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Responses to "DAC Expectations"

by Frank Grossman

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THE CASE STUDY

Briefly summarized,[1] Mary the FSA rotated into corporate actuarial just before year-end, reporting to Irwin the FSA and chief actuary. After year-end, Irwin asked Mary to: i) review and update the mortality and (dynamic) lapse rate assumptions within the valuation models; and ii) update the financial plan projections for Philip the CFO.

Irwin approved Mary's assumption changes, which were incorporated into her models along with sundry model "fixes." These revisions caused the projected expected gross profits (EGPs) for one product line to change such that the deferred acquisition cost (DAC) asset had a negative unlocking of $25 million (i.e., the DAC balance would be written down by this amount).

Philip called Mary and said that "a certain amount of DAC unlocking this year was committed to during last year's planning process"—$15 million of positive unlocking (i.e., the DAC balance would be written up by this amount). Mary checked the final projections prepared by her predecessor and confirmed the positive $15 million figure. Mary then called Philip back and tried to explain why the EGPs changed. But Philip simply said, "That's not good enough."

READER RESPONSES

Your comments and suggestions about Mary's next move ranged from adopting tighter process control to improve confidence in her model projections, to building a stronger working relationship with the CFO. Responses have been edited for space considerations.

Flying Blind

Several readers expressed concern that Mary learned about the positive unlocking built into last year's work *after* she handed off her revised projections. Becoming familiar with her predecessor's working papers before beginning work would definitely have been good practice. Given that the year-end crush had passed, there should have been time to attend to this preliminary step. Fair to say that being put in the position of breaking the news to Mary was unlikely to enhance Philip's opinion of Mary and of the corporate actuarial department.

One respondent summarized the hole Mary dug for herself: "*Mary didn't bother looking at the old projections first, and didn't know what other people were expecting. She didn't quantify the impact of the assumption changes before signing them off. And Mary didn't write up the model fixes.*" A veritable triple threat.

You Say Prah-sess; I Say Pro-cess

Several actuaries advised Mary not to revise her assumption changes "*just to manage the DAC impact*." (All good actuaries to the fore!) But how to go about managing the assumption change process? One wondered whether Mary has the necessary training and experience to set assumptions and prepare projections. "*She is new to the area and even as an FSA may not have an appropriate background to do this work. People tend to underestimate what it takes to correctly analyze and revise assumptions*." The same actuary noted that there are experience analysis and assumption-setting papers published by the Society of Actuaries (SOA) and the Canadian Institute of Actuaries (CIA), as well as an American Academy of Actuaries (AAA) credibility practice note, which might be helpful to Mary. This was a handy segue to the keen observation made by another actuary: "*While the new assumptions seem to be carefully prepared based on 'relevant experience studies,' there is no mention (in the case) whether the experience itself was credible*."

A third recommended, "*The standard for changing a very material assumption should be somewhat higher than the standard for changing a less mate-*

FOOTNOTES

[1] See the October 2010 issue of *The Stepping Stone* for the complete description of this case study.

rial assumption. So, it is very useful to run the new assumptions through projections before passing them along. It is too easy to conclude that a small change in mortality or lapses is immaterial until you confirm its actual impact. When you know which assumption changes are material to projections, they can be analyzed more carefully." There is, of course, a world of difference between "*analyzed* more carefully" and "*managed* more carefully" to arrive at a desired income effect—which is a definite actuarial no-no.

One reader cautioned, "*Mary should be careful to assess and explain the significance of the experience studies that led to the change in assumptions, and should beware of changing assumptions to reflect the full difference between recent experience and earlier assumptions. Such practice often leads to wildly fluctuating financial results as the actuary first capitalizes a long series of future losses and later capitalizes a long series of future gains*." A second observed that "*sometimes recent experience is not the best indicator of long-term experience*." The first reader's follow-on, "*Conclusions from experience analysis are rarely hard, almost always soft,*" underscored the importance of exercising professional judgment when setting actuarial assumptions.

