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smalltalk

Complying with the Actuarial Opinion and Memorandum Regulation in 2011: Which Interest Rate Scenarios are “Moderately Adverse”?

By Robert W. Guth, Mark C. Rowley and Donald M. Walker

This is a follow-up article to the article that appeared in the June 2011 edition of smalltalk. An update to that article is clearly needed since, from an economic standpoint, it seems the world has changed dramatically in just a few months.

Analysis by Reasonable Actuaries

At the end of July this year many economists were amazed by how the 10-year Treasury rate had plummeted to 3 percent. A month later it was 2 percent. As this article is being written it is still about 2 percent after a low of 1.72 percent on Sept. 22, 2011.

Does this mean that the Japan scenario should be given a higher probability? Many prognosticators would say yes. In Japan, for late September 2011, the 10-year treasury is 1 percent and the 30-year treasury is 1.92 percent.

In June we argued that the level scenario was an extreme scenario, and we still agree with this. We still believe that the probability that rates will stay at today’s historically low rates for 30 years is very low. However, we do believe that recent economic events mean that the scenarios referenced in our June article (labeled baseline, moderately adverse and extreme) should be modified. We place a

larger probability on rates staying low for longer periods of time, but still place close to zero probability on rates staying low for 30 years.

The overhang of a sluggish housing market and the potential of government deleveraging by cutting expenses or raising taxes point toward an extended period of low interest rates. An alternative scenario might occur if the government chooses inflation as a means to deleverage. In that case, interest rates might rise rapidly and much more than we expect.

A look at history is instructive. Monthly average three-month Treasury bills, at the secondary market rate, were 0.15 percent in summer 1934. In November 1938 they fell to 0.04 percent, a rate the same as May to July 2011. They did not rise to 1.00 percent until February 1948, almost 10 years later. They rose to 2.09 percent by December 1952, to 3.21 percent by December 1956, to 4.04 percent by September 1959, and to 5.37 percent by September 1966. The peak was 16.30 percent in May 1981. The monthly average was last above 1 percent in September 2008 at 1.13 percent, three years ago. This history shows rising rates that rose only 1 percent over 10 years, or maybe 1 percent per four years after a level period of 10 years.

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From the Editor

There Is a Lot Going on for Small Company Actuaries

By Michael L. Kaster

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Can you believe the year that has just finished? By the time you are reading this article, it will be the year 2012, and 2011 will be in our rearview mirror. So much has happened in the past 12 months, and so many things are impacting the working lives of small company actuaries. As I am writing this article, interest rates are remaining at historic lows. Have the last few months seen an improvement here? No way for me to know as I am writing this, but I will tell you that whatever has happened, I suspect there are still many challenges we all face.

Within this edition of *smalltalk* there are several articles that we hope you will find of assistance to you in your daily work. Small company actuaries do not have the luxury of excess time (well, really, does anyone?). But within this edition, you will find several gems that we hope you find useful.

- Need some thoughts on “Complying with the Actuarial Opinion and Memorandum” in today’s low interest rate environment? Well, three section council members continue their discussion on this topic. This is very thought-provoking.

- Do you find yourself struggling with ways to manage your actuarial models and systems? Trevor Howes has authored “Managing Model Risk” for this edition.
- There are several articles from our outgoing chairperson and incoming chairperson sharing their perspectives on what is going on with the section and small company actuaries. Look for Sharon Giffen’s and Jerry Enoch’s articles in the coming pages.
- Several months ago, there was a webcast on Managing Actuarial Functions sponsored by the Smaller Insurance Company Section. Erik Gravelle, a section council member, has done a very nice job of summarizing that webcast. I think you will find his summary very useful.
- The 2008 SOA Expense Study has been completed, and Steve Siegel of the SOA staff has summarized that study for our benefit.
- Mortality estimation is always a challenge, especially with limited resources. Jim Palmier, M.D.

and Brian Lanzrath of ExamOne offer up one company's approach to measuring alternative drivers to mortality.

- Finally, Norm Hill continues his ongoing updates and perspectives from recent NAIC meetings, as well as an update on PBR.

One initiative of the Smaller Insurance Company Section Council for 2012 will be accomplished through the efforts of the Low Interest Rate Environment Subcommittee. Recently they wanted to share with you some resources that you may find of benefit. Their suggestions for some useful sources include the following:

- The FRED2 database of the St. Louis Federal Reserve has historical interest rate history and economic data for many decades. The site is <http://research.stlouisfed.org/fred2/> where one selects "Interest Rates" and "Treasury Constant Maturity" or many other choices.
- The Federal Reserve recent interest rates are published daily and weekly in the H15 statistical report at <http://www.federalreserve.gov/econresdata/releases/statisticsdata.htm> where one selects H15, weekly or daily, under Interest Rates.

- Many current economic statistics are at the WSJ Market Data Center, which is partly free for the public. Go to <http://online.wsj.com/mdc/public/page/marketsdata.html> for more information.
- Another related source of economic news is www.marketwatch.com with news articles and podcasts available.
- Many similar news articles or economic statistics are available from *Bloomberg News* at www.bloomberg.com where one can select Markets, Government Bonds to see current Treasury yields. Podcasts are available at Bloomberg that educate one about economic issues each day.
- The NAIC has information about the Life Actuarial Task Force. Visit http://www.naic.org/committees_a_latf.htm. Information about RBC requirements is at http://www.naic.org/committees_e_capad_lrbc.htm.
- The American Academy of Actuaries has NAIC life reports at <http://www.actuary.org/naic/life/>.
- The current Moody's Corporate Bond rate is found at http://www.naic.org/research_moody.htm. One can also Google the words "MOODCAVG" and Bloomberg for the latest daily value and history graphs. ●

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Chairperson's Corner

Reflections from the Outgoing Chair

By Sharon Giffen

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At the end of my term as chair of the section, I am taking the traditional opportunity to reflect on the progress that your council has made over the past three years. As an overall comment, I would say that I have been very impressed by the productivity of a small group of people who share a passion for sharing.

The first major issue I recall addressing on the council was the dilemma of timely communications. We thought about how and what we communicate with members. An issue we face is that the newsletter has a fairly long lead time, so does not lend itself to time-sensitive communication. To address this issue, we initiated blast emails for communication of events or issues that are time-sensitive, particularly updates from the NAIC meetings, and progress on principle-based approach issues. Further, the print version of the newsletter was the single largest discretionary cost to the section, and was eroding our bank account at a somewhat alarming rate. So, we converted to electronic-only distribution of *smalltalk*. To those who prefer paper, we apologize, but this was a financial decision.

