Capital Punishment: Why Earning a Fair Rate of Return is Tougher than Ever in the P/C Insurance Business

International Union of Marine Insurers
New York, NY

September 16, 2002
Profitability in the P/C insurance industry
Insurer Cost of Capital: A Global Perspective
Supply of Capital in P/C Insurance Industry
Cost of Capital: How is it Computed?
Factors Influencing Cost of Capital
- Special factors affecting p/c insurance
Summary
Profitability in the P/C Insurance Industry
P/C Net Income After Taxes
1991-2002 ($ Millions)

- 2001 was the first year ever with a full year net loss
- 2002 Q1 ROE = 1.7%

* I.I.I. estimate based on first quarter 2002 data.
Sources: A.M. Best, ISO, Insurance Information Institute.
P/C Industry Combined Ratio

2001 = 115.7
2002 Forecast* = 108.0
2002 Q1: 102.3

Combined Ratios
1970s: 100.3
1980s: 109.2
1990s: 107.7
2000s: 112.9

Sources: A.M. Best; III
* Based on III 2002 Groundhog Forecast
Combined Ratio:
Reinsurance vs. P/C Industry

2001’s combined ratio was the worst-ever for reinsurers

*First Quarter 2002 for all p/c; first half for reinsurance.
Source: A.M. Best, ISO, Reinsurance Association of America, Insurance Information Institute
P-C insurers paid $53 billion \textit{more} in claims & expenses than they collected in premiums in 2001.

*Annualized estimate based on first quarter 2002 data.
Source: A.M. Best, Insurance Information Institute
ROE: P/C vs. All Industries 1987–2002*

*First Quarter
Source: Insurance Information Institute; Fortune

Source: Insurance Information Institute; Fortune
Inland marine profitability consistently above P/C & Fortune 500

Source: NAIC, Insurance Information Institute; Fortune
### 12% After Tax ROE Requires Underwriting Profit

