September 11, 2001: The First Year

One Hundred Minutes of Terror that Changed the Global Insurance Industry Forever

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Summary
The terrorist attacks of September 11, 2001 produced insured losses larger than any natural or man-made event in history. Total life and non-life insurance losses are expected to reach at least $40 billion. The losses sustained by the insurance industry were unprecedented in virtually every respect, producing catastrophic losses not only in property coverages, but also for the first time in life insurance, disability and workers compensation lines. Aviation and liability insurers also suffered their worst-ever losses stemming from a single event. The sheer enormity of the loss—coming from an entirely unforeseen peril for which no premium had been collected—combined with the possibility of future attacks and uncertainty arising from the United States' rapid military response to the threat produced financial shockwaves that shook insurance markets worldwide and provoked an extraordinarily swift and severe underwriting and pricing reaction by insurers and reinsurers. Insurers, who are regulated by the states, also took the unprecedented step of seeking financial protection from the federal government in the event of future attacks. This article surveys the insurance industry's immediate and short term market and regulatory responses to the events of September 11—essentially the first 12 months—and analyzes the near-term economic, financial, structural and political implications of those decisions.

Recalling the Events of September 11
On a bright, sunny late summer morning four airliners departed from airports in Boston, Massachusetts, Newark, New Jersey and Washington, DC for what would soon become the most infamous flights in commercial aviation history. Unbeknownst to anyone, the four or five middle-eastern men seated in the first-class cabins in each of the four aircraft were hijackers on a suicide mission. Armed with box-cutters, the hijackers executed that mission with military-like precision by overpowering and murdering crew members on each of the jets and commandeering the aircraft. Instead of demanding money, the release of prisoners or safe passage to a rogue state, the hijackers steered the aircraft toward buildings in New York City and Washington, DC that symbolize American economic, military and political power. The hijackers were now at the controls of what amounted to four guided missiles, brimming with tens of thousands of gallons of jet fuel.

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At 8:46AM the first of the four hijacked aircraft reached its target as American Airlines flight 11 from Boston to Los Angeles slammed into the north tower of the World Trade Center in lower Manhattan, the heart of the U.S. financial district. Just 17 minutes later, at 9:03AM, United Airlines flight 175 also out of Boston and bound for Los Angeles crashed into the south tower of the World Trade Center. A third hijacked jet, American Airlines flight 77 en route from Washington Dulles airport to San Francisco smashed into the Pentagon at 9:43AM. The fourth hijacked aircraft, United Airlines flight 93 en route from Newark, New Jersey to Los Angeles crashed into a rural area south of Pittsburgh, Pennsylvania at 10:10AM after passengers fought back against the hijackers in a valiant attempt to gain control of the aircraft. While that attempt failed, the struggle prevented the jet from reaching its target in Washington, DC, widely believed to be the White House. Meanwhile, the force of the impacts of the World Trade Center crashes structurally compromised both buildings and the intense fires that followed weakened them still further, leading to the collapse of the south tower at 10:05AM, and the north tower at 10:23AM.

The collapse of both towers killed thousands still trapped inside, including almost 400 firefighters and police officers, and caused billions of dollars of collateral damage. The 1.8 million tons of debris that crashed down in the vicinity of the towers destroyed or severely damaged many nearby buildings, spread fires and produced a hailstorm of shrapnel that rained down over a wide area. A dense cloud of acrid, black smoke shrouded much of lower Manhattan, plunging it into a toxic darkness. A thick coating of fine, gray ash and pulverized concrete settled over much of area, infiltrating thousands of homes, businesses, machines and countless pieces of equipment.

Tallying the Losses

Within a span of less than 100 minutes, more than 3,000 people had been killed and 2,500 injured. Two of the world's tallest buildings had collapsed and 16 square acres of some of the most valuable real estate on earth—26 percent of all the office space in lower Manhattan (31 *million* square feet)—had been reduced to rubble. Moreover, the Pentagon had sustained serious damage and four large commercial aircraft had been lost. Exhibit 1 summarizes the loss of life resulting from the events of September 11.

Exhibit 1
Death Toll from September 11 Attacks

WTC Victims (workers and visitors)*	2,666
WTC hijacked jets (incl. 10 hijackers)	157
Pentagon victims on the ground	125
Pentagon hijacked jet (incl. 5 hijackers)	64
Pennsylvania jet crash (incl. 4 hijackers)	44
TOTAL	**3,056**

*New York City Medical Examiner estimate of 2,823 (as of 30 May 2002), less 157 killed on hijacked jets. The remains of only 1,102 victims had been identified as of 30 May with only 289 intact bodies recovered. Numbers are subject to further revision.

It was immediately apparent to life and non-life insurers alike that the September 11 attacks had the potential to become one of the most expensive insured events in history. The extent of the physical destruction of property was obvious and early death toll estimates indicated that 6,500 people had been killed at the World Trade Center (WTC) site alone.

Within minutes of attacks, insurers began to receive a torrent of inquiries from the media and regulators centered on three main issues:

- How much will this cost?
- Could insurers afford to pay such an enormous loss?
- Would insurers deny payment of claims based on 'act of war' or terrorism exclusions in policies they had written?

Within days of the attack, an equally important and unprecedented public policy debate began to unfold regarding the role of the insurance industry in providing financial protection against the new "peril" of terrorism. This debate focused on the following issues:

- Is terrorism insurable?
- Can/should terrorism insurance be provided through the private sector, public sector or through a private/public sector partnership?
- Can such coverage be made both widely *available* and *affordable*, or are these mutually exclusive ideals?

Finally, insurers themselves had to grapple with a continuous series of underwriting, pricing and financial challenges in the months following the attack, focusing on the following concerns:

- How can exposure to future attacks be limited?
- How should any remaining exposure be priced?
- Is it possible to attract and retain much-needed capital during a period of such extraordinary market volatility?
- How can profitability be restored?

The remainder of this study will discuss all of these issues at length.

The Question of Cost: Insured Losses from September 11

As of this writing (early August 2002), the "official" insured loss estimate issued by the Insurance Services Office (ISO) stood at $20.3 billion. The figure was revised upwards in June 2002 from the previous estimate of $16.6 billion. The figure is comprised of 51,000 claims in total (49,000 of them in New York and 2,000 in Virginia): 15,200 commercial claims (15,000 in New York, 200 in Virginia), 31,500 personal property claims (30,000 in New York, 1,500 in Virginia) and 4,300 auto claims (4,000 in New York, 300 in Virginia).

ISO estimates, however, are limited to property damage and associated business interruption losses and therefore do not produce a full accounting of the losses from September 11. Unlike most major disasters, where the vast majority of losses result from claims on commercial and residential property policies, the September 11 attacks produced catastrophic losses in lines of insurance that had never before experienced catastrophes. Life insurance, workers compensation and disability insurance are among those lines. An accounting of losses by line is displayed in Exhibit 2.

Exhibit 2
Estimated Insured Losses from
11 September Terrorist Attacks by Line

{INSERT EXHIBIT 2 ABOUT HERE}

Exhibit 2 suggests that losses stemming from the September 11 attacks will ultimately cost insurers about $40 billion, based on August 2002 estimates. Non-life insurers will pay an estimated $37.5 billion or 93.3 percent of total insured losses while life insurers will pay approximately $2.7 billion, or 6.7 percent. The current insured loss estimate is somewhat lower than the $43 billion midpoint estimate from a December 2001 survey of insured loss estimates from 19 different organizations (including investment banks, rating agencies, insurers and government organizations). The decline is attributable to numerous downward revisions in the estimated World Trade Center death toll. Some organizations continue to estimate insured losses as high as $50 billion, while others put the total at $30 billion. Nevertheless the range is considerably narrower than the $25 billion to $70 billion estimated late in 2001. Significant uncertainty in the estimate remains, however, in large part due to the potential for extraordinarily large non-aviation liability costs, presently estimated at $10 billion or 25 percent of total insured losses. Consulting firm Tillinghast-Towers Perrin estimates that liability costs could range from as little as $5 billion to as much as $20 billion.

