‘PEER’ING INTO THE FUTURE...

HOW DO YOU COMPARE?

HOW MIGHT YOU INVEST?

BETTER YET, HOW MIGHT YOU BE INFLUENCED?
WHAT IS A PEER GROUP?

• A group of individuals or entities that share similar characteristics and interests.

• Regarding financial markets, companies that are competitors in the same industry sector and are of similar size.

• Examples:
  • Stocks, Bonds, Plumbers, College Students, Insurers, Risk Pools, etc.
WHAT USE ARE PEER GROUP ANALYSIS?

1) Tracking the performance of an insurer/risk pool over time
2) Creating institutional goals relative to your competition
3) Seeing what peers at the “next level” are doing and the results needed to reach that level
IS THE GRASS GREENER?
INSURANCE/RISK POOL PEER CONSIDERATIONS
KEY FINANCIAL RATIOS: INSURERS/RISK POOLS

1) Expense ratio and Loss ratio
   - Combined ratio

2) Operating ratio

3) Net leverage ratio
   - Reserve leverage
   - Underwriting leverage

4) Risk asset-to-surplus ratio

5) Reinsurance recoverable-to-surplus ratio
KEY FINANCIAL RATIOS: INSURERS/RISK POOLS

1) Expense ratio
   - Direct vs. Broker Distribution
   - Business Mix
KEY FINANCIAL RATIOS:
INSURERS/RISK POOLS

1) Loss ratio
   - Case reserve booking methodology
   - Ultimate loss estimate confidence level
   - Business mix
KEY FINANCIAL RATIOS: INSURERS/RISK POOLS

2) Combined ratio

- May be misleading on its own depending on business line
- May be misleading depending on reserving methodology
3) Operating ratio

- Reflects “float” or “investment” earnings

- How free is your “float”

- More relevant with “longer tail” liability lines.
KEY FINANCIAL RATIOS: INSURERS/RISK POOLS

4) Underwriting leverage ratio

- Reflects use of surplus to support premiums/contributions written
  - New business vs. renewal mix?
  - New coverage vs. stable coverage
6) Risk asset leverage ratio

- Reflects additional investment risk to surplus in excess of core fixed income.
KEY FINANCIAL RATIOS: INSURERS/RISK POOLS

5) Reinsurance recoverable-to-surplus ratio

Reflects surplus use in support of reinsurance program.
AN “ERM” STATE OF MIND

Operational Risk

Underwriting Risk

Reinsurance, Reserving Risk

Investment Risk

Surplus
## SAMPLE PEER ANALYSIS

<table>
<thead>
<tr>
<th>Company</th>
<th>Abbreviated</th>
<th>Investments</th>
<th>Surplus</th>
<th>Direct Premiums</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNL P&amp;C Industry</td>
<td>P&amp;C</td>
<td>1,715,315,736</td>
<td>765,287,429</td>
<td>642,433,322</td>
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<tr>
<td>AASCIF Peer Average</td>
<td>AVG</td>
<td>2,851,857</td>
<td>1,078,172</td>
<td>346,408</td>
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<tr>
<td>CopperPoint Insurance Companies</td>
<td>AZ</td>
<td>3,915,018</td>
<td>1,582,594</td>
<td>366,085</td>
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<tr>
<td>State Compensation Ins Fund</td>
<td>CA</td>
<td>20,316,131</td>
<td>6,691,108</td>
<td>1,360,106</td>
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<tr>
<td>Pinnacol Assurance</td>
<td>CO</td>
<td>2,735,518</td>
<td>1,276,308</td>
<td>620,980</td>
</tr>
<tr>
<td>Hawaii Employers' Mutil Ins Co.</td>
<td>HI</td>
<td>366,793</td>
<td>237,670</td>
<td>72,655</td>
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<tr>
<td>Idaho State Insurance Fund</td>
<td>ID</td>
<td>775,230</td>
<td>268,239</td>
<td>248,731</td>
</tr>
<tr>
<td>Kentucky Employers' Mutual Ins</td>
<td>KY</td>
<td>911,642</td>
<td>206,746</td>
<td>156,662</td>
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<tr>
<td>Louisiana Workers' Comp Corp.</td>
<td>LA</td>
<td>1,630,373</td>
<td>1,002,948</td>
<td>201,870</td>
</tr>
<tr>
<td>Chesapeake Employers' Ins Co.</td>
<td>MD</td>
<td>2,213,486</td>
<td>695,270</td>
<td>213,885</td>
</tr>
<tr>
<td>MEMIC</td>
<td>ME</td>
<td>1,172,544</td>
<td>438,997</td>
<td>381,799</td>
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<tr>
<td>SFM Mutual Insurance Co.</td>
<td>MN</td>
<td>525,982</td>
<td>147,727</td>
<td>183,751</td>
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<tr>
<td>MO Employers Mutual Ins Co.</td>
<td>MO</td>
<td>599,292</td>
<td>252,828</td>
<td>233,294</td>
</tr>
<tr>
<td>Montana State Fund</td>
<td>MT</td>
<td>1,524,717</td>
<td>554,701</td>
<td>172,299</td>
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<tr>
<td>New Mexico Mutual</td>
<td>NM</td>
<td>414,300</td>
<td>182,813</td>
<td>100,398</td>
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<tr>
<td>CompSource Mutual Ins Co.</td>
<td>OK</td>
<td>1,759,588</td>
<td>547,896</td>
<td>202,126</td>
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<tr>
<td>SAIF Corp.</td>
<td>OR</td>
<td>4,896,288</td>
<td>1,889,500</td>
<td>498,522</td>
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<tr>
<td>State Workers' Insurance Fund</td>
<td>PA</td>
<td>1,417,473</td>
<td>-111,415</td>
<td>173,440</td>
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<tr>
<td>Beacon Mutual Insurance Co.</td>
<td>RI</td>
<td>360,444</td>
<td>152,992</td>
<td>123,705</td>
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<tr>
<td>Texas Mutual Insurance Co.</td>
<td>TX</td>
<td>6,653,113</td>
<td>3,533,426</td>
<td>992,073</td>
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<tr>
<td>Workers Compensation Fund</td>
<td>UT</td>
<td>1,997,356</td>
<td>934,325</td>
<td>279,374</td>
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<tr>
<td>AASCIF Peer Total</td>
<td>SUM</td>
<td>54,185,287</td>
<td>20,485,274</td>
<td>6,581,757</td>
</tr>
</tbody>
</table>

