Taming Catastrophe Risk
Portfolio Management and Pricing
Strategies for Catastrophe-Exposed Lines

Bob Fox, ACAS, MAAA
CAS Annual Meeting
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Prepared by Aon Benfield
Analytics | Risk & Capital Strategy
Agenda

Section 1  Cat Score® Framework
Section 2  Applications
Section 1: Cat Score® Framework
Expected Losses
Catastrophe Loss Estimation

Models

Experience

Hurricane

Earthquake and Fire Following

Convective Storm

Winter Storm

Wildfire
Best Practices

Clean and complete data

Multi-model average (where permitted)
  • Two independent views better than one
  • Tempers impacts of model changes

Assign full credibility
  • Based on years of simulation rather than years of experience
  • Encompass all available information

Use notional modeling where appropriate
  • Allows for evaluation of a rating factor while holding others constant

Pay attention to “switches”
  • Demand surge, storm surge, hurricane frequency
Net Cost of Reinsurance
We don’t care what expenses, profit provisions, and model/settings are built into the reinsurance premium. We just need to eliminate the overlap.
Typical Allocation

Subtract ceded losses from premium to get NCOR

Allocate on ceded loss or AAL
Allocation Intuition

- Midwest Tornado/Hail: High expected losses, Lowest volatility, Diversifying risk
- Northeast Hurricane: Low expected losses, Extreme volatility, Somewhat diversifying
- Florida Hurricane: High expected loss and volatility, Global PML driver
- California Earthquake: Low shake take-up rates, Very low expected loss, Extreme volatility, Diversifying risk
- Gulf Coast Hurricane: Moderate expected losses, Moderate volatility, Somewhat diversifying
- Gulf Coast Hurricane: Moderate expected losses, Moderate volatility, Somewhat diversifying
- Gulf Coast Hurricane: Moderate expected losses, Moderate volatility, Somewhat diversifying
- Gulf Coast Hurricane: Moderate expected losses, Moderate volatility, Somewhat diversifying
Aon Benfield Allocation

Contribution to Industry Volatility

Contribution to Ceded Loss

Contribution to Company Volatility

Premium Allocated to Policy

May be weighted or use a different model/settings

Subtract Contribution to Ceded Loss to get NCOR
The New Reinsurance Market

- Alternative market capital has overwhelmed the reinsurance market, driving rates down dramatically over the past few years.
- Our model has responded accordingly, with the hurricane volatility coefficient dropping 55-65% over that time.
- Intuitively, as the cost of capital comes down, the biggest reductions should be seen in the most volatile and industry-correlated states:
  - Florida has seen the largest reductions.
  - Convective storm states not meaningfully impacted.

<table>
<thead>
<tr>
<th>Publicly Traded US Debt Outstanding</th>
<th>$38.4T</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Equity Market Capitalization</td>
<td>$23.6T</td>
</tr>
<tr>
<td>US P&amp;C Stat Surplus</td>
<td>$0.68T</td>
</tr>
<tr>
<td>US Alternative Market Insurance Capital</td>
<td>$0.06T</td>
</tr>
</tbody>
</table>
Best Practices

Increase premium for expected reinstatements
  • In practice deducted from reinsurance recoverables

Increase expected losses for “Cat LAE”
  • LAE associated with cat event typically recoverable

Allocate appropriately

Treat as a fixed expense
  • End of treaty adjustments don’t imply a variable cost

Allocate geographically within state
Poll Question

Does Catastrophe Reinsurance Increase or Decrease the Cost of Insurance for Policyholders?
Cost of Capital
History of Homeowners Profitability

20’s-60’s
• 5% Profit Provision

70’s-80’s
• Offset for investment income
• “We don’t even try to make money on Homeowners”

1990’s
• Rise of auto specialists: “Homeowners must stand on its own”
• Increasing catastrophe risk

2000’s
• Profit models common
• Reinsurance cost recovery
• Insurers flee the coast
• Portfolio Optimization