Additional uncertainty over the ultimate cost of the September 11 attacks to insurers arises from many sources. Adjustments to the dollar value of claims will continue for many more months, though the frequency and magnitude of these refinements will diminish over time. Moreover, not all claims arising from the attack have been reported, though large numbers of newly arising claims also become less likely over time.

Additional uncertainty stems from the fact that payments on many claims will continue for years and in some cases decades. Survivor and medical benefits for those killed or injured (in workers' compensation cases, for example) can last for the rest of the beneficiary's life.[2] Some of the thornier liability issues will not be settled for many years. Some recovery workers at the site had elevated levels of mercury in their blood, for example, while others claim to suffer from respiratory disorders or to have been exposed to asbestos. Local residents also claim to have been exposed to toxins such as asbestos, mercury, lead and dioxin. The Environmental Protection Agency is now involved in testing and cleanup operations at residences in lower Manhattan. Studies were also underway to evaluate the impact of exposure to the WTC pollutants on pregnant women living in the area. Adverse legal judgments against the industry could also push insured loss estimates upward.

Consulting firm A. T. Kearney estimates that 15 percent of the losses will paid in 2001, 35 percent in 2002, 15 percent in 2003 and 35 percent in 2004 and beyond. According to the Disaster Insurance Information Office, non-life insurers had received 31,580 claims valued at $16.7 billion through early July 2002.

Economic Losses

It is important to distinguish between economic losses and insured losses. Failure to purchase insurance, underinsurance, uninsurability, retentions and coinsurance provisions guarantee that the insured losses in major disasters will usually fall well short of economic losses. According to a recent study by Munich Re, insurance payments associated with major disasters in modern economies typically amount to 62 percent of economic losses (compared to just 6 percent of such losses in less-developed economies).

Damage to New York City itself accounts for the vast majority of losses stemming from the September 11 attacks. The most recent estimate of the city's total economic loss is $83 billion, a figure that includes not only damage to property and loss of life, but also lost business income and tax revenue and the additional expenses the city will incur to deal with the disaster. Exhibit 3 shows a breakdown of the expected economic losses to New York City. Lost output will account for nearly half ($39 billion) of the losses, while capital losses account for 36 percent of the total or $30 billion. Cleanup and associated costs will make up the remaining 17 percent or $14 billion.

Exhibit 3
Economic Losses to New York City
From September 11 Terrorist Attacks

{INSERT EXHIBIT 3 ABOUT HERE}

It is estimated that the attacks cost the city 125,000 jobs during the fourth quarter of 2001 and that city will still have a net loss of 57,000 jobs by the end of 2003.

[2] New York's workers' compensation law, for example, provides surviving spouses with a tax-free benefit of $400 per week for life or until remarriage.

Despite the loss of office space, commercial rents and occupancy rates in the area have fallen.

The $40 billion in payments from insurance companies will be the single largest and most important element in New York City's recovery from the September 11 attacks, offsetting roughly half of the economic void the attacks tore in the city. The federal government is committed to approximately $20 billion in aid to New York, while about $1.5 billion will come from charitable sources. Insurer disbursements to date have helped to stabilize the city's economy. At least $9.5 billion in property insurance payouts will fund most of the rebuilding at the World Trade Center site, eventually stimulating the entire New York metropolitan area economy. A number of site plans are now under consideration by the city with building likely to commence in 2003.

Injured or disabled workers and the survivors of those who died will receive between $1.5 and $2.5 billion in income replacement benefits from workers' compensation and disability insurers. Some of these benefits will be paid out over a period of decades (throughout the life of a surviving spouse, for example). Life insurance payments will add another $2.7 billion. Businesses affected by the attacks could see as much as $12 billion in business interruption payments and payments for cancelled events. Thus as much as $17.2 billion of the $40.2 billion insurers expect to pay will go directly toward stabilizing the finances of thousands of households and businesses in the New York City area. These payments have effectively prevented the local economy from entering an economic tailspin.

Solvency: How Did Insurers Manage to Absorb the Financial Shock of September 11?

Less than 100 minutes after the first jet struck its target, both WTC towers lay in ruins. Would the insurers join them? It was a natural question to ask. After all, two of world's tallest buildings had just collapsed, thousands of people were dead, the Pentagon was severely damaged and four commercial airliners were destroyed. The insurance tab was going to be enormous. While insurers are accustomed to scenes of devastation and routinely dream-up doomsday-like scenarios to run through their computer models (such as two jumbo jets colliding over a major city), nothing like the events of September 11 had ever been envisaged.

Ability to Pay

The insurance industry's most pressing need was to assure policyholders, regulators and investors that the industry had sufficient resources to meet its obligations under the tens of thousands of policies that would be called upon to respond. The industry was able to successfully allay those fears by issuing press releases through its major trade associations, postings to web sites and by direct contact with hundreds of print, broadcast and Internet media. Within 48 hours of the attacks, virtually all such doubts were erased. This was vitally important to avoid a loss of investor confidence and pre-emptive seizures of insurers by regulatory authorities. As of July 2002, no primary insurers and only one reinsurer had failed, principally due to an overexposed position in the aviation reinsurance market, while one other had stopped writing new business.[3]

The fact that so few insurers became insolvent was due to one factor: spread of risk. As of July 2002, 119 insurers (nonlife, life and reinsurers) worldwide had publicly announced exposure to the attack. Generally speaking, larger companies with the greatest financial resources (i.e., capital/surplus) suffered the heaviest losses, while smaller companies with more limited resources experienced fewer losses (Exhibit 4). Widespread use of reinsurance was essential to this spread of risk. Gross losses (i.e., losses prior to adjusting for reinsurance receivables) exceeded net losses (losses after adjusting for reinsurance receivables) by an estimated $27 billion. In other words, approximately $27 billion in reinsurance was in play in September 11-related loss settlements.[4]

Exhibit 4
Insured Losses, by Company

{INSERT EXHIBIT 4 ABOUT HERE}

Exhibit 4 clearly indicates that large reinsurers suffered some of the heaviest losses from the September 11 attack. The possibility of future attacks of unknown frequency and magnitude led virtually all reinsurers to impose terrorism exclusions upon treaty renewal. Changes in reinsurer underwriting practices are discussed in more detail in subsequent sections of this article.

To Pay or Not to Pay: 'Act of War' and Terrorism Exclusions

Ability to pay is distinct from willingness to pay. While insurers made it clear that that they had sufficient resources to pay losses arising from the attacks, the question of whether the attacks themselves represented a covered cause of loss became a temporary sticking point for some companies. First, some insurers and reinsurers seem to conclude more readily than others that the attacks were compensable. A number appeared to be quietly wondering whether the attacks could be interpreted as an 'act of war.' Such an interpretation would have freed insurers from their liability to pay because *act of war* exclusions are found in virtually every commercial property and personal property insurance policy. The possibility of invoking the *act of war* clause was probably very tempting because President Bush and many other top administration officials repeatedly referred to the attacks as "acts of war." Political rhetoric and saber-rattling aside, insurers and reinsurers quickly concluded that invoking the *act of war* exclusion would probably not withstand a court challenge. This decision was reached after considering court precedent as well as observation of the fact that no formal state of war between the

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[3] The failure of Japanese reinsurer Taisei, a member of the North Carolina-based Fortress Re pool was announced on November 22. Aviation losses from the September 11 attacks greatly weakened the company and the unrelated November 12 crash of American Airlines flight 587 worsened the company's financial situation. Copenhagen Re was not accepting new business.
[4] Includes net reinsurance and retrocessions by all insurers, not just professional reinsurers.

United States and any nation (including Afghanistan) existed on the morning of September 11, 2001.

