PREMIUM DEFICIENCY RESERVE REQUIREMENTS

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Learning Objectives

- Understanding the concept behind a PDR
- Learning methodologies being used in practice
- Applying the concept to your Company
What is a Premium Deficiency Reserve (PDR)?

- Probable loss on premiums in force that are yet to be earned (unearned premium)
- Premiums charged at inception; are estimated at policy year-end to not be sufficient to cover loss for the portion unexpired
- Expected future premiums are not sufficient to cover future estimated losses, loss adjustment expenses, policy acquisition costs and maintenance costs
Definition

What is a Premium Deficiency Reserve (PDR)?

• ASC 450 Contingencies (old FAS 5)
  • An estimated loss from a loss contingency shall be accrued by a charge to income if both of the following conditions are met:
    1. Information available before the financial statements are issued or are available to be issued indicates that it is probable that a liability has been incurred at the date of the financial statements
    2. The amount of loss can be reasonably estimated

• Next year the PDR is replaced by IBNR, case and paid, so full reversal of PDR
Guidance

• **GAAP:** ASC 944-60-25-4 (formerly FAS 60 – Par. 33) “A premium deficiency shall be recognized if the sum of expected claim costs and claim adjustment expenses, expected dividends to policyholders, unamortized acquisition costs, and maintenance costs exceeds related unearned premiums.”

• **Statutory:** SSAP 53 – Par. 15 “When the anticipated losses, loss adjustment expenses, commissions and other acquisition costs, and maintenance costs exceed the recorded unearned premium reserve, and any future installment premiums on existing policies.”
  • Commission and other acquisition costs need not be considered in the premium deficiency analysis to the extent they have previously been expensed.
When Does it Apply?

- Would normally see a PDR in softer market, because goals are to:
  - Maintain pricing
    - Generate underwriting loss
    - Or little underwriting income
  - Rely on investment income for profits
    - Interest
    - Dividend
    - Realized gains
  - Reversal of prior year loss (favorable loss development)

Consider calculating your PDR when loss ratio is > 90%
How/When to calculate your loss ratio?

• General Calculation:
  • Current Year ultimate loss/current policy year earned premium

• Timing for calculation:
  • Typically for captives calculated annually
  • Actuarial loss information available annually
When Does it Apply?

• Generally, $0 Unearned Premium = No PDR

• Exception: MI (mortgage captive), life, warranty coverage
  – Collect premium monthly with minimal UEPR recorded
  – Losses are not recorded until actually reported, as claims not yet reported are considered to be associated with future premium payments received
When is it Recognized

- Expected claim costs and claim adjustment expenses
- Expected dividends to policyholders
- Unamortized acquisition costs
- Maintenance costs

- Unearned Premiums
- Investment Income (if elected)
Can I Commingle my Policies Together?

Policies are to be grouped

- Consistent with the Company’s manner of:
  - Acquiring
  - Servicing
  - Measuring the profitability of its insurance contracts

- Based on management judgment and is subject to different interpretations

- Groupings vary widely between companies
  - Annual Statement Line of Business
  - Company groups
  - How the policy is sold – written directly vs through an agent
Why does Grouping Matter?

• Different rules regarding offsets between groups versus within a group
  • Deficiencies shall not be offset by anticipated profits in other policy groupings - SSAS 53
    – A PDR for one group does not offset a positive indication in another group
  • Unlimited offsetting is allowed within a group

ONE group means unlimited offsetting and a lower PDR

Multiple groups mean limited offsetting and a higher PDR
Why does Grouping Matter?

- Groupings will continue to vary from Company to Company

- Companies should base their measurement decisions on the guidance provided and clearly document their reasoning for their application
  - Be able to justify the selection of groupings
Policy Election

Policy Choice:

• Including Anticipated Investment Income
• Excluding Anticipated Investment Income

• Include Anticipated Investment Income
  • Require to disclose the inclusion of anticipated investment income in the calculation of the PDR in the notes to the Financial Statements

• Exclude Anticipated Investment Income
  • Simplifies the calculation
  • Results in higher PDR

• No prescribed methods to calculate anticipated investment income
• Predominantly use 2 main methods in practice:
  • Income Approach
  • Discounting Approach

• A Company’s approach should be consistent from year to year
Income Approach

Premium deficiency exists if

Expected losses + expenses are greater than
Unearned premium liability -
Unamortized DAC +
Investment income
Income Approach

• Investment income calculated using cash flows associated with only the unexpired portion of the in force premium (that is, unearned premium less unamortized DAC)

• Cash available considers all cash flows from in force policies including premiums, commissions, other underwriting costs, premium taxes, claims and claim adjustment expenses, investment income, and expenses on in force and expired policies
  • Both the unexpired and expired portions of in force policies
Discounting Approach

Premium deficiency exists if

Discounted expected losses + expenses
are greater than
Unearned premium liability
- Unamortized DAC
+ Investment income
Discounting Approach

• Considers present value of expected future costs (claims, claim adjustment expenses, and maintenance expenses) incurred during remaining portion of contract plus unamortized acquisition costs

• PDR necessary when sum of all costs exceed the unearned premium reserve
Calculation of discounted amounts

Companies typically use a rate equal to the yield expected to be earned on total invested assets (expected portfolio rate)