Sponsoring webcasts, starting a couple of years ago, was a highly successful initiative. Our topics have a focus on issues relevant to smaller insurance companies or a small company perspective on industry issues. Each December we have co-sponsored a webcast on year-end

issues; and in 2011, we added three additional events, covering ASOP 41, experience studies and management issues. In 2012, we are planning three more, to cover enterprise risk management and the current low interest rate environment, and our professionalism topic will address the ASOPs related to cash flow testing. Not only do our members find the webcasts valuable; these have also contributed significantly to reversing the decline in our bank account.

Your council and friends of the council have had a face-to-face meeting each September where we spend a day dedicated to planning for the following year. This meeting gives us the chance to really escape our daily jobs and to focus on a consideration of the needs of our members. This year, we did a strengths, weaknesses, opportunities and threats (SWOT) analysis for the section—the output of that discussion is the foundation of an article in this edition of *smalltalk*.

Additionally, in 2011, we established a small working group to look at the various implications of the current low interest rate environment. This topic is on everyone's mind, and will form a focus for us for as long as it is necessary. You will see an article in this edition of *smalltalk*, and we will be planning sessions at meetings, further articles and a webcast on this topic. Please feel free to join the conversation.

Over the course of the last three years, we have also turned around our finances—as noted above, the section had been losing money annually for several years. We are a small section, and simply funding the print version of the newsletter and a hot breakfast at the annual meeting was eating through our financial resources. By reducing our costs, and by finding a new source of revenue from webcasts, we are at last in the position of being able to decide how to best deploy those funds. And for that, we look forward to input from members at our breakfast meeting and buzz groups. Both of these forums are designed to maximize the opportunity for interaction

and discussion. We all benefit from the collective wisdom of the members.

I cannot emphasize enough the value of interactive opportunities—be they at Society of Actuaries (SOA) meetings and seminars, local actuarial clubs or through online forums. Please make use of the resources offered—you are the reason we create them! Also, in keeping with the SOA's theme of volunteerism, please join us—as a volunteer, as a friend of the council, as a presenter. There is a role for anyone; whatever your talent, we need you. We are all better together. ●

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A longer look at history, such as 1871 to 2011, might suggest that interest rates drift up or down in long cycles of 15 to 35 years. The decline from 1980 to 2011 follows an increase from 1940 to 1980. An interesting question is which past decades, if any, are most relevant to look at to give us a sense for what the future will hold.

The Need for a New Baseline

The baseline scenarios identified in the June article were:

1. Level for three years, and then rises while flattening over the next five years.
2. Start with today's yield curve, and then grade this to a "normal" yield curve over three years.
3. Use the forward rates that can be derived from today's yield curve.

Today we would suggest the following:

1. Level for five years, and then rising one to two percentage points while flattening over the next five years.
2. Start with today's yield curve, and then grade this to a "normal" yield curve over five to 10 years.
3. Use the forward rates that can be derived from today's yield curve.
4. A slow increase in rates starting in 2013, with the yield curve flat in 2016 at rates between 5 and 6 percent.

The moderately adverse scenarios identified in the June article were:

1. Level for five years, and then rises while flattening over the next five years.
2. Start with today's yield curve, and then grade this to a "normal" yield curve over five years.

Today we would suggest the following:

1. Level for 10 years, and then rising while flattening over the next five to 10 years.
2. Start with today's yield curve, keep rates level for five years, and then grade this to a "normal" yield curve over five to 10 years.

The extreme scenarios identified in the June article were:

1. Level for 10 years, and then rises while flattening over the next five years.
2. Start with today's yield curve, and then grade this to a "normal" yield curve over 10 years.

Today we would suggest the following:

1. Level for 15 years, and then rising while flattening over the next five to 10 years.
2. Start with today's yield curve, keep rates level for 10 years, and then grade this to a "normal" yield curve over five to 10 years.
3. Start with today's yield curve, wait three years, and then grade up 1 percent per year for 10 years in case of significant government inflation.

A baseline scenario is one that should be tested in asset adequacy analysis, and would also often be used as the first scenario run for internal financial projections. As we stated in June, it is our professional responsibility to run even extreme scenarios and discuss their results in the actuarial memorandum.

Another observation is that if you are trying to construct a scenario that grades into a "normal" yield curve, you have to decide what normal is. Right now it would seem very difficult to identify "normal"! Perhaps the best you can do is calculate the average yield curve over some historical period, such as 10, 20 or 30 years. It is also possible that future yield curves will be more like rates in 1950 to 1980 rather than 1980 to 2010.

Practical Considerations

All valuation actuaries should consider the following:

- Run the level scenario (regardless of whether you need to pass it). It's important to know how bad it is!
- Run a modified level scenario based on the Dec. 31, 2011 yield curve if your company uses Sept. 30, 2011 as its starting point for projections. The scenario should start with the Sept. 30, 2011 yield curve and revert to the Dec. 31, 2011 yield curve after three months, then stay level at the Dec. 31, 2011 curve. This caters to the situation where the dip in rates is temporary (like it was in 2010).
- Instituting a monthly cash flow testing (CFT) run where you take the Sept. 30 projection from the prior year and run it against a scenario where the yield curve changes monthly, following actual rates, up to current time, then stays level. It can be used to estimate changes in the additional asset adequacy reserve from month to month. It will be interesting to compare the Sept. 30, 2010 projection, rolled forward 12 months, with the Sept. 30, 2011 projection (which has 12 additional months of new business, actual lapses, surrenders and claims, and actual asset purchases).
- An interest rate scenario that stays level for 10 years might

"A longer look at history, such as 1871 to 2011, might suggest that interest rates drift up or down in long cycles of 15 to 35 years."

produce results as adverse as one that stays level for 30 years, depending on a company's mix of business and asset-liability management.

Some states may still be inclined to require a "pass" on the level scenario. It will be interesting to see if any regulators backed away from that requirement for year-end 2011.

We hope that your asset adequacy results for 2011 are very favorable, but certainly expect many companies will have to hold extra reserves once again. ●

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An Essential Place for Small Company Actuaries

By Jerry Enoch

The following is from the new chair of the Smaller Insurance Company Section Council for 2011-2012.

If you are an actuary in a small company, you know that work is different in a small company. Almost everything you read and hear must be translated into a small company environment in order to be implemented. The Smaller Insurance Company Section connects actuaries who speak “Small Company.” Sessions at meetings, webcasts, the Smaller Insurance Company Chief Actuaries Forum, buzz groups, section breakfasts, the *smalltalk* newsletter, section Web page—everything the section does—helps us translate current practice into a small company environment. And, perhaps most importantly, the section provides venues for us to get acquainted with other small company actuaries, so we can discuss issues with others as they arise, long after the meetings are over. Those connections help us for years.