Today
• Homeowners has become a target for profitable growth
• Coastal markets attractive where rates allowed to reflect risk
Actuarial Profit Models

**Significant development**
- Recognized the necessity of capital to support risk, and the cost of acquiring or holding that capital

**Significant Oversight**
- WE failed to recognize the catastrophe risk inherent in shorter-tailed property lines
What happens to our rate indication if we raise our retention?
### Impact of Reinsurance

<table>
<thead>
<tr>
<th>Current</th>
<th>Reinsurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Current Level Projected Earned Premium</td>
<td>150</td>
</tr>
<tr>
<td>(2) Credibility-Weighted Expected Attritional Losses &amp; DCC</td>
<td>50</td>
</tr>
<tr>
<td>(3) Expected Catastrophe Losses &amp; DCC</td>
<td>30</td>
</tr>
<tr>
<td>(4) Fixed Expenses</td>
<td>10</td>
</tr>
<tr>
<td>(5) Net Cost of Reinsurance</td>
<td>20</td>
</tr>
<tr>
<td>(6) Variable Expense Ratio</td>
<td>25%</td>
</tr>
<tr>
<td>(7) Premium Required</td>
<td>147</td>
</tr>
<tr>
<td>(8) Assumed Premium-to-Surplus Ratio</td>
<td>1.5</td>
</tr>
<tr>
<td>(9) Required Surplus</td>
<td>98</td>
</tr>
<tr>
<td>(10) Target Return on Surplus</td>
<td>15%</td>
</tr>
<tr>
<td>(11) Required Return</td>
<td>15</td>
</tr>
<tr>
<td>(12) Profit Provision</td>
<td>9.8%</td>
</tr>
<tr>
<td>(13) Adequate Premium</td>
<td>169</td>
</tr>
<tr>
<td>(14) Indicated Rate Need</td>
<td>12.4%</td>
</tr>
</tbody>
</table>

We retained more risk, but decreased our profit provision!
If the profit provision doesn’t reflect cat risk, some other provision is needed.
Retained Risk Provisions

Market Price of Risk
- Extension of reinsurance pricing
- Reference to cat bond pricing

Cost of Net Required Capital
- Actual capital held
- Assumed P/S ratio or PML/TVAR target
- Rating agency model
- RBC Cat Charge
AM Best Stressed BCAR

Current Structure

- First Event – Maximum of
  - 100-Year Hurricane or Convective Storm
  - 250-Year Earthquake
- Second Event – Maximum of
  - 100-Year Hurricane, Convective Storm or Earthquake
- Both net of reinsurance recoverables and reduced for tax savings

Planned Changes

- First Event – All Perils Net PML Varies by Rating

<table>
<thead>
<tr>
<th>Rating Level</th>
<th>B</th>
<th>B+/B++</th>
<th>A-/A</th>
<th>A+</th>
<th>A++</th>
</tr>
</thead>
<tbody>
<tr>
<td>PML Threshold</td>
<td>50-yr</td>
<td>100-yr</td>
<td>200-yr</td>
<td>500-yr</td>
<td>1000-yr</td>
</tr>
<tr>
<td>Confidence Interval</td>
<td>98%</td>
<td>99%</td>
<td>99.5%</td>
<td>99.8%</td>
<td>99.9%</td>
</tr>
</tbody>
</table>

