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# Unintended Consequences of FAS 113 Reinsurance Accounting for Long Duration Contracts

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**F**inancial Accounting Statement (FAS) 113,<sup>1</sup> “Accounting and Reporting for Reinsurance of Short-Duration and Long-Duration Contracts” provides guidance on how to account for reinsurance transactions that meet certain risk transfer requirements. It was effective for fiscal years beginning after Dec. 15, 1992. In particular, FAS 113 requires that the cost of reinsurance (CoR) be recognized “over the remaining life of the underlying reinsured contracts if the reinsurance contract is long duration” (FAS 113 Paragraph 26<sup>2</sup>). Certain approaches used by companies to satisfy this requirement for long duration contracts can introduce unintended impacts that are discussed in this article.

Prior to the adoption of FAS 113, many companies recognized reinsurance by reporting deferred acquisition costs (DAC) on a net basis (i.e., capitalized net acquisition costs and amortized DAC using estimated gross profits (EGPs) net of reinsurance) and therefore did not establish an explicit CoR asset or liability to recognize the reinsurance cost over the product lifetime. These companies pointed to item e) in paragraph 23 of FAS 97,<sup>3</sup> which states, “Estimated gross profits ... shall include estimates of the following elements, ... e) Other expected assessments and credits, however characterized.” With the exception of excess ceding allowances, this approach treats the reinsurance cash flows as other net costs in EGPs. This will be referred to as Method 1 in this article.

FAS 113 stated that a ceding company’s balance sheet should be presented on a gross basis. To this point, Method 1 resulted in DAC (and liabilities) being reported on a net basis. After FAS 113 was adopted, many companies began reporting DAC on a gross basis and establishing an explicit CoR asset (or liability). This will be referred to as Method 2 in this article.

FAS 113 notes that the CoR shall be recognized over the life of the underlying contracts, but it does not specify how. Paragraph 20 of FAS 113<sup>4</sup> states “Reinsurance receivables shall be recognized in a manner consistent with the liabilities (including estimated amounts for claims incurred but not reported and future policy benefits) relating to the underlying reinsured contracts.” FAS 113 (Paragraph 26<sup>5</sup>) goes on to say “The assump-

tions used in accounting for reinsurance costs shall be consistent with those used for the reinsured contracts.” For FAS 97/120 products, these two statements have commonly been interpreted to recognize the CoR in a similar manner as DAC amortization, generally as a function of direct (gross of reinsurance) EGPs.

Under Method 2, the CoR asset at each period can be defined as:

$$\text{CoR Asset}_t = \text{CoR}_{t-1} * (1 + i) + \text{Reinsurance Cash Flows (Rein CF)}_t - \text{Amortization}_t$$

Where:

$$\text{Rein CF}_t = \text{Reinsurance premiums}_t - \text{Reinsurance recoveries}_t - \text{Reinsurance expense allowances}_t$$

$$\text{Amortization}_t = \text{AR} * \text{Gross Profits}_t \text{ and}$$

$$\text{Amortization Rate (AR)} = \text{Present value of (Rein CF)} / \text{Present value (Direct EGPs)}$$

The present values include both actual cash flows to date and future expected cash flows (similar to the “k-factor” calculation used in DAC).

Let’s look at an example under Method 2. Please note the values in the examples shown are simplified and were created for illustrative purposes.

## METHOD 2 EXAMPLE – TIME PERIOD 1

A cohort of FAS 97 policies are reinsured on a 90 percent coinsurance basis (values in \$millions):

$$\begin{aligned} \text{Rein CF}_1 &= 0.09 \\ \text{PV (Rein CFs)} &= 0.20 \\ \text{Direct EGP}_1 &= 1.0 \\ \text{PV (Direct EGPs)} &= 20.0 \\ \text{Interest Rate} &= 4\% \end{aligned}$$

At the end of year 1, we have:

$$\begin{aligned} \text{AR} &= \text{PV (Reins CFs)} / \text{PV (Direct EGPs)} \\ &= 0.20 / 20.0 = 1.0\% \end{aligned}$$

$$\begin{aligned} \text{CoR Asset}_1 &= \text{CoR}_0 * (1 + i) + \text{Rein CF}_1 - \text{CoR} \\ \text{Amortization}_1 &= [0 * 1.04] + .09 - [1\% * 1.0] = \$0.08 \end{aligned}$$



## METHOD 2 EXAMPLE – TIME PERIOD t

We now have the following values (\$millions):

PV (Total Rein CFs) = (11.5)

PV (Total Direct EGPs) = 0.05

Current Period Direct Gross Profit = (20)

Although the change in the CoR balance would be impacted by other factors (e.g. interest on the balance, retrospective unlocking of the AR), in this case the amortization is the largest driver of the change in the CoR balance. Looking at just the amortization for this period, we get:

$$AR = (11.5)/0.05 = (23,000) \%$$

Amortization for the period = AR \* Gross Profit  
 = (23000) % \* (20) = \$4,600 (or \$4.6 BILLION)  
 decrease in the asset

On a cash basis, the reinsurance treaty largely offsets the higher claim so we would expect the net financial impact to be small. Unfortunately, a large claim can cause the PV of recoveries to increase and the cumulative PV of direct EGPs to decrease. As shown above, this lever impact increases the amortization rate and causes a very large GAAP income hit.