The section is always trying new ways to serve our members. The newsletter is electronic, so it gets to people faster; blast emails get out news that can’t wait for the next newsletter, such as principle-based accounting (PBA) developments that affect smaller companies; the website contains current news and is becoming a repository of reference material; and the section is sponsoring FOUR economical webcasts this year (after having sponsored only two webcasts in its entire history). Webcasts about ASOP 41 (Actuarial Communication) and data management have already been

presented. “Managing Actuarial Functions at Smaller Insurance Companies” was presented Sept. 8, and a year-end financial reporting update was presented Dec. 8 in conjunction with the Financial Reporting Section.

If you work for a small company, joining the Smaller Insurance Company Section can help you do your job better and enjoy it more. The section council is always looking for new ideas and people who want to link with us. Want to talk? Call 334.612.5013. ●



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Managing Model Risk

By Trevor Howes

Actuarial models have always been an important tool for helping companies project future results and understand risks. As complex models have started to become critical components of the reporting and compliance processes, however, models have vaulted to new levels of importance—and of scrutiny. This has raised everyone’s interest in the management of models, and by implication, in their ability to control the inherent model risk.

Why is this a growing challenge? The primary reason is that the models now coming into play are not the actuarial models we have grown up with. And that in part has happened because the products and risks that companies are concerned with are not the same traditional products and risks of yesterday. Faced with dynamic flexible products sensitive to interest rates, market shifts, creative guarantees of price and/or benefits realized and policyholder options that impact the costs to the company, models must be increasingly detailed, holistic and able to test thousands of scenario alternatives. And they must be flexible and adaptable because everything about them keeps changing to reflect current conditions, actual experience, new approaches to product design and guarantees, and evolving regulatory and professional standards about how these risks could and should be measured.

And there’s the rub. An incredibly complex process is evolving to produce critical financial results that must be robust and reliable yet is constantly changing.

“All Models Are Wrong. Some Are Useful.”

My Web research tells me that George Box (<http://www.skymark.com/resources/leaders/box.asp>), the industrial statistician, is credited with the quote: “All models are wrong. Some are useful.” I had assumed he was an actuary, but in fact he was a chemist trying to develop defenses against chemical weapons in wartime England. What I take from his quote is the reminder that a complex model is not right just because

it appears to produce numbers, and that we need a healthy respect for all the approximations to reality and subjective assumptions, explicit and implicit, that are built in. Our job is to make sure that the inaccuracies are resulting from known assumptions and approximations, whose impact is understood, or can be explored, and not from unintended errors during design, implementation and subsequent change.

Faced with this responsibility, one reaction is to conclude that this is a problem of adequate control, in an accounting sense. Some actuaries with painful experiences of Sarbanes-Oxley (SOX) or similar past projects where the word “controls” has been central might now turn off, maybe because that implies to them red tape and paperwork, restricted rights and permissions, formal sign-offs, and other drudge-work that seems of little direct benefit. But you should know that accounting controls, like newly evolving actuarial measures, should be principle-based and not rules-based. Their fundamental purpose is to promote and protect sound management practices, both general and financial. While some controls simply address the risk that company assets, records and resources are not intentionally or inadvertently lost, corrupted, stolen or misused, a good system of controls will increase the likelihood that all financial information is reliable and accurate, so that managers and the board can make sound strategic and operational decisions. It’s hard to argue with that.

So what should you do to maximize the likelihood that your models work as intended?

Model Management Begins Before There Is a Model

First, don’t make the mistake of assuming that thinking about proper model management can be put off until the model is in place and working. To be effective, planning for management must start right at the beginning when the model is a

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collection of concepts and imagined processes. By thinking ahead to potential challenges of use and maintenance and the control problems they might generate, you may be able to positively impact the way in which the model is designed and implemented, so as to make those future challenges more manageable.

But what exactly is this model that must be managed? The word “model” can be used in many different ways. Sometimes we are referring to a mathematical model, or set of rules that we intend to use to explain the probabilities of different events occurring, such as scenarios of yield curves or equity markets over time. Sometimes we use “model” to refer to a condensed and representative set of liability data used to represent the actual seriatim in-force book of business. And even that full seriatim set, when represented in software, is really a model of the actual liabilities themselves. But for managing the risk of actuarial models we need to look at the big picture, of the entire systems construct in which the business model, the various mathematical models and the whole actuarial modeling software that performs key calculations, are implemented and operated in real time.

It may be that the actuaries maintaining the model spend most of their time tweaking assumptions, or adjusting the rules coded in the model to reflect new products being sold. When these changes require actual programming, the control issues are obvious, and that process will clearly attract attention in model governance. However it is important to keep the whole picture in mind. There are several layers of technology, soft and hard, that enable a financial reporting process involving a

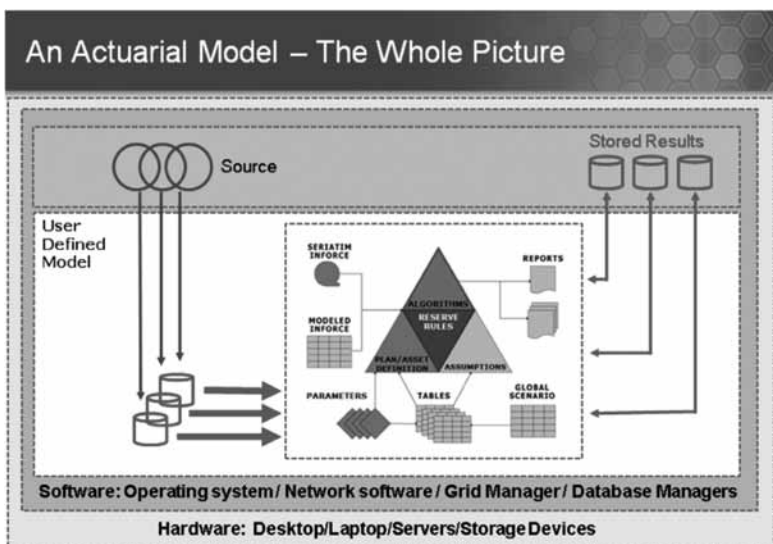
model to be executed (see Figure 1), and sometimes changes in one of these outer layers will unexpectedly impact the robustness or even the calculated results independently of any of the more routine changes in the actuarial model itself. It thus pays to isolate changes in the outer IT layers and validate that the model is still producing the same answers after any change or update in operating system, hardware peripheral, grid management system or process that extracts data from administration systems. Similarly, you should consider any aggregation, query tool, or reporting routine that assembles numbers generated by the main actuarial calculator, to be part of the model and apply proper management to the back-end processing as well.

