The Long Shadow of September 11:

Terrorism & Its Impacts on Insurance and Reinsurance Markets

July 25, 2002

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http://www.iii.org/media/hottopics/insurance/sept11/

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Presentation Outline

• Timeline of Terror & Immediate Industry Response
• What will it cost & who’s going to pay?
• Terror exclusions
• Cyber Terrorism
• Next Attack?
• Implication for the Insurance Industry
  ➢ Financial
  ➢ Capacity
  ➢ Pricing
• Modelling Terror
• Federal Backstop: What’s Happening in Washington?
Timeline of Terror:

How We Got Here
Timeline of Terror

• 8:46AM: American Airlines Flight 11 Strikes North WTC Tower

• 9:03AM: United Airlines Flight 175 Hits South Tower
Timeline of Terror

• 9:43AM: American Airlines Flight 77 Strikes Pentagon

• 10:05AM: South Tower of WTC Collapses
Timeline of Terror

- 10:10AM: United Airlines Flight 93 Crashed in PA
- 10:28AM: North Tower of WTC Collapses
Damage at WTC Site

Brown = Destroyed
Red = Severe Damage
Pink = Moderate Damage

26 million sq. ft. of office space damaged or destroyed
I.I.I.: Too Close for Comfort

Distance from WTC Towers to Insurance Information Institute Offices = 500 meters
Timeline of Terror

- Anthrax attacks begin in early October
Since Then...

He did it.

Here’s where he is (was).

Military Option Selected

Bombs Away!
Immediate Market Response: Shock but No Panic

- Reassured “world” that insurers can and will pay claims
  - No “act of war” or terrorism exclusions in place

- Aviation insurers virtually eliminate 3rd party war cover

- CAT reinsurers impose terrorism exclusions

- Primary commercial insurers adopt terror exclusions in most states on case

- Push in Washington to establish a terror pool (like Pool Re in U.K.)

- Limited stand-alone terror coverage market evolves

Source: Insurance Information Institute.
What’s this Going to Cost & Who’s Going to Pay for It?
Sept. 11 Insured Loss Estimates

• Biggest insured CAT is US and world history ($40B)
  ➢ Hurricane Andrew: $15.5B (1992$); $20B (2000$)
• 100+ insurers worldwide have made announcements accounting for about $25B in insured losses
• Industry loss estimates ranged from low of $30 billion to $70 billion (I.I.I. Estimate $40.2B)
  ➢ First WC disaster ($2.0B); 2,250 physically injured
  ➢ First life disaster ($2.7B); 3,132 killed
  ➢ Anthrax Issue? WC exposure if out of course of employment
• Estimated NYC economic losses are $83 billion
• Insurance will pay biggest share by far
  ➢ Fed. Govt. promised $21.5B, excluding Victims Comp. Fund
• Where would NY be today if terror exclusions were adopted after 1993 WTC bombing?

Source: Insurance Information Institute
Sept. 11 Industry Loss Estimates

($ Billions)

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

Insured Losses Estimate: $40.2B

Source: Insurance Information Institute, July 2002
WTC Claim Breakdown
Total Claim Count = 31,232*

*Reported to Disaster Insurance Information Office (DIIO) as of June 5, 2002; Excludes life claims.

Source: Insurance Information Institute
## Death Toll from September 11 Attack*

<table>
<thead>
<tr>
<th>Category</th>
<th>Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>WTC Victims (workers &amp; visitors)*</td>
<td>2,742</td>
</tr>
<tr>
<td>WTC Hijacked Jets (incl. 10 hijackers)</td>
<td>157</td>
</tr>
<tr>
<td>Pentagon Victims on Ground</td>
<td>125</td>
</tr>
<tr>
<td>Pentagon Hijacked Jet (incl. 5 hijackers)</td>
<td>64</td>
</tr>
<tr>
<td>Pennsylvania Hijacked Jet (incl. 4 hijackers)</td>
<td>44</td>
</tr>
<tr>
<td><strong>TOTAL FATALITIES</strong></td>
<td><strong>3,132</strong></td>
</tr>
</tbody>
</table>