- Second Event – TBD
## Cost of Catastrophe Capital Calculations

### Capital Cost Calculation

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Required Catastrophe Capital&lt;sup&gt;1&lt;/sup&gt;</td>
<td>102,960</td>
</tr>
<tr>
<td>2.</td>
<td>Target GAAP ROE</td>
<td>12.0%</td>
</tr>
<tr>
<td>3.</td>
<td>SAP/GAAP Ratio&lt;sup&gt;2&lt;/sup&gt;</td>
<td>82.0%</td>
</tr>
<tr>
<td>4.</td>
<td>Federal Income Tax Rate&lt;sup&gt;2&lt;/sup&gt;</td>
<td>27.4%</td>
</tr>
<tr>
<td>5.</td>
<td>Investment Rate of Return&lt;sup&gt;2&lt;/sup&gt;</td>
<td>2.5%</td>
</tr>
<tr>
<td>6.</td>
<td>Pre-tax Underwriting Return = [(2)/(3)]/[1-(4)]-(5)</td>
<td>17.7%</td>
</tr>
<tr>
<td>7.</td>
<td>Cost of Required Catastrophe Capital (000s)</td>
<td>18,180</td>
</tr>
</tbody>
</table>

<sup>1</sup> Required Cat Capital is two times the 100 year net post-cat HU PML
Implementation Options

Increased Profit Provision

- Assumes variable with premium
  - 10% higher rates require 10% more capital and 10% more profit
- Allocates on premium unless profit provision varied by territory

Fixed Risk Margin

- Independent of premium
- Allocate to territories driving retained volatility
Cat Capital Allocation

<table>
<thead>
<tr>
<th>Risk Load X</th>
<th>Risk Load Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>VaR</td>
<td>Ignore</td>
</tr>
<tr>
<td>TVaR</td>
<td>Ignore</td>
</tr>
<tr>
<td>Marginal Volatility</td>
<td>Ignore</td>
</tr>
<tr>
<td>Capital Tranche</td>
<td>Ignore</td>
</tr>
</tbody>
</table>

- VaR: Ignore, Reinsurance Cost Load
- TVaR: Ignore, Reinsurance Cost Load
- Marginal Volatility: Risk Load, Reinsurance Cost Load
- Capital Tranche: Risk Load X, Reinsurance Cost Load

- Single event focus
- Ignores low layer volatility
- Loads at entire EP Curve
- Separate loads low return period layer, XS return period layers

US Peril - Likelihood

- FL Hurricane
- Gulf Hurricane
- Northeast Hurricane
- CA EQ
- Other Wind
- All Other Perils

Layer of Capital

- Retained
- Reinsured
- Retained

New Madrid EQ

VaR Threshold
Best Practices

Implement as a fixed risk margin

Allocate geographically within state
  • Promotes diversification

Avoid overlap with variable profit provision
  • Or replace variable provision with a fixed non-cat risk margin

Avoid charging profit on profit
  • If you keep a traditional profit provision, don’t apply it to the risk margin

Phase in over time
  • Attrition will reduce cost of peaks
Poll Question Result

Does Catastrophe Reinsurance Increase or Decrease the Cost of Insurance for Policyholders?
## Reinsurance Saves Money!

<table>
<thead>
<tr>
<th></th>
<th>Without Reinsurance</th>
<th>With Reinsurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Cat Capital</td>
<td>$185M</td>
<td>$17M</td>
</tr>
<tr>
<td>Annual Cost</td>
<td>$32M</td>
<td>$3M</td>
</tr>
<tr>
<td>Net Cost of Reinsurance</td>
<td>-</td>
<td>$4M</td>
</tr>
<tr>
<td>Total Volatility Cost</td>
<td>$32M</td>
<td>$7M</td>
</tr>
</tbody>
</table>

- Reinsurers can diversify cat risk more efficiently than primary insurers
  - Renting often cheaper than owning
- Why do consumers, regulators, and even pricing actuaries believe that reinsurance purchases increase insurance premiums?
Cat Score® Framework
Cat Score® Framework

**Gross Expected Loss**
- Expected loss (AAL) is a function of policy terms and conditions but is the same estimate for all carriers
- Determined using catastrophe models at the location and policy level

**Net Cost of Reinsurance**
- Determined specifically based on the client reinsurance program
- Allocation driven by contribution to ceded volatility and correlation to industry loss
- Calibrated using database of observed industry pricing

**Cost of Capital**
- Calibrated to the client view of capital required to support retained cat risk
- Allocation driven by retained volatility and correlation with client portfolio