Three Dimensions of Model Management

When your goal is to increase your confidence that the model is providing answers it was intended to provide, I suggest the task can be viewed as three separate components:

1. Confirm that the design and theoretical principle behind the model were properly conceived and selected to achieve its purpose.
2. Verify that the design and theoretical principles were correctly and faithfully implemented in the actual modeling software, when the modeling system was created.
3. Establish controls to prevent unauthorized or inadvertent change in the modeling system, and to verify that the results of the system are only changing as a result of normal and expected changes in business data from one reporting date to the next, or to changes in assumptions about future experience.

Figure 1. The Whole Picture



Model Validation

Steps 1 and 2 are often combined in thought and action and described as validation of the model. At the initial creation of the model, validation requires a careful review of its purpose and intended use, and if major system elements are developed in-house, a comprehensive set of design specifications will likely be needed, along with a rigorous review of both the specifications themselves, including all formulas used, and of the programming that attempted to faithfully implement those specifications. If the modeling software is purchased, review of design specifications and vendor coding may not be practical; but then again, for sophisticated software of either type, review of code is of limited benefit, and should never be considered sufficient. Proper validation will require scrutiny of the actual output of the model under various controlled inputs, with independent verification that the results are materially as expected for the inputs tested.

Of course the operation and the validation of a model involve more than just the calculation engine. It is necessary to validate the generation of the business data used by the model, the inputs, interpretation and application of assumptions feeding the model calculations, and the generation of reports based on those calculations.

While some representative calculations should be independently verified if at all possible, it is not possible to verify all calculations based on all reasonable values of input data. Generally, model validation will come down to the verification of selected model points, combined with one or more less rigorous but still useful techniques. Here are some examples:

- Reasonability checks compared to other models that are well known or previously validated, or even to other software such as illustration systems.
- Inspection of calculated results with simplistic and possibly unrealistic input values (e.g., lapse or mortality of zero).
- Comparison of repeated runs, or independent runs of subsets of business, or runs with altered business data order to verify identical total results.
- “Backtesting” a model by entering business data and assumptions reflecting historic values and comparing model results to actual results.

Another technique that is valuable yet not often thought of as being validation, per se, is to ensure that the model or components of the model are used for other purposes, hopefully regularly, within the company. The more different eyes are on a model, inspecting and stressing it with different assumptions and looking at different parts of the model, the more likely it is that any flaws in its design and implementation will be caught and corrected. The developing standards for advanced “internal models” envisaged by European regulatory bodies for use under Solvency II refer to this as “pervasive use.”

Another valuable tip is to carefully save all validation work, especially any test models and the independent calculations that verify the test results. If software components of the model are updated, such as by a vendor, or other technology components are changed, then rerunning the test models to verify that the same results are obtained or that the differences can be rationalized is easier than performing a completely new validation.

Change Control

Once a thorough validation is performed, ongoing management is generally considered to come down to change control. The objectives of this are:

- To prevent any unintended and unapproved changes, usually by installing access permission control processes, and by employing secure production sites with separate test and development sites and a careful promotion process.
- To identify and approve all intended changes, with proper review of documentation, testing, approvals and sign-offs.
- To validate the impact of any changes made, often using attribution analysis to break down complex changes into incremental impacts.
- To confirm that the results are consistent from period to period when and where no model changes have occurred, using regression analysis as appropriate to verify consistency and to pinpoint changed values.

“Another valuable tip is to carefully save all validation work, especially any test models and the independent calculations that verify the test results.”

The Challenge of Complex Model Management

Unfortunately, as models have become more complex and more dynamic, requiring market-consistent or current assumption approaches, the challenges of managing models and validating the impact of constant change have increased. Furthermore, actuaries have often preferred to keep control of the design and even the programming of the modeling software, which can pose additional challenges in ongoing maintenance and validation.

Regardless of who has programmed the modeling software, I would suggest it is imperative to design the software so that model assumptions are separately maintained in objects and files, and model code that extracts, combines and applies assumptions and performs actuarial calculations never contains any of those assumptions that users might conceivably adjust. With this approach, control over objects containing assumptions and the identification of changed or inconsistent assumptions is simplified and the management and maintenance of the system code can be completely separated and independently performed, and even outsourced to a specialized programming team or a vendor, if appropriate.

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Another challenge in validating modern models is the increasing motivation to build in approximations and shortcuts, especially when specialized models performing stochastic calculations are needed. The painful resource cost versus run-time trade-off will motivate many to seek model efficiencies of various types in search of an acceptable accuracy/cost/run-time balance. When those efficiencies involve compression of the model, or simplifications in the way a benefit is reflected in the model, validation of the impact of that efficiency is problematic yet essential, and must be constantly repeated as the impact will change as in-force composition and economic variables change and as the business ages. Accordingly, it is wise to build in any such shortcuts as selectable options and not forced defaults, so that the model can be run both ways and the impact verified whenever necessary. This also permits the choice of greater simplification and shorter run-times for testing and analysis, with a more appropriate and fully understood level of accuracy when the model is used for production reporting, and when cheaper, more powerful technology removes the need for shortcuts.

A helpful approach to reducing model validation pain is to design the model with modular, reusable components if possible. Many elements of assumption storage, extraction and preparation and the generation of product cash flows from those assumptions are core operations that can well contribute to other actuarial applications. Common use of these elements

across the enterprise increases the comfort and confidence in them, and lessens the need for independent validation. However, this can increase the design challenge in each of the systems sharing components.

Look to International Practices and References

Advanced models are being introduced around the globe, especially for emerging International Accounting Standards and for Solvency II and enterprise risk management (ERM) purposes. The study of the design and management of these models has therefore been of great interest to the International Actuarial Association (IAA) and to regulatory authorities. The IAA released a paper on “The Use of Internal Models for Risk and Capital Management Purposes by Insurers” in November 2010, which may be helpful reading (www.actuaries.org/CTTEES_SOLV/Documents/Internal_Models_EN.pdf).

Powerful and complex models will soon be a way of life, and with careful model management, we actuaries can spend our time improving and exploiting these models to better understand and manage the risks inherent in the products we sell, and not have to explain with some embarrassment how we introduced new risks in the models we built but failed to manage properly. ●



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New SOA Research Report Available

Access To Reinsurance By Smaller Insurers: Perils, Pitfalls and Solutions

View the report at SOA.org—click on research, completed research projects and life insurance.



SmallCo SWOT Analysis

By Jerry Enoch

At the recent meeting of the Smaller Insurance Company Section Council, we performed a SWOT analysis of our section, listing our Strengths, Weaknesses, Opportunities and Threats. It was a good experience for us, which we want to share with the entire section. In time we might add to this list, and we invite your input as well.

