Insurance accounting - IFRS 4 and the user perspective

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Keeping it simple

1. Introduce some alternative accounting approaches
   - Cash accounting, fair value accounting, FSV methodology, IFRS
   - Phase II – composite vs. residual margin approaches

2. Each approach has pros and cons and different users may prefer one method over another

3. The key message is that accounting choice does not affect the quantum of profits made from the contract – it merely affects timing of profit recognition
But first, a reminder

1. IASB, now joint project with FASB

2. Single, uniform: definition, measurement, disclosure
Exposure draft proposed model

FSV
- Discretionary margin
- Compulsory margin
- Expected present value of best-estimate cash flows

IASB
- Residual margin (amortised)
- Risk margin
- Expected present value of best-estimate cash flows

FASB
- Composite margin (amortised)
- Expected present value of best-estimate cash flows

Premium
Key developments since the ED

- New Board from 1 July 2011
- Acquisition costs – wider definition
- Residual margin – possibly unlock
- Transition arrangements – will change
- Contract boundary – coverage period, address medical aid issue
- Discount rate – top down as well as bottom up
- Risk margin – wider range of techniques – but reconcile to VAR
- Reinsurance – gains at inception spread
- Financial statement presentation – acceptance of volume metrics
- Lots of other debate, but not much finality
A “final” word – for now

I solved Zeno’s paradox.

What’s that?

It says that you can’t get anywhere because you have to go halfway first.

And when you get there, you have to go halfway between that point and the end, ad infinitum.

Ok, so what’s your solution?

Just plot for twice the distance and stop at the first half-way point.
Acme Life’s product

- Assume the following
  - Premium income of R500 pa for five years
  - Claims R300 pa, renewal expenses R100 pa
  - Commission R100 at inception, other acquisition costs R100
  - Ignore lapses, working capital interest, etc...

CASH FLOWS FOR ACME LIFE

- Time 0: -200
- Time 1: 100
- Time 2: 100
- Time 3: 100
- Time 4: 100
- Time 5: 100
Option 1 – Cash accounting

Pros of cash accounting

- Simple to understand for investors
- Reconcile to the numbers that investors actually want to discount
- Conservative treatment at inception (fully expenses initial costs)
- Low volatility in earnings (NRR movements not an issue)

Cons of cash accounting

- Requires quite deep understanding of profit signatures to forecast future earnings (i.e. not smoothed)
- Aggressive treatment for policies with positive reserves
Option 2 – Fair value accounting

- In fair value accounting the economic value of the contract is recognised at inception (i.e. we PV all the cash flows on day 1)
- For accounting purposes this means that we set up an asset ("PVFP") at inception reflecting future cash flows

<table>
<thead>
<tr>
<th>Time 0</th>
<th>Assets</th>
<th>Liabilities</th>
<th>Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bank</td>
<td>P&amp;L</td>
<td>NB costs</td>
</tr>
<tr>
<td></td>
<td>200</td>
<td>179</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>PVFP</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>379</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Acme Life’s FV profits at 10% RDR

<table>
<thead>
<tr>
<th>PVFP Asset</th>
<th>Rm</th>
<th>Interest Revenue</th>
<th>Reserve expense</th>
<th>Cash profits</th>
<th>FV profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>379</td>
<td>Time 0</td>
<td>379</td>
<td>-200</td>
<td>179</td>
<td></td>
</tr>
<tr>
<td>317</td>
<td>Time 1</td>
<td>38</td>
<td>-100</td>
<td>100</td>
<td>38</td>
</tr>
<tr>
<td>249</td>
<td>Time 2</td>
<td>32</td>
<td>-100</td>
<td>100</td>
<td>32</td>
</tr>
<tr>
<td>174</td>
<td>Time 3</td>
<td>25</td>
<td>-100</td>
<td>100</td>
<td>25</td>
</tr>
<tr>
<td>91</td>
<td>Time 4</td>
<td>17</td>
<td>-100</td>
<td>100</td>
<td>17</td>
</tr>
<tr>
<td>-</td>
<td>Time 5</td>
<td>9</td>
<td>-100</td>
<td>100</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>121</strong></td>
<td><strong>-121</strong></td>
<td><strong>300</strong></td>
<td><strong>300</strong></td>
</tr>
</tbody>
</table>

- **Profit in subsequent years is the interest earned on opening PVFP**
- **Profits over contract term will always be R300**
Option 2 – Fair value accounting

Pros of FV accounting

- Current period profits reflect economic value added
- Profit signatures have same shape for all contracts
- Results in accounting profits = EV profits

Cons of FV accounting

- Profits recognised upfront; effectively argues that insurer has earned its profits at point of sale (ongoing risk & servicing?)
- Can be very volatile as assumption changes can lead to large movements in PVFP asset
- Can be very divergent from cash generation and thus unsuitable for solvency, liquidity and dividend policy management
Option 3 – FSV methodology

- FSV basis looks at future cash flows, but it limits how much of each future cash flow can be taken into account.
- The "haircuts" on best-estimate cash flows are determined by compulsory margins and by discretionary margins.
- Here margins refer to margin of safety.
Illustration of the margin concept

We PV these to set up the initial PVFP i.e. this part of future profit is recognised at inception.