**Effective catastrophe risk management requires the measuring and recouping all catastrophe risk cost components**
Cat Score as a Loss Cost (AAL) Multiplier

AAL

Cat Score

\[ \frac{\text{Cat Score}}{\text{AAL}} \]
Cat Score as a Loss Cost (AAL) Multiplier

AAL

Cat Score
AAL

AAL per $1,000 TIV
1.20
1.49
1.75
2.12

Total Cat Cost/AAL
2.41
2.50
2.67
2.79
Cat Score as a Loss Cost (AAL) Multiplier
Cat Score as a Loss Cost (AAL) Multiplier

AAL

Cat Score
AAL
Section 2: Applications
Catastrophe Risk Management

1. Identify and track exposure concentrations
2. Monitor cat event tracts & exposed locations
3. Model Exposures
4. Monitor new business for rate adequacy and PML impact
5. Structure Reinsurance
6. Allocate catastrophe costs to determine pricing risk loads
7. Allocate Production Capacity
8. Evaluate Profitability & set growth capacity
Profitability Analysis by Policy

Expected Profit by Policy

Expense and Attritional Loss Assumptions

Policy-Level Cat Cost Allocation

Required Capital and Target ROE
Cumulative Profit Curves

The blue line shows that almost all policies are expected to earn a positive profit.
The pink line shows that 47% of policies are expected to earn an 8% risk-adjusted ROE.
The red line shows that 25% of policies are expected to earn a 12% risk-adjusted ROE.
Expected Profitability by Policy

Key Observations

- Very few policies priced at an expected negative profit
- There may be opportunities to write profitably on the coast
- Target combined ratios vary by geography

Risk is acceptable as long as

- A solvency concern is not being created, and
- Adequate compensation is being secured

Profitability – 12% ROE

Profitability – 8% ROE
### A Comparison of Target Combined Ratios in New York

<table>
<thead>
<tr>
<th>Company A</th>
<th>Company B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target CR at Varying ROE</strong></td>
<td><strong>Target CR at Varying ROE</strong></td>
</tr>
<tr>
<td>ROE</td>
<td>Target CR</td>
</tr>
<tr>
<td>5%</td>
<td>93.2%</td>
</tr>
<tr>
<td>8%</td>
<td>88.3%</td>
</tr>
<tr>
<td>10%</td>
<td>84.9%</td>
</tr>
<tr>
<td>12%</td>
<td>81.6%</td>
</tr>
<tr>
<td>15%</td>
<td>76.7%</td>
</tr>
</tbody>
</table>

- Company B writes significantly more on Long Island
- Company A buys significantly more reinsurance

<table>
<thead>
<tr>
<th>County</th>
<th>Target CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montgomery County</td>
<td>91.2%</td>
</tr>
<tr>
<td>Suffolk County</td>
<td>55.9%</td>
</tr>
</tbody>
</table>
Strategic Planning
Cumulative Expected Profit per Policy

Cumulative Profit

Profit

Without CoC
Cumulative Expected Profit per Policy

Cumulative Profit

Profit

(12,000,000)
(10,000,000)
(8,000,000)
(6,000,000)
(4,000,000)
(0)
(2,000,000)
(4,000,000)

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Without CoC
With CoC

Where is this?
Zip Code 70129
Cumulative Expected Profit per Policy

Cumulative ROE

ROE

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

-20% 0% 20% 40% 60% 80% 100% 120% 140% 160% 180% 200%

-5.4%

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Risk & Capital Strategy
Indicated Rate Need per Policy
Plan for Rate Activity

- +32.1% indicated rate need

- +10% achievable statewide rate increase based on recent approvals

- Group policies by zip to approximate rating territories
  - Or potential rating territories

- Raise rates by 40% of indicated
  - Tempered due to expected attrition and impact on volatility costs
  - 20% cap to avoid regulatory push-back