Rumors that there might be terrorism exclusions in some of the affected property policies were also quickly debunked. Nevertheless, for a period of time it seemed plausible, even likely, that terrorism exclusions might have been negotiated into the terms of the property policies sold to the owners of the World Trade Center complex. After all, terrorists had already tried to blow up the buildings in 1993 by detonating a truck bomb in a parking garage under the towers. Insurers paid $510 million to cover the costs of that attack. Insurers had also paid $125 million to settle claims arising from the 1995 Oklahoma City bombing. No such exclusions were in place, however. The fact that the industry was providing coverage against terrorist attacks for little or no additional premium is a practice that Berkshire Hathaway president and investment guru Warren Buffett would later deride as “foolish” and “a huge mistake.” In the wake of the attacks, however, Berkshire quickly emerged as one of the few insurers to offer coverage against terrorist acts, but in exchange for tight limits and a sizable premium.

What About the Next Attack: War Risk and Terrorism Exclusions

While insurers concluded that the September 11 attack was an act of terrorism and not an act of war (and therefore covered under the terms of contracts in force at the time), it is likely that a large proportion of losses in similar future events will be excluded through newly introduced terrorism exclusions or possibly invocation of long-standing “war risk” exclusions.

War Risk Exclusions

War risk exclusions are found in virtually all nonlife insurance contracts and have been in existence since the 19th century. The exclusion reflects the realization that damage resulting from acts of war is fundamentally uninsurable. It is important to recognize that *no formal declaration of war by Congress is required for the war risk exclusion to apply*. Indeed, while the United States Congress has not issued a formal declaration of war and is very unlikely to do so (the last time Congress declared was more than 60 years ago at the onset of World War II), the country has taken many warlike actions, most notably attacking a sovereign state (Afghanistan), toppling its government (the Taliban) and sent advisors and troops to several other nations (such as the Philippines and Yemen) to ferret out terrorists. The Bush Administration also made no secret of its plans to oust Iraqi president Saddam Hussein.

The United States is also on a war-like footing, replete with warnings from the highest level of government that additional attacks are imminent and heightened security at borders, ports and airports. Legislation to create a massive new government agency, the Office of Homeland Security (second in size only to the Department of Defense), has been introduced and is likely to become law in late 2002. Finally, the President himself, his staff and members of Congress have repeatedly characterized the September 11 attack as an act of “war.”

The fact that no formal declaration of war is required for the war risk exclusion is made clear in the war risk exclusion clause included in standard property and business income (i.e., business interruption) policies promulgated by the Insurance Services Office (ISO) [emphasis added]:

f. War and Military Action

*(1) War, **including undeclared** or civil war;*
*(2) **Warlike action** by a military force, including action 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.

While the language in the war risk exclusion appears sufficiently broad to apply in the event of future attacks orchestrated by al Qaeda or other groups sympathetic to their cause, it is likely that insurers invoking such exclusions would face litigation—in part because of the difficulty in discerning war risk from the risk of terrorism and the very limited case law in this area.[5] Insurers have responded to this potential ambiguity by introducing terrorism exclusions, which are discussed at length in the next section.

Terrorism Exclusions
One of the most significant changes in United States nonlife insurance markets since September 11 has been the widespread introduction of terrorism exclusions. The basic language for the exclusion was developed by the Insurance Services Office soon after the September 11 attack. The language in the original ISO terrorism exclusion for property damage reads as follows:[6]

<u>Exclusion of</u>:

"Loss or damage caused directly or indirectly by terrorism, including 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."

Insurers have since modified this language to suit their own purposes. An excerpt from one major commercial insurer's terrorism exclusion, for example, has the effect of clarifying who can be held responsible for the commission of a terrorist act:

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[5] For a detailed discussion of this issue, see "The War Risk Exclusion: Distinguishing Between "War" and "Terrorism" After September 11," by Randy Manilof, *Property/Casualty Insurance*, National Association of Mutual Insurance Companies, March/April 2002.
[6] ISO has also proposed an exclusion for general liability coverages with very similar wording.

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…"

Of paramount importance in any terrorism exclusion is the definition of terrorism itself. The ISO definition used in both property and liability coverages is sufficiently broad to apply to events similar to September 11, as well a wide range of other possible terrorist activities, including disruption or interference with communications and information systems, whether actual or threatened:

*"**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*

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 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.*

Insurers will not be able to completely exclude terrorism because policy forms are regulated in each state, many of which require that forms cannot be changed without the approval of the state insurance departments.

However, when Congress adjourned in December 2001 without producing a bill establishing the federal government as the reinsurer of last resort, the National Association of Insurance Commissioners (NAIC) urged its members in all 50 states to approve the terrorism exclusions. The NAIC made this recommendation in order to avoid unnecessarily exacerbating the scope of the availability crisis that was already in progress. If insurers were not allowed to exclude losses due to terrorist acts, then the only way to limit exposure is to severely restrict or cease operations in particular types of coverage, categories of business or geographic zones likely to suffer such losses. The impact would cause a spillover crisis in the availability of coverage for routine perils such as fire (unrelated to terrorism), wind, water, theft and so forth. As of August 2002, 45 states, the District of Columbia and Puerto Rico had approved the exclusions while only a few, New York, California, Texas, Florida and Georgia had rejected them or withheld approval (see Exhibit 5).[7] Insurers have argued that failure to gain approval for such terrorism exclusions could cause insurers to decline to issue policies to businesses presenting high risk of terrorism losses, (*e.g.,* high-rise buildings or public arenas) so as to lower their exposure to large terrorist losses.

It is important to note that the five states that failed to approved the exclusions—California, Florida, Georgia, New York and Texas—account for approximately 36 percent of the commercial insurance premiums written in the United States, leaving many insurers with unacceptably high levels of exposure to terrorism risk, forcing them to consider other options (e.g., nonrenewal).

Exhibit 5
States Approving Terrorism Exclusions

{INSERT EXHIBIT 5 ABOUT HERE}

Workers Compensation: A Big Exception
While most states approved terrorism exclusions in key commercial coverages, no state will permit exclusions in the workers compensation line. Workers compensation, which pays the medical expenses and lost wages of those injured on the job (and death benefits to the survivors of those killed), has historically been a no-fault form of coverage, and few favor carving out terrorism. Most of those killed in the September 11 attacks were killed while at work. Primary workers compensation insurers are very vulnerable because of the compulsory nature of workers compensation, the tendency for large numbers of workers to concentrate in small areas (e.g., office complexes), the lack of reinsurance and heavy rate regulation. Many companies were reducing their exposure to employers with more than 50 workers at any one location, for example.

The absence of a terrorism exclusion for workers compensation risk, the continued lack of a federal reinsurance facility for handling terrorism-related losses, the limited availability and high cost of reinsurance and regulatory resistance to approving terrorism-related contingency loadings in the workers compensation rate base leaves insurers with few options. Insurers may be able to reduce aggregate exposure by achieving better geographic spread of risk or by simply nonrenewing contracts. Either way, the impact is most severe in areas where high densities of workers create the potential for catastrophic loss. Employers in these areas, and in other high-risk zones or in industries thought to be at an elevated risk of attack have

[7] New York rejected the exclusion believing that it would leave business owners in the state "holding the bag" in the event of a future attacks. California believed the wording of the exclusions to be too broad and could be construed to apply to permit the exclusion of damages attributable to "hate crimes." It was generally believed that the language in the exclusions could be modified to accommodate those concerns. However, the state then stated that insurers would have to abide by the provisions of the Community Reinvestment Act (CRA) in order for the exclusions to be allowed. The CRA is federal *banking* legislation that requires investment in economically disadvantaged zones.

in some cases been forced to seek coverage through residual market plans. The National Council on Compensation Insurance reported a sharp increase in plan premiums in 2001, a trend that continued into 2002.