The Art of the Modeler

While experience analysis can occasionally lead actuaries down the rabbit hole, a number of respondents offered practical suggestions. Regarding the rubber-stamp risk: "*I tend to find that chief actuaries are too busy to supervise people and their work closely*." Another actuary added, "*Irwin should have recognized the potential for a major change in results (even if Mary didn't) and worked with her to prepare themselves better—and not have left Mary high and dry.*"

One actuary neatly observed that "*there is no mention that anyone other than Mary signed off on the model fixes or that they were ever written up. Mary implemented the assumption changes and the model fixes that resulted in a large negative unlocking; Mary should back up and quantify the impact of each model change one at a time. Even a careful actuary can make a mistake when implementing an assumption change or a coding fix*." Another pointed out that "*fixes should be done all at once and thoroughly tested and peer-reviewed before implementation. Otherwise, you may have DAC balances and income bouncing around whenever Mary has the inclination to 'fix' her model. It's a model—there are always things that could be improved. Improvements need to be made according to a structured process.*"

Mary was also tasked with assessing the dynamic lapse rates. Scenario-dependent assumptions often defy experience analysis simply because "past results are not necessarily indicative of future performance." As long as we continue to transit economic terra incognita, the actuary may have no better recourse than to rely upon his/her judgment—and lots of sensitivity testing—when revising dynamic assumptions.

Nelson Eddy on Line One

A perennial challenge is that electronic media is inherently impersonal, so that while telephone and e-mail offer convenience and immediacy, one ought to be ever alert to the possibility of inadvertent *mis*-communication. One reader wondered, "*What does Philip mean by 'That's not good enough.'? Is he challenging the current answer? Is he complaining that once again the actuaries are changing their projections? Is he saying that Mary's explanation is not good enough?*" It was easy to zip past Philip's comment without considering its apparent ambiguity, as many readers did.

The same reader pointed out that Mary has no absolute way of knowing why Philip was short with her: "*Philip might have just had an uncomfortable meeting with his boss or a spat with his wife. Best to ignore the one atypical incident and assume it was nothing to do with her*." By taking this possibility into account when planning her next move, Mary might evince a more positive attitude toward Philip and find him not so difficult next time.

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There is, of course, a world of difference between "*analyzed* more carefully" and "*managed* more carefully" to arrive at a desired income effect—which is a definite actuarial no-no.

On a different tack, another actuary opined, “*She made a mistake in calling him. Explaining a $40 million swing could never be appropriately addressed over the phone. Mary needs to regroup, gather more information, and re-approach Philip with a better presentation*.”

One More Time, with Enthusiasm

Several respondents described Mary’s need to apprise Irwin of Philip’s reaction. “*They need to look into the assumptions used in the planning process, and reconcile and explain the difference in the model assumptions and projected results*.” One reader plainly stated a key strategic objective: “*Once Philip feels comfortable that he doesn’t have to do all the thinking for Mary and Irwin, his confidence in their results will improve*.” A different kind of credibility rating.

A trio of readers noted Mary’s immediate need to return to her valuation models. Mary’s first task should be to replicate last year’s planning projections as performed by her predecessor, to confirm her understanding of her new valuation models and their effective operation. Then Mary needs to “*rerun the old projections with the model fixes in them, and restate last year’s $15 million write-up if necessary*.” At this point, “*Mary should review her analysis and ensure that her revised assumptions are well supported by the analyzed experience trends*.” The final model step should be to “*rerun the projections with both the model fixes and assumption changes, addressing one category at a time—mortality, lapses, expenses and interest rates—to determine which assumptions have a material impact, and revisit them most carefully*.”

The goal of this model work is to “*produce a presentation that ‘walks’ down from the $15 million DAC write-up to the $25 million DAC write-down, explaining the dollar effect of each major change in assumption and model update. Until Mary can adequately explain the drivers underlying the change, she will continue to receive the ‘not good enough’ message*.” One respondent summed up, “*If, after all of this, Mary and Irwin are comfortable with the negative $25 million result, then Mary is back to where we found her—but now management should have a much better understanding of why. This should make the ensuing conversation with Philip easier.*” And having a written document to share with the CFO couldn’t hurt either.