Strengths. We have a strong spirit of volunteerism. Our section council members are very involved in our meetings and in working to serve the section between meetings by planning and leading sessions at various Society of Actuaries (SOA) meetings, planning and presenting webinars, writing or recruiting articles for *smalltalk*, and numerous other acts of service. As part of this spirit of volunteerism, we have enthusiasm, camaraderie, fun and a joy in working together. A strong group of “friends” of the council (people who aren’t on the council, but who often attend meetings and help as they choose) is a second strength, and they share in the spirit of volunteerism.

For many years, our finances have been a weakness. We have had so little money that every decision was evaluated with an eye on our surplus. A few mistakes might have rendered us insolvent. By changing *smalltalk* from print to electronic form, we eliminated our primary discretionary expense. As a result of providing several successful webinars, we have significantly increased our income. In two years, our finances have become a strength. We can take a chance on a new service without fearing that failure might bankrupt the section. We can now think of money as a tool, and not merely as a requirement.

Last, and probably most important, we have satisfied section members. A recent survey of SOA members showed that section membership is highly correlated

with satisfaction with the SOA, and it showed that our members rank at the top when it comes to being satisfied with a section. Besides the gratification that comes from realizing that our efforts toward serving our members are appreciated, we hope that having satisfied section members will enable us to recruit more friends for the council, which will enable us to better serve our members. We know that their needs are great.

Weaknesses. The analysis does not stop with strengths. With the continued consolidation of the industry, the base of small companies is shrinking. Perhaps for this reason, the membership of the section has declined steadily over the past several years.

Perhaps common to all sections, we find it difficult to know what our members and prospective members think. We have nine council members and a number of friends of the council, but we don’t know the extent to which we are representative of small company actuaries. The fact that those of us who are involved in the council are a minority may make us unrepresentative. We had some excellent responses from 127 members who completed our survey two years ago, and those responses caused us to feel representative. Nonetheless, we wonder how the opinions and needs of the majority who didn’t respond—and of the unknown number of small company actuaries who aren’t members—vary from those of the respondents. We frequently ask for opinions or other feedback, and we mean it!

Opportunities. Our longest list was our opportunities. Perhaps because we are so conscious of the change in our situation, the first opportunity listed is the ability to deploy money. Consequently, we have the oppor-

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tunity to take risks without jeopardizing the future of the section.

Following are some other opportunities:

- Our companies need actuarial input at the executive level.
- We have an opportunity to help our students see the big picture.
- Small company actuaries have many unique needs. We are a boutique section.
- We have the opportunity to synthesize and distill recent developments, as well as accumulated practice, for our members.
- We can work with experts from other sections to devise practical solutions for our members. There are now many ways to communicate, which helps us meet our members' needs.

Threats. While we only listed two threats, each is very important. First, it is difficult to spend time on section work. While we know the need and we energize each other, it is difficult for actuaries to make time for section work, and small companies often value the benefits we receive from volunteering less than other employers.

Finally, while our members have great needs, increased communication may allow our members to meet their needs elsewhere, rendering the section less relevant.

Conclusion. This was not an academic exercise. This introspection helps us more clearly understand how we can better meet our members' needs, and that is our objective. Perhaps your interest in joining with us to meet members' needs has been piqued. Please write me at jenoch@alfains.com or call me at 334.612.5013 to chat. ●



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Managing Actuarial Functions at Smaller Insurance Companies—Webcast Recap

By Erik Gravelle

Every small company actuary has to deal with the challenge of limited resources in some way. No matter how big a company is in terms of the various metrics (assets, premium, life insurance in force, etc.), there are certain functions that must be performed by qualified actuaries as part of the general operations of the company. These functions include (at a minimum): pricing and product development, valuation (traditional “formula-based” approaches and emerging principle-based approaches), claim reserve setting for health products, asset adequacy analysis, X factor testing, Illustration Model Regulation testing, reinsurance treaty negotiations, experience reporting and analysis, assumption setting, ... etc., etc. Small companies unfortunately tend to have smaller budgets for actuarial staff and resources. This leaves the small company chief actuary with the constant challenge of trying to answer the question, “How do I get everything done that needs to be done, with the limited time and resources at my disposal?”

On Sept. 8, 2011, the Smaller Insurance Company Section of the Society of Actuaries (SOA) sponsored the webcast “Managing Actuarial Functions at Smaller Insurance Companies.” The webcast was very well received by the more than 50 participants who signed up and tuned in. The webcast featured four speakers: three of whom are chief or corporate actuaries for small or mid-sized life insurance companies, and one who is a consultant who often does work for small insurance companies. The four speakers were:

Paul Retzlaff, FSA, MAAA, chief actuary of Indiana Farm Bureau Insurance;

Dale Hall, FSA, CERA, CFA, MAAA, vice president and chief actuary of Country Financial;

Alan Larson, ASA, MAAA, corporate actuary for Shelter Life Insurance; and

Chris Hause, FSA, CLU, MAAA, president of Hause Actuarial Solutions, Inc.

The presenters on the webcast tackled this issue, gave their insights, talked about the unique challenges they face based on their specific situations, and discussed what they’ve found has worked well in their situations.

What Drives the Need for Staffing and Resources?

How big of an actuarial staff and what actuarial resources are needed will vary greatly from company to company. Examples of some factors that could determine how much a company needs in terms of actuarial resources include:

The company’s geographic footprint

How many states is the company selling in and how many regulators is it then having to deal with?

The company’s product portfolio

- Does the company only have life and annuity products, or are there health products to deal with too?
- Are the products traditional and “simpler” products like whole life and term, or are there more complicated products like variable universal life (UL) or equity-indexed annuities?
- Are there asset-intensive products (annuities, whole life, etc.) that necessitate more analysis and expertise with respect to investments and asset/liability management?

Market niches

Does the company offer any niche products that would require specialized actuarial expertise, such as credit insurance?

Corporate structure and culture

- Is the company a stand-alone life insurance company with a management team and board that is active in the operations of the company, or is it an affiliate of a larger property/casualty (P&C) company where the life company may not get the attention it needs or desires and where the board may not understand life company financials as well as they understand those of a P&C company?
- Is the company really a family of companies where one actuarial staff is serving the needs of multiple entities, and do those entities have different traits that make the actuarial operations for each a very different proposition? (For example, the organization of one of the webcast's presenters was made up of two companies. The primary company is the much larger of the two in terms of assets, distributes its business through captive agents, does business in only one state, and has a product portfolio consisting of annuities, fully underwritten term and fully underwritten whole life. The secondary company is much smaller in terms of assets, but does business in 46 states, sells through independent agents, and deals with simplified issue life products.)