Creating a Federal "Backstop" for the Insurance Industry

It was immediately obvious to businesses around the world that the terrorist attacks of September 11 would have a devastating impact that extended well beyond the borders of New York City. None saw this more clearly than the airline industry, which was already reeling from a slowing economy, high fuel prices and a sharp decline in business travel. The attacks forced an unprecedented total shutdown of the nation's air traffic system and shattered the confidence of the flying public. Within 48 hours of the terrorist attacks airlines began to lobby Congress and the Bush administration for a federal bailout, which they received. The package, signed by President Bush on September 21—just 10 days after the attacks, gave the airlines $5 billion in cash grants, up to $10 billion in loan guarantees, established an open-ended taxpayer financed fund to pay claims against the airlines from victims and their families, obliged the government to pay terrorism-related losses over $100 million for the subsequent 180 days and required the government to reimburse the airlines for any increases in their insurance premiums. The government has renewed the program several times since the initial expiration of the legislation in March 2002, keeping it in force through the first anniversary of the attacks.[8]

The speed and generosity of the federal bailout of the airlines resulted, not surprisingly, in a stampede of industries and organizations seeking federal assistance. Property/casualty insurers were among them, along with the city of New York, hotels, travel agents, Amtrak, airports, the steel industry and a multitude of others. Business groups lobbied Congress for big tax cuts. Congress clearly could not afford to respond so generously to every business interest adversely affected by the September 11 attacks and some lawmakers—nor was it clear from a public policy perspective that it should.

Every industry believes that its activities are vital to the nation's interests. Yet the events of September 11 had special significance for insurers not shared by most other industries. On that day the fundamental nature of economic risk to society changed irrevocably. Because insurers sell protection on the people and property now at greater risk of terrorist attack, the financial risk to insurers rose. Therefore, just as the U.S. government had to adapt in order to confront the expanded threat from terrorism, insurers also had to take steps to protect their own economic security. For property/casualty insurers this meant waging an aggressive campaign to secure federal assistance to protect the stability of the industry in the event of future terrorist attacks.

[8] Airlines have formed a Vermont-based captive, Equitime, that would eventually build sufficient capacity to provide coverage of up to $1.5 billion for passenger and third party war and terrorism risks, with the federal government remaining the insurer of last resort.

Insurers' request for federal intercession was unprecedented for several reasons. First, U.S.-domiciled insurers are regulated by the 50 states, not by the federal government as is the case in most countries. Second, the industry had rarely, if ever, shown such unity on an issue regarding federal involvement in the industry's finances. While some insurers (prior to September 11) had publicly stated their support for optional federal chartering of insurers while others vehemently opposed the idea, even the staunchest supporters of the current state-based system of regulation backed industry efforts to secure federal assistance.

Government-backed terrorism insurance is neither a new nor a radical concept. Exhibit 6 shows that a number of countries that historically have had problems with terrorism long ago opted for government involvement. In the wake of September 11, France and Germany have created such plans.

In the remainder of this section we detail the property/casualty insurance industry's rationale for requesting federal assistance in the wake of the September 11 attacks, as well as the many different proposals that have been put forth for that assistance.

A review of this issue remains relevant at the first anniversary of the September 11 attack because no such legislation has yet been made law. Instead, two vastly different pieces of legislation were passed by the House of Representatives and the Senate. A House-Senate conference committee must overcome many difficult issues before a bill can be sent to the President for his signature. A summary of the two competing bills is offered at conclusion of this section.

Insuring the Uninsurable: Insurer Rationale for Requesting Federal Assistance Following the September 11 Attacks

Rationale: Pricing and Reserving

Prior to September 11 insurers did not price for or reserve for losses from terrorism. Terrorism was simply not considered a significant peril (cause of loss) in the pre-September 11 rating and underwriting of insurance in the United States. While the 1993 World Trade Center bombing and the 1995 Oklahoma City bombing certainly illustrated the potential for significant loss of life and property, insurers were no more prescient than anyone else in or outside of government in foreseeing the events of September 11. Consequently, little, if any, premium was charged for terrorism risk. Also, because tax-favored pre-event reserving is not allowed under current United States tax law, there were no reserves specifically set aside for the peril of terrorism.

Exhibit 6

Countries with Government-Backed Terrorism Insurance Plans

Country	Provider	Details
UK	Pool Re	The international reinsurance market withdrew capacity as a consequence of IRA terrorism in the 1990s, which, in turn, led to a state-supported solution: Limited private cover with additional excess cover for both property damage and business interruption made available for insurance companies to cede to Pool Re (which sets rates and terms). The British government acts as Pool Re's "reinsurer of last resort", in case of insolvency.
Spain	Consorcio	Consorcio CCS (Consorcio de Compensacion de Seguros) is a state insurance facility guaranteeing cover for "extraordinary risks" such as earthquake, volcanic eruption, flood, storm, terrorism and civil commotion. The cover is for property damage only and is integrated into policies issued by private insurance companies which collect premium on behalf of CCS. After deregulation in 1990, it became possible to insure these risks privately, whereupon CCS provided subsidiary cover only and in accordance with the legal minimum. However, policyholders must pay CCS premium in any case and thus maintain the solidarity principle for catastrophic risks.
South Africa	SASRIA	In 1979, South Africa's particular political situation led to the creation of the national institution SASRIA (South African Special Risks Insurance Association) for the (voluntary) insurance of political risks in respect of property damages and, in later, standing charges. While the political situation has improved considerably in recent years, SASRIA still exists.
Israel	PTCF	Terrorism is excluded from standard property policies but the private insurance market grants cover by separate endorsement. Reinsurance coverage is provided by catastrophe excess of loss treaties. In addition, the state of Israel covers property damage losses triggered by politically motivated violence (including terrorism) through the Property Tax and Compensation Fund (PTCF) which was established to cover property losses resulting from war and war-like activities.
Northern Ireland	Government	Terrorism cover for local risk is excluded. Criminal Damage Compensation Order has been in force since 1978 providing compensation on an indemnity basis for property damage and business interruption.
Sri Lanka	Riots and strikes and terrorism fund	Government sponsored riot fund, set up in 1988 includes the risk of terrorism. Limit is Lkr30 million (approximately US$300 000) per risk, per location and is subject to 10 percent deductible.
France	GAREAT	Reinsurance pool established to cover the terrorism exposure of all eligible risks. Membership of the pool is obligatory for all members of FFSA, the French insurers' association. The minimum limit for cover through this scheme is 20% of values or Euro 20 million (US$17.7 million).
Germany	Extremos AG	Specialty terrorism reinsurer set up by the government to offer cover up to €10 billion in excess of €3 billion.

Sources: Swiss Re, Willis

Rationale: Unprecedented Magnitude of Loss and Potential Future Losses

The losses incurred on September 11 were unprecedented – *substantially* larger than any prior man-made or natural disaster losses. As discussed previously, insured losses are presently estimated at $40.2 billion, easily surpassing Hurricane Andrew as the most expensive single event in insurance history (see Exhibit 7). Only the industry's long-term asbestos liability, which is estimated at $60 billion and was incurred over many years from hundreds of thousands of claims—exceeds the expected losses from September 11. Likewise, the insurance industry's costs for Superfund and other long-term environmental liabilities have been estimated at $30-$40 billion.

In terms of future losses, Berkshire Hathaway CEO Warren Buffett wrote an editorial that appeared in the *Washington Post* and made the following ominous comment:

"*Indeed, had a nuclear device been available to Osama bin Laden, the loss could have bankrupted most of the industry, Berkshire very much included. Given that kind of horrendous, but not impossible, nuclear scenario, insured losses could have been $1 trillion, an amount that exceeds the net worth of all property-casualty insurers worldwide."*

– Warren Buffett, November 19, 2001, in an editorial appearing in the *Washington Post.*

Federal Reserve chairman Alan Greenspan, likewise indicated that designating the federal government as the reinsurer of last resort is appropriate in extreme circumstances:

``*…the viability of free markets may, on occasion, when you are dealing with a degree of violence, require that the costs of insurance are basically reinsured by the taxpayer ...*''

– Alan Greenspan, October 17, 2001, in comments before the Joint Economic Committee of Congress.

