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Terrorism Insurance
Coverage in the
Aftermath of
September 11th

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Table of Contents

Executive Summary1
P/C Insurance Market Surveys in Perspective2
Estimated Impact of Sept. 11 Terrorist Events on the Reinsurance Industry4
Current Reinsurance Market Conditions5
Uncertainty5
Primary Insurance Coverage Issues6
Can the Insurance Industry Provide the Needed Terrorism Coverage on Its Own?10
Growth in Industry Surplus and Capital10
Conclusion12
Appendix A: War Exclusions13
Appendix B: ISO Terrorism Exclusions14
Endnotes16

Executive Summary

The catastrophic events of Sept. 11, 2001, significantly accelerated deterioration or hardening of the P/C insurance market – which was already occurring prior to these extreme events. The burden of most of the losses has fallen upon the largely unregulated reinsurance industry, which has severely restricted coverage available to primary insurers. Many primary insurers have avoided terrorism risk by excluding it from coverages, thereby forcing companies and individuals to pay for losses "out of pocket." This is beginning to have tangible negative effects on the economy, particularly in the real estate and construction sectors, but the full negative effect of a lack of coverage in other industries may not be known for some time.

Other lines of insurance, such as workers' compensation and fire insurance (in about 30 states), have mandated coverage under state law. Therefore, insurers have been forced to offer terrorism coverage despite the fact that reinsurance is largely unavailable. Geographic and other concentration of risk has enormous consequences and could overwhelm the existing industry surplus.

Extreme events such as the Sept. 11 terrorist attacks are infrequent, possibly unprecedented, unanticipatable and "unthinkable" in their consequences. While advances have been made in the modeling of possible extreme terrorist events, the frequency and economic severity of these risks still remain unpredictable. The uncertainty around extreme terrorist events such as Sept. 11 has resulted in reinsurers and insurers avoiding such risk or charging substantially more for it.

Although there have been some additions to industry capital, total U.S. industry capital declined in 2001. The insurance industry faces numerous difficulties in attempting to address these risks on its own, including legal, regulatory, financial, and actuarial barriers.

P/C Insurance Market Surveys in Perspective

- Prior to Sept. 11, the P/C insurance market was in the price-firming phase of its market cycle.
- After Sept. 11, the P/C market is exhibiting accelerated price firming and has started to incorporate some coverage limitations.
- The burden of bearing terrorism risk has begun to migrate from the reinsurance market back to the primary market and onto the business community at large.
- The inability to effectively transfer or insure terrorism risk is beginning to have an impact on some business development plans.

The business of the P/C insurance industry is to provide for the transfer of risk from businesses and individuals to insurers. This transfer of risk provides individuals and businesses with protection for their assets and more certainty and understanding of their liabilities and loss potentials. The increased financial stability contributes to the growth of the overall economy.

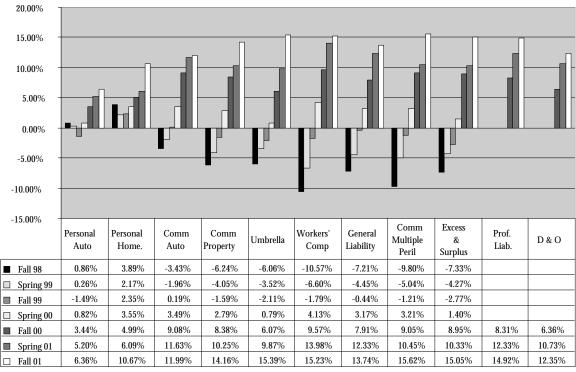
The events of Sept. 11, 2001, are having an effect on the insurance transfer system. While many of the issues involved will affect personal lines, we expect the majority of the Sept. 11 impact will be on commercial carriers. This report also reflects only the P/C perspective and does not examine the issues from a life or health insurance perspective. Recent market surveys and the General Accounting Office (GAO) report on terrorism insurance provide a profile of some of the dynamics that are occurring in this changing marketplace.¹

First, it should be noted that P/C insurance is an inherently cyclical industry. A close look at the past data strongly suggests that cycles are not independent of the overall economy. Cycles are part and parcel of the major economic patterns that affect all businesses. This phenomenon is particularly apparent when P/C industry cycles are compared to other cycles in the greater economy.