"When you have a small actuarial staff, it's crucial to hire the right people and put them in positions that make sense, given not only the company's needs, but the talents of the individuals you have working for you."

Crossing the "magic line" for increased regulatory scrutiny

As a company grows to a level that might be considered more mid-sized than small, it may cross a "magic line" (not explicitly defined, but probably about the \$500 million in written premium mark) where there starts to be more regulatory scrutiny and therefore more need for actuaries working with auditors and regulators, and fielding questions from senior management.

The Experts' Tips

Many insights and tips were given by the webcast's

presenters as to "get everything done that needs to be done." Some of these tips were:

Find synergies and efficiencies between the various functions.

For example, pricing models can flow straight into cash flow testing models, and mortality experience studies for setting pricing assumptions can be used for X factor testing.

Avoid scope creep.

Don't let projects turn bigger than they were originally intended to be, and don't let responsibilities that are not actuarial in nature become part of the actuarial staff's purview, unless there's good reason to do so. A few examples cited by the presenters of non-actuarial responsibilities that end up being handled by the actuarial department were reinsurance administration and supervision of the model office area (i.e., system implementation for new products or product management). There may be good reasons why those types of functions belong under the actuarial department's umbrella, but it's important for the small company actuary to determine if they fit better in another area, given how much is already on your plate.

Know when to say "no."

All actuaries, particularly those dealing with product development, are aware of the people in their marketing department who want every shiny new product that hits the industry. Product innovation is certainly a good thing, but a small life insurance company sometimes has to steer clear of variable annuities with guaranteed living benefits or equity-indexed products. These more complicated products can greatly add to the workload of not only the actuarial staff, but to other areas of the company as well, and the sales volume from a small company's sales force may never justify the costs associated with implementation and maintenance.

Staff smart.

When you have a small actuarial staff, it's crucial to hire the right people and put them in positions that make sense, given not only the company's needs, but the talents of the individuals you have working for you. Also, with a small staff, it's very important that everyone is

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able to work together and get along. It's much easier to make the right decision at the time of hire than it is to deal with a problem once someone is on board.

Know where to find help.

Every small company actuary has at least these three broad categories of outside resources at their disposal, each with potential costs, and pros and cons to consider:

- 1. Industry resources.** This can include the wealth of information available from the SOA (experience studies, articles, etc.), the Actuarial Standards of Practice, newsletters put out by the various SOA sections (including *smalltalk*), industry meetings, and a personal network of colleagues that are available for questions or available to serve as a sounding board.
- 2. Reinsurers.** Reinsurers can be a great source of “free” consulting. They have plenty of data available to them to help their clients build assumptions and have a staff of very qualified actuaries who can give input on what the rest of the industry is doing. Of course, reinsurers are only willing to provide this information and consultation if they are getting something in return (i.e., a big enough piece of the pool), so it's important to be able to understand how

much something is costing in terms of ceded profits when deciding whether to use a reinsurer versus spending hard dollars on a consultant.

- 3. Consultants.** Most small company actuaries use consultants in some capacity. The level of assistance will depend on the company's specific needs, among other things. Consultants could be used to gain expertise on new product initiatives, peer review work that the in-house actuaries have done, help lighten the load on some of the major functions that must be performed regularly, such as asset adequacy analysis or corporate projections, or advise the company on new markets it might be entering. In some situations, consultants could be kept on retainer with very specific regular functions that they will be performing spelled out in advance, or they could be hired on a project-by-project basis. These types of decisions have to be made based on the company's specific situation, weighing what the biggest needs are and what the various costs are.

To purchase the recorded version of the “Managing Actuarial Functions at Smaller Insurance Companies” webcast, visit: <http://www.soa.org/professional-development/archive/webcast-recordings.aspx>. ●



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2008 Inter-Company Expense Study of U.S. Individual Life Insurance and Annuities

By Steven Siegel

The Society of Actuaries' (SOA's) Committee on Life Insurance Company Expenses (CLICE) has recently completed its eighth inter-company study of expenses for individual life and annuity business issued in the United States. The full report is now available on the SOA's website with highlights presented in this article.

The data requested was identical to that requested for the 2007 study. For this study, the total number of contributors providing data decreased to 23 from the previous study's total of 27. As in previous years, a number of new contributors participated this year, while some previous contributors were unable to contribute. As in any experience study, CLICE would like to increase the number of contributors for upcoming studies. If your company has not previously participated in the study, CLICE would encourage you to consider doing so and would welcome you! You can learn how to participate by visiting the Research Opportunities section of the SOA website.

For the 2008 study, contributing companies were asked to provide expense data for the following product categories:

- **Life insurance**—Term, universal life, variable, corporate-owned life insurance (COLI) and business-owned life insurance (BOLI) and other permanent. Contributors were further asked to provide acquisition expense data broken down by the following distribution channels: Career, Brokerage, PPGA, Multi-Line, Direct Response, Other and Unallocated (those expenses not split by channel).
- **Annuities**—Immediate (non-variable), deferred (non-variable), variable immediate and variable deferred. The following distribution channel

detail was requested: Career, Brokerage, PPGA, Stockbroker, Financial Institutions, Other and Unallocated.

The data received from the companies were aggregated and unit cost calculations were developed. As part of the aggregation process, a series of data integrity checks was performed, and company representatives were contacted to resolve missing or anomalous data.

Overall, the data submitted to the study continues to improve in reliability and data integrity. This is due, in part, to the number of repeating contributors familiar with the data submission form and the scope of data requested.

In the study, a unit cost called Per Policy Index is used to facilitate comparison of first-year expenses (excluding commissions and premium taxes) among contributors. Similarly, a Per Policy *Inforce* unit cost is used to compare operating expenses (excluding commissions, termination expenses, premium taxes and, for annuities, annuity payout expenses). These two unit costs provide the reader with a high-level basis for making comparisons. The following table compares these unit costs for 2007 and 2008 for companies that contributed to both studies.

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**Comparison of 2007 and 2008 Per Policy Index Unit Costs
For Companies Contributing to Both 2007 and 2008 Studies**

Products		Year	First Year*			Inforce#		
			25% Percentile	Weighted Average**	75% Percentile	25% Percentile	Weighted Average	75% Percentile
Life	Term	2007	\$462	\$714	\$1,125	\$45	\$56	\$76
		2008	531	768	992	46	58	84
	Permanent†	2007	537	1,160	1,270	42	48	77
		2008	703	1,248	1,455	60	59	87
	Variable	2007	585	1,248	1,279	120	139	231
		2008	938	1,788	3,495	125	152	202
Annuities	Fixed	2007	\$628	\$921	\$1,294	\$75	\$127	\$132
	Deferred	2008	626	808	920	93	131	140
	Fixed Immediate	2007	292	598	1,715	64	101	129
		2008	1,147	1,402	2,600	92	123	127
	Variable	2007	603	1,053	1,022	228	215	294
		2008	793	856	949	202	195	249

* Excludes commissions and premium taxes.
 # Excludes commissions, premium taxes, termination expenses and annuity contract expenses during payout period.
 ** See Data Issue 7 on page 7 for an explanation of why some weighted average figures are greater than the 75th percentile.
 † Permanent includes universal life, but excludes COLI and BOLI.