Who volunteers to tell the CFO that a \$25 million mortality variance will cause \$4.6 billion of adverse variance amortization this quarter? How can users of financial statements reasonably interpret that the financial impact is almost 200 times worse than what it would be without reinsurance (\$4.6 billion vs. \$25 million)? Clearly, this is an unintended consequence of Method 2 for recognizing the CoR.

So what's the solution? Unfortunately, there is no clear guidance or agreement on any one solution to this issue.

One generally accepted alternative within the industry is a hybrid of Method 1 and Method 2. Under this third option (Method 3), only the expected costs of

As shown above, the asset accrual largely offsets the reinsurance cash flows (premium exceeding benefits) and the net income impact is \$0.01, or 1 percent of the direct EGPs, which is intuitive.

As long as the actual reinsurance cash flows are close to expected and somewhat stable, or as long as the actual reinsurance cash flow volatility is small relative to the size of the present value of direct EGPs, Method 2 produces a sensible earnings pattern over the life of the product. Often, this is no longer the case when reinsurance cash flow volatility is high and becomes significant in relation to the present value of EGPs.

To exemplify this, we extend example 1:

- Several years have passed (now at time t)
- A large death claim causes a mortality variance of \$25 million in the period
- The death claim variance causes the current period gross profit to be largely negative and decreases the cumulative PV of EGPs
- The cumulative PV of reinsurance cash flows decreases as the recoveries increase

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reinsurance are spread over the life of the policies. Under Method 3:

- The reinsurance cash flows used to calculate AR are unlocked prospectively only (i.e. the cash flows are unlocked for assumption and inforce updates, but not “trued up” for actual experience)
- The EGPs used to amortize the CoR balance (as well as DAC and other balances) are net of reinsurance (in fact, EGPs net of actual reinsurance cash flows that exceed expected reinsurance cash flows) consistent with paragraph 23 of FAS 97<sup>6</sup>
- The net EGPs are unlocked both prospectively and retrospectively

Unlocking the PV of reinsurance cash flows on a prospective only basis reduces the volatility in the AR numerator. Using EGPs net of reinsurance better aligns the actual direct policy claims with the actual reinsurance reimbursements, thereby producing EGPs that are more stable. This reduces the volatility in both the AR denominator and the current period EGP used for amortization. Because the EGPs are unlocked both prospectively and retrospectively, the CoR recognition pattern accounts for emerging experience and changes in expectations.

Let’s look at what would happen under the same parameters in Example 2 when we apply Method 3.

### METHOD 3 EXAMPLE – TIME PERIOD t

We now have the following values (\$millions):

$$\text{Expected Rein CF}_t = 0.50$$

$$\text{Actual Rein CF}_t = 0.50 - 90\% * 25.0 = (22.0)$$

PV (*Expected* Rein CFs) = 0.1 million (note that has changed from the value in example 1 to reflect prospective unlocking after the large claim was incurred)

$$\text{Current Period net EGP}_t = (20.0) - (-22.0 - 0.50) = 2.50$$

$$\text{PV (EGPs net of reinsurance)} = 24.0$$

Again focusing on the amortization, we get the following:

$$\text{Amortization Rate (AR)} = 0.10/24.0 = 0.4\%$$

$$\begin{aligned} \text{Current Period Amortization} &= \text{AR} * \\ \text{(Current Period EGP, net of reinsurance)} &= \\ 0.4\% * \$2.5 &= \$0.01 \text{ million} \end{aligned}$$

As compared to Method 2, this third option creates a more stable and understandable cost of reinsurance amortization when there are large deviations in claims.

Under Method 3, DAC, unearned revenue liabilities (URL), and other balances that are amortized based on EGPs will also be more stable because the net EGPs will be more stable than direct EGPs. Therefore, Method 3 produces overall results that are more intuitive to the users of financial statements.

This alternative approach does not solve all of your reporting concerns. However, you can now sleep a little sounder without worrying about a potential multi-billion dollar hit to earnings that could arise as a result of your current FAS 113 reporting methodology. ■

#### ENDNOTES

<sup>1</sup> This guidance can be found in ASC 944. “FAS 113” will be used as the reference in this article.

<sup>2</sup> ASC 944-605-35-14

<sup>3</sup> 944-30-35-5

<sup>4</sup> ASC 944-40-25-34

<sup>5</sup> ASC 944-605-35-15

<sup>6</sup> “Estimated gross profits... shall include estimates of the following elements,... e) Other expected assessments and credits, however characterized.”