Prior to Sept. 11, the P/C marketplace had started to reflect firmer pricing for various insurance products. In particular, the Fall 2001 Pricing Survey by Fox, Pitt, Kelton, Inc. shows premium increases from fall 1998 to fall 2001 after nearly a decade-long decline in prices for certain products (as observed by a sample of insurance agents). In commercial insurance, the trend has moved from price decreases to progressively more positive price increases, reaching the 11 to 16 percent range last fall. Small price changes in 1998 changed to 10 percent increases for the homeowners' line of insurance last fall. The changes in pricing have generally been gradual and likely reflect changes that were evolving in the market prior to Sept. 11. However, this year it appears that the tragedy of Sept. 11 is starting to have a more dramatic impact on insurance availability and cost.²

The pace of the price increases appears to be accelerating. The 2002 Insurers Buyers Survey published by Prudential Financial reflects an expectation by risk managers that larger increases were likely to occur on the January renewals and on renewals generally in 2002.³ Tighter terms and conditions are accompanying the increases. A general range of 40 to 50 percent increases is expected in contrast to price increases of about 18 percent cited in the June Prudential survey.⁴ Given that the price increases began before the Sept. 11 events, it should not be inferred that terrorism was the impetus for the firming of the market. However, the expectation of larger increases for 2002 suggests that, in the opinion of the risk managers, growing concern about the risk of terrorism may have some impact on the price of insurance going forward.

These changes suggest that the pricing process involves an assessment of risk and the perception that risk has increased since Sept. 11. In fact, the Prudential Financial follow-up of April 11, 2002, with the risk managers indicates that 72 percent of the companies interviewed renewed their coverage at prices equal to or higher than what was expected three months earlier. Also, tighter policy terms and stricter underwriting standards are the norm.



Pricing Survey Premium Increases/Decreases Through Fall 2001

Source: Fox-Pitt, Kelton

Another important consequence of Sept. 11 may be that many commercial insureds are no longer able to effectively transfer their terrorism risk to their insurers.

There has been evidence of increased activity in the small residual workers' compensation market, with Policy Year (PY) 2000 projected ultimate pool premiums at \$353 million while PY 2001 projected ultimate pool premiums are now \$615 million.⁵

The Prudential Financial survey, as well as the survey conducted by the Council of Insurance Agents and Brokers (CIAB) titled Commercial Insurance Market Index Documents Signs of Market Distress, both indicate that terrorism coverage is scarce or that the underwriting terms and conditions are more restrictive. When terrorism coverage is available, it is generally expensive and the coverage limits provided are reduced. The elimination or reduction of coverage for terrorism risk is a direct result of the Sept. 11 events. A recently published GAO report, Terrorism Insurance, observes that the transfer process for terrorism risk is currently in a migratory stage. It notes that as the reinsurance treaties are renewed and coverage is generally not provided, terrorism risk has already begun moving in a significant way from the reinsurance market, where two-thirds of this risk resided before Sept. 11, to primary insurers. As discussed below, reinsurers can easily amend their contracts while primary insurers cannot.

During 2002, the process is expected to move forward with primary insurers eliminating or limiting terrorism coverage for commercial lines using regulatory-approved exclusion endorsements to insurance contracts. Because of state regulatory approval requirements, this process will evolve over time. In the end, this change essentially passes the terrorism risk and its associated uncertainty back to the business community. Some of the potential consequences when the business community is unable to insure terrorism risk are mentioned in the GAO report (along with anecdotal evidence of the reality of those consequences actually happening.) These include the cancellation or delay of certain large projects, property owners operating without protection (and subject to significant loss or potential ruin), technical defaults

on loans, and an increase in the unemployment potential when certain projects cannot be completed. The economic ramifications from these situations can be significant to both individuals and businesses, as well as to the overall economy, especially if the transfer of risk to the business community is widespread.

The effects of the lack of terrorism coverage do not appear to be uniform across all customers. The GAO report observes that higher rates with less coverage seem likely to be more pronounced for larger rather than for smaller risks and for major city risks (particularly "marquee buildings") rather than rural risks. Most of the evidence cited for the market disruption related to terrorism is based on anecdotal information at the moment. The report also notes that many companies are deeply concerned about obtaining terrorism coverage, and at the moment they are reluctant to openly discuss their coverage needs for fear of those becoming general knowledge and adversely affecting their operations.

An additional insurance market dynamic that is noted in the surveys is the movement of business between insurance carriers. The Prudential Financial survey notes the move is not conditioned as much on price but is being directed to carriers offering less stringent conditions. The CIAB survey charts a surge in business moving to the surplus lines market, which operates with less regulatory oversight and acts as a "market of last resort." It is too early to know what this movement may mean in terms of uniformity and applicability, but it does indicate that other dynamics are at work and additional changes could result.

This overview of the market is based primarily on standard pricing surveys and recent information gathered by the GAO. The results should be read with that limitation in mind. Nevertheless, the initial destabilizations from the Sept. 11 events are becoming evident. The insurance marketplace will continue to evolve for some time, as many insurance policies have terms of one year with renewal dates scattered throughout the year. While many reinsurance agreements are effective on Jan. 1, others renew throughout the year. Needless to say, the frequency and size of future terrorist events could have a significant impact on marketplace conditions.