Please note that due to variations in expense allocations used by the contributing companies, the variety of companies that contributed, and the limited number of contributors in certain categories, the results should be viewed with caution.

The exhibits in the report present unit expense calculations for the various product and distribution channels for which sufficient data was available, including weighted and unweighted averages and median, and 25th and 75th percentile unit expenses where there was a sufficient number of contributors. Summarized results for all unit costs are shown below:

**Acquisition Expense for Individual Life Insurance
Weighted Averages**

Product Type	Number of Companies	Per Policy Issued	Per \$1,000 Face Amount Issued	Percent of First-Year Premium	Commissions (% of premium)		
					First Year	Single Premium*	Renewal
Term	16	\$154	\$0.73	34.9%	60.5%	N/A	2.7%
Permanent†	19	157	1.64	31.0	83.3	4.4%	3.7
Variable	8	365	1.63	37.6	74.8	1.4	4.3
Total	21	159	0.98	32.5	75.4	4.3	3.4

*Includes dumps/pour-ins and dividends applied.
 †Includes universal life, but excludes COLI and BOLI.

Non-Acquisition Expense for Individual Life Insurance

Product Type	Number of Companies	Per Policy Inforce	Per Claim	Premium Tax
Term	16	\$56	\$232	2.0%
Permanent†	19	48	147	1.4
Variable	8	147	337	1.7
Total	21	52	158	1.6

† Includes universal life, but excludes COLI and BOLI.

Acquisition Expense for Individual Annuities

Product Type	Number of Companies	Per Policy Issued	Percent of First-Year/ Single Premium	Commissions (% of premium)	
				First Year/ Single	Renewal Commission
Deferred—Fixed	21	\$181	0.9%	5.7%	6.7%
Deferred—Variable	7	180	0.8	7.4	5.7
Immediate—Fixed	13	288	1.1	4.4	N/A
Total	21	191	0.9	5.8	6.3

Non-Acquisition Expense for Individual Annuities

Product Type	Number of Companies	Per Policy Inforce	Per Termination	Per Contract	Premium Tax
Deferred—Fixed	21	\$114	\$28	\$17	0.1%
Deferred—Variable	7	185	4	6	0.0
Immediate—Fixed	13	65	1	10	0.0
Total	21	119	22	13	0.1

The committee expresses its appreciation to all of the contributing companies for their assistance and support of this study. ●

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Modeling Mortality in Life Insurance Applicants

By Jim Palmier, M.D. and Brian Lanzrath

This article is the first in a series of articles on insurance applicant mortality risk analytics.

Over the last few years, ExamOne has developed a mortality risk assessment model capable of accurately determining the relative likelihood of premature death in the insurance applicant population. The model determines a percentile ranking of comparative mortality risk, normalized by age, gender and smoking status. We call the ranking a “risk IQ.” The model embodies a true multivariate analysis eliminating previously intractable underwriting issues stemming from co-morbidities and correlations among assessed variables (e.g., the tendency of overweight individuals to also exhibit elevated blood pressure and cholesterol, etc.). The model is capable of assigning separate hazard functions and weightings to each variable depending upon applicant age and gender. In females 18 to 29, for instance, blood pressure appears to have few implications for mortality, and elevated BUN is a serious risk factor—whereas in males 50 to 59, blood pressure is a leading contributor to the risk profile, while BUN plays a more moderate role.

In evaluating the results from the model and its methodologies, the most striking finding has been the extent to which deaths are concentrated among the upper ranges of the model. Based on the data reviewed over a 10-year period, more than 30 percent of all Social Security Death Master File deaths were attributable to applicants with risk IQs of 90 or above. A remarkable 10 percent of deaths originated from the 1 percent of applicants with risk IQs of 99. Claims studies with multiple carriers have revealed that conventional underwriting does successfully identify some, but not all, of these cases. Only 34 to 50 percent of applicants with risk IQs of 99 are currently declined.

Deaths among applicants with low risk IQs are distinctly less probable. The mortality rate of applicants with risk IQs less than 75 is approximately 60 percent of the 2001 select VBT table. This is a level generally considered consistent with a preferred or preferred plus underwriting decision. In most carriers, no more than 35 to 40 percent of applicants are currently classified as preferred risks. The additional 35 to 40 percent of the applicant population with risk IQs less than 75, most of whom are excluded from conventional preferred pools due to isolated BMI or cholesterol elevations, can be considered the “hidden healthy” and could be accepted into preferred pools without experiencing an increase in mortality outcomes.

The misclassifications common under established underwriting systems also include under-ascertainment of risk. In one large carrier, more than 12 percent of policies issued in the best underwriting class were associated with risk IQs of 75 or above. As a group, these “cryptic risk” cases will experience a claims rate more than twice that for which the class has been priced, with obvious, and substantial, financial implications (in a 20-year term \$500,000 policy issued to a 45-year-old cryptic risk male, the expected value of claims will exceed premiums by ~\$6900 on a present value basis). In the carrier study above, applying a model which calculates a risk IQ was a better predictor of claims over a four-year period than the actual underwriting decision (C-statistics: 0.748 vs. 0.668), despite the fact that the algorithm lacked access to driving records or family/medical history—both of which were available to the human underwriters.

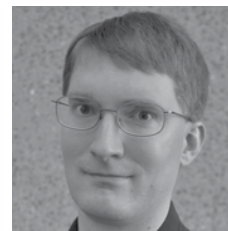
In the near future, we intend to integrate reflexive laboratory test results (e.g., PSA, pBNP, etc.) into this mortality model. In the intermediate term, it should be possible to fully incorporate the results of tele-underwriting

interviews. As current and future versions of this mortality modeling system achieve greater utilization and additional data and experience, adverse selection may become a reality. Hidden healthy cases lost from standard pools, and the inadvertent attraction of cryptic risk cases to preferred pools, will likely become a pressing issue for product actuaries. ●

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Brian Lanzrath is an actuarial biostatistician at ExamOne.





Regulatory Update

By Norman E. Hill

When we arrived in Philadelphia for the summer National Association of Insurance Commissioners (NAIC) meeting, we learned that weather conditions forced cancellation of the entire meeting. However, during the last week of August 2011, the Life Actuarial Task Force (LATF) had already held two conference calls on matters intended for Philadelphia. This article will summarize the current status of these discussions.