- Assumed incremental attrition based on selected rate changes

<table>
<thead>
<tr>
<th>Rate Increase</th>
<th>Attrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-10%</td>
<td>1%</td>
</tr>
<tr>
<td>10-15%</td>
<td>2%</td>
</tr>
<tr>
<td>Over 15%</td>
<td>4%</td>
</tr>
</tbody>
</table>
Potential Growth Targets

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Orleans-Metairie-Kenner</td>
<td>1.2</td>
</tr>
<tr>
<td>Baton Rouge</td>
<td>0.8</td>
</tr>
<tr>
<td>Shreveport-Bossier City</td>
<td>0.4</td>
</tr>
<tr>
<td>Lafayette</td>
<td>0.3</td>
</tr>
<tr>
<td>Houma-Bayou Cane-Thibodaux</td>
<td>0.2</td>
</tr>
<tr>
<td>Lake Charles</td>
<td>0.2</td>
</tr>
<tr>
<td>Monroe</td>
<td>0.2</td>
</tr>
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</table>

Indicated Rate Need

Growth Rates

<table>
<thead>
<tr>
<th>Profit Margin</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-10%</td>
<td>1%</td>
</tr>
<tr>
<td>10-15%</td>
<td>2%</td>
</tr>
<tr>
<td>Over 15%</td>
<td>4%</td>
</tr>
</tbody>
</table>
Expected Impact on Exposures

Current

After Implementation

TIV (in 000s)

15
30
45
60
80
100
150
250
Expected Impact on Premium

Current

After Implementation

Premium per $1k TIV

- 8
- 9.5
- 11
- 12.5
- 14
- 18
- 28
- 35

[Maps showing the expected impact on premium before and after implementation]
Expected Impact on Reinsurance

Current

After Implementation

Flattened Peak
Expected Impact on Capital Costs

<table>
<thead>
<tr>
<th>Current</th>
<th>After Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>Flattened Peak</td>
</tr>
<tr>
<td>0.16</td>
<td></td>
</tr>
<tr>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>0.34</td>
<td></td>
</tr>
<tr>
<td>0.36</td>
<td></td>
</tr>
<tr>
<td>0.38</td>
<td></td>
</tr>
<tr>
<td>0.4</td>
<td></td>
</tr>
</tbody>
</table>
Expected Impact on Profitability

Current

After Implementation

Indicated Rate Need

-0.15
-0.05
0.0
0.15
0.25
0.4
0.55
1.0

More Policies

Less Unprofitable
Comparison to Flat Rate Increase

- The green line demonstrates the benefit of a flat 10% rate increase
- The red line demonstrates the benefit of a targeted 10% rate increase combined with targeted growth
Collaborative Steps for Successful Execution

**Make sure the Price Is Right**
- Evaluate cost of catastrophe differentials across the portfolio
- Combine with client view of attritional and expense differences
- Balance rate change and growth targets by territory and segment

**Plan for Exposure Accumulation**
- Plan to grow where profitable, hold elsewhere
- Use Cat Score Portfolio Manager to quantify impact and test plan alternatives

**Maintain Margin Discipline at Point of Sale**
- Cat Score Location Analyzer provides total cost of catastrophe by location
- Used to filter new business applications for Accept/Reject decision

**Track Exposure Change Impact to PML**
- Cat Score Portfolio Manager used to track PML in between model runs
- Evaluate book roll opportunities
- Re-allocate capacity if actual exposure deviates from plan

Benefits include improved profitability while facilitating growth in profitable areas, better diversification, and continued improvement over time
Quantifying total cat costs for individual prospective risks at point of sale

- **Cost components**
  - Gross Expected Loss
  - Reinsurance Margin
  - Cost of Net Capital

- **WebServices technology delivery**
  - Link to your own pricing system
  - Also available by website
  - Accessible through ImpactOnDemand

- **Application by clients:**
  - Strategically grow into new geographic regions with adequate price
  - Identify inadequately priced risks
  - Provide key cost component for combined cat, non-cat price adequacy evaluation