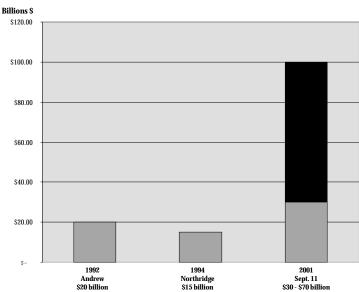
Estimated Impact of Sept. 11 Terrorist Events on the Reinsurance Industry

- Catastrophic insurance losses, such as the terrorist attacks of Sept. 11, have been borne disproportionately by the global reinsurance industry.
- Capacity and capital among global reinsurers is finite and total capitalization of P/C reinsurers is smaller than that of primary insurers.
- Reinsurers are limiting or excluding coverage for terrorist events as reinsurance contracts are renewed.

The Sept. 11 terrorist attacks have caused the largest insured loss ever recorded. Estimates vary, but the range of anticipated losses is between \$30 billion and \$70 billion pre-tax. The previous largest worldwide insured loss was Florida's Hurricane Andrew in 1992, now estimated to have caused \$20 billion (in today's dollars) in insured losses. California's Northridge Earthquake in 1994 is now estimated to have caused \$15 billion (also in today's dollars) in insured losses. Although no one will know the ultimate insured loss from the Sept. 11 events for several years, the indicated losses are substantial and easily in excess of any other insured event.

Analysts and reinsurance executives have forecast that 60 to 80 percent of these losses will lie with the reinsurance industry. These losses are not evenly distributed through the insurance and reinsurance markets. They fall largely in several commercial line segments such as aviation, business interruption, property, liability, and workers' compensation.

These losses are put into context by comparing them to the capital that supports them. The surplus of the P/C industry is not monolithic. Rather, it is held in separate companies whose exposure to the event



Historical Largest Insured Losses

varied greatly. Using market share we estimate that the capital supporting U.S. commercial lines is approximately \$125 billion. In addition, it is estimated that the global P/C reinsurance industry has a capital base of approximately \$125 billion. So while the total P/C capital is \$290 billion as of Dec. 31, 2001, the cost of Sept. 11 events should only be compared to a fraction of that amount.

Taking all of the above and selecting a mid-point total insured loss of \$50 billion from Sept. 11 events. The Reinsurance Association of America has estimated that:

■ Global reinsurers are likely to incur \$30 billion in insured losses.

Some individual reinsurance companies will lose a greater share of surplus since the loss will not be evenly distributed. The total amount is substantial in relation to the \$125 billion capital base.¹²

Current Reinsurance Market Conditions

Following the events of Sept. 11, most major reinsurers indicated their intent to impose a global terrorism exclusion on all new and renewal business as they prepared for their 2002 renewal treaty negotiations. For those reinsurers not excluding terrorism outright, the offered terrorism coverage is subject to a specified sub-limit that is substantially less than the limit for other property perils. Reinsurers have imposed the exclusions in their contracts, because they believe the peril of terrorism exposes their finite capital to risk of loss that they cannot determine or withstand. Reinsurers' capital is disproportionately affected by large loss events; another event of a size approaching the \$30 billion to \$70 billion insured loss from Sept. 11 would seriously affect the solvency of the global reinsurance market, as previously noted.

The Insurance Services Office (ISO) has filed with U.S. regulators terrorism exclusion language for inclusion in commercial insurance policies. However, reinsurance contract coverage is not subject to regulation, and there is no industry reinsurance organization similar to the ISO. Reinsurance companies will take action with respect to coverage and pricing, as they believe appropriate.

For property reinsurance treaties and individual risk facultative reinsurance, terrorism exposure is either excluded entirely or severely sub-limited.¹³ Radiological, biological, and chemical terrorist actions are often excluded entirely. The availability of "blanket" limit capacity has been virtually eliminated. Within the energy insurance market, sabotage and terrorism coverage has been eliminated for both offshore and onshore energy facilities.¹⁴

Within casualty insurance coverage, it is widely known that many workers' compensation treaty reinsurance renewals after Jan. 1 now exclude terrorism. Since the primary insurer cannot exclude the exposure from the statutory workers' compensation coverage, the terrorism exposure is underwritten stringently and pricing has increased dramatically. For other casualty coverage, terrorism exclusions have arisen on treaty and facultative liability reinsurance placements, but some carriers are treating it as a negotiable item.

Geographical and political considerations also influence market capacity. Territories can be sorted broadly into three categories: (1) high-risk territories with state-sponsored terrorism insurance (e.g., United Kingdom, aviation pools); (2) high-risk territories with no state terrorism pool; and (3) other territories. Coverage is most restricted in the second category.

Capacity reductions will especially impact coverage for prominent properties and in cities with concentrations of high-value buildings. This is expected to lead to difficulty in developing and financing these "marquee buildings." Moody's Investors Services is evaluating the effect of the limited availability of terrorism insurance on building loans and commercial mortgage-backed securities.¹⁵ The ratings agency said it is looking closely at "a limited number of high-profile buildings" to determine what effect the lack of insurance would have. There is reluctance to finance projects of \$100 million or more, and some investors are reluctant to buy bonds tied to individual office towers, apartment buildings, and shopping malls. These effects are increasing during 2002 as in-force policies expire and are renewed without terrorism coverage. In addition to January, popular renewal dates are in April, June, and July.