<table>
<thead>
<tr>
<th>P : S</th>
<th>90.0%</th>
<th>92.5%</th>
<th>95.0%</th>
<th>97.5%</th>
<th>100.0%</th>
<th>102.5%</th>
<th>105.0%</th>
<th>107.5%</th>
<th>110.0%</th>
<th>112.5%</th>
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<tr>
<td>100 %</td>
<td>13.0%</td>
<td>11.5%</td>
<td>10.1%</td>
<td>8.6%</td>
<td>7.1%</td>
<td>5.6%</td>
<td>4.1%</td>
<td>2.6%</td>
<td>1.1%</td>
<td>-0.4%</td>
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<tr>
<td>110 %</td>
<td>14.0%</td>
<td>12.4%</td>
<td>10.7%</td>
<td>9.1%</td>
<td>7.5%</td>
<td>5.8%</td>
<td>4.2%</td>
<td>2.5%</td>
<td>0.9%</td>
<td>-0.7%</td>
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<tr>
<td>120 %</td>
<td>15.0%</td>
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<td>11.4%</td>
<td>9.6%</td>
<td>7.8%</td>
<td>6.1%</td>
<td>4.3%</td>
<td>2.5%</td>
<td>0.7%</td>
<td>-1.1%</td>
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<tr>
<td>130 %</td>
<td>16.0%</td>
<td>14.0%</td>
<td>12.1%</td>
<td>10.2%</td>
<td>8.2%</td>
<td>6.3%</td>
<td>4.4%</td>
<td>2.4%</td>
<td>0.5%</td>
<td>-1.5%</td>
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<tr>
<td>140 %</td>
<td>16.9%</td>
<td>14.9%</td>
<td>12.8%</td>
<td>10.7%</td>
<td>8.6%</td>
<td>6.5%</td>
<td>4.4%</td>
<td>2.4%</td>
<td>0.3%</td>
<td>-1.8%</td>
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<tr>
<td>150 %</td>
<td>17.9%</td>
<td>15.7%</td>
<td>13.5%</td>
<td>11.2%</td>
<td>9.0%</td>
<td>6.8%</td>
<td>4.5%</td>
<td>2.3%</td>
<td>0.1%</td>
<td>-2.2%</td>
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<td>160 %</td>
<td>18.9%</td>
<td>16.5%</td>
<td>14.1%</td>
<td>11.8%</td>
<td>9.4%</td>
<td>7.0%</td>
<td>4.6%</td>
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<td>-0.2%</td>
<td>-2.5%</td>
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<td>170 %</td>
<td>19.9%</td>
<td>17.3%</td>
<td>14.8%</td>
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<td>9.8%</td>
<td>7.2%</td>
<td>4.7%</td>
<td>2.2%</td>
<td>-0.4%</td>
<td>-2.9%</td>
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<td>180 %</td>
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<td>15.5%</td>
<td>12.8%</td>
<td>10.1%</td>
<td>7.5%</td>
<td>4.8%</td>
<td>2.1%</td>
<td>-0.6%</td>
<td>-3.3%</td>
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<tr>
<td>190 %</td>
<td>21.8%</td>
<td>19.0%</td>
<td>16.2%</td>
<td>13.3%</td>
<td>10.5%</td>
<td>7.7%</td>
<td>4.9%</td>
<td>2.0%</td>
<td>-0.8%</td>
<td>-3.6%</td>
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<tr>
<td>200 %</td>
<td>22.8%</td>
<td>19.8%</td>
<td>16.9%</td>
<td>13.9%</td>
<td>10.9%</td>
<td>7.9%</td>
<td>4.9%</td>
<td>2.0%</td>
<td>-1.0%</td>
<td>-4.0%</td>
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<tr>
<td>225 %</td>
<td>25.3%</td>
<td>21.9%</td>
<td>18.6%</td>
<td>15.2%</td>
<td>11.9%</td>
<td>8.5%</td>
<td>5.2%</td>
<td>1.8%</td>
<td>-1.5%</td>
<td>-4.9%</td>
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<tr>
<td>250 %</td>
<td>27.7%</td>
<td>24.0%</td>
<td>20.3%</td>
<td>16.5%</td>
<td>12.8%</td>
<td>9.1%</td>
<td>5.4%</td>
<td>1.7%</td>
<td>-2.1%</td>
<td>-5.8%</td>
</tr>
</tbody>
</table>

Source: Dowling & Partners
Insurer Cost of Capital

A Global Perspective
Cost of Capital: A Definition

• Cost of Capital:
  ➢ Rate of return that can be earned by investors in industries offering comparable degree of risk
    • Must be sufficient to maintain & attract capital

• Insurance Cost of Capital:
  ➢ Will vary substantially by line
There is an **enormous** gap between the industry’s cost of capital and its rate of return.

US P/C insurers have missed their cost of capital by an average 6.7 points since 1991.


Supply of Capital in the P/C Insurance Industry

How Much is There?
Policyholder Surplus: 1975-2002*

Surplus Peaked at $336.3 Billion in 1999
• Surplus decreased 8.7% in 2001 to $289.6 Billion.
• Surplus rose 1.9% in the 1st quarter of 2002
• Surplus is now lower than at year-end 1997.

“Surplus” is a measure of underwriting capacity. It is analogous to “Owners Equity” or “Net Worth” in non-insurance organizations.

*As of 1st quarter 2002
Source: A.M. Best, Insurance Information Institute
Net Premiums Written to Policyholder Surplus Ratio

Source: A.M. Best, Insurance Information Institute

2000: 0.95
2001: 1.16
2002 (Forecast): 1.33
Capital Raising by P/C Insurers Since September 11, 2001*

Capital Raising by P/C Insurers Since 9/11 Totals $44.5B

*As of September 13, 2002.

