D&O Pricing, Not as Easy as ABC
Anup Seth – September 2006

Agenda

- D&O Product Overview
- Typical D&O Programme
- Claim Frequency
- Claim Severity
- Financial Markets Approach
- Case Study

D&O Product Overview

Definition of Coverage

- A D&O policy provides coverage for claims arising from the “wrongful acts” of insured persons while serving in their capacity as directors or officers, including any act, error, or omission in their capacity as directors or officers.

Types of Coverage

- Side ABC – Entity Coverage
- Side AB – Corporate Reimbursement for Directors & Officers
- Side A – Non-indemifiable coverage (Personal asset protection for Directors & officers)
D&O Product Overview

Form & Exclusions
- Claims made Form
- Allocation
- Excess DIC (Difference in conditions)
- Insured v Insured
- Severability

Additional Types of Coverage
- E&O
- Fiduciary
- EPLI (Employment Practice Liability)

A Typical D&O Programme

- Berkley Cat $25m x 80%/80% (Premium $0.36m)
- Aon $10m x $30m (Premium $0.18m)
- Reliance Group $10m x $60m (Premium $0.35m)
- Hartford $15m x $60m (Premium $0.25m)
- St Paul $15m x $75m (Premium $0.20m)
- C.N.A $15m x $60m (Premium $0.36m)
- Allianz $15m x $60m (Premium $0.24m)
- AIG $15m x $75m (Premium $0.14m)

- Side A
- Side B
- Side C

Claim Frequency – No of Class Actions
Claim Frequency

- Firms face a 2% chance of being sued each year

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<thead>
<tr>
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<tbody>
<tr>
<td>No of Publicly Traded Companies</td>
<td>11,888</td>
<td>12,387</td>
<td>4.1%</td>
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<tr>
<td>Annual Class Action Suits Filed</td>
<td>210</td>
<td>241</td>
<td>13.7%</td>
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<td>Probability of Securities Class Action</td>
<td>1.9%</td>
<td>1.9%</td>
<td>0.1%</td>
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Claim Frequency

Potential Characteristics that impact Claim Freq
- Market Cap
- Industry Sector
- Stock Volatility
- Financial Strength
- Corporate Governance
- M&A/IPO Activity

Claim Frequency

Systemic Issues
- 2000 – Utility Industry (Round Tripping)
- 2001 – IPO Allocation
- 2001 & 2002 – Laddering
- 2003 & 2004 – Mutual Funds
- 2005 – Insurance Industry (Elliot Spitzer)
- 2006 – Stock Option Back Dating
- What Next??
Claim Severity

- Top Ten Shareholder Class Action Settlements as at 1/3/06

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Company</th>
<th>Settlement Value $m</th>
<th>Year</th>
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<tr>
<td>1</td>
<td>Cendant Corp.</td>
<td>7,156</td>
<td>2000</td>
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<td>2</td>
<td>WorldCom Inc.</td>
<td>6,156</td>
<td>1996</td>
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<td>3</td>
<td>AOL Time Warner Inc.</td>
<td>5,105</td>
<td>2005</td>
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<td>4</td>
<td>BankAmerica Corp.</td>
<td>3,528</td>
<td>2000</td>
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<td>5</td>
<td>Countrywide Financial</td>
<td>3,250</td>
<td>1999</td>
</tr>
<tr>
<td>6</td>
<td>Nortel Networks</td>
<td>2,474</td>
<td>2006</td>
</tr>
<tr>
<td>7</td>
<td>Royal Ahold NV</td>
<td>1,100</td>
<td>2006</td>
</tr>
<tr>
<td>8</td>
<td>McKesson HBOC Inc.</td>
<td>960</td>
<td>2005</td>
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<td>9</td>
<td>Lucent Technologies</td>
<td>517</td>
<td>2003</td>
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<tr>
<td>10</td>
<td>BankAmerica Corp., National Corp.</td>
<td>490</td>
<td>2002</td>
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Claim Severity

Mean Settlement Value $m

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<tbody>
<tr>
<td>Settlement Value</td>
<td>9</td>
<td>9</td>
<td>20</td>
<td>14</td>
<td>16</td>
<td>14</td>
<td>24</td>
<td>22</td>
<td>19</td>
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Potential Characteristics that Impact Claim Severity

- Market Cap
- Industry Sector
- Corporate Culture (Insured behaviour)
- New Management
- Lead Plaintiffs

Defense Costs

- Approx 10% - 20% of indemnity cost
Actuarial Approach to D&O Pricing

Premium equals
- Expected loss cost in the layer (claim freq x claim severity)
- Risk load (percentage of SD)
- Expense load
- Acquisition costs load
- Profit load

Financial Markets Approach to D&O Pricing

Base Claim Frequency
- Rating Agency Default Rates
- Implied Default Rate from Credit Spreads
Adjust for
- Market Cap
- Stock Volatility
- Regulatory Investigations
- Institutional Investors own > 5% of outstanding stock
- M&A or IPO Activity

Financial Markets Approach to D&O Pricing

Option Pricing
- Selling a D&O policy is synonymous to selling a put option
Example
- A Large FTSE 100 Bank
  - Limit £20m, Attachment £100m
  - 20% fall in Market Cap would lead to a total loss
  - Black Scholes to calculate the implied premium
  - Allow for Market Volatility
Case Study

What is the Premium of the Top Layer

- Large Pharmaceutical Company
- Side ABC Standard D&O coverage
- Market Cap — Approx $6bn
- Limit $40m, Attachment $160m
- NASDAQ Listed
- Good Financial Strength (SE $3bn)
- Excellent Corporate Governance
- Loss Free to date

Case Study – Programme Structure