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**Warrensburg, NY 12885**
- Premium = $550
- AAL: $105
- RI Margin: $10
- Net Cost Capital: $25
- Total Cat Score: $140
- Cat Cost / AAL = 1.3
- Attribitional + Expense: $400
- Total Cost: $540

**Bolton Landing, NY 12814**
- Premium = $550
- AAL: $105
- RI Margin: $45
- Net Cost Capital: $60
- Total Cat Score: $210
- Cat Cost / AAL = 2.0
- Attribitional + Expense: $400
- Total Cost: $610
Use Portfolio Manager to Monitor Planned Growth

### Current Portfolio Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>ALL</th>
<th>EQ</th>
<th>HU</th>
<th>OW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic Costs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross AAL</td>
<td>15,970</td>
<td>153</td>
<td>7,245</td>
<td>8,572</td>
</tr>
<tr>
<td>Ceded AAL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Premium Margin</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Premiums Premium</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Capital Cost</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Cat Cost</strong></td>
<td>15,970</td>
<td>153</td>
<td>7,245</td>
<td>8,572</td>
</tr>
</tbody>
</table>

**Accumulation Metrics**

<table>
<thead>
<tr>
<th>Metric</th>
<th>ALL</th>
<th>EQ</th>
<th>HU</th>
<th>OW</th>
</tr>
</thead>
<tbody>
<tr>
<td>PML-100</td>
<td>131,375</td>
<td>497</td>
<td>130,636</td>
<td>31,725</td>
</tr>
<tr>
<td>PML-250</td>
<td>232,161</td>
<td>3,308</td>
<td>232,161</td>
<td>42,365</td>
</tr>
<tr>
<td>TVaR-100</td>
<td>255,872</td>
<td>10,734</td>
<td>255,872</td>
<td>48,030</td>
</tr>
<tr>
<td>TVaR-250</td>
<td>401,559</td>
<td>24,696</td>
<td>401,559</td>
<td>58,257</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>35,454</td>
<td>2,658</td>
<td>34,556</td>
<td>7,757</td>
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</table>

**Portfolio Metrics after Growth**

<table>
<thead>
<tr>
<th>Metric</th>
<th>ALL</th>
<th>EQ</th>
<th>HU</th>
<th>OW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic Costs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross AAL</td>
<td>16,337</td>
<td>161</td>
<td>7,348</td>
<td>8,029</td>
</tr>
<tr>
<td>Ceded AAL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Premium Margin</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Premiums Premium</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Capital Cost</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Cat Cost</strong></td>
<td>16,337</td>
<td>161</td>
<td>7,348</td>
<td>8,029</td>
</tr>
</tbody>
</table>

**Accumulation Metrics**

<table>
<thead>
<tr>
<th>Metric</th>
<th>ALL</th>
<th>EQ</th>
<th>HU</th>
<th>OW</th>
</tr>
</thead>
<tbody>
<tr>
<td>PML-100</td>
<td>133,184</td>
<td>490</td>
<td>132,984</td>
<td>31,629</td>
</tr>
<tr>
<td>PML-250</td>
<td>235,394</td>
<td>4,366</td>
<td>235,394</td>
<td>44,867</td>
</tr>
<tr>
<td>TVaR-100</td>
<td>263,866</td>
<td>11,497</td>
<td>263,866</td>
<td>49,119</td>
</tr>
<tr>
<td>TVaR-250</td>
<td>408,802</td>
<td>25,156</td>
<td>408,802</td>
<td>59,257</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>35,944</td>
<td>2,594</td>
<td>34,964</td>
<td>7,945</td>
</tr>
</tbody>
</table>

US $ in Thousands

- The two tables above are examples of information that can be obtained from portfolio manager.
- The table on the left represents the current book of business.
- This can be updated at any desired interval (quarterly, monthly, weekly) by company staff trained by Aon Benfield.