Source: Morgan Stanley, Insurance Information Institute.
Capital Myth 3: P/C Insurers Have $300 Billion to Pay Terrorism Claims

Total PHS = $298.2 B as of 6/30/01

"Target" Commercial
$100 billion
33%

Personal
$150 billion
50%

Other Commercial
$50 billion
17%

*"Target" Commercial includes: Comm property, liability and workers comp; Surplus must also back-up on non-terrorist related property/liability and WC claims

Source: Insurance Information Institute
### Price Increases Needed to Achieve Cost of Capital

**Second Quarter 2002**

#### Rate Increases By Line of Business

<table>
<thead>
<tr>
<th>Line of Business</th>
<th>No Change</th>
<th>Up 1-10%</th>
<th>10-20%</th>
<th>20-30%</th>
<th>30-50%</th>
<th>50%-100%</th>
<th>&gt;100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comm. Auto</td>
<td>2%</td>
<td>6%</td>
<td>28%</td>
<td>39%</td>
<td>21%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Workers Comp</td>
<td>5%</td>
<td>13%</td>
<td>19%</td>
<td>32%</td>
<td>15%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>General Liability</td>
<td>2%</td>
<td>9%</td>
<td>24%</td>
<td>45%</td>
<td>15%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Comm. Umbrella</td>
<td>2%</td>
<td>4%</td>
<td>10%</td>
<td>20%</td>
<td>27%</td>
<td>17%</td>
<td>16%</td>
</tr>
<tr>
<td>Comm. Property</td>
<td>3%</td>
<td>4%</td>
<td>16%</td>
<td>30%</td>
<td>31%</td>
<td>13%</td>
<td>1%</td>
</tr>
<tr>
<td>Business Interr.</td>
<td>3%</td>
<td>8%</td>
<td>32%</td>
<td>33%</td>
<td>10%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Surety Bonds</td>
<td>10%</td>
<td>13%</td>
<td>16%</td>
<td>14%</td>
<td>6%</td>
<td>0%</td>
<td>1%</td>
</tr>
</tbody>
</table>

*Source: Council of Insurance Agents and Brokers*
Prices rising, limits falling: ROL up significantly

Source: Guy Carpenter

* III Estimate
Cost of Risk per $1,000 of Revenues: 1990-2002E

Cost of risk to corporations could rise sharply in 2002; About half of increase due to 9/11

Source: 2001 RIMS Benchmark Survey; Insurance Information Institute estimates.
Growth in Net Premiums Written (All P/C Lines)

The underwriting cycle went AWOL in the 1990s. It’s Back!

2000: 5.1%
2001: 8.1%
2002: 10.3%*

*Estimate based on first quarter 2002
Source: A.M. Best, Insurance Information Institute
Cost of Capital:

How is it Computed?
Cost of Capital: Methods

• 2 Commonly Used Methods
  ➢ Discounted Cash Flow (DCF)
    • Uses current dividend yield & dividend (or earnings) growth rate
  ➢ Capital Asset Pricing Model (CAPM)
    • Uses risk-free interest rate, risk premium & measure of relative risk, Beta (β)

• Factors currently affecting costs of capital
  ➢ Dividend yields very low (1.39% mid-2002), little growth expected; Recent earnings performance poor
  ➢ Interest rates very low (short-term rates < 1.8% mid-2002)
  ➢ Risk premium shrinking (return on alternatives to risk-free return are shrinking)
  ➢ Beta (β) low relative to overall stock market (stock price volatility slightly less than overall market: β = 0.96)

• CURRENT P/C COST OF CAPITAL IS: 11% - 12%
Factors Influencing the Cost of Capital
Economy is experiencing sluggish growth following the recession of 2001 (first recession since 1990/91)

Source: US Department of Commerce, Blue Economic Indicators 9/02, Insurance Information Institute.
Economic Outlook for Major US Trading Partners (Real GDP Growth, %)

Economies of most major trading partners expected to improve in 2002/2003

Does US have a trade policy?