Peer Group: AASCIF Companies / U.S. competitive state compensation funds covered by SNL Financial
Excludes New York and monopolistic funds (not covered by SNL Financial)
All leverage ratios for peer averages exclude PA due to negative surplus

Source: SNL 2017 Data / DWS
INVESTMENT YIELD

2-Year Average Realized Investment Yield (%)

Realized Investment Yield: Net investment income as a percent of average investments

Yearly average investment yield for various states and the average income trend from 2009 to 2017.

Source: SNL 2017 Data / DWS
UNDERWRITING LEVERAGE

Underwriting Leverage (x)
Net Premiums + Reserves / Surplus

| Year | P&C | AVG | AZ  | CA  | CO  | HI  | KY  | LA  | MD  | ME  | MN  | MO  | MT  | NM  | OK  | OR  | PA  | RI  | TX  | UT  |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2010 | 1.6x| 2.0x| 1.7x| 2.2x| 1.2x| 0.8x| 3.7x| 2.7x| 2.1x| 2.3x| 3.5x| 2.1x| 2.0x| 1.7x| 1.7x| 1.9x| 1.1x| 1.4x|
| 2011 | 0.6x| 0.6x| 0.6x| 0.6x| 0.6x| 0.6x| 0.6x| 0.6x| 0.6x| 0.6x| 0.6x| 0.6x| 0.6x| 0.6x| 0.6x| 0.6x| 0.6x| 0.6x|

Source: SNL 2017 Data / DWS

Total Underwriting Leverage (x) Trend
Net Premiums + Reserves / Surplus

- Peer Average
- P&C Industry
ASSET ALLOCATION

Source: SNL 2017 Data / DWS
INVESTMENT PERFORMANCE?

2-Year Average Total Return Proxy (%)
Utilizing current allocations and named indices

Source: SNL 2017 Data / DWS
COMPARISON MINDFULNESS
INVESTMENT PEER CONSIDERATIONS
1) Active vs. Passive
2) Returns-Based Style Attribution
Manager vs Morningstar Large Blend: Return
January 2004 - December 2018 (not annualized if less than 1 year)
Manager vs Morningstar Intermediate-Term Bond (MF+ETF): Return
January 2004 - December 2018 (not annualized if less than 1 year)

- Vanguard Total Bond Market Index Adm
- iShares Core US Aggregate Bond (MKT)
- 5th to 25th Percentile
- 25th Percentile to Median
- Median to 75th Percentile
- 75th to 95th Percentile
US DIVIDEND EQUITY - ATTRIBUTION

Vanguard High Dividend Yield Equity Fund

Asset Allocation Vanguard High Dividend Yield Index Inv
January 2009 - December 2018 (36-Month Moving Windows, Computed Monthly)

- Citigroup 3-month T-bill
- Russell Top 200 Value
- Russell Top 200 Growth
- Russell Midcap Value
- Russell Midcap Growth
- Russell 2000 Value
- Russell 2000 Growth
US DIVIDEND EQUITY – ATTRIBUTION #2

Vanguard High Dividend Yield Equity Fund

Asset Allocation Vanguard High Dividend Yield Index Inv
January 2009 - December 2018 (36-Month Moving Windows, Computed Monthly)
Asset Allocation T. Rowe Price Growth & Income
January 1986 - February 2019 (36-Month Moving Windows, Computed Monthly)
OBSERVATIONS

• Use to generate questions, not conclusions.
• Use to support accountability