The problem of capacity for "marquee properties" is not easily solved via normal insurance/reinsurance mechanisms. The limited number of these properties makes it difficult to develop a credible rating structure and to spread the risk over a large number of homogeneous exposures. As a result, capacity is severely limited, and pricing for the available capacity is very expensive when compared to pricing for basic commercial property insurance. In the past, a self-insurance mechanism has offered an alternative means of coverage. However, this mechanism has relied on reinsurance, which is now largely unavailable.

Uncertainty

- By definition, extreme events are infrequent, possibly unprecedented, unanticipatable as to timing, and generally "unthinkable" in their diverse and far-reaching consequences.
- While advances are being made in the determination of possible extreme terrorist events, the frequency of these events remains unpredictable.

The expected insured losses, which are included in policy premiums established before the effective date of the policy, cannot be anticipated in advance with any degree of reliability.

The industry faces extreme challenges with terrorism risk as it applies to insurance. As a result of the Sept. 11 events, there is enormous strain on the entire insurance system. Insurance mechanisms have to bear previously existing risks as well as the unknown and largely unpriced risk associated with terrorism. Additionally, though the industry may have retained significant surplus following the Sept. 11 attacks, such surplus is needed to support all of the risk assumed by insurers for all of the lines of business they have written. Even building a new risk model to define the scope of potential losses from acts of terrorism will

be extremely difficult. This difficulty is aggravated by the inapplicability of existing models and the total absence of any historical data that reflect losses on the scale of Sept. 11.

The inherent uncertainty of and from extreme terrorist events is perhaps their most unsettling and difficult attribute. By definition, extreme terrorist events are infrequent, possibly unprecedented, unanticipatable as to timing, and generally "unthinkable" in their diverse and far-reaching consequences. Natural disasters such as major earthquakes, which come with little warning, do extreme damage in terms of property and lives.

Terrorist events share a number of characteristics of all extreme events, which augment their uncertainty:

- They tend to be inter/cross-disciplinary (affecting P/C, life, and health lines) with impacts outside their generally relevant category (such as banking risk of default due to terrorist-inspired market instabilities) and economic risks beyond insurance.
- They imply a vulnerability that may be reduced but cannot be eliminated at the present time.
- They may not be predictable at all.
- Consequences are similar for a number of constituents/victims, but such consequences are not necessarily determinable.
- Response capabilities are overwhelmed.
- Resources are acknowledged to be inadequate.
- Unfamiliar, complex, problems/situations emerge.
- Reliable information is difficult to acquire.
- It may be difficult to construct a coherent view/understanding of the situation as it is occurring, making mistakes and improper response possible (furthering potential damage).

Due to their highly erratic and "unthinkable" nature, extreme terrorist events have had a certain amount of theoretical attention in academia. However, they were not subject to systematic, close attention from an insurance viewpoint before Sept. 11.

The federal government predicts that there are likely to be further extreme terrorist events. The breadth of alternatives (airline hijacking, bioterrorism, nuclear devices, etc.) is only limited by the imagination and the resources of terrorists.

The frequency and severity of attacks are important considerations. While advances are being made to determine possible extreme terrorist events, the frequency of such events remains unpredictable. The collection and analysis of this type of information should be encouraged (and has been obtained in some instances), and it may eventually provide useful insights on the possibility of future extreme events. However, such research is not likely to eliminate the inherent uncertainty within the P/C insurance industry with respect to pricing terrorism coverage.

The definition of an extreme terrorist event is ultimately arbitrary (although the U.S. Department of Defense specifically defines terrorism as "the calculated use of violence or the threat of violence to inculcate fear; intended to coerce or to intimidate governments or societies in the pursuit of goals that are generally political, religious, or ideological"). The damage of such an event for insurance purposes involves huge property and liability costs, as well as almost unimaginable and immeasurable financial, social, psychological, and other important far-reaching consequences that cannot necessarily be measured solely in terms of dollars. Consequently, the expected insured costs, which are included in policy premiums established before the effective date of the policy, cannot be anticipated in advance with any degree of reliability.

Insurers may reduce their uncertainty by adopting a strategy of avoiding the risk through exclusions or through coverage limitations to the extent they are permitted by law. To the extent that the insurer miti-

gates its risk through coverage limitations, the policyholder assumes that risk by implication. Also, premiums may be raised to offset the increased risk (although the uncertainty of potential damages makes it difficult to gauge rates) or to transfer it through the purchase of reinsurance (which faces similar difficulties in pricing).