Example

Interest Rate = 5%
Expected Losses = $300 paid out over 3 years

Present Value of Expected Losses =
$100/1.05 + $100/1.05^2 + $100/1.05^3 = $272.32
Valuing Expected Losses + Expenses

• Companies should consider their historical experience as an indicator of future cash flows

• Adjusted to reflect:
  • Recent or expected trends
  • Expected differences in rate adequacy
  • Loss frequency and severity
  • Large or unusual current accident year events
Income Approach Example (GAAP)

Unearned Premium at 12/31 $1,000,000

Less
Undiscounted Claim and Claim Adjustment Expenses 850,000
Undiscounted Maintenance Costs 25,000
Unamortized policy acquisition costs (25%) 250,000

Premium Deficiency before Investment Income (125,000)

Plus Anticipated Investment Income 75,000

Indicated Premium Deficiency Reserve (50,000)
Discounting Approach
Example (GAAP)

Unearned Premium at 12/31 $1,000,000

Less

Present Value

Claim and Claim Adjustment Expenses 775,000
Maintenance Costs 20,000
Unamortized policy acquisition costs (25%) 250,000

Indicated Premium Deficiency Reserve (45,000)
GAAP vs SAP

• In SAP unamortized policy acquisition expense has already been expensed and should not be included in premium deficiency calculation

• In both examples removing unamortized policy acquisition expense of $250,000 would result in no premium deficiency reserve being necessary
  • Would reduce the DAC for the deficiency
Considerations For Both Methods

• Both methods have an implicit assumption of surplus underlying all claims
  • Income approach can assume otherwise if negative investment income is accrued in “negative balance situations”

• Interest rate selection—Companies typically use an interest rate equal to their expected yield on invested assets (expected portfolio rate) over the period that the claim liabilities are expected to be paid
  • Adjusted for current market information at each measuring date
Accounting Entries

DAC sufficient to absorb PDR

PDR of $50,000 (investment income approach)  
DAC was $250,000

First write off DAC, then record additional liability (if needed)

At Year End (12/31/12)
- Debit change in DAC (expense)  $50K  
- Credit DAC (assets)  $50K

At next reporting period (3/31/13)
- Reverse full entry  
- Re- assess the need for a PDR @ 3/31/13
Accounting Entries (other example)

DAC insufficient to absorb PDR

PDR of $350,000
DAC was $250,000

First write off DAC, then record additional liability (if needed)

At Year End (12/31/12)
- Debit change in DAC (expense) $250K
- Credit DAC (assets) $250K
- Debit PDR (expense) $100K
- Credit PDR (liability) $100K

At next reporting period (3/31/13)
- Reverse full entry
- Re-assess the need for a PDR @ 3/31/13
Analysis of Industry PDR Data

P&C Annual Statement Note 30 requires disclosure of:
- Liability carried for PDR
- Date of evaluation of PDR
- If investment income was considered

Our analysis focused on dataset from the 2012 Annual Statement including:
- Top 20 groups or single entities by DWP
- Companies with a 3 year operating ratio less than -15%
Analysis of Industry PDR Data

Similar % of companies identified a PDR despite poor results of second group. PDRs were clearly more significant for the companies with operating losses.

<table>
<thead>
<tr>
<th>Companies</th>
<th>Direct Written Premium (000's)</th>
<th># Cos. Observed</th>
<th># Cos with PDR</th>
<th>% of Cos with PDR</th>
<th>Dollars of PDR (000's)</th>
<th>Dollars of PDR to DWP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 20 Groups</td>
<td>311,820,734</td>
<td>471</td>
<td>18</td>
<td>3.82%</td>
<td>1,051,550</td>
<td>0.34%</td>
</tr>
<tr>
<td>Operating Ratio</td>
<td>7,995,532</td>
<td>110</td>
<td>5</td>
<td>4.55%</td>
<td>707,847</td>
<td>8.85%</td>
</tr>
<tr>
<td>Total</td>
<td>319,816,266</td>
<td>581</td>
<td>23</td>
<td>3.96%</td>
<td>1,759,397</td>
<td>0.55%</td>
</tr>
</tbody>
</table>
When we focus on just the companies that identified PDRs, they make a significant impact on the companies with poor results that recognize them.

<table>
<thead>
<tr>
<th>Companies with a PDR</th>
<th># Cos. Observed</th>
<th>Direct Written Premium (000's)</th>
<th>Dollars of PDR (000's)</th>
<th>PDR as % of DWP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 20 Groups</td>
<td>18</td>
<td>58,616,860</td>
<td>1,051,550</td>
<td>1.79%</td>
</tr>
<tr>
<td>Operating Ratio</td>
<td>5</td>
<td>1,081,178</td>
<td>707,847</td>
<td>65.47%</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>59,698,038</td>
<td>1,759,397</td>
<td>2.95%</td>
</tr>
</tbody>
</table>
Observations

Only one company in the sample reported not using investment income in the PDR calculation.

Most companies with a PDR did provide all the required info and several went beyond the requirement to explain the situation:
- Interest rate used
- Prior PDR values
- Notes regarding LOB causing the PDR

None of the notes had any mention of how the business segments were grouped.
Captive Owner’s Perspective

Questions?
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