Source: Blue Chip Economic Indicators, September 2002.
**Interest Rates: Lower Than They’ve Been in Decades**

*Interest Rates Low for 2 Reasons*

1. **Weak Economy** (= low inflation, less demand for cap)
2. Perception that federal budget will return to surplus

*If either of these changes, interest rates and CoC up*

*Average for week ending September 6, 2002.*

Source: Board of Governors, Federal Reserve System; Insurance Information Institute
Risky Business: Yield Spread
Rising with Corporate Scandals*

Yield Spread Between Long-Term ‘aaa’ Corporates and 10-Year US Treasury Securities

Risk premium (2.46 points) reached all time high in Oct. 2001 (Enron problem surfaced)

*January 1990 through August 2002
Source: Board of Governors, Federal Reserve System; Insurance Information Institute
Treasury Yield Curve: Rates Down Across Every Maturity, esp. Short-Term

Yield Curve 2 years before attack

Yield Curve for the week before September 11 terrorist attack

Yield Curve: Most Recent (1st anniversary of 9/11 attack)

*Data are averages for all trading days for the week on the indicated date.
Source: Board of Governors, Federal Reserve System; Insurance Information Institute
Net Investment Income

Investment income in 2002 could fall 5% to 6%
Realized capital gains in the 1st quarter of 2002 were down 89%

Facts
1997 Peak = $41.5B
2000= $40.7B
2001 = $37.1B
2002E = $35.8B

Source: A.M. Best, Insurance Information Institute
Headed for 3rd consecutive year of decline for stocks
Last happened 1939-1941

*As of September 13, 2002.
Source: Ibbotson Associates, Insurance Information Institute


## World’s Most Dangerous Lines of Insurance
(Combined Ratio + 1 Std. Deviation)

<table>
<thead>
<tr>
<th>Line</th>
<th>Combined Ratio + 1 Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earthquake</td>
<td>135.6</td>
</tr>
<tr>
<td>Med Mal</td>
<td>135.1</td>
</tr>
<tr>
<td>Other Liability</td>
<td>133.9</td>
</tr>
<tr>
<td>Reinsurance</td>
<td>133.3</td>
</tr>
<tr>
<td>Homeowners</td>
<td>131.6</td>
</tr>
<tr>
<td>Allied Lines</td>
<td>129.3</td>
</tr>
<tr>
<td>Aircraft</td>
<td>121.8</td>
</tr>
<tr>
<td>Comm. Multi Peril</td>
<td>119.3</td>
</tr>
<tr>
<td>Comm. Auto Liab.</td>
<td>118.7</td>
</tr>
<tr>
<td>Workers Comp</td>
<td>117.1</td>
</tr>
<tr>
<td>Farm Multi Peril</td>
<td>116.3</td>
</tr>
<tr>
<td>Commercial–All</td>
<td>115.1</td>
</tr>
<tr>
<td>Ocean Marine</td>
<td>114.6</td>
</tr>
<tr>
<td>Fire</td>
<td>112.9</td>
</tr>
<tr>
<td>All Lines</td>
<td>111</td>
</tr>
<tr>
<td>PP Auto Liab</td>
<td>109.7</td>
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<tr>
<td>Personal–All Lines</td>
<td>109.1</td>
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<tr>
<td>Comm Auto PD</td>
<td>107</td>
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<tr>
<td>Boiler &amp; Machine</td>
<td>103.4</td>
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<td>Group A&amp;H</td>
<td>102.9</td>
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<td>Other A&amp;H</td>
<td>101.7</td>
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<tr>
<td>Priv Pass PD</td>
<td>101.3</td>
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<tr>
<td>Inland Marine</td>
<td>100</td>
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<tr>
<td>Fidelity</td>
<td><strong>84.1</strong></td>
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<tr>
<td>Other Surety</td>
<td></td>
</tr>
<tr>
<td>Burglary &amp; Theft</td>
<td></td>
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</tbody>
</table>

Source: Insurance Information Institute, calculated from A.M. Best combined ratio data.