One actuary outlined an alternate scenario: “*It appears that last year’s planning assumptions must not have been based on any recent studies, and were too rosy. If that’s the case, Mary and Irwin need to explain this situation to Philip, and emphasize that should the current best estimate assumptions change, they would need to reflect them*.” This precludes the ability of an additional year’s experience to materially influence Mary’s assumptions, and begs the question: “Where was Irwin during the plan assumption approval process last year?”

Mindful that recent data is not always indicative, another respondent suggested: “*New experience rarely justifies a credibility factor of more than one-half, and often taking only a third of the variation (between emerging experience and the prior assumption) into account is more responsible. Mary should discuss this with Irwin; there may be room here to reduce the scale of Philip’s problem with-*

out departing from actuarially accepted practice or compromising either actuary's integrity."

Take Two, with the CFO

With her ducks finally in order, Mary needs to address Philip's concerns about her recast planning projections. One actuary outlined an approach.

"*First, set up a meeting with the CFO, ideally in person. Mary should lay out the ground rules beforehand: that they agree to respectfully listen to all points of view and have a dialogue—before deciding on the next steps. Mary should make it clear that she respects Philip regardless of the meeting's outcome and final decision*." Mary should aim to facilitate a constructive dialogue based on identifying how their mutual "safety" is at risk. "*Mary needs to describe what she really wants, and what she doesn't want, to happen. Philip needs to also state the same*."

"*Then Mary should lay out the facts, as well as their shared goals and purpose: achieving financial accuracy is important; maintaining investor trust is also important; so is following established guidance. Mary is there to help Philip make an informed financial reporting decision. Ultimately, the decision may be Philip's, but Mary needs to make sure he understands all the facts.*" Mary should "*allow the CFO (and any others) to dispute or add information to these assumptions in order to have everyone's buy in and agreement that the assumptions, and thus the results of the assumptions, are appropriate*."

During their meeting, Mary "*would tell a story about adding $15 million of DAC instead of releasing $25 million of DAC, and what might happen down the road—about how they could potentially get audited, that financial results in the future might be worse, and it might look like they weren't diligent, or worse. Mary would then tentatively suggest that it might be in everyone's best interest to be open and up-front about the financials, so as to increase public confidence in them over the long run*."

"*Mary should ask Philip to 'tell me where I'm wrong,' and then ask for his story. By comparing both of their views, the discussion would lead toward a fair solution: reflective of the financial facts; including all parties' points of view; and, ideally, representing a consensus about the appropriate actions to be taken*."

On a slightly different tack, a veteran actuary mentioned that Irwin and Mary should bear in mind: "*… many senior managers challenge unexpected answers, and to a degree that is only right and proper. Sometimes, however, they get frustrated with the messenger rather than addressing the problem and then things can get difficult.*" This view was echoed by another respondent: "*Top management will often put their foot down, bang their fist on the table, and declare what must be so—but cave in completely when presented with the facts and why things are what they are. The key is clear, open communication.*"

The Other Side of the Hill

A canny actuary suggested that "*Philip seems to be struggling with a classic conflict of interest (viz. less unlocking today, higher net income tomorrow, larger pay packet soon) somewhat disguised by an ostensibly objective financial reporting process which in point of fact has an element of subjectivity.*" Such is the way of the world for some.

Another reader wrote: "*Mary should remember that Philip now has a problem, possibly a big problem. If he changes the financial plan by $40 million he has to explain it to his superiors (presumably the CEO and board). Further, if the company is publicly traded, he has to satisfactorily explain it to analysts or there is a risk they may make comments and recommendations that could significantly affect the firm's stock price. Strategically, Mary should not view her task here as convincing Philip of the need for a change. Mary should see her task as helping Philip to explain to others the need for a change*." Mary's natural ally is Irwin, and the authority of his office is a valuable asset. "*Tactically, Mary should make a recommendation to Irwin and ask him to endorse her recommendation. Endorsed recommendations*

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Yet, there are few guarantees should the assumption changes not be clear-cut, as is often the case when adjudging the credibility and relevance of the supporting data.

always carry more weight than original recommendations."