Recognizing that a federal backstop for terrorism insurance benefits the entire economy—not just insurers—President Bush in April 2002 made a personal appearance before a coalition of concerned interests (lenders, business leaders, insurers and labor) and appealed to Congress to pass legislation. The President stated that the lack of such legislation was having a negative impact on the economy, and cited examples. His comments were echoed by various administration officials.

In short, the industry and top government officials believed—and continue to believe—that a federal "backstop" for the industry was necessary because capacity is finite while the loss potential from a terrorist attack is virtually unlimited. To quote Vice President Cheney in a May 2002 interview: “It’s not a matter of if, but when.”

Exhibit 7
Largest Insured Losses in History

{INSERT EXHIBIT 7 ABOUT HERE}

Rationale: Capacity Constraints

Another terrorist attack of a magnitude similar to that of September 11 would seriously destabilize the global non-life insurance industry and could push a significant number of insurers into insolvency. Larger attacks could wipe out large numbers of insurers all together. For these reasons, insurers contend that they simply cannot continue to provide coverage for terrorist acts within standard insurance policies.

One key to understanding the need for a federal backstop is an appreciation for the true claims paying ability of the insurance industry, which is much less than commonly assumed for reasons discussed here. Many industry commentators as well as government officials have inappropriately focused on *assets* as the metric that defines the industry’s claims-paying ability. While it is true that the combined assets of the U.S. life and non-life insurance industry as of December 31, 2000 exceeded $4 trillion (Exhibit 8), this figure has little bearing on the industry’s ability to pay claims. The vast majority of assets on insurer balance sheets are offset by liabilities, which are effectively “owned” by parties to whom the insurer has a legal or fiduciary obligation. Unearned premium reserves belong to policyholders, for example, while claim reserves belong to the beneficiaries of past insured events (e.g., a widow’s annuity). Moreover, since non-life insurers will bear more than 90 percent of September 11 losses and because high-profile structures and the individuals who work in them appear to be the target of choice for terrorists, it is more appropriate to focus on the claims-paying ability of the non-life (property-casualty) sector.

Exhibit 9 shows that 66 percent of the property-casualty insurance industry’s $932 million in assets is offset by liabilities or is “non-admitted” (i.e., assets that are not easily converted to cash for the payment of claims, such as real estate or office equipment). This means that as of December 31, 2000, the aggregate claims paying ability or policyholder surplus of the property-casualty insurance industry was $317.4 billion.[9] By June 30, 2001, surplus had dropped to $298.2 billion, due to a combination of high underwriting losses, near-record catastrophe losses and a swoon in the equity markets—all completely unrelated to the events of September 11.

Yet a policyholder surplus figure of about $300 billion still grossly exaggerates the funds available to pay claims from future terrorist attacks. Unfortunately, this figure

[9] “Policyholder surplus” is a term peculiar to insurance and reflects the fact that such funds are held as a cushion against unforeseen losses (such as the September 11 attacks). It is analogous to “owners’ equity” or “net worth” in most other industries.

has become the most widely cited figure when the issue has been discussed in the media and in legislative debates. Exhibit 10 shows why the $300 billion figure is illusory. Specifically, the targets most attractive to terrorists are likely to be commercial in nature. Therefore, the policyholder surplus of insurers that are predominantly personal lines writers (e.g., auto and home) should be excluded. State Farm, for example, is the largest insurer of homes and cars in the United States, yet its $38 billion surplus in 2001, is simply not available to pay claims on the World Trade Center or any similar event in the future. The surplus associated with “target commercial” lines of coverage was just $100 billion *before* September 11 and fell to as little as $80 billion after the attack.

Rationale: Terrorism Exclusions in Reinsurance Contracts

The potentially unlimited loss potential associated with terrorist attacks was recognized almost immediately by insurers and reinsurers around the world, as was the impossibility of determining the appropriate price for terrorism coverage. Reinsurers reacted to this situation by excluding terrorism from treaties beginning in with January 1, 2002.[10] Since roughly 70 percent of treaties expired on December 31, the effort to get a bill through Congress took on an added sense of urgency, but fell short of the mark in the Senate (a House bill passed in November 2001). The majority of the remaining 30 percent of treaties not expiring on January 1 expired on either April 1 or July 1. With no federal reinsurance facility, primary insurers were forced to exclude coverage as well. Consequently, many corporations in America today have little or no terrorism coverage.

As indicated in Exhibit 4**,** reinsurers are essential to the global spread of risk. Without reinsurance, obtaining the necessary capacity to adequately insure large risks such as the World Trade Center complex is virtually impossible. In fact, reinsurers will likely finance 50 percent or more of the losses arising from the September 11 attacks.

Rationale: Economic Consequences

Insurers assert that the exclusions and withdrawals could have a detrimental impact on millions of businesses that depend on insurance to thrive and that “going bare” is potentially destabilizing should another attack occur.

Higher prices and/or reductions in insurance availability will raise the cost of doing business and expose some firms to dangerously high levels of uninsured risk. Insurance is essential to an expanding and healthy economy. Banks typically require property insurance coverage before granting a commercial mortgage, for example, and workers compensation coverage (or its equivalent) is compulsory for almost every employer in all 50 states. Insurers also pointed to the fact that the

[10] Reinsurers are not required to submit their forms for insurance department approval, so regulatory approval was not required prior to the implementation of terrorism exclusions in treaties.

United States economy fell into recession in 2001, and remained vulnerable in 2002 and could ill-afford an insurance crisis that could further weaken an already fragile economy.

Contrary to the industry's dire warnings, the United States economy did not collapse on January 1. In fact, a number of insurers were offering at least limited terrorism coverage to some risks. The industry was therefore forced to demonstrate what economic damage had occurred, was occurring or would occur. Congress demanded "concrete examples" of the impact.

Extracting this information was fraught with difficulty because insurers cannot disclose details regarding individual policyholders and few owners of noteworthy structures or CEOs of major corporations were anxious to disclose the fact that their property or business was uninsured for terrorism. The first formal attempt by the government to assess the state of the post-September 11 insurance environment and the associated impacts on the business sector was a report produced by the Government Accounting Office (GAO) in late February 2002. The major findings of the report are summarized in Exhibit 11.

Exhibit 11
Major Findings of GAO Study on Terrorism Insurance
(February 2002)

1. **Insurers are shifting terrorism risk to property owners/businesses**
   - Reinsurers withdrawing from market for terrorism
   - Primary insurers are 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**
   - Congressional action is "properly a matter of public policy"
   - Consequences of inaction "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 implement quickly—and extremely expensive."

A subsequent report by the Joint Economic Committee of Congress in May 2002 was released shortly before a new round of hearings on terrorism insurance and appeared to have a greater influence on the opinions of lawmakers than did the GAO report. Several months had passed and much more evidence of economic dislocation and hardship in the business sector had emerged and in June 2002 the Senate passed a bill, summarized in Exhibit 12.

Exhibit 12
Major Findings of Joint Economic Committee of Congress
Study on Terrorism Insurance
(May 2002)

1. **Market for Terrorism Insurance Remains Limited**
   - Only a small number of insurers are 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.

Nature of Federal "Backstop" Plans

While the United States Senate finally passed legislation in June 2002, neither that bill nor the House bill passed in November 2001 had much in common with the industry's original backstop proposal in October 2001.[11] The following is a chronology of the various backstop proposals offered by insurers, the Bush Administration and Congress since September 11.