*There were also an estimated 2,250 non-fatal injuries*

Top 5 Costliest Terrorist Attacks
(by insured property loss*)

$ Millions, Adjusted to 2001 Price Level

- 9/11/01
  - 3,132 Killed
  - 2,250 Injured
- 4/24/93
  - 1 Killed
  - 54 Injured
- 6/15/96
  - 0 Killed
  - 228 Injured
- 2/26/93
  - 6 Killed
  - 725 Injured
- 4/10/92
  - 3 Killed
  - 91 Injured

9/11 Terrorist Attacks
Bomb Near NatWest Tower in London
IRA Car Bomb Near Manchester Mall
Bomb in WTC Garage
Bomb in London Financial District

Oklahoma City bombing in 1995 cost insurers $125 million

*Includes business interruption and aviation hull losses.
Source: Swiss Re; Insurance Information Institute.
**Insured Loss Estimates**
*(updated through July 19, 2002)*

Top 17 Groups (pre-tax, net of reinsurance, $ millions)

<table>
<thead>
<tr>
<th>Insurer</th>
<th>Loss Estimate (in $ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lloyd's</td>
<td>2,913</td>
</tr>
<tr>
<td>Munich Re</td>
<td>2,442</td>
</tr>
<tr>
<td>Swiss Re</td>
<td>2,316</td>
</tr>
<tr>
<td>Berk Hath</td>
<td>2,275</td>
</tr>
<tr>
<td>Allianz</td>
<td>1,323</td>
</tr>
<tr>
<td>Aioi</td>
<td>952</td>
</tr>
<tr>
<td>XL</td>
<td>950</td>
</tr>
<tr>
<td>St. Paul</td>
<td>941</td>
</tr>
<tr>
<td>Zurich</td>
<td>900</td>
</tr>
<tr>
<td>Nissan</td>
<td>840</td>
</tr>
<tr>
<td>AIG</td>
<td>820</td>
</tr>
<tr>
<td>Citigroup</td>
<td>769</td>
</tr>
<tr>
<td>Hartford</td>
<td>677</td>
</tr>
<tr>
<td>ACE</td>
<td>650</td>
</tr>
<tr>
<td>Chubb</td>
<td>645</td>
</tr>
<tr>
<td>ERC</td>
<td>620</td>
</tr>
<tr>
<td>Axa</td>
<td>550</td>
</tr>
<tr>
<td>CNA</td>
<td>468</td>
</tr>
<tr>
<td>ING</td>
<td>440</td>
</tr>
</tbody>
</table>

9/11 Gross vs. Net Losses*
(Life & Non-Life)

GROSS LOSSES = $49.3 B

- Primary 62%
- Reinsurance 38%

$18.8B $30.4B

NET LOSSES = $22.2 B

- Primary 48%
- Reinsurance 52%

$11.6B $10.6B

Implies $27B in reinsurance involved. System worked because of spread of risk and reinsurance. What about the next attack?

*Gross: before adjusting for reinsurance recoverables;
Net: After adjusting for reinsurance recoverables.
Source: Insurance Information Institute, as of February 2002.
10 Costliest Disasters in U.S. History
(by insured loss, 2001 $)

*Estimate includes property and business interruption losses as well as liability, workers comp, life, aviation and other coverages.
World: Top 10 Biggest Catastrophes (by insured loss)

$ Billions, in 2001 $

- **Terrorist Attacks (01)**
- **Hurr. Andrew (92)**
- **Northridge EQ. (94)**
- **Typh. Mireille**
- **WS Daria**
- **WS Lothar**
- **Hurr. Hugo (95)**
- **Misc Storms/Floods**
- **WS Vivian**
- **Typh Bart**

*III Estimate; Includes life, liability and workers compensation losses. Source: Swiss Re, Insurance Information Institute.*
Terrorism Exclusions
Terrorism Exclusions

Terror exclusions approved in 45 states + DC and PR

Exclusions Approved, Mandatory Fire Following
No Terrorism Exclusion
Exclusions Approved, Fire Following NOT Mandatory
ISO Definition of Terrorism Used in Property and Liability Exclusions:

“Terrorism” means activities against persons, organizations or property of any nature:

1. That involve the following or preparation for the following:
   a) Use or threat of force or violence;
   b) Commission or threat of a dangerous act; or
   c) Commission or threat of an act that interferes with or disrupts an electronic, communication, information, or mechanical system; and
Definition of Terrorism Under both Property and Liability Exclusions:

2. When one or both of the following applies:

   a) The effect is to intimidate or coerce a government, or to cause chaos among the civilian population or any segment thereof, or to disrupt any segment of the economy; or

   b) It is reasonable to believe the intent is to intimidate or coerce a government, or to seek revenge or retaliate, or to further political, ideological, religious, social or economic objectives or to express (or express opposition to) a philosophy or ideology.
Applied to Physical Damage:

“Loss or damage caused directly or indirectly by terrorism, including action in hindering or defending against an actual or expected incident of terrorism. Such loss or damage is excluded regardless of any other cause or event that contributes concurrently or in any sequence to the loss.”
Proposed Exclusion for General Liability Coverages:

Applied to bodily injury, property damage, and personal and advertising injury:

- Arising directly or indirectly, out of “terrorism,” including any action taken in hindering or defending against an actual or expected incident of “terrorism” regardless of any other cause or event that contributes concurrently or in any sequence to the injury or damage.
One Major Commercial Insurer’s Endorsement and Definition:

Exclusion of:

*Any act of one or more persons, whether known or unknown and whether or not agents of a sovereign power, for Terrorist Purposes...*

...*Terrorist Purposes means the use or threatened use of any unlawful means, including the use of force or violence against any person(s) or propert(ies), for the actual or apparent purpose of intimidating, coercing, punishing or affecting society or some portion of society or government.*

**NEXT ATTACK: Will the war exclusion apply?**
Cyberrisks & Terrorism
What Does Cyber (Usually) Insurance Cover?*

- Denial or Loss of Service
- Malicious intrusion (e.g., hacking)
- Theft of intellectual property (e.g., patents, copyrights)
- Theft of confidential information (e.g., credit card data)
- Extra expense costs (to recreate data & get back online)
- Expert assistance
- Liable/Slander
- Cyber-extortion (e.g., Implication for the Insurance Industry)

*NOTE: Traditional commercial property/liability policies may provide little or no protection.*

Source: Insurance Information Institute  
*Terms of coverage can vary considerably by company.*
CyberInsurance & Terrorism

• Insurer definition of terror broad enough to include terrorism, therefore exclusion could apply if added
• Insurers could easily exclude, so far appear to have not done so
  ➢ Threat from terrorism not significantly distinct from ordinary cyberrisks (e.g., hacking, DOS, viruses, etc.)

Source: Insurance Information Institute
What About the Next Attack?
Insurers Overexposed to Terror Risk in 2002

Insurer Exposure to Terrorism

- +/- 70% reinsurance treaties expired 12/31/01
- +/- 30% expire 6/30/02
- Underlying policies renewed w/terror exclusion gradually as they expire

Source: Insurance Information Institute
* Excludes workers comp, which will carry no terrorism exclusion.
GAO Report: Highlights Economic Vulnerabilities

- GAO Report Released February 27, 2002
- Major Findings: [www.house.gov/financialservices/022702t2.htm](http://www.house.gov/financialservices/022702t2.htm)

1. Insurers Shifting Terrorism Risk to Property Owners/Businesses
   - Reinsurers withdrawing from market for terrorism
   - Primary insurers excluding coverage as their exposure increases

2. As Business Exposure to Uninsured Risks Rise, so do Potential Economic Consequences
   - Economic consequences from next attack could be more severe

3. Potential Economic Consequences of Not Having Terrorism Insurance are Cause for Concern

Conclusions
- Congressional action is “properly a matter of public policy”
- Consequences of inaction are “may be real and potentially large”
  - “A decision not to act could have debilitating financial consequences for businesses…their employees, lenders, suppliers, and customers.”
  - Government will face difficulties if it waits to act after an attack: “difficult to implements quickly—and extremely expensive.”
Joint Economic Committee, US Congress: Report Findings

- JEC Report Released May 2002; Heavy III input

- Major Findings:

1. Market for Terrorism Insurance Remains Limited
   - Only small number of insurers actively providing stand-alone terror cover
   - When available, coverage is expensive, limited and offered with restrictive terms

2. Problems Associated with Terrorism Insurance Pose a Significant Threat to Sustained Economic Growth
   - Lack of terror insurance stopping some business deals, esp. real estate and construction projects where terror cover necessary to obtain funding
   - High cost of terror insurance diverts resources from other more productive uses, negatively affecting investments and jobs.
   - Low coverage limits mean that businesses are bearing a huge amount of risk themselves. In the event of another attack, insurance payments will not be available to the same degree for rebuilding.
Commercial Real Estate: Value at Risk*

TOTAL = $10.6 Trillion

Without terror bill more of this risk will be shifted to business/property owners

Replacement Cost of Structures 52%

Inventory 13%

Equipment & Software 35%

*As of 12/31/2000; Excludes residential real estate.
Source: Morgan Stanley, FDIC, Federal Reserve; Insurance Information Institute.
**Commercial Real Estate Debt: Debt at Risk**

TOTAL = $8.2 Trillion

Without terror bill more of this risk will be shifted to commercial lenders/landlords

- **Industrial Loans**: 13% ($1.08 Trillion)
- **Lease Receivables**: 2% ($0.17 Tr)
- **Real Estate/Mortgage Loans**: 85% ($6.94 Trillion)

*As of 12/31/2000; Excludes residential real estate.
Source: Morgan Stanley, FDIC, Federal Reserve; Insurance Information Institute.
Most Businesses Have Little or No Terrorism Coverage

Lenders vs. Commercial Mortgage Holders
- Cigna/Durst/4 Times Square/$5 mill for cover
- GMAC require purchase on 40,000 properties w/$100 billion in loans across US.


Pie chart showing:
- No Coverage: 50%
- Limited Coverage: 26%
- Full Coverage: 18%
- Purchased Separate Coverage: 6%

Lack of coverage underscores need for federal backstop
But Most Banks Don’t Yet Seem to Recognize the Risk

BANKER POLL: Rejection Rate for High-Profile or Heavy Traffic Commercial Real Estate Properties (Since 9/11) Has…

- Increased Substantially: 1.9%
- Increased Moderately: 1.9%
- Stayed about Same: 40.4%
- Bank has received no applications for such projects: 55.8%

Source: Federal Reserve survey of large bank lending practices, April 2002.
But Most Banks Don’t Yet Seem to Recognize the Risk

BANKER POLL: Rejection Rate for Commercial Real Estate Properties (Since 9/11) Has...

- Increased Substantially: 0%
- Increased Moderately: 5.9%
- Stayed about Same: 80.4%
- Bank has received no applications for such projects: 13.7%

Source: Federal Reserve survey of large bank lending practices, April 2002.
# Federal Backstop: Winner/Loser Matrix

## TERRORISM BILL PASSES

### SCENARIO 4

**WINNERS:**
- Primary insurers/Reinsurers/Brokers
- Capital Markets-Focused Firms

**LOSERS:**
- REITs
- Credit Sensitive Firms

### SCENARIO 1

**WINNERS:**
- Primary insurers/Reinsurers/Brokers
- REITs

**LOSERS:** None

## NO ATTACKS OCCUR

### SCENARIO 3

**WINNERS:**
- Reinsurers/Brokers
- Capital Markets-Focused Firms
- Asset managers w/ fixed-income focus

**LOSERS:**
- Primary insurers
- REITs
- Credit Sensitive Firms
- Asset managers w/ equity focus

### SCENARIO 2

**WINNERS:**
- Primary insurers/Reinsurers/Brokers
- Capital Markets-Focused Firms; Less so for credit-sensitive firms

**LOSERS:**
- REITs

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Source: Morgan Stanley
Capacity:

How Much Money
Do We Really Have?
Capital Myth 1: Insurers Have $4 Trillion in Assets to Pay Terrorism Claims

Total = $4.1 Trillion (as of 12/31/00)

The Facts

P/C insurers have $931 billion in assets compared to $3.1 trillion for life insurers

Source: Insurance Information Institute
Capital Myth 2: P/C Insurers Have Nearly $1 Trillion in Assets to Pay Terrorism Claims

The Facts
66% of Assets are offset by liabilities (mostly reserves) or are non-admitted

Assets = Liabilities + Policyholder Surplus

- Liabilities ($594.6B) 64%
- PH Surplus ($317.4B) 34%
- Non-Admitted Assets ($19B) 2%

Source: Insurance Information Institute; A.M. Best
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%

The Facts
Only 33% of industry surplus backs up “target” lines.

