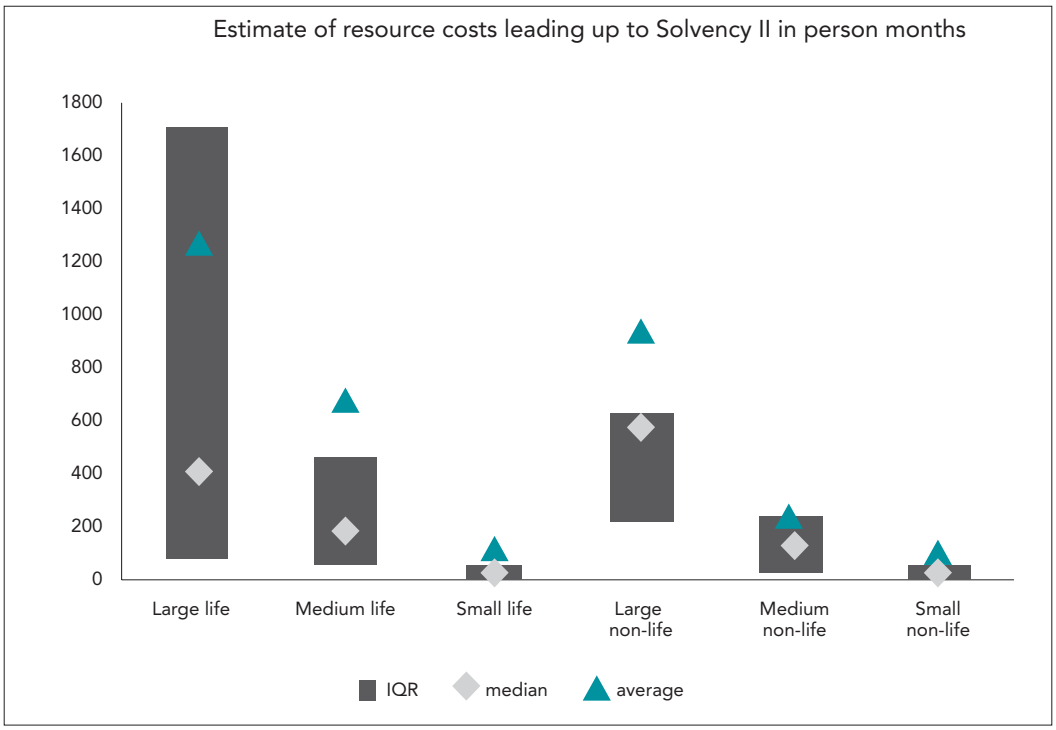


**Figure 6** (Source: FSA UK Country Report: The Fifth Quantitative Impact Study (QIS5) for Solvency II)
Note: the interquartile range (IQR) represents the difference between the 75th and 25th percentiles

The U.S. regulators have initiated a Solvency Modernization Initiative to assess the current U.S. solvency regulation framework in light of international developments in insurance and bank supervision and accounting standards. Along with the implementation of the upcoming IFRS standard for insurance contracts, the introduction of Solvency II in Europe will likely raise standards and expectations around risk and capital management in the U.S. insurance market.

## REFERENCES:


1. EIOPA Report on the Fifth Quantitative Impact Study (QIS5) for Solvency II (March 14, 2011)
2. EIPOA Annexes to the EIOPA report in QIS5 (March 14, 2011)
3. European Commission Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL: amending Directives 2003/71/EC and 2009/138/EC in respect of the powers of the European Insurance and Occupational Pensions Authority and the European Securities and Market Authority (January 19, 2011)
4. FSA QIS5 Workshop Part 1 (July 2010)


### Estimate of resource costs leading up to Solvency II by type in person months

| Average resource costs in person months | Life | | | | Non-life | | | |
|---|---|---|---|---|---|---|---|---|
| | all | large | medium | small | all | large | medium | small |
| Actuarial | 242 | 583.6 | 263.2 | 31.7 | 104 | 244.4 | 78.3 | 14 |
| IT | 140.5 | 320.7 | 156.8 | 26 | 91.7 | 305 | 55.4 | 18.5 |
| Other | 209 | 436.7 | 247.3 | 53.3 | 162 | 380.7 | 118.1 | 33.6 |
| Total | 591.5 | 1341 | 667.3 | 111 | 357.7 | 930.1 | 251.8 | 66.1 |

Table 1 (Source: FSA UK Country Report: The Fifth Quantitative Impact Study (QIS5) for Solvency II)


5. FSA UK Country Report: The Fifth Quantitative Impact Study (QIS5) for Solvency II (March 2011)
6. CEA Insurers of Europe CEA position on the definition of Ring-Fenced Funds under Solvency II (April 13, 2010)
7. CEIOPS Manual for the completion of the QIS5 Spreadsheet (August 27, 2010)

# Report on the International Actuarial Association

By Jim Milholland

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The International Actuarial Association (IAA) held its most recent meeting in Sydney, Australia on April 6-10. As always, the agenda for the meeting was full. The discussions that were of greatest importance to actuaries were those related to activities of the Accounting Committee of the IAA (the Committee) and of the Subcommittee on Actuarial Standards (the Subcommittee) in connection with International Financial Reporting Standards (IFRSs) and the efforts of the IAA to create global convergence of actuarial standards.