While society seeks to mitigate the consequences of extreme terrorist events, mechanisms for mitigation are generally informal. While they include private insurance, such insurance is becoming less available. Exclusions of coverage reduce insurer uncertainty, but they also decrease policyholders' economic security. There may be a federal government role in responding to the financial damages of such events, and in terms of humane response, there are a range of informal mechanisms, such as non-profit, rescue, and religious organizations, which can mobilize fairly rapidly.

The extent to which the economy will be affected by the potential inability of businesses to cover their potential economic losses is also largely unknown at this time. Therefore, not only is there uncertainty with respect to the nature of timing, likelihood, and consequences of any terrorist event, but there is also uncertainty as to the impact of the very fear that such events may be uninsurable.

Business, economic, and financial decisions will now be made in a context altered by the potential for extreme terrorist events. The ultimate consequence in these environments may be that less risk is taken or more risk is transferred to the insured, especially in the construction and real estate industries. Even if insureds are willing to bear the risk, access to capital and financing may not be available.

Primary Insurance Coverage Issues

The insurance agreements for workers' compensation, general liability, property, auto, and other affected lines are not as easily amended as the reinsurance contracts. This is due to the fact that workers' compensation and parts of the property policy are woven into state law, while other contracts are subject to state insurance regulation.

Workers' compensation currently includes no exclusions (even for war.) The benefits that are provided do not have a maximum. Property and the other lines typically have a maximum per policy, but even so, they are exposed to potentially enormous large-scale losses.

The P/C industry is composed of many insurers with different policy language stemming from unique company wording and other factors. Workers' compensation has relatively little policy variation, since it is directly tied to state statutes. By contrast, property and liability coverage has considerable variation from company to company. Recognizing the variations cited above, this brief summary intends to portray existing policy coverage, changes as a result of Sept. 11, and the resulting exposure due to terrorism. The discussion below is presented by line of coverage, because each line has its own unique exposure to terrorism and its own unique set of regulatory and market conditions.

Workers' Compensation

Coverage

Workers' compensation provides wage replacement and unlimited medical benefits to workers injured in the course of their employment. In the event of the death of a covered employee, it provides a death benefit to the surviving spouse and children. These benefits are specific to the state laws and are tied to the employee's level of earnings. Workers' compensation also covers employers against some types of liability that allow employees to pursue actions against their employer.

Exclusions

Workers' compensation has no exclusions for either war or terrorism.

Terrorism Exposure

The statutory nature of this coverage makes it impossible for the company to alter its contract to exclude terrorism. It therefore exposes the issuing company to a large potential loss when the insured has a significant number of employees at a single location. For example, even a modest-sized insured with 100 employees could easily generate an event of \$50 million. This presumes death of all employees and a typical death benefit of \$500,000 per death. In the absence of a war or terrorism, American industry has not had large employee deaths due to a single event.

As will be discussed elsewhere, reinsurance is really the only effective mechanism available to pool such catastrophic loss potential. However, having been impacted by Sept. 11 and seeing the same unfavorable risk/reward trade-off, the reinsurance industry is reluctant to write catastrophic coverage.

To the extent that reinsurers exclude terrorism and that primary insurance includes it, underwriters will be wisely constrained as to the amount of exposure they can put on company books. To the extent that companies amend contracts to exclude it, the policyholder is left uninsured and must bear the loss. Neither are palatable situations.

Property

Coverage

Property policies cover damage to the building, the contents, and in some cases the interruption of business caused by a covered event. Standard fire policies are statutorily mandated in approximately 30 states. Thus, fires following terrorism events would be covered by law even if a terrorism exclusion were attached to the policy.

Exclusions

There are numerous property policies in the P/C industry, but to a large extent, they all exclude war. (See Appendix A for more details.) With respect to any action that comes within the terms of this exclusion and involves nuclear reaction/radiation or radioactive contamination, this war and military action exclusion supersedes the nuclear hazard exclusion. Recently, the Insurance Services Office has filed to exclude terrorism (see Appendix B), but successful attempts to obtain the filings have had mixed results. Five major states (California, Florida, Georgia, New York, and Texas) have not approved the exclusions, as of April 10, 2002.

Terrorism Exposure

The property industry, as evidenced by the World Trade Center loss, is vulnerable to attacks against high-valued structures. The Sept. 11 terrorism event caused underwriters to revalue their probable maximum loss assessments of a building if coverage for terrorism is provided.

Workers' compensation insurers and their reinsurers will need to consider not only the property that they are writing at the moment, but also structures within a radius of that structure. That consideration will restrict coverage. Pricing, reinsurance, and sharing of risk are more intrinsic to the property industry (excluding workers' compensation), but even so, availability will be an issue on certain structures as discussed earlier.

Liability

Coverage

Policies for general, auto, and umbrella liability indemnify the policyholder for amounts that the policyholder may become liable to pay up to a stated policy limit. In the case of primary coverage, defense costs

are generally unlimited. Depending on the theory of liability alleged in connection with terrorist attacks against the policyholder, many claims could be filed against the insured.