Experience Reporting

Makeup calls on this topic are scheduled for September. One significant development was an announcement from statistical agent MIB. They claimed that they could now absorb and process data from all companies in the industry, not their previous 250-company limit. For some time, this had been a small company concern—that compiled and submitted data to MIB would sit there, unused, due to the 250 maximum.

Another concern remains: the lack of LATF differentiation between dual functions of experience reporting; the compilation of industry experience tables and annual regulatory oversight on industry PBA reserve assumptions.

On industry experience tables, when one is to be prepared, several years of data are needed. Do regulators definitely wish to have companies submit this data each year, knowing that a table will be prepared in a few years? Alternatively, could companies retain this data in their own records and avoid annual submissions to MIB, if they certify retention?

On reserve assumptions, with current VM20 methodology, traditional products sold by smaller insurers should retain CRVM statutory reserves. Does it make sense to submit experience data annually, to serve as reserve

tests on such products? If companies sell other products, does it make sense to retain all reserve assumption data and only submit it if their domestic department requests it (possibly from MIB summaries of several domestic companies in the same state)?

Currently, initial experience reporting requirements under VM50/51 only apply to “ordinary life” products, not to preneed, final expense, etc. But many smaller companies sell ordinary life as well. Other specialty products will eventually be caught up in data calls. Therefore, it would be helpful if the above problems are addressed for all products.

PBR and Industry Impact Study (also called “The Field Test”)

After months of delay, the NAIC’s consultant, Towers Watson, completed a report on Phase 1, a comparison of various reserves on key products. They said they are hopeful that Phase 2 calculations on sensitivity tests are proceeding faster, so that a report may be available by the winter meeting.

Traditional Products

The report had results for traditional whole life (TWL) products of only three companies and the same number of simplified whole life (SIWL) products. Most likely, at least two of the three TWL products were participating, while all three SIWL were nonpar. All three TWL products passed both the Stochastic Exclusion Test (SET) and the Deterministic Exclusion Test (DET), as defined in the PBR Valuation Manual (VM20). This means they would hold CRVM statutory reserves.

Two of the three SIWL companies also passed both tests, but one did not. This may reflect my fear that nonpar traditional permanent products may have more trouble with SET than par products. However, if asset

durations matched against liabilities are fairly long, I believe there is still a good chance (not automatic) that nonpar products will pass the SET threshold of 4.5 percent ratio.

The report confirmed that the study used the theoretical SET approach, with at least eight defined interest scenarios (16, if stocks are included in asset portfolios). VM20 also allows an alternative shorter approach, relying on an actuarial study and certification that the product does not exhibit “material interest rate, tail or asset risk.” This might be available from expanding asset adequacy projections, but still would require additional work.

The Towers actuary gave an extensive PowerPoint presentation, covering all points in the report up to the appendices.

In the meantime, the American Council of Life Insurers (ACLI) had hired Milliman to make its own study, corresponding to a form of Field Test. At this point,

I have only read a few summary pages, but it did not seem to express disagreements with the Towers report. However, regulators stressed that this did not constitute an official supplemental report. They did not want a complete page-by-page summary of the Milliman document, although they understood the ACLI would likely refer to it.

Other PBR Matters

Over the weekend, the ACLI requested in writing, due to some unexpected results from the Towers study, that the initial scope of PBR be limited to term (competitive term) and universal life with secondary guarantees (ULSG). Regulators briefly mentioned the letter without comment and did not as yet endorse it. Later, one regulator asked Chairman Leslie Jones what she thought of a LATF straw poll on scope. Leslie said, “No, not at this point.” However, she did ask John Bruins of the ACLI to submit a proposal for an initial limited scope at the winter meeting.

It seems evident that, regardless of scope, the ACLI and its companies need additional time

to study PBA reserve problems with the two plans in question—competitive term and ULSG. This type of testing could extend well into 2012.

Katie Campbell’s proposal for more specific documentation steps under the Alternative SET was approved. It adds a series of guides for the actuary, rather than detailed calculations. These steps generally correspond to those currently followed by many companies under asset adequacy testing.

Originally, about 65 companies, mostly large ones, were asked to participate. Now, the Towers report showed results from 42 companies, if each company only submitted one plan. However, due to likely multiple submissions, the number of actual companies in the report may be considerably less.

“It seems evident that, regardless of scope, the ACLI and its companies need additional time to study PBA reserve problems with the two plans in question—competitive term and ULSG.”

As expected, PBR reserves for term on new bases, deterministic gross premium reserves (GPV) or stochastic (SR), were averaging less than CRVM statutory. However, on ULSG, the two former reserves were averaging higher than CRVM. This could be due to the contentious issue mentioned at the spring NAIC meeting, use of an alleged “shadow account” approach by some ULSG companies to produce CRVM reserves lower than some regulators believe are required under AG38.

This latter relationship, CRVM statutory versus GPV/SR, is surely what led to the ACLI’s letter and recommendation. As for the AG38 issue itself, LATF had considered asking the American Academy and the Actuarial Board for Counseling and Discipline (ABCD) to look into possible action against actuaries of the above ULSG writers. Instead, based on several confidential regulator-only conference calls since the March meeting, they have sent out confidential surveys to all state insurance departments, requesting information on such reserve practices of their domestic companies.

PBR Outlook

The latest exposure draft of VM20 is dated Oct. 16, 2010. The ACLI, in its letter, talked about changes to VM20, in light of its reserve concerns. Earlier, the New York Department had also called for unspeci-

Continued on page 26

fied changes in the way ULSG and term reserves are computed. Therefore, at this point, it seems almost certain that VM20 will not be completed this year. With ongoing instability, there remains the possibility that reserve methodology may turn out unfavorable for small insurers.

Other Issues

The American Academy has presented a new annuity mortality table to LATF. It is expected that, in a future conference call, the Academy will provide a complete PowerPoint presentation, describing the table.

LATF adopted the 2012 GRET Table, after the exposure period. These unit expense numbers are divided into broader marketing lines than before. The Society of Actuaries will consider how to make future line allo-

cations more exact, given the limitations of published annual statement data.

In September and October, before the winter annual NAIC meeting, it is expected that other NAIC committees will hold calls. These groups deal with topics such as risk-based capital, international accounting, including the proposed International Financial Reporting Standards (IFRS) approach for insurance liabilities, and Solvency II to compare U.S. state-based insurance regulation with foreign single country regulation.

Summary

Cancelled NAIC meeting or not, there remains a host of issues and conference calls demanding the scrutiny of small insurers. ●



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