## THE ACCOUNTING COMMITTEE AND IFRSs

***Comment Letter***

A major part of the efforts of the Committee relate to activities of the International Accounting Standards Board (the board). In November 2010, the Committee submitted its comment letter on the board's exposure draft "Insurance Contracts" (the ED). The comment letter is a little different from the draft version discussed in the December issue of the *Financial Reporter*. It can be found on the IAA website at *www.actuaries.org/LIBRARY/Submissions/INSACC_IASB_InsuranceContracts.pdf* or it can be found along with 247 other comment letters on the IASB website. (As an aside, the input from actuaries was specifically mentioned by board members in recent discussions on the adjustment for risk. The board has decided to restate the objective for the risk adjustment—if indeed it decides that there should be an explicit adjustment for risk—along the lines suggested by actuaries in the letters from the IAA and from the American Academy of Actuaries.)

***Guidance on the insurance standard***

In anticipation of a final standard by June (this date has since been pushed back to later in 2011), the Subcommittee on Actuarial Standards began planning for the development of guidance to actuaries. Most of the guidance is expected to take the form of practice notes, which are educational in nature and do not serve as professional standards. They are referred to as International Actuarial Notes or IANs. There may be the need for model actuarial standards of practice as well.

The Subcommittee has identified no fewer than 13 topics for IANs. The topics include those that are revisions to existing IAA guidance on IFRS 4, namely:

- Classification of contracts,
- Current estimates,
- Measurement of financial instruments and service contracts,
- Liability adequacy testing,
- Discretionary participation features,
- Changes in accounting policies,
- Reinsurance,
- Embedded derivatives and derivatives,
- Business combinations, and
- Disclosure.

Other topics that would be additions to existing IAA guidance include:

- Discount rates,
- Risk adjustment,
- Subsequent measurement of margins,
- Short-duration methods,
- Transition,
- Presentation, and
- Unbundling.

Some of these topics may be unnecessary once the board has made its final decisions. Nonetheless, it can be seen by just listing the topics that the development of guidance will be a daunting task. There is a greater need for actuaries to participate in writing the IANs than the number of actuaries who have been identified. Readers who wish to help can volunteer by contacting Sam Gutterman at *sam.gutterman@us.pwc.com.*

***Discount rate monograph***

The Subcommittee reviewed a preliminary draft on the monograph on discount rates. The monograph is in a very early stage. It is intended to describe current practices among actuaries when discounting cash flows for financial reporting purposes. It is not intended to serve as guidance related to IFRS in particular, although it will undoubtedly be a valuable resource for actuaries involved in IFRS reporting. It is also intended to cover all actuarial areas of practice, i.e., pension as well as

insurance. The monograph is scheduled for public exposure in July with publication set for September.

***Stochastic modeling book***

The IAA's book on stochastic modeling, which was published with support from the Financial Reporting section, has nearly sold out of the 1,000 copies that were printed. Actuaries who wish to have a hard copy should order one right away to avoid delays associated with waiting for a second printing. Electronic copies can be obtained online at any time without fear of delay, and are free of charge to actuarial students.

***Other monographs***

Anticipation of the IFRS on insurance has led the Subcommittee to discuss whether other monographs may be useful to actuaries. A monograph on risk adjustments seems to have the greatest interest, but the pursuit of another monograph depends on whether there is sufficient interest to attract the support needed to develop a quality document.

## CONVERGENCE OF STANDARDS

The IAA has sponsored a series of meetings of members of actuarial standard setters from around the world to discuss the possibility of moving toward a converged global standard. The roundtable meetings have resulted in a proposal to the Council of the IAA that the process for developing standards be modified to facilitate effective development of standards and to encourage convergence. Convergence will occur when standards of the various actuarial associations that are members of the IAA are congruent with model standards of the IAA. A standard is congruent with a model standard when compliance with the standard would necessarily constitute compliance with the model standard, hypothetically, as if it were in effect. It is important in this context to understand that the IAA is not contemplating a single global set of standards, but rather expects that each member association will continue to have its own set of standards. In fact, having a robust set of standards is a requirement for membership in the IAA. The intent is to have sufficient commonality in standards, at least those that have international relevance, such that actuaries in one part of the world are using consistent practices.