*"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
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
Capacity Crunch Brings Opportunity

- Rapid rush of capital into offshore domiciles; U.S. and European insurers had no problem raising cash equity and bond markets
  - But some new cash is hedge fund/venture capital = short term

- “Flight to Quality” Big, highly-rated insurers benefit

- Risk modeling firms begin research:
  - Terror risk generally
  - WC especially (no terror exclusions approved)

Source: Insurance Information Institute.
# Fresh Capital: Top 15 Deals

*(Completed as of July 12, 2002)*

<table>
<thead>
<tr>
<th>Company</th>
<th>Issuance</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGNU</td>
<td>D</td>
<td>$1,700</td>
</tr>
<tr>
<td>Swiss Re</td>
<td>V</td>
<td>1,600</td>
</tr>
<tr>
<td>Axis (Marsh)</td>
<td>S</td>
<td>1,600</td>
</tr>
<tr>
<td>Ace Ltd.</td>
<td>S</td>
<td>1,150</td>
</tr>
<tr>
<td>Winterthur</td>
<td>U</td>
<td>1,100</td>
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<tr>
<td>AIG</td>
<td>CD</td>
<td>1,000</td>
</tr>
<tr>
<td>Montpelier</td>
<td>PE</td>
<td>1,000</td>
</tr>
<tr>
<td>Converium</td>
<td>S</td>
<td>985</td>
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<tr>
<td>Allied World</td>
<td>S</td>
<td>959</td>
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<tr>
<td>XL Capital</td>
<td>S</td>
<td>819</td>
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<tr>
<td>Endurance</td>
<td>V</td>
<td>800</td>
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<tr>
<td>Arch Capital</td>
<td>S</td>
<td>763</td>
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<tr>
<td>Chubb</td>
<td>D</td>
<td>600</td>
</tr>
<tr>
<td>St. Paul</td>
<td>TP</td>
<td>575</td>
</tr>
<tr>
<td>Wellington</td>
<td>S</td>
<td>564</td>
</tr>
<tr>
<td>ALL OTHERS</td>
<td></td>
<td>7,281</td>
</tr>
</tbody>
</table>

**Total Completed = $28,037**

**Pending = $16,431**

**GRAND TOTAL = $44,468**

*Will they shorten the hard market?*

*Type of Issuance: CD=Convertible Debt; D= Debt; PE=Private Equity; S=Stock; TP=Trust Preferred; U=Unspecified; V=Various*
Capital Raising by P/C Insurers Since September 11, 2001*

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

*As of July 12, 2002.

Source: Morgan Stanley
Financial Implications for the U.S. Non-Life 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 = 6.9%

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

2001 = 116.0

2002 Forecast* = 108.0

2002 Q1: 102.3

Combined Ratios

1970s: 100.3

1980s: 109.2

1990s: 107.7

Sources: A.M. Best; III

* Based on III 2002 Groundhog Forecast
2001’s combined ratio was the worst-ever for reinsurers

*First Quarter 2002
Source: A.M. Best, ISO, Reinsurance Association of America, Insurance Information Institute
Underwriting Gain (Loss)
1975-2002*

P-C insurers paid $53 billion *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*

*Estimate
Source: Insurance Information Institute; Fortune
$7.5$ $2.7$ $4.7$ $22.9$ $5.5$ $16.9$ $8.3$ $7.3$ $4.3$ 

CAT Losses for 2001 Set a Record

- 20 events (lowest since 1969)
- 1.5 million claims
- 9/11: $16.6B = 74,000 claims

* Includes $16.6B 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

Source: Insurance Information Institute; Fortune
Combined Ratio Components

WTC losses accounted for almost 6 pts. on the 2001 combined ratio

Source: A.M. Best.
Growth in Net Premiums Written (All P/C Lines)

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

The underwriting cycle went AWOL in the 1990s.