Insurance Industry's Pooling Proposal

Insurers began their effort to create a federal "backstop" very shortly after the September 11 attacks. By late September insurers had already drafted an outline describing their plan for a federal backstop and legislation was drafted in early October. Dubbed the "Insurance Stabilization and Availability Act of 2001," the bill proposed the establishment of a privately run and financed terrorism reinsurance pool, organized as a federally-chartered mutual insurance company, that would reinsure the terrorism risks of U.S. licensed insurers and reinsurers and purchase reinsurance from the federal government in exchange for a premium. The organizational structure of the pool would have been similar to that of Pool Reinsurance Company Ltd. (often referred to as "Pool Re"), a mutual insurer established in Great Britain after several bombings attributed to the Irish Republican Army (IRA) made insurers reluctant to offer coverage for terrorist acts. Unlike Pool Re, which was established in 1993, the draft legislation establishing "Homeland Mutual Security Insurance Company" also included a three-year sunset provision.

[11] Consistent use of the term "backstop" also made clear that insurers were not seeking a "bailout" similar to what the airlines had received.

Despite the success of Britain's Pool Re and the existence of the sunset provision, the plan was opposed by some in Congress who feared that the pool would require the establishment of a permanent new bureaucracy to oversee the plan. Attempts to salvage the plan (by organizing the pool under a state rather than federal charter, for example) failed.

The Bush Administration's Quota Share Proposal

The Bush administration's counter proposal to the insurers' pooling plan caught many in the industry by surprise. Whereas the industry's proposal established the federal government as the reinsurer of last resort, the administration proposed using taxpayer funds on a first dollar basis. The proposal was surprising—coming from a Republican administration—because it actually appeared to put more tax dollars at risk than the industry's pooling proposal, at least initially. Nevertheless, since no new insurer was incorporated, the administration plan was politically palatable to some because it avoided the creation of any new bureaucratic authority.

The administration proposal called for a three-year plan where the federal government in the first year would pay 80 percent of the first $10 billion in loss due to terrorist acts, while private insurers pay 20 percent. A 50/50 sharing arrangement applied to the next $10 billion, with government paying any losses in excess of $20 billion. The maximum industry exposure in the first year of the plan was therefore $12 billion. In the plan's second year, private insurers would retain the first $10 billion with a similar 50/50 sharing arrangement above the retention. In the second year, the industry's maximum exposure was $23 billion. In the third and final year of the plan (a sunset provision was included in the proposal), insurers would retain the first $20 billion in losses with a 50/50 sharing arrangement that effectively capped the industry's total losses at $36 billion.

Because the plan was perceived as being too generous to insurers, it was attacked by opponents at both ends of the political spectrum. The proposal was quickly scuttled. However, certain elements of the proposal—the retention and coinsurance concept included in years two and three—were salvaged in plans put forth in the Congress.

The House Proposal: Retention and Loans

The United States House of Representatives (Republican-controlled) passed its "Terrorism Risk Protection Act" (H.R. 3210) on November 29, 2001. The distinguishing feature of the Terrorism Risk Protection Act is that any funds received by insurers must be paid back, whereas there is no repayment in the Senate proposal. Federal involvement is triggered if industry wide losses exceed $1 billion *or* if industry wide losses exceed $100 million *and* some part of those losses were to exceed 10 percent of the surplus (capital) *and* 10 percent of the net premium written of an *individual* commercial insurer.

The House plan was generally criticized in the industry because as a loan program, it essentially addresses the issue of liquidity, not availability. The assessment mechanism for the repayment of loans was also criticized for its complexity while some insurers viewed the triggers as too high.

The Senate "Proposal": Retention and Coinsurance

The United States Senate (Democratic-controlled) passed its "Terrorism Risk Insurance Act of 2002" (S.B. 2600) on June 18, 2002. The two-year plan calls for a sharing of losses between insurers and the government and is essentially a quota share arrangement with the government serving as the reinsurer of terrorism risk. The bill calls for an aggregate industry retention of $10 billion for the first year of the plan and $15 billion during the plan's second year. An individual insurer's deductible is calculated as its market share multiplied by $10 billion in the first year and $15 billion in the second. For losses below the aggregate industry retentions, 20 percent of the losses will be paid by insurers while 80 are paid by the government. If the cost of a terrorist attack exceeds the industry retention, 90 percent of the losses are paid by the government. The government's cap on liability in all cases is $100 billion.

Criticism of the Federal Backstop Proposals

Insurers' efforts to establish a federal backstop received a great deal of support from many legislators, high ranking government officials and various business groups, such as bankers and realtors. Numerous editorials in favor of a backstop appeared in newspapers across the country, including the *Wall Street Journal*. Nevertheless, the proposal to establish the federal government as a backstop was occasionally characterized by some as a "bailout." Others criticized the industry for "price gouging" while at the same time seeking protection in Congress and filing for terrorism exclusions. Many insurance executives appeared in their public comments to be positively ebullient over the prospect of dramatically higher rates and new underwriting opportunities. In addition, skepticism over the need for a bailout was fueled in part by the large number of insurers that announced start-ups, joint ventures and the formation of new subsidiaries in order to capitalize on the post-September 11 market opportunities. Many insurers managed to successfully raise capital through the issuance of debt or equity. The industry's ability to attract capital in the wake of its worst disaster ever is discussed in more detail in the next section of this study.

The apparent contradiction between the industry's pursuit of a federal backstop while raising rates and forecasting improved profitability for 2002, successfully attracting capital and filing for a terrorism exclusion were even the subject of a front page *Wall Street Journal* story in mid-November.[12]

[12] "Insurance Companies Benefit form Sept. 11., Still Seek Federal Aid," by Christopher Oster, *Wall Street Journal*, November 15, 2001, p. A1.

Insurers' claims that failure to enact a federal backstop would cause significant economic disruptions was also met with skepticism by some, as the following excerpt from a *Wall Street Journal* op/ed piece (tellingly titled "Hurry Up, Washington, or Insurance May Fix Itself") suggests:

"Some would have you believe that all real-estate lending and similar projects would come to a halt [if no federal backstop is established]. Bankers would no longer be willing to lend, investors to invest, builders to build, because they would no longer be able to lay off the risk of potential loss from a terrorist attack. To buy this alarum, you would have to believe real-estate lenders would wake up Jan. 1 and decide to liquidate their businesses and end their careers. You would have to believe, against all evidence of prosperous wartime economies, that the U.S. economy would fold up and die because financiers and entrepreneurs are too weenie to find a way to proceed despite the absence of insurance for terrorism risk. You would have to believe, contrary to every assumption of economics, that large numbers of people would act in arbitrary ways that are contrary to their own interests. Not a likely scenario." [13]

Rebuilding the Insurance Industry: Attraction of Capital

Almost immediately after of the horrific terrorist attacks of September 11, entrepreneurs large and small around the world and in many different industries began to wonder how they could profit from the tragedy. Before the smoke had cleared over New York City, street vendors in Manhattan were hawking World Trade Center memorabilia, factories in China were pumping out U.S. flags 24-hours a day and architects were touting their plans for rebuilding on the World Trade Center site. The city of New York even installed a viewing platform overlooking "Ground Zero," which quickly became the city's top tourist attraction, benefiting local businesses. Moving so quickly to cash-in on such a tragic event may seem exploitative and insensitive. Yet in each case these entrepreneurs were performing an essential role in the recovery of the United States from the psychological and economic trauma caused by the attacks.

The recovery of the global non-life insurance industry from the devastating financial blow of September 11 is no less dependent on the motivated self-interests of profit-seeking entrepreneurs and investors. Forty billion dollars in global claims-paying capacity went up in smoke that fateful day, another $40 billion or so was lost as insurers and reinsurers worldwide pulled back from key markets.