If the Council of the IAA agrees to the proposal, it would form an interim actuarial standards subcommittee (IASCC) to direct the process of standards development. The IASCC would be assisted by specialty teams, one of which is a team to draft standards as needed in connection with IFRS for insurance. The IASCC would report to the Executive Committee of the Council. The Professional Committee would rule on whether the process had been followed.

A special committee has drafted a proposed process for the development of the model standards. The draft proposal defines the roles of the various committees and of the Council of the IAA and it describes the process for involving the member associations. The essential idea is to take the responsibility for developing standards out of the various committees and to place it into the IASCC. The motivation for this change is to create a more effective process with clear accountability.

The procedural changes do not, in themselves, cause greater convergence. Part of the proposal is to make congruence of standards a requirement for member associations.

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The proposals are scheduled for further discussions by the Council in November at the next meeting of the IAA. It is unclear if there will be a vote on the proposals at that time or if the Council will need more time for deliberations. It is also unclear what it would mean for the IASCC to drop the "I word" and no longer be an interim committee. Perhaps this would mean only that the Council was satisfied with the organization and the process and that the structure would become permanent. There were, however, some informal discussions about the possibility that the IASCC would become an autonomous body.

## STANDARDS DEVELOPMENT

In the meantime, standards development continues under the existing process. The current IASP 2 "Actuarial Practice When Providing Professional Services Concerning Financial Reporting under International Financial Reporting Standards" is being revamped into two model standards. The first model standard is a generic one, reflecting the fact that much of IASP 2 could apply to any area in which actuaries practice. The second is a standard on actuaries' involvement in reporting under IFRS. The generic standard is fairly well developed and may be ready for exposure after the November meeting of the IAA. It has not yet been determined if there is in fact a need for an insurance-specific standard. It may be that the guidance in IASP 2 is mostly generic in nature and that there is not sufficient insurance-related content in IASB to form the basis for a new standard. The decision may depend in part on discussions about what model standards are needed to follow on to the new IFRS on insurance when it becomes effective.

## NEXT MEETING

By the time of the next meeting of the IAA in November, the board will have approved the insurance standard. It may not have been published, but the decisions will be known. The Accounting Committee will have the information it needs to chart its course with respect to the insurance standard. The Subcommittee may in fact have a special meeting before the IAA meeting, to kick start its efforts. There will also be a lively debate at the next IAA meeting on the direction for standard setting. ■

# Random Feedback Loop Musings (PBR Feedback Loop)

By Kerry Krantz

The NAIC has asked the Life Actuarial Task Force to develop a white paper describing a principle-based reserve (PBR) feedback loop. The PBR Process and Coordination subgroup chair requested assistance from the American Academy of Actuaries. The Academy formed a Feedback Loop Task Force, and I am its chairperson. In an attempt to start a conversation on LinkedIn, a professional networking site, I posted the following message:

"1/18/11 PBR Feedback Loop

This is a request from the Life Actuarial Task Force for assistance from the American Academy of Actuaries to develop the concept of a PBR Feedback Loop. The assistance should include a discussion of the following areas:

1. The goals of a feedback loop;
2. The type and frequency of data collection;
3. How a feedback loop can provide regulators and industry with the information to determine if the PBA methodology is working as intended, or is in need of modification; and
4. The practical and effective implementation of a feedback loop."

So far, we have enjoyed a productive response and discussion on LinkedIn.

Decades ago when I was a recently hired valuation actuary (before appointed actuaries), one of my assistants asked two questions on each valuation date, "What did we do last time?" and "Should we still be doing that?" I then asked, "If not that, what should we do?" and "What should we start doing that we have not been doing?" My boss's boss, the CEO and an FSA, asked, "Why did that happen?" and "What, if anything, should we do about it?"

My idea of a feedback loop is to provide answers to those questions.

Most of the work on principle-based reserves has been to develop valuation requirements and financial reporting disclosures. My contribution to the PBR process and coordination subgroup of LATF has been to discuss peer review, which was not adopted, and changes needed to statement blanks and examiner and analyst handbooks to implement PBR. One major loose end is the analysis of increase in reserve. The adoption of a separate exhibit breaking out interest sensitive products several years ago was a good first step to understanding reserve changes. It is important for a company to understand the components that cause a reserve to increase or decrease, and the feedback loop should help.

The feedback loop should start with the initial assumption setting and conclude with an understanding of the factors that caused the reserve to change. One of the first steps should be to list the elements that cause the reserve to change as part of an actual to expected analysis. Reserves for existing business should be rolled forward, at appropriate levels of granularity, and actual to expected components (shown below) should be analyzed:

- persistency, including the change in insured demographic;
- actual mortality as a cost of insurance compared to average implied COI (with a reasonableness comparison to rates charged);
- average implied interest credited rates compared to crediting rates; and
- the impact of actual to expected new business in terms of insured demographic.