Exclusion

General liability and auto standard industry forms cover bodily injury and property damage with exclusions for war, limited to assumed liability. Standard language is "bodily injury" or "property damage" due to war, whether or not declared, or any act or condition incident to war. War includes civil war, insurrection, rebellion, or revolution. This exclusion applies only to liability assumed under a contract or agreement.

Terrorism Exposure

The effect of terrorism on this type of coverage is less clear than it is for property and workers' compensation. Nonetheless, it is possible to envision scenarios where an action on the part of the insured or a failure of his product, coupled with the occurrence of a terrorist act, could result in large loss to the insurance industry.

Industry organizations and individual insurers may develop additional exclusionary language for both war and terrorism. This additional language would require the approval of state regulators.

Can the Insurance Industry Provide the Needed Terrorism Coverage on Its Own?

- The enormous financial consequences of additional extreme events could overwhelm industry surplus.
- "Concentration" of extreme terrorist event risk poses a particular problem to the industry.
- The industry will need to overcome legal, regulatory, financial, and actuarial hurdles in creating a new mechanism to manage the risk.

The U.S. insurance industry does not insure risk; each insurer does. Each insurer's ability to respond to extreme terrorist events is limited by its capacity (surplus) and its willingness to accept various risks. The enormous financial consequences of additional extreme terrorist events could overwhelm industry capacity. The federal government has recognized the inability of the private market to insure some risks and provides federal programs such as flood insurance, nuclear protection, and the Federal Deposit Insurance Corporation.

Growth in Industry Surplus and Capital

Even reflecting terrorism exclusions, available capacity per policy has diminished following Sept. 11. Aon, a global broker, estimates that maximum capacity in layered property programs is between \$500 million and \$1 billion, which compares to \$3.5 billion of coverage provided to the leaseholder of the World Trade Center property. Some capacity can be expected to increase due to the new capital raised by existing and start-up entities. Morgan Stanley estimates that \$28 billion of new capital has been raised or announced following Sept. 11. ¹⁷ In addition, the syndicates in the Lloyd's market have raised new capacity. Aon Limited launched a specific sabotage and terrorism (S&T) product with specialist insurers in the London market, which is structured to offer both insurance and reinsurance on a worldwide basis. Available policy limits have not been announced. However, these changes were not likely to reinstate the coverage that was in place prior to Sept. 11.

The U.S. P/C industry surplus stood at \$290 billion at year-end 2001. This represents the second straight annual decline from a peak of \$334 billion in 1999. While insured World Trade Center (WTC) losses are estimated to be in the \$30 billion to \$70 billion range (the breadth of this range indicates the uncertainty of the ultimate amount), ISO has estimated that about \$10 billion of WTC losses are included in the U.S. 2001 results. Some of the differences from the total insured estimate are due to non-U.S. reinsurance and the inherent uncertainty in the numbers.¹⁸

The Morgan Stanley estimate of \$28 billion in new capital (funds) raised since Sept. 11 compares to almost \$12 billion in 2001, following new funds of \$4 billion in 2000 and \$5 billion in 1999. Much of this new capital was added to the non-U.S. market, likely resulting in more insurance business migrating offshore to find capacity. Some of the \$28 billion appears to be a reallocation of capital within the industry. Even given the new capital, a "concentration" of extreme terrorist events could threaten, diminish, or severely reduce surplus, thus devastating many insurers and eventually the entire industry.

These unprecedented financial impacts contemplate only insured losses. They do not address the horrific uninsured financial and other, perhaps even more damaging, impacts from such attacks on stakeholders or policyholders.

Going forward, is the U.S. P/C insurance market the appropriate mechanism for aggregating the required or desired capital pools to deal with extreme terrorist events? If it is the appropriate mechanism, it will need to overcome major barriers, including:

- Legal barriers, that push private capacity away from industry-wide pooling;
- Regulatory barriers, that severely restrict competitive industry activity;
- Financial barriers that force private investors to raise large amounts to cover the risk; and
- Actuarial barriers, where extensive work on terrorism models still must be done.

Alternatively, should the problem be brought to other mechanisms, such as the federal government or the financial markets? Should a shared mechanism emerge, with the industry providing some undetermined level of capital under as-yet undetermined circumstances, and the federal government or other mechanisms stepping in above that level? There may be legal barriers in the form of antitrust legislation that hinder industry from developing an effective response without legislative sanction.

Will the U.S. direct markets, and reinsurance markets available to the U.S. direct markets, be able to generate sufficient capacity to absorb the largely unknown exposure from extreme terrorist events?