An empathetic third actuary suggested it was important that Mary tell Philip she "*respected his dilemma and understood his situation*."

The Best Surprise

Some respondents mentioned that Mary's experience was eerily familiar, and several suggested ways to improve the DAC calculation process at Mary's insurance company. Here is one real-world example. "*Each year, we convene a committee of stakeholders who have a strong interest in the effect of any DAC unlocking. Facts about experience and how this compares to our assumptions are presented, plus any concerns about the existing models. We lay out what is in scope for the year's analysis and what we expect may happen. There are weekly updates about where we are in the process and what the emerging DAC results are. By the end of third quarter, management knows what the impact is and exactly where the changes came from. It is truly amazing how much more smoothly things have gone since we put this in place*." And the best surprise? No surprise, naturally.

"*The only catch is that senior management is better informed now than they used to be. So, when I mention a concern about a mortality curve's slope or lapse rates in front of the chief actuary and the controller, both the CFO and the chief risk officer (CRO) start digging in with questions*." Care has to be taken that a mere "concern" doesn't translate into a major project. "*On the upside: they are listening. On the downside: they still haven't approved enough resources to answer all their questions*."

A Card from the Deck

One reader recommended: "*If the CFO still says 'not good enough,' Mary and Irwin should suggest getting their external auditor's opinion; after all, their financial statements have to be audited and signed off by the external auditor. Hopefully, with the auditor's help, Philip will accept the changes.*" Hopefully.

An auditor's response would most likely reflect their confidence in Irwin and his staff, based in part on the quality of their current analysis and their past working relationship. Yet, there are few guarantees should the assumption changes not be clear-cut, as is often the case when adjudging the credibility and relevance of the supporting data. And appealing to a third party, while retaining the option to disregard their opinion if inconvenient, is not quite cricket. Even if done discreetly, there's every chance that details would eventually find their way back to Philip.

Notwithstanding the potential benefit of peer review, a particular example of "drawing a card from the deck" was described by one reader. "*We once updated DAC assumptions to reflect credible mortality experience for an acquired block. The auditors formally objected to the change simply because it made a big earnings impact, as they thought the effect should have been phased in.*" Such is the dogged faith (even at this late date) in "trends" and "trendlines"—and perhaps even the tooth fairy too—in the face of tipping points and biweekly perfect storms. The reader continued, "*This was despite the fact that the underlying data was statistically credible, and other areas of our company had independently recommended the same assumption changes*." Another actuary simply observed, "*You need to be aware of the existence of other perspectives*." Roger that.

CONCLUDING THOUGHTS

Kudos to the three sharp-eyed actuaries who noticed a triple typographical error in the DAC Expectations case published in the October newsletter. Though a *fillip* may provide stimulus at arm's length, it shouldn't be confused with a *Phillip*, its phonetic equivalent. But, more importantly, both of these words ought never to be substituted for the genuine article, namely Philip—a name fit for an apostle and a king (or three), as well as a CFO.

Thank you to all who contributed to The Actuarial Ethicist this past year—with ideas for, or responses to, the four case studies. It's been suggested that "discretion is the better part of valor" and several contributors opted for anonymity. But each of the following contributors played a vital part in this column's success: Cindy Chen, Stephen Cheng, Mike Dorsel, Eric Janecek, Kevin Leavey, Jerry Loterman, Muhammad Haris Nazir, Joe Nunes, Bill Osenton, Amy Rosenberg, David Ruiz, Mary Simmons, J. Eddie Smith IV, Jeff Stock, DeVon Workman and the members of the UnitedHealthcare Actuarial Pricing Team. All these names went into the drum and the winners of $25 bookstore gift certificates are Mike, Eric, Joe and Mary. Congratulations!

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This hypothetical case study and its discussion are intended for the personal use and (possible) edification of members of the Management & Personal Development Section.