Those are basic comparisons that could be tested during an examination. In planning a risk-focused examination, the quality of the analysis would be used to determine residual risk. The actuarial examiner would then identify the management of risks as strong, moderate or weak.

The insurance department analyst who reviews a financial statement will maintain the domestic insurer profile summary. The field examiners will prepare examination planning memoranda, conduct C-level interviews, determine residual risk, and perform substantive testing. A feedback analysis could determine part of the content of their review. For the sake of brevity, I have left out a discussion of stress testing (including analysis of the development of margins added to best estimate assumptions), PBR valuation manual disclosures, infor-

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*Kerry Krantz, FSA, MAAA, is Financial Reporting Section web liaison and chair of the American Academy of Actuaries Feedback Loop Task Force.*

The Working Group is fully aware of the immense efforts by the Life Actuarial Task Force in completing its work for the initial version of the Valuation Manual, and recognizes there could be further changes adopted. …

mation to be provided to an independent experience agent, risk-based capital, and long-term forecasting analysis. Part of a future discussion will also include identifying proprietary (confidential) information and non-proprietary (public) information that will be useful to examiners and analysts.

The PBR feedback loop has been part of industry discussions in the past few months. Below are a few letters on the topic.

The following letter is from the International Accounting Standards (EX) Working Group agenda at the NAIC meeting in Austin. Larry Bruning defined a PBR Feedback Loop in a letter dated Dec. 15, 2010.

- "The feedback loop should provide information on how well the process of valuing insurance risk is being performed and how the valuation should be improved. The Life Actuarial Task Force (LATF) should consider the types of data that should be collected, the companies that should submit data, the best way to collect and analyze the data, and who should do the work.
- "LATF intends to develop a white paper to address various aspects of the PBR feedback loop. The white paper will include a section on stress testing consistent with the desires of the Working Group. It will also include a discussion of information that is required for reporting purposes, who will review it and when. To this end, LATF has appointed the Valuation Manual (VM) PBR Feedback Subgroup chaired by South Carolina to develop this white paper.
- "If the PBR and feedback loop changes are adopted, new information will need to be collected and related examiner and analyst procedures will need to be defined and added to the Financial Condition Examiners Handbook and the Financial Analysis Handbook(s). Annual Statement Instructions will need to describe both public and confidential exhibits that will be filed by each company."

The following excerpt is from Commissioner Adam Hamm (ND), in a letter distributed to Technical Group Chairs on March 7, 2011.

"The Working Group is fully aware of the immense efforts by the Life Actuarial Task Force in completing its work for the initial version of the Valuation Manual, and recognizes there could be further changes adopted by the Task Force after the NAIC's impact study is completed by Towers Watson. Having said that, I fully anticipate the NAIC membership adopting a Valuation Manual during the later part of 2011, thus laying the groundwork for states to consider adoption of the revised Standard Valuation Law in 2012."

The following is a letter pertaining to the Statistical Agent Process Chair Approach, dated March 26, 2011. "LATF is currently working on a white paper in which they intend to outline how they believe a FAWG like feedback loop process could work and intend to discuss how stress testing could be performed without a centralized database."

I hope this article provides an introduction to the PBR feedback loop being discussed. I welcome any comments and feedback you may have. ■

# The Home Stretch

By Henry Siegel

Many people have described the past three months as the home stretch for the International Accounting Standards Board's (IASB's) insurance contracts project. This reminded me of some of my favorite quotes about horse racing. Probably the most actuarial of them is the Damon Runyon quote: "The race is not always to the swift, nor the battle to the strong, but that's the way to bet." My other favorite "actuarial" quote is anonymous, but it's particularly relevant to actuaries who are in the risk management business: "Never bet on a sure thing unless you can afford to lose."

These quotes are particularly apt as the IASB and FASB discuss their major remaining issues at the same time that the International Association of Insurance Supervisors (IAIS) is trying to finalize their principles for international statutory accounting. The International Accounting Standards Board (IASB) is trying to finish its standard by June of this year. To do so they have undertaken a schedule that is incredibly tight and demanding. They have the "strength" to get it done, but the results are still uncertain. You'll see from the long description below that they have tackled most of the major issues, but have still not reached conclusions on many of them. I still think the smart money is to bet that the IASB will finish by the end of June, but it is by no means a done deal.

At the same time, the IAIS is trying to finish their principles for accounting. At one time they thought they would simply adopt IFRS, but the delays in getting IFRS finished have led them to proceed along their own path. While many of the principles that they have adopted are similar to where the IASB will come out, there are differences. Probably the most major difference is that the IASB does not allow a gain at the issue of the contract while the IAIS does. The IASB decided some time ago after pressure from the industry that gains at issue made no sense. It's not clear why the IAIS feels differently.