Many insurers have indicated that they either cannot or will not provide terrorism insurance by imposing coverage limits and restrictions, particularly on risks assessed as having inordinate terrorist exposure. The fact that coverage is adapting itself to current events (rather than price) indicates that the industry is uncomfortable with accurately pricing the exposure due to the uncertainty involved. The classic insurance pooling concept presumes that expected losses can be determined. Because expected losses are not determinable, the pooling mechanism does not work.

If an insurer writes a large pool of terrorism exposure below the actual average cost level, it increases the likelihood that it will become insolvent. Thus many insurers appear to be identifying the exposures with the greatest potential for loss to an extreme terrorist event and excluding them from coverage or restricting their coverage for these exposures. Spread of risk, as historically defined, may not be workable for terrorism risk. Nor are these events "accidents" in the historical meaning of the term. Some insurers will provide coverage for such risks, but they typically will charge substantially more for such coverage because of the uncertainty in expected costs. They will generally limit their exposure to such risks in order to limit their likelihood of insolvency.

Many entities do not see themselves as vulnerable to terrorist attack. These entities may be unwilling to contribute to a pool that pays the losses of exposures with perceived higher vulnerability to terrorist attacks. The competitive nature of the insurance industry makes the use of a subsidy program ineffective

without compulsory pricing provisions. The Oklahoma City and WTC tragedies teach us that all Americans are exposed, in varying but real degrees, to the effects of extreme terrorist events. Because of this broad exposure, new ways of thinking and new approaches to dealing with the consequences of terrorist attacks are required.

Flood exposure has become well understood and measured in recent years. While the U.S. Government offers flood insurance to homeowners, farm owners, small business owners, etc., many do not purchase this insurance, probably presuming that the federal government will provide flood relief. Many entities might make a similar presumption about terrorism protection, particularly if no specific terrorism solution exists in the marketplace.

Conclusion

It is still too early to determine the full effects of Sept. 11 on the P/C insurance industry and on the economy – which relies on insurance to transfer risk and release capital for investment (which would otherwise be held in reserve).

Likewise, it is too soon to determine whether sufficient capacity can be found in offshore or domestic reinsurers and whether such reinsurance limits will be available to the primary industry at the (catastrophic) levels needed. It is too early to tell whether advances made in identifying possible terrorist events will allow insurers to fully address extreme terrorism risk. It is also unclear whether P/C insurers would be able to overcome the many legal, regulatory, financial and actuarial hurdles to develop an industry risk pool and whether all sectors of the U.S. economy would be willing to participate in such a pool.

On the other hand, it is clear that workers' compensation and some fire insurers face immediate and severe threats to their financial operations – including their solvency. It is clear that for all types of coverage, P/C insurers are similarly threatened in states that have not allowed terrorism exclusions. And finally, it is clear that the stability of the market, at least in the short term, lies in the hands of the U.S. Congress.

Appendix A: War Exclusions

To a large extent, most policies exclude "war," which is defined as:

- 1. War, including undeclared or civil war; or
- 2. Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign, or other authority using military personnel or other agents; or
- 3. Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

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Appendix B: ISO Terrorism Exclusions

EXCLUSION OF TERRORISM (WITH LIMITED EXCEPTION) AND EXCLUSION OF WAR AND MILITARY ACTION

This endorsement modifies insurance provided under the following:
COMMERCIAL INLAND MARINE COVERAGE PART
COMMERCIAL PROPERTY COVERAGE PART
FARM COVERAGE PART
STANDARD PROPERTY POLICY

A. The War And Military Action Exclusion is replaced by the following Exclusion. With respect to any Coverage Form to which the War And Military Action Exclusion does not apply, that Exclusion is hereby added as follows.

WAR AND MILITARY ACTION EXCLUSION

We will not pay for loss or damage caused directly or indirectly by the following. Such loss or damage is excluded regardless of any other cause or event that contributes concurrently or in any sequence to the loss.

- 1. War, including undeclared or civil war; or
- 2. Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or
- 3. Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

With respect to any action that comes within the terms of this exclusion and involves nuclear reaction or radiation, or radioactive contamination, this War And Military Action Exclusion supersedes the Nuclear Hazard Exclusion.

- B. Regardless of the amount of damage and losses, the Terrorism Exclusion applies to any incident of terrorism:
 - 1. That involves the use, release or escape of nuclear materials, or that directly or indirectly results in nuclear reaction or radiation or radioactive contamination; or
 - 2. That is carried out by means of the dispersal or application of pathogenic or poisonous biological or chemical materials; or
 - 3. In which pathogenic or poisonous biological or chemical materials are released, and it appears that one purpose of the terrorism was to release such materials.

Except as provided in B.1., B.2. or B.3. above, the Terrorism Exclusion will only apply to an incident of terrorism in which the total of insured damage to all types of property in the United States, its territories and possessions, Puerto Rico and Canada exceeds \$25,000,000. In determining whether the \$25,000,000 threshold is exceeded, we will include all insured damage sustained by property of all persons and entities affected by the terrorism and business interruption losses sustained by owners or occupants of the damaged property. For the purpose of this provision, insured damage means damage that is covered by any insurance plus damage that would be covered by any insurance but for the application of any terrorism exclusions. Multiple incidents of terrorism which occur within a 72-hour period and appear to be carried out in concert or to have a related purpose or common leadership will be deemed to be one incident.