The industry's recovery very much depended (and continues to depend) on its ability to successfully attract new capital. Without this ability, unique opportunities will be missed and the instability stemming from the September 11 losses will last much longer, to the detriment of the economies of the United States and world economies. At first glance, the odds of anyone putting a dime into the nonlife insurance industry seemed remote. After all, 2001 was the worst in the history of

[13] December 5, 2001, p. A21, by Holman W. Jenkins.

the nonlife insurance industry. For the first time in history, net income for the entire U.S. property/casualty insurance sector was *negative*—negative $7.9 billion to be precise (see Exhibit 13). Underwriting losses (the amount insurers pay out in losses and expenses relative to the premiums they earn) soared to $53 billion, also a record (see Exhibit 14). And let's not forget that there is an open-ended, armed conflict underway against an elusive enemy bent on destroying the very people and property insurers protect.

Exhibit 13
Net Income, U.S. Property/Casualty Insurers

{INSERT EXHIBIT 13 ABOUT HERE}

Exhibit 14
Underwriting Losses, U.S. Property/Casualty Insurers

{INSERT EXHIBIT 14 ABOUT HERE}

Such a hostile environment would drive the average investor away. But investors in the insurance world understand better than most the tradeoff between risk and reward. Between September 11 and yearend 2001, 40 insurers had successfully raised $20.5 billion in new capital (Exhibit 15). Through mid-July 2002, a total of 66 firms had raised $28 billion. Forty-seven other deals valued at $16.4 billion are pending.[14] While more deals are expected to be announced, the pace of new capital being raised has clearly slowed in 2002.

Most of these funds will be used to support specialty lines insurance and reinsurance operations in market segments suffering from acute capacity shortages, rather than in the underwriting of terrorism risk directly.

Exhibit 15
New Capital Raised by Insurers Since September 11

{INSERT EXHIBIT 15 ABOUT HERE}

Pricing

A successful financial recovery from the financial shock of September 11 depends on much more than successfully attracting capital, of course. The appropriate pricing of risk is even more important. Through most of the 1990s, U.S. businesses saw the cost of insurance fall. The cost of risk to businesses, for example, fell by 42 percent, from $8.30 per $1,000 of revenue to just $4.83 per $1,000 of revenue between 1992 and 2000 (see Exhibit 16). Neither improving loss cost trends nor bullish investment performance can entirely justify that quantum decrease. Consequently, years worth of chronically underpriced business continue to assault

[14] It is likely that some of the 47 pending deals will never be completed.

the industry's balance sheet in addition to the trauma of September 11. Purging the pricing and underwriting sins of the past, while chasing the cost drivers of the future (terrorism included) will prove to be a long process. The cost of risk to rose by an estimated 15 percent in 2001 and 30 percent in 2002. The Council of Insurance Agents and Brokers rate survey for the second quarter of 2002 reported increases across most major commercial lines that are consistent with this estimate (Exhibit 17). Roughly half the 2002 increase is related to heightened risk from terrorist acts, while the other half is due to factors that predate the September 11 attacks, such as rising medical inflation and sharply higher jury awards.

Exhibit 16
Cost of Risk per $1,000 of Revenue

{INSERT EXHIBIT 16 ABOUT HERE}

Exhibit 17
Change in the Price of Commerical Insurance, By Line

{INSERT EXHIBIT 17 ABOUT HERE}

Availability of Insurance in 2002

While a few insurers began to write limited amounts of stand-alone terrorism coverage during early 2002, the amounts were small in comparison to pre-September 11 limits, which were generally equal to policy limits (since terrorism was not previously recognized as a distinct peril and was therefore not excluded or otherwise limited). With reinsurance for terrorism risk generally unavailable, primary insurers were offering the coverage only on a very selective basis with limits of $150 million or less on even the highest value structures. Such coverage might represent just 10 percent of the limits for the risk's basic commercial coverage for all other perils. The coverage was also typically subject to a separate and much higher deductible (often double the standard deductible) and much higher premiums (7 to 10 percent or more of the stated value of coverage was not unusual).

By mid-2002 additional stand-alone capacity had entered the market, with 1st -party property and 3rd -party limits available up to $500 million in multiple markets. The majority of insurers offering stand alone coverage, however, were offering limits of $100 to $200 million. Coverage is usually offered with a one-time aggregate limit with no reinstatement and a 24-hour occurrence period. Exhibit 18 gives a description of the types and limits of coverage available on a stand-alone basis.

Many insurers, of course, are offering at least some terrorism coverage through ordinary property and liability policies. As mentioned previously, terrorism cannot be excluded from workers compensation policies, and no personal lines insurer has excluded terrorism from dwelling or auto policies (less than two percent of September 11 losses were personal lines). Commercial property policies often exclude terrorism or include sublimits, but buy backs are increasingly common, though expensive.

Exhibit 18
Insurers Offering Stand Alone Terrorism Coverage
(as of July 2002)

Company	Market	Product & Highlights of Coverage	Capacity	Base Premium
Ace USA, Philadelphia	U.S. and Canadian commercial property may not be available in all U.S. states or Canadian territories.	1st party stand-alone coverage, both admitted and non-admitted.	$100 million	Varies depending on exposure.
AIG, New York	Airline industry	1st party stand-alone coverage, aviation war risk, hijacking liability coverage.	$150 million in excess of $50 million in aggregate, up to $850 million in excess Of $150 million; total of $1 billion per airline.	NA
	Property	American International Companies Property Terrorism Facility -worldwide, domestic and foreign property cover; property damage and BI cover; locations must be specifically named, policy period not to exceed one year.	$150 million per event and in aggregate (maximum any one insured).	$50,000 minimum
Allianz AG, Frankfurt Germany	Airline industry	3rd party liability for airlines.	Up to $1 billion per aircraft and up to $2 billion per airline per year.	Calculated per passenger carried and applies to all airlines insured.
Arch Capital, Bermuda	Multiple markets	Coverage on a selected basis-1st party Property damage, excluding nuclear biochemical. Availability varies by territory.	Varies by zone.	Varies depending on customer/exposure.
AXIS Specialty, Bermuda	Multiple markets	Terrorism as a 1st party stand-alone; property aviation, marine.	$100 million	Between 1 to 2 percent online.
Berkshire Hathaway	Multiple markets	1st party property coverage; 3rd party coverage available.	$500 million	Varies depending on on customer/exposure.
Oil Insurance Ltd.* Bermuda	Energy company cover (Oil insurance Ltd.)	All Risks Physical Damage Control of Well & 3rd party Pollution Liability- open to all eligible energy companies.	$250 million per occurrence- no sublimit.	$250,000 per OIL rules with a $5 million deductible.
Lloyd's of London	Multiple markets	1st party physical damage or BI caused by terrorist acts.	$200 million	1 to 5 percent of insured limits.
Special Risk Insurance and Reinsurance Luxembourg (Zurich Financial Services, XL Capital Ltd., Swiss Re, SCOR, Hanover Re, Allianz)	Property coverage	Physical loss or damages to insured properties-directly resulting from an act of terrorism. European risks only.	EUR 500 million	NA

Source: The Betterley Report and Risk & Insurance.

*Additional energy company covers available beyond those listed here.

Many businesses are unable to obtain terrorism coverage at any price, especially higher-profile structures with potential for catastrophic property and 3^{rd}-party losses. Other businesses, when offered coverage, have frequently declined, citing cost, the belief that they are unlikely to sustain damage from a terrorist attack or their expectation that government aid will be available in the event that such an attack does occur. A July 2002 survey by Prudential Securities indicated that less than half of commercial customers had any terrorism coverage at all (Exhibit 19).