A major concern for U.S. insurers is that the IAIS principles would essentially make it impossible for the NAIC to retain its current statutory accounting system. This would have major implications not only for solvency regulation, but potentially for taxation as well. Again, it might be too far down the road, too far in the home stretch, for the IAIS to reverse itself. The implications of such a statutory accounting system could be very material for all U.S. insurers.

The remainder of this article discusses what the IASB and FASB have been talking about during the first quarter of 2011. It will be interesting to see how different the results that emerge from the subsequent three months are from where we are at the end of March.

## JANUARY

In January, the IASB and FASB began to reconsider the insurance contracts project. While they made no decisions, there were two education sessions.

1. They discussed the feedback received in the comment letters on the IASB's exposure draft Insurance Contracts (ED) and the FASB's discussion paper Preliminary Views on Insurance Contracts (DP).
2. The boards had invited three guest speakers to discuss potential methods for calculating discount rates for non-participating insurance contracts. Both boards had proposed a bottom-up determination of the discount rate that starts with a risk-free interest rate and adds an adjustment for illiquidity. The guest speakers provided presentations on, as an alternative, various top-down approaches that start with the return on a specified portfolio of assets and then deduct components that do not reflect the characteristics of the insurance liability being measured. The approaches discussed were:
   i. Economic Default Adjusted Discount rate (EDAR), speaker: Rob Esson, National Association of Insurance Commissioners (NAIC) and the International Association of Insurance Supervisor (IAIS);
   ii. Reference asset portfolio-based discount rate, speakers: Francesco Nagari and Andrew Smith, Deloitte LLP;
   iii. Asset-linked discount rate, speaker: Nick Bauer, Eckler Ltd.

By the end of the quarter, the question of how to calculate the discount rate had become one of the two or three most important outstanding issues.

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## FEBRUARY

**February 1-2 Meeting**

The IASB and FASB discussed how insurers should account for acquisition costs for insurance contracts. The boards tentatively decided that the contract cash flows should include those acquisition costs that relate to a portfolio of insurance contracts. This was supported by all IASB board members present and by three of the FASB board members. Previously, the boards had proposed measuring acquisition costs at the contract level which was much more limited.

The boards discussed whether acquisition costs included in the initial measurement of the cash flows should include only those associated with successful selling efforts. All FASB board members tentatively supported this approach as included in their recently adopted Accounting Standard Update (ASU). The IASB did not reach a consensus on this issue, but it was clear that a difference between the boards exists on this issue.

**February 11 Education Session**

William Hines and Steve Strommen of the American Academy of Actuaries presented an education session to the FASB on discount rates for insurance contract liabilities. This presentation was based on a paper written by the Academy and published in late 2009. This presentation was well received by FASB whose members seemed to agree with many of the points being made. The presentation can be found on the Academy website:
*http://www.actuary.org/pdf/risk/FASB_presentation_Feb_3_2011.pdf*
The earlier paper can be found at:
*http://www.actuary.org/pdf/finreport/discount_091509.pdf*

**February 15-18 Meeting**

Before discussing insurance contracts, the board discussed the general topic of measuring items with uncertainty. This subject is germane to several board projects including insurance, revenue recognition, and leases. Following this, the boards discussed and made tentative decisions on several major issues on the insurance contracts project.

The IASB and FASB continued their discussions on insurance contracts by considering project axioms and assumptions, the discount rate for non-participating contracts, the cash flows included in the model, explicit risk adjustment, the recognition of gain or loss at inception, unlocking the residual or composite margin and a refresher on the presentation models.

**Project axioms and assumptions**

The boards tentatively confirmed the axioms and assumptions (listed below) that will underlie the development of the project's future direction. Those axioms and assumptions will provide a common understanding of the factors that will influence the staff in their analysis and will be a starting point for further decisions. In addition, the IASB noted that the model would be developed on the assumption that the financial assets backing the insurance contracts would be measured in accordance with IFRS 9 *Financial Instruments*. The IASB has no current plans to change the classification and measurement requirements in IFRS 9, but this changed a bit later in the quarter.

**Axioms**

- *An ideal measurement model would report all economic mismatches (including duration mismatches) that exist and would not cause any accounting mismatches.*
- *An ideal accounting model should reflect both the intrinsic value and time value of options and guarantees embedded in insurance contracts.*
- *Money has a time value and an entity more faithfully represents its position when it measures its liabilities in a way that includes the time value of money.* Nevertheless, many P&C companies worldwide do not support discounting of claim reserves.