The preceding paragraph describes the threshold used to measure the magnitude of an incident of terrorism and the circumstances in which the threshold will apply, for the purpose of determining whether the Terrorism Exclusion will apply to that incident. When the Terrorism Exclusion applies to an incident of terrorism, there is no coverage under this Coverage Part or Standard Property Policy.

In the event of any incident of terrorism that is not subject to the Terrorism Exclusion, coverage does not apply to any element of loss or damage that is otherwise excluded under this Coverage Part or Standard Property Policy.

TERRORISM EXCLUSION

We will not pay for 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.

But if terrorism results in fire, we will pay for the loss or damage caused by that fire. However, this exception for fire applies only to direct loss or damage by fire to Covered Property. Therefore, for example, the exception does not apply to insurance provided under Business Income and/or Extra Expense coverage forms or endorsements which apply to those forms, or to the Legal Liability Coverage Form or the Leasehold Interest Coverage Form.

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; or
 - 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
- 2. When one or both of the following applies:
 - a. The effect is to intimidate or coerce a government or the civilian population or any segment there of, or to disrupt any segment of the economy; or
 - b. It appears that the intent is to intimidate or coerce a government, or to further political, ideological, religious, social or economic objectives or to express (or express opposition to) a philosophy or ideology.

But with respect to any such activity that also comes within the terms of the War And Military Action Exclusion, that exclusion supersedes this Terrorism Exclusion.

In the event of an incident of terrorism that involves nuclear reaction or radiation, or radioactive contamination, this Terrorism Exclusion supersedes the Nuclear Hazard Exclusion.

Endnotes

- ¹ Terrorism Insurance: Rising Uninsured Exposure to Attacks Heightens Potential Economic Vulnerabilities. 2002. Government Accounting Office Report. 27 Feb. 2002 ">http://www.gao.gov/.>
- ² Fall 2001 Pricing Survey. (Washington, DC: Fox, Pitt, Kelton, Inc., 2001), 3.
- ³ Risk managers are insurance purchasers who generally represent larger corporations.
- ⁴ 2002 Insurance Buyers' Survey. (Washington, DC: Prudential Financial, 2002).
- ⁵ National Council on Compensation Insurance data.
- ⁶ Commercial Insurance Market Index Indicates Need for Federal Terrorism Backstop. 2002. Council of Insurance Agents and Brokers. 16 Apr. 2002 http://www.ciab.com/resources/marketindex.jsp.>
- ⁷ Primary insurers are those that write coverage directly for consumers and businesses. A portion of the risk may, in turn, be transferred from the primary insurer to the reinsurer or reinsurers.
- ⁸ ISO's Property Claim Services Estimates 2001 Catastrophe Losses at \$24 billion; Uncertainty about September 11 Claims Complicates Tally. 2002. Insurance Services Office (ISO). 11 Mar. 2002 http://www.iso.com/docs/pres273.htm.>
- ⁹ 2001 Best's Aggregates & Averages—P/C. (Oldwick, NJ: A.M. Best Company, Inc., 2001).
- ¹⁰ Nutter, Franklin W. *Rebuilding Commercial Insurance Markets with a Public/Private Partnership.* Paper presented at NAIC Reinsurance Task Force Hearing, Washington, DC, Jan. 17, 2002. http://www.raanet.org/policyupdate/terrorism/FWN_NAIC_011702.pdf.
- ¹¹ P/C Industry Suffers First-Even Net Loss in 2001; Surplus Drops as Terrorist Attack and Poor Investment Results Pummel Earnings. 2002. Insurance Services Office (ISO). 15 Apr. 2002 http://www.iso.com/docs/pres279.htm.>
- 12 Ibid.
- ¹³ Facultative reinsurance refers to the reinsurer retaining the ability to accept or reject risk offered by the ceding company.
- ¹⁴ An Insurance Market Overview. 2002. AON. March 6, 2002 http://www.aon.com.
- ¹⁵ *Moody's Reports Developing New Framework for Evaluating Terrorism Insurance*. 2002. Moody's Investor Services. 1 Mar. 2002 http://www.moodys.com.>
- Legal Definition of Terrorism. 2002. United Nations Legal Committee. 22 Apr. 2002 http://www.unamich.org/mun/semmuna/legal.htm.>
- ¹⁷ An Insurance Market Overview. 2002. AON. March 6, 2002 http://www.aon.com.>
- ¹⁸ Industry Financial Results: Year End 2001 Analysis. (Washington, DC: ISO Properties, Inc., 2002).

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