It’s Back!

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

What’s Going On?
Pre-Sept. 11: Average Price Change of Commercial Insurance Renewals

<table>
<thead>
<tr>
<th>Category</th>
<th>Spring 99</th>
<th>Fall 98</th>
<th>Spring 99</th>
<th>Fall 2000</th>
<th>Spring 2000</th>
<th>Fall 2000</th>
<th>Spring 2000</th>
<th>Fall 2000</th>
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<tr>
<td>E&amp;S</td>
<td>1.4%</td>
<td>8.9%</td>
<td>1.4%</td>
<td>8.9%</td>
<td>1.4%</td>
<td>8.9%</td>
<td>1.4%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Umbrella</td>
<td>0.8%</td>
<td>6.1%</td>
<td>0.8%</td>
<td>6.1%</td>
<td>0.8%</td>
<td>6.1%</td>
<td>0.8%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Workers' Comp</td>
<td>4.1%</td>
<td>9.5%</td>
<td>4.1%</td>
<td>9.5%</td>
<td>4.1%</td>
<td>9.5%</td>
<td>4.1%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Commercial Property</td>
<td>2.8%</td>
<td>8.0%</td>
<td>2.8%</td>
<td>8.0%</td>
<td>2.8%</td>
<td>8.0%</td>
<td>2.8%</td>
<td>8.0%</td>
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<tr>
<td>CMP</td>
<td>3.2%</td>
<td>8.3%</td>
<td>3.2%</td>
<td>8.3%</td>
<td>3.2%</td>
<td>8.3%</td>
<td>3.2%</td>
<td>8.3%</td>
</tr>
<tr>
<td>General Liability</td>
<td>3.2%</td>
<td>7.9%</td>
<td>3.2%</td>
<td>7.9%</td>
<td>3.2%</td>
<td>7.9%</td>
<td>3.2%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Commercial Auto</td>
<td>0.2%</td>
<td>3.5%</td>
<td>0.2%</td>
<td>3.5%</td>
<td>0.2%</td>
<td>3.5%</td>
<td>0.2%</td>
<td>3.5%</td>
</tr>
</tbody>
</table>

Source: Conning
CIAB Rate Survey

Commercial Accounts (Q3:00 – Q4:01)
% of Respondents indicating price increases > 10%

Source: Council of Insurance Agents and Brokers
## CIAB Rate Survey

### Second Quarter 2002

#### Rate Increases By Size of Account

<table>
<thead>
<tr>
<th>Size</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>Small (&lt;$25K)</td>
<td>4%</td>
<td>8%</td>
<td>40%</td>
<td>35%</td>
<td>7%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Med ($25-$100K)</td>
<td>1%</td>
<td>4%</td>
<td>19%</td>
<td>43%</td>
<td>28%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Large (&gt;=$100K)</td>
<td>1%</td>
<td>4%</td>
<td>10%</td>
<td>32%</td>
<td>31%</td>
<td>4%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: Council of Insurance Agents and Brokers
# CIAB Rate Survey

## Second Quarter 2002

### Rate Increases By Line of Business

<table>
<thead>
<tr>
<th>No</th>
<th>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
Cause for Rise in Insurance and Reinsurance Pricing

- WTC has made underwriters aware of new types of risks and larger potential losses
- Standard deviation of loss is wider than previously expected
- Amount of risk capital required to support insurance is greater than formerly understood
- Industry’s liquidity needs are greater than previously understood
- Capacity being reduced results in supply versus demand pressures
- Investment shortfalls
- Many problems beyond WTC (Enron, D&O, med mal…)
Reasons Why Market Will Remain Hard

- Total capital raised less than what was lost from 9/11
- Capacity lost is greater than dollar losses from attack suggest
  - More caution on the part of insurers/reinsurers means more capital needed per dollar of risk assumed
- Demand up (we’re more at risk as a nation now)
- Poor results in many important lines for reason other than 9/11
- Poor investment results
- Wall Street pressure
Assessing the Threat of Terrorism to the Insurance Industry: Terrorism Modelling & Risk Analysis
Property Exposure Per Location Overview