**Assumptions**

- *The boards will develop a standard for insurance contracts, rather than requiring current or proposed generic standards that might otherwise apply.*

- *The standard will deal with the accounting for insurance contracts from the perspective of the insurer, and not for the assets backing the contracts*

*or for the entities that issue those contracts. For the IASB, the financial assets backing the contracts would be measured in accordance with IFRS 9.*

- *The boards will develop a standard based on an accounting model that regards insurance contracts as creating a bundle of rights and obligations that work together to generate a package of cash inflows and outflows.*
- *In general, the final standard will measure insurance contracts at the portfolio level.*
- *The accounting model should be based on current estimates, rather than carrying forward estimates made at contract inception, and inputs that are consistent with observable market data, where available. This assumption is potentially problematic since it may preclude use of an Other Comprehensive Income (OCI) approach to dealing with discount rate volatility, as was subsequently discussed during March.*
- *The cash flows incorporated in the measurement of the insurance liability are those that will arise as the insurer fulfils the insurance contract.*
- *The model will use the expected value of future cash flows rather than a single, most likely outcome. This means that the values should be a mean rather than either a mode or a median.*
- *The measurement of the liability will not reflect changes in the insurer's own credit standing.*

All IASB and FASB members supported these axioms and assumptions, noting that the axioms and assumptions will be revised if necessary.

**Discount rate for non-participating contracts**

The boards tentatively decided to confirm the approach in the ED and the DP that the objective of the discount rate is to adjust the future cash flows for the time value of money and to reflect the characteristics of the insurance contract liability. Exactly what this means remains somewhat unclear.

The boards tentatively decided not to prescribe a method for determining the discount rate and that the discount rate should:

- be consistent with observable current market prices for instruments with cash flows whose characteristics reflect those of the insurance contract liability, including timing, currency and liquidity, but excluding the effect of the insurer's non-performance risk;
- exclude any factors that influence the observed rates, but that are not relevant to the insurance contract liability (e.g., risks not present in the liability but present in the instrument for which the market prices are observed, such as any investment risk taken by the insurer that cannot be passed to the policyholder); and
- reflect only the effect of risks and uncertainties that are not reflected elsewhere in the measurement of the insurance contract liability.

All IASB and FASB members supported those decisions, but further discussions would be held on exactly how this would be accomplished.

**Cash flows included in the model**

The boards discussed the proposed requirement that an insurer should measure an insurance contract using an explicit, unbiased and probability weighted estimate (i.e., expected value) of the future cash outflows, less future cash inflows, which will arise as the insurer fulfils the insurance contract.

In relation to **expected value,** the boards tentatively decided to clarify:

- that the measurement objective of expected value refers to the mean that considers all relevant information; and
- that not all possible scenarios need to be identified and quantified provided that the estimate is consistent with the measurement objective of determining the mean.

In relation to costs included in fulfillment cash flows, the boards tentatively decided:

- to clarify that all costs that an insurer will incur directly in fulfilling a portfolio of insurance contracts should be included in the cash flows used to determine the insurance liability, including:
  - costs that relate directly to the fulfillment of the contracts in the portfolio, such as payments to policyholders, claims handling, etc.;

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The ED and the DP proposed that discounting should be used in the measurement of all insurance liabilities.

- costs that are directly attributable to contract activity as part of fulfilling that portfolio of contracts and that can be allocated to those portfolios; and
- such other costs as are specifically chargeable to the policyholder under the terms of the contract; and

• to confirm that costs that do not relate directly to the insurance contracts or contract activities should be recognized as expenses in the period in which they are incurred.

The majority of IASB members (one voted against) and the majority of FASB members (one voted against) supported this decision.

**Explicit risk adjustment**
The ED proposed to include an explicit risk adjustment in the measurement of an insurance liability. The DP did not include an explicit risk adjustment in the measurement of an insurance liability. The boards tentatively decided that, if there are techniques that could faithfully represent the risk inherent in insurance liabilities, the inclusion of an explicit risk adjustment in the measurement of those liabilities would provide relevant information to users.

**The recognition of gain and loss at inception**
The boards tentatively confirmed as included in the ED and the DP that an insurer should not recognize any gain at inception of an insurance contract. The boards also tentatively confirmed that an insurer should recognize any loss on day one immediately when it occurs, in profit or loss (net income).

**Education session on unbundling**
The purpose of this education session was to give the boards information on the effect, costs and benefits of unbundling. The external presenters were Gail Tucker and Sam Gutterman from PricewaterhouseCoopers and Leonard Reback from MetLife.

## MARCH

**March 1-2 Meeting**

**Effective dates and transition methods**
In October 2010, the boards each published a document requesting views about the time and effort that will be involved in adopting several new standards (including insurance contracts) and when those standards should be effective. Following discussion, the boards indicated that they would determine the effective dates for the projects by taking into account the significance of the accounting changes required, the methods of transition and the time needed for stakeholders to apply the new requirements. No specific date was decided upon for insurance.