Exhibit 19
Extent of Terrorism Coverage (mid-2002)

{INSERT EXHIBIT 19 ABOUT HERE}

Evolving Legal and Liability Issues

The legal and liability issues arising from the September 11 attacks are certain to require many years to resolve. Within the first 90 days of the attacks, the first major dispute to emerge was the contention by the leaseholder of the World Trade Center, Larry Silverstein, that the attacks on the WTC towers should constitute two distinct events (rather than one) because two separate aircraft hit the tower. The distinction is very important from an insurance perspective because the towers were insured for $3.55 billion per occurrence, meaning that Silverstein is entitled to $7.1 billion if successful, and just $3.55 billion otherwise. Litigation on this issue is ongoing, but there is discussion that Silverstein may sell his interest in the World Trade Center site to the city of New York, meaning that the city itself will be entitled to at least some of the insurance proceeds.

Liability issues, as previously discussed, are the single largest source of uncertainty in the total insured loss estimates stemming from the events of September 11, ranging in cost from $5 billion to $20 billion. The large number of people killed or injured, combined with the uncertain impact of government-backed victims' compensation fund and subsequent legislation limiting the liability of some parties made estimating the liability of the parties involved nearly impossible so soon after the event. Trial lawyers even announced a temporary moratorium on lawsuits related to the events of September 11 to avoid being branded as ambulance and hearse-chasers, making it difficult to see where the major legal battles would be waged.

The Victim Compensation Fund established within the airline bailout package was written very quickly with language that some lawyers regard as very ambiguous. The intent of the fund is to deliver fast and fair compensation the victims and survivors of the September 11 attacks. Claims will be paid within 120 days of the date filed and generally accepted methodologies for determining awards will likely be adopted. A "special master," Kenneth Feinberg, was appointed in November 2001 to administer the fund and develop rules for its operation. The most important and controversial of those rules, which were announced in December 2001, was a formula based on income, age, marital status and number of dependents to arrive at award amounts for claimants (i.e., survivors). The formula produced a minimum payout of $250,000 and an average award of $1.65 million, though any awards were to be reduced by amounts received from life insurance, workers compensation and other benefits received, such as pension awards (though not by any sums received from charitable sources). In March 2002, the plans rules were revised, providing an average benefit of $1.85 million with deductions for life insurance and pensions, but not Social Security. The total expected cost of the Fund is expected to be $4 billion.

As of early August 2002, only 650 out of potentially thousands of families had filed even partially-completed applications with the fund. In late July and early August, the fund sent the first notices of award (approximately "two dozen") to families.[15] Separately, at least six suits had been filed against the airlines involved and approximately 200 families had filed a notice of claim (which preserves the right to sue) against the Port Authority of New York and New Jersey. So far, the fund appears to be generally successful at achieving its goal of keeping most claimants out of the court system, though the pace at which families are applying to the fund is below expectations. The

Congress has also broadened the mission of the Victim Compensation Fund. Although established to handle the claims arising from the September 11 terror attack, the fund will now compensate victims/families of those injured or killed in the 1993 bombing of the World Trade Center, the 1995 Oklahoma City bombing, the bombing of U.S. embassies in Africa in 1998 and the anthrax mailings in 2001. The expansion is expected to add $300 million to the cost of administering the fund. Importantly, the expansion seems to establish a precedent for funding the losses suffered by victims of future terrorist attacks.

Separately, Congress agreed to limit the liability of the Port Authority of New York and New Jersey to $650 million (which runs Newark International Airport and owns the World Trade Center complex), Silverstein Properties (the WTC leaseholder) to $1 billion, and the city of New York to $350 million. Also limited was the liability of Boeing (which manufactured all 4 aircraft used in the hijackings), the Massachusetts Port Authority (which runs Boston's Logan Airport) and the Portland, Maine, airport (where some of the hijackers boarded connecting flights to Boston).

All of these parties are likely to be sued to the limits of their insurance or their legislatively-capped liability, whichever is higher. There is also concern that the limits on liability granted to some parties will merely incent trial attorneys to expand the list potential defendants to those with a more peripheral connection to the issue

[15] Reports of the first family to acknowledge acceptance of an award appeared in the media on August 8. The person killed in the attack was a college-educated male in his 20s earning nearly $60,000 per year. The Fund determined that a payout of $1.19 million was appropriate based on the deceased's expected future earnings and the family's pain and suffering. The award was reduced by $150,000 to reflect other benefits collected such as life insurance and workers compensation for a net payout to the family of $1.04 million.

(e.g., manufacturer of airport screening devices, jet fuel manufacturers, architects of the WTC towers, etc.). If successful, the impact on liability insurers is potentially enormous. Finally, insurers retain a right to subrogate against various parties, the airlines in particular, though no legal actions have yet been taken in this area.

Wall Street Impact

It should come as no surprise that 2001 was the worst year on record for property/casualty insurers. A discussed previously, net income was negative for the first time ever and underwriting losses reached new records. Also not surprising is the fact that insurer share prices plummeted immediately after the September 11 terrorist attacks as investors considered company liabilities for losses and the possibility of future attacks.[16] While insurers stocks on the day before the attacks were down about 8 percent for the year, they were down more than 18 percent after the first full week of trading.[17]

It may come as some surprise, however, that insurance company stocks fully recovered those losses within a few weeks. In fact, by the end of 2001, property/casualty insurance stocks (on a market cap-weighted basis) were down just 1.9 percent for 2001, compared to declines of 13 percent in the Standard & Poor's 500 index and 21 percent in the Nasdaq. As Exhibit 20 illustrates, the stock performance of all segments of the insurance industry (as well as the broader markets) had improved markedly within 90 days of the attacks. The broker segment showed the most improvement, moving from a year-to-date decline of 20 percent on September 10 to a *gain* of 1.6 percent by year's end, indicating investor's anticipation of both higher prices and greater demand for broker services.

P/C insurance company stocks basically treaded water through the first half of 2002, compared to declines in the broader markets, but began to fall along with the rest of the market as the crisis in corporate governance sent investors into a selling frenzy in July. Despite this, p/c insurers stocks have performed well relative to their peers outside the p/c group and very well against the broader market indexes.

Industry wide, investors clearly recognize that insurance companies are solvent, are able to pay all claims stemming from September 11, and are taking steps to adapt to a very different environment in the aftermath of the attacks—including raising prices, reducing exposure and tightening underwriting standards to reflect the increased risk they face. These efforts will help assure the preservation of insurers' long-term financial strength.

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[16] There were numerous press reports in the days following the attacks that Osama bin Laden's al Qaeda terrorist network had sold European reinsurance company shares short in advance of the attacks in order to profit from the expected drop in prices. A subsequent investigation, however, produced no evidence of any such transactions.

[17] Trading on major U.S. stock exchanges was suspended Tuesday, September 11 through Friday, September 14 and resumed on Monday, September 17.

Exhibit 20
Stock Performance of Insurance Stocks
Before and After the September 11 Attacks

{INSERT EXHIBIT 20 ABOUT HERE}

A Look Ahead

Catastrophic events often lead to fundamental changes in the way insurers operate. The scars of Hurricane Andrew, for example, which occurred in 1992, are still very visible throughout the non-life insurance and reinsurance industry. Insurers charge much high premiums in coastal zones, require special windstorm deductibles, sometimes require separate windstorm policies underwritten by special windstorm pools. Andrew was also the impetus behind the rise of the Bermuda market and sparked widespread interest in catastrophe-linked securities and sophisticated computer modeling.

The events of September 11 will have a similar enduring effect on the insurance industry. As was the case with Andrew and the peril of windstorm, the events of September 11, 2001 are leading to permanent changes in the underwriting and pricing of terrorism risk, including research and development of terrorism models. September 11 may also lead to a new and closer relationship between the insurance industry and the federal government.

With time, the financial wounds insurers suffered on September 11 will heal, as will the wounds of New York City itself. Insurers have, in effect, given New York and the nation a $40 billion transfusion that for tens of thousand of businesses and individuals represents the difference between survival and despair. The changes insurers make in the wake of the horror of September 11 will help ensure that the industry can continue to make that difference for the millions of policyholders who count on insurers every year in their hour of greatest need.