Source: Modelling by Herbert Clough. Inc.
Midtown Manhattan
1,000 ft Radius

Source: Modelling by Herbert Clough. Inc.
Property and Worker’s Comp Exposure Per Location

Property And Worker's Comp Exposure Per Location

New York, NY

Source: Modelling by Herbert Clough. Inc.
Indian Point Power Plant*
10 Mile Radius

Total Exposure - $27.6M

Source: Modelling by Herbert Clough, Inc.*

*Peekskill, NY
Terror Coverage Criteria & Offering Companies

Key Criteria
- Size of Company
- Size of Class of Risks
- Geographic Spread of Exposure
- Lines of Business
- Desired Capacity
- Quality of Available Data
- Willingness to Pay Premium

Property Per Risk
- Readily Available (including NBC)
- Opportunistic Premium
- Capacity Up to Occurrence Limits

Companies Offering Cover
- ACE-USA
- AIG
- Allianz
- Arch Capital
- AXIS Specialty
- Berkshire Hathaway
- Oil Insurance Ltd
- Lloyd’s of London
- Specialty Risk Insurance & Reinsurance Luxembourg [Zurich, XL, Swiss Re, SCOR, Hannover Re, Allianz]

Source: GeneralCologne Re; The Betterley Report and Risk and Insurance.
The Federal Backstop for Property/Casualty Insurance:

What’s Happening in Washington?
What Insurers Want in a Federal Backstop

• Public/private plan
• Maximizes availability
• Minimizes costs
A Federal Backstop for Insuring the Peril of Terrorism

- **SENATE (S.B. 2600, passes June 18, 2002)**
  - 2-yr plan
    - Company deductible = (Mkt. Share) x ($10B) in 2002, (x $15B in 2003)
  - 80% fed share below $10B, 90% above
  - Govt. liability capped at $100B

- **HOUSE (H.R. 3210, passed Nov. 29, 2001)**
  - 3-year loan guarantee program
    - Industrywide losses must exceed $1B, or
    - industrywide losses exceed $100 million and those losses exceed 10% of surplus and 10% of net premium written of an individual commercial carrier.
  - Criticized by industry for complexity of loan repayment/assessment formula; some view triggers as too high.

- **Original Industry Proposal: Pool (similar to Pool Re in U.K.)**
  - Called for creation of pool that would receive premiums for terrorist act coverage and pay losses
  - Fed steps in only as pool becomes depleted
  - Effort failed early on
Government Backed Terrorism Insurance Isn’t Unprecedented

<table>
<thead>
<tr>
<th>Country</th>
<th>Provider</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>Pool Re</td>
<td>Created in 1990’s due to IRA terrorism losses.</td>
</tr>
<tr>
<td>Spain</td>
<td>Consorcio</td>
<td>Covers “Extraordinary Risks” such as Earthquake, Volcanic Eruption, Flood, Storm, Terrorism and Civil Commotion</td>
</tr>
<tr>
<td>South Africa</td>
<td>SASRIA</td>
<td>Created in 1929 due to political climate in South Africa - still in existence today.</td>
</tr>
<tr>
<td>Israel</td>
<td>PTCF</td>
<td>Covers losses triggered by politically motivated violence (including terrorism).</td>
</tr>
<tr>
<td>France</td>
<td>GAREAT</td>
<td>Created post September 11, pool with state guarantee for terrorism coverage.</td>
</tr>
</tbody>
</table>

Source: Swiss Re Focus Report: Terrorism
Why is a Terrorism Insurance Program so Hard to Get???

U.S. Government Backed Insurance Isn’t Unprecedented

- FDIC (bank deposits)
- National Flood Insurance Program
- The Price-Anderson Act (Nuclear Contamination)
- Federal Crop Insurance
- The Overseas Private Investment Corp. (Overseas Political Risk)
- The National Insurance Development Program (Urban Riots and Civil Disorder)
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