Cost of capital will vary significantly by line and mix of business, according to risk assumed.
**P/C Performance Volatile, but Better than S&P 500 Lately**

<table>
<thead>
<tr>
<th>Year</th>
<th>P/C</th>
<th>S&amp;P 500</th>
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<tbody>
<tr>
<td>1999</td>
<td>-25.7%</td>
<td>21.0%</td>
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<tr>
<td>2000</td>
<td>43.4%</td>
<td>-9.1%</td>
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<tr>
<td>2001</td>
<td>-1.2%</td>
<td>-10.9%</td>
</tr>
<tr>
<td>2002*</td>
<td>-3.7%</td>
<td>-21.7%</td>
</tr>
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</table>

*Through September 13, 2002.*

Source: SNL Securities, Insurance Information Institute
Insurer Stock Price Performance: Before & After 9/11

Total Return

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>Multi</th>
<th>L/H</th>
<th>P/C</th>
<th>Broker</th>
<th>S&amp;P500</th>
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<tbody>
<tr>
<td>Percent</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>10-Sep-01</td>
<td>-13.2</td>
<td>-23.0</td>
<td>-29.5</td>
<td>-21.7</td>
<td>-20.0</td>
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<td>28-Dec-02</td>
<td>-7.6</td>
<td>-10.2</td>
<td>-15.9</td>
<td>-9.7</td>
<td>-7.0</td>
<td>-16.5</td>
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<tr>
<td>21-Sep-01</td>
<td>-21.6</td>
<td>-15.9</td>
<td>-21.7</td>
<td>-11.2</td>
<td>-8.2</td>
<td>-21.1</td>
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<tr>
<td>1 Jan - 13 Sep '02</td>
<td>-25.5</td>
<td>-9.7</td>
<td>-21.7</td>
<td>-18.3</td>
<td>-3.7</td>
<td>-21.7</td>
</tr>
</tbody>
</table>

Source: SNL Securities, Insurance Information Institute
Special Factors Influencing Insurers’ Cost of Capital

Terrorists
Trial Lawyers
Tycoons
Tempests
Sept. 11 Industry Loss Estimates
($ Billions)

- Life: $2.7 (7%)
- Aviation Liability: $3.5 (9%)
- Other Liability: $10.0 (25%)
- Aviation Hull: $0.5 (1%)
- Event Cancellation: $1.0 (2%)
- Workers Comp: $2.0 (5%)
- Property - WTC 1 & 2: $3.5 (9%)
- Property - Other: $6.0 (15%)
- Biz Interruption: $11.0 (27%)

Insured Losses Estimate: $40.2B

Source: Insurance Information Institute, July 2002
Accounting Problems are Getting Many Companies into Trouble

• Enron fallout much worse than anticipated

• Many companies restating earnings
Average Jury Awards
1994 vs. 2000

Source: Jury Verdict Research; Insurance Information Institute.
Who Will Pay for the US Asbestos Mess?

Estimated Total US Settlements & Expenses = $200 billion

- Asbestos Defendants: $78 billion (39%)
- US Insurers: $60 billion (30%)
- Foreign Insurers: $62 billion (31%)

Source: Tillinghast-Towers Perrin; Insurance Information Institute
U.S. Insured Catastrophe Losses

CAT Losses for 2001 Set a Record

- 20 events (lowest since 1969)
- 1.5 million claims
- 9/11: $20.3B = 51,000 claims

* Includes $20.3B for 9/11 losses reported through 12/31/01. Includes only business and personal property claims, business interruption and auto claims.

Source: Property Claims Service, Insurance Information Institute
Insurance Mergers and Acquisitions

- Number of M&As was down 39.4% during the first half of 2002 vs. first half 2001.
- Value of deals was down 80.8%.
- None of the top deals were in the P/C sector.

1998: 565 deals valued at $165.4 B

Source: Compiled from Conning & Company reports.
• Industry not even close to earnings its cost of capital
• Hard market must continue for it to be earned
• Lots of new capital seeking high rate of return
• Not all companies will be able to meet investor expectations
• Shareholders like to be more impatient (have give p/c stocks benefit of the doubt)
• Increase in M&A activity possible to squeeze excess capacity from industry, but not anytime soon.
If you would like a copy of this presentation, please give me your business card with e-mail address