The remaining part of expected profit (the "margins"), are recognised as-and-when earned.
## Acme Life’s FSV profits at 10% RDR

*The initial PVFP (negative reserve in FSV jargon) is exactly half of the FV asset*

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>190</td>
<td>Time 0</td>
<td>190</td>
<td>-200</td>
<td>-11</td>
<td></td>
</tr>
<tr>
<td>158</td>
<td>Time 1</td>
<td>19</td>
<td>-50</td>
<td>100</td>
<td>69</td>
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<tr>
<td>124</td>
<td>Time 2</td>
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<td>100</td>
<td>66</td>
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<tr>
<td>87</td>
<td>Time 3</td>
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<td>-50</td>
<td>100</td>
<td>62</td>
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<tr>
<td>45</td>
<td>Time 4</td>
<td>9</td>
<td>-50</td>
<td>100</td>
<td>59</td>
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<tr>
<td>-</td>
<td>Time 5</td>
<td>5</td>
<td>-50</td>
<td>100</td>
<td>55</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>61</strong></td>
<td><strong>-61</strong></td>
<td><strong>300</strong></td>
<td><strong>300</strong></td>
</tr>
</tbody>
</table>

*Difference between actual CF and CF in reserve calculation = margins*
Option 3 – FSV accounting

Pros of FSV accounting

- Takes into account future cash flows and thus leads to greater new business profit / relief on more profitable contracts
- Guarantees some deferral of profits via compulsory margins
- Voluntary margins allow for “custom made” profit signatures

Cons of FSV accounting

- Too much deviation across companies
- PVFP not disclosed separately (netted off against other liabilities)
- B/Sheet useless; need EV to gauge quantum of margins
- Volatile in the absence of active management of voluntary margins
Option 4 – IFRS 4; composite margin

IFRS 4 Phase II, probably not by coincidence, combines the best of FV and FSV approaches:

- It is prospective and utilises actual expected best-estimate cash flows in determining b/sheet and P&L recognition
- The method, and quantum, of profit deferral is clearly defined
- Proposed disclosure will enable analysts to determine the expected value of future shareholder CF (PVFP) and how much of these are still to be recognised (composite margin)
Composite margin - initial steps

1. We first set up a full best-estimate PVFP asset (FV method)

<table>
<thead>
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<tr>
<td>Bank 200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PVFP 379</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   |                      | PVFP        |           |
   | Time 0               | 200         | 379       |

2. We set up an explicit liability to defer profits

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
<th>Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank 200</td>
<td>Comp margin</td>
<td></td>
</tr>
<tr>
<td>PVFP 379</td>
<td>179</td>
<td>NB costs</td>
</tr>
</tbody>
</table>

   |                      | P & L       |           |
   | Time 0               | 100         | 200       |

   |                      |            |           |
   | Comp margin 279      |            |           |
Margin size is (was) very specific

Original Exposure Draft (ED) clearly stipulated that the composite margin should defer all profits in excess of initial acquisition costs.

We end up showing a loss of R100m at inception, but this R279m is released as profit over time; note that the sum of the initial loss and future profits is R179m - equal to VNB on this block of business.

PVFP minus residual margin is equal to commission paid; we could say that commissions are not expense but overheads are expensed at inception.
The residual margin is released systematically in subsequent years.

\[
\text{Assets} = \text{Liabilities} + \text{Equity}
\]

\[
\begin{array}{c|c|c|c|c|c|c}
\text{Time} & \text{Bank} & \text{PVFP} & \text{Comp margin} & \text{P&L} & \text{NB costs} \\
\hline
0 & 200 & 379 & 279 & 100 & 200 \\
1 & 100 & 38 & 56 & 94 & \\
2 & 100 & 32 & 56 & 88 & \\
3 & 100 & 25 & 56 & 81 & \\
4 & 100 & 17 & 56 & 73 & \\
5 & 100 & 9 & 56 & 65 & \\
\end{array}
\]

Equal to future profits = gross VIF

The annual profit = RDR on BE PVFP + amort of explicit margin

Compare to FSV profit = RDR on prudent PVFP + excess CF
Option 4 – IFRS 4; composite margin

Pros of composite margin approach

- Relatively restrictive – should lead to similar profit signatures on equivalent contracts across insurers
- Composite margin explicitly shows the amount of profits deferred; balance sheet thus provides information on earnings generation
- Relatively conservative treatment of new business costs & quite linear profit recognition thereafter = investors’ wish list

Cons of composite margin approach

- Can result in volatile earnings (if no re-measurement of margin)
- Riskiness of cash flows not really allowed for in setting up the composite margin
Option 5 – IFRS with residual margin

1. Initial step is the same as for FV or composite margin approach i.e. calculate the best-estimate liability.

2. Next we need to calculate the risk margin for the contract:
   - For life Cost of Capital method makes most sense
   - Calculate the PV of capital charges on the contract

3. This cost of risk is set up as a separate liability.

4. The amount between what would have been the composite margin and what is the risk margin = residual margin.
Residual margin concept
Risk margin = cost of capital in EV?

\[ \text{NAV} + \text{PVIF} - \text{CoC} = \text{EV} \]

\[ \text{Risk margin} - \text{Risk margin} = \text{Residual margin} \]

\[ \text{Residual margin} = \text{Equity} \]
Option 5 – IFRS 4; residual margin

Pros of residual margin approach

- Splits earnings into economic profit and merely servicing of required capital
- Can lead to larger initial strain on new business sold on sub-economic terms
- Theoretically more solid

Cons of residual margin approach

- Additional complexity which may not be accepted by investors (look at MCEV experience)
- Lack of rigour in definition of risk margin leaves scope for vast deviations in implementation
In summary

Cash earnings – reflects actual movement in bank account

Fair value earnings – PV all future CFs to inception (like EV)

FSV earnings – forces companies to defer recognition of some part of future cash flows via haircuts to discounted CF

Composite margin – Future profits in excess of acquisition costs are deferred via a single liability shown on the balance sheet

Residual margin – Future profits are split into economic profits and capital charges; one released with time, other as risk released
In parting

"If what you don’t know can’t hurt you, then you must be indestructible”

- unknown