**Insurance contracts**
The IASB and FASB continued their discussions on insurance contracts by considering the following subjects: locking-in the discount rate, discounting non-life contract liabilities, scope, financial guarantee contracts, and acquisition costs.

*Locking in the discount rate*
The boards tentatively confirmed the proposal in the ED and the DP that the discount rate used to measure all insurance contracts should be a current rate that is updated each reporting period (i.e., not to lock-in the discount rate for any insurance contract).

*Discounting non-life contracts*
The ED and the DP proposed that discounting should be used in the measurement of all insurance liabilities. The boards tentatively decided to require discounting for all non-life long-tail claims. All IASB and FASB members present supported this decision. The boards tentatively agreed that discounting of insurance liabilities should not be required when the effect of discounting would be immaterial. Many P&C companies worldwide still oppose this position.

*Scope*
The boards tentatively confirmed the standard should exclude from its scope some fixed-fee service contracts that have as their primary purpose the provision of services. The boards will consider in a future meeting how to identify such contracts. The boards tentatively confirmed all the other scope exceptions that had been proposed by the ED/DP.

*Financial guarantee contracts*

The IASB's ED proposed that the insurance contracts standard would apply to all financial guarantee contracts, as defined in IFRSs. However, at this meeting, the IASB tentatively decided:

a) to retain the existing approach in IFRSs that:
   i) permits an issuer of a financial guarantee contract (as defined in IFRSs) to account for the contract as an insurance contract if the issuer had previously asserted that it regards the contract as an insurance contract; and
   ii) requires an issuer to account for a financial guarantee contract (as defined in IFRSs) in accordance with the financial instruments standards in all other cases.
b) it would not create an exception from the accounting for financial guarantee contracts for intra-group guarantees.

The FASB decided to consider this subject at a future meeting.

*Acquisition costs*

The boards continued their discussion on how insurers should account for acquisition costs. The FASB tentatively decided that the acquisition costs included in the cash flows of insurance contracts will be limited to:

a) those costs related to successful acquisition efforts; and
b) direct costs that are related to the acquisition of a portfolio of contracts.

The IASB tentatively decided that the acquisition costs to be included in the initial measurement of a portfolio of insurance contracts should be all the costs that the insurer will incur in acquiring the portfolio, including costs that relate directly to the acquisition of the portfolio, such as commissions. No distinction would be made between successful efforts and unsuccessful efforts.

**March 14-15 Meeting**

The IASB and FASB continued their discussions on insurance contracts by considering the following topics: alternative presentation models, allocation of the composite margin in profit and loss, whether the boards should permit or require a practical expedient for the discount rate, education sessions on the risk adjustment and on an alternative approach to deriving a discount rate, the discount rate for participating contracts, the timing of initial recognition and the definition of an insurance contract.

**Alternative presentation models**

The boards discussed several presentation approaches for the performance statement for insurers. The boards directed the staff to seek input on these approaches from the Insurance Working Group and from other users of insurance financial statements to help the boards to understand which approaches are most likely to meet the needs of users and whether those approaches would cause practical difficulties for the preparers of the financial statements.

**Practical expedient for the discount rate**

The boards discussed whether a practical expedient should be provided for determining the discount rate for a particular subset of entities. The boards tentatively decided not to provide a practical expedient for determining the discount rate.

**Discount rate for participating contracts**

The boards discussed the discount rate for insurance contracts that contain participating features. The boards tentatively decided to:

a. clarify that the objective of the discount rate used to measure participating insurance contracts should be consistent with the discount rate used to measure non-participating insurance contracts, and
b. provide guidance that to the extent that the amount, timing or uncertainty of the cash flows arising from an insurance contract depend wholly or partly on the performance of specific assets, the insurer should adjust those cash flows using a discount rate that reflects that dependency.

**Recognition**

The boards tentatively decided that insurance contract assets and liabilities should initially be recognized when the coverage period begins, and to require the recognition of an onerous contract liability in the pre-coverage period if management becomes aware of onerous contracts in the pre-coverage period. This was

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contrary to the position in the ED and was based on a FASB staff recommendation.

**Definition of an insurance contract**
The ED and the DP proposed to define an insurance contract as "a contract under which one party accepts significant insurance risk from another party by agreeing to compensate the policyholder if a specified uncertain future event adversely affects the policyholder." The boards tentatively decided to confirm the proposal in the ED and DP that:

a. an insurer should consider the time value of money in assessing whether the additional benefits payable in any scenario are significant, and
b. a contract does not transfer significant insurance risk if there is no scenario that has commercial substance in which the insurer can suffer a loss, with loss defined as an excess of the present value of net cash outflows over the present value of the premiums.

**Education session on the risk margin**
The boards heard a presentation on how in practice a risk margin is calculated using a cost of capital approach and the linkage to the determination of the best estimate liabilities. The external presenter was Joachim Oechslin from Munich Re.

**Education session on an alternative approach to deriving a discount rate**

The IASB and FASB invited guest speakers to present an approach that derives a yield curve for a discount rate for all cash flows expected at a given duration by:
- identifying those liability cash flows that are matched in duration with the cash flows from the insurer's existing asset portfolio,
- considering the reinvestment needs for cash flows that are not matched in duration, and
- considering the effect of options and guarantees embedded in the liabilities.

The external presenters were Jean-Michel Pinton and Baptiste Brechot from CNP Assurances and Eric Meistermann from Deloitte.

**March 21-23 Meeting**
The IASB and FASB continued their discussions on insurance contracts by considering the following topics: unbundling, objective of the risk adjustment, discount rate for ultra-long contracts, practical implementation of the risk adjustment and the contract boundary for insurance contracts.

*Unbundling*
The boards discussed the objectives for separating insurance contracts into non-insurance components and insurance components. The boards made no decision on the subject.

The boards did confirm that an insurer should account separately for embedded derivatives that are contained in a host insurance contract that is not closely related to the embedded derivative.

*Objective of the risk adjustment*
The boards tentatively decided:
- to remove references in the objective of the risk adjustment proposed in paragraph 35 of the ED to "the amount the insurer would rationally pay to be relieved of the risk" and to a "maximum amount." As a result, the objective of the risk adjustment would be as follows:

  "The risk adjustment shall be the compensation the insurer requires to bear the risk that the ultimate cash flows could exceed those expected," and

- to provide application guidance that this amount would reflect both favorable and unfavorable changes in the amount and timing of fulfillment cash flows.

This change reflects strong comment from the actuarial profession and, when the wording is clarified, will be an important step towards making this guidance more operational.

**Discount rate for ultra-long duration contracts**
The boards discussed the effects of changes in the discount rate where the yield curve is extended beyond observable market prices—so-called "ultra-long duration" contracts.

The boards indicated that they did not want the staff to develop a separate approach that deals solely with changes in the discount rate for this particular type of contract.

**Risk adjustment education session**

The IASB and FASB invited guest speakers to continue the education session from March 15, 2011 on explicit risk adjustment. The purpose of this education session was to give the boards information on how a risk margin is calculated in practice, by using a probability of sufficiency approach (akin to a confidence interval) for financial reporting in Australia and a cost of capital approach to report under Economic Value Management (EVM).

The external presenters were Tony Coleman from Lonergan, Edwards and Associates, and Mark Swallow and Leopoldo Camara from Swiss Re.

**Contract boundary**

The boards tentatively decided that:

1. Contract renewals should be treated as a new contract:
   a. when the insurer is no longer required to provide coverage, or
   b. when the existing contract does not confer any substantive rights on the policyholder.
2. A contract does not confer on the policyholder any substantive rights when the insurer has the right or the practical ability to reassess the risk of the particular policyholder and, as a result, can set a price that fully reflects that risk.
3. In addition, for contracts for which the pricing of the premiums does not include risks relating to future periods, a contract does not confer on the policyholder any substantive rights when the insurer has the right or the practical ability to reassess the risk of the portfolio the contract belongs to and, as a result, can set a price that fully reflects the risk of that portfolio.
4. All renewal rights should be considered in determining the contract boundary whether arising from a contract, from law or from regulation. All IASB and FASB members supported this decision.

**March 25 Insurance Working Group Meeting**

At the Insurance Working Group meeting there were three primary topics. The first topic was the discount rate that should be used for non-participating contracts. The second topic was presentation. The third topic was whether the residual/composite margin should be unlocked for changes in assumptions about the future.

The first topic concerned how one should do a top-down discount rate. The basic issue concerned whether the discount rate should reflect the assets held by the insurer or not. The industry representatives at the table asserted that it should reflect the assets supporting the liability. The board and staff, however, insisted that the discount rate should not reflect the assets supporting the liability.

With regard to presentation, the preparers at the table urged that companies should be allowed to use OCI to offset changes in asset and liability values due to changes in interest rates. Board members and staff again insisted they would not be opening IFRS 9 so that OCI for assets would not be available.

There was general agreement around the table that allowing the residual/composite margin to offset changes to assumptions made sense. Staff will be preparing a new paper to discuss this issue further.

By the time you read this it is likely that the IASB will have adopted a new standard for insurance contracts. Exactly what that standard will look like is still unclear. Furthermore the FASB will still be working on their standard and is not likely to adopt an exposure draft for at least an additional month.

Once the IASB has developed their own standards then the two boards, if there are differences, will need to converge them. Whether this will be successful or not still remains to be seen. The actions of the SEC will also be important in determining the final outcome of the project.

**Nevertheless:**

***Always remember, insurance accounting is too important to be left to the accountants!*** ■

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