CBO TESTIMONY

Statement of
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Federal Terrorism Reinsurance

before the
Committee on Banking, Housing, and Urban Affairs
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Chairman Shelby, Senator Sarbanes, and Members of the Committee, I appreciate having the opportunity to discuss federal terrorism reinsurance with you today. My statement, which draws heavily on the Congressional Budget Office's (CBO's) paper *Federal Terrorism Reinsurance: An Update* (January 2005), will elaborate on several points:

- By increasing the availability of terrorism insurance at below-market rates, the Terrorism Risk Insurance Act (TRIA) has led to a rise in the percentage of companies that buy terrorism coverage, mainly in places thought to be at high risk of terrorist attacks.

- In the absence of TRIA, an unexpectedly large loss from a terrorist attack would be likely to produce another episode of scarce coverage, rising prices, and uninsured assets.

- Some important changes have occurred since TRIA's enactment in 2002, however. The most significant seems to be a growing sense that the threat of terrorism in the United States will continue for the foreseeable future. That conclusion suggests that investment and economic behavior needs to adjust further in response to the greater threat of losses from terrorist attacks. For example, with a continuing threat, it might be cost-effective for new structures to be designed, located, and built to better withstand such attacks. Existing structures might benefit from having their safety features retrofitted. And businesses could diversify the locations of their operations. The extended duration of the threat is thus relevant to the question of whether to extend TRIA in its current form, which subsidizes insurance and dampens incentives for such adjustments.

- At a minimum, the speed with which the nation adjusts to a sustained high level of risk might increase if the premiums charged for terrorism insurance more closely reflected expected losses. That outcome could be facilitated by letting the TRIA program expire or by adding cost-based premiums to the program.

- It is easy to exaggerate the overall costs to the economy of reducing the federal subsidy for terrorism insurance; in fact, those costs are likely to be small. One reason is that TRIA does not lower the total costs of terrorist attacks but rather shifts them from property owners to taxpayers. Indeed, total costs might be lower without TRIA because efforts to mitigate risk could pay off in smaller losses from a terrorist attack.

- Alternatives to insurance would be likely to develop more quickly if premiums were higher. That is, the expiration of TRIA or the addition of cost-based premiums could stimulate the development of alternatives,

including mutual reinsurance pools and capital instruments such as catastrophe bonds. Another alternative to traditional insurance is for owners of the largest assets at risk (and their creditors) to protect themselves by diversifying among properties and locations.

What TRIA Does

The Terrorism Risk Insurance Act, enacted in November 2002, created a temporary federal reinsurance program to transfer most of the risk of financial loss from acts of terrorism to taxpayers. At the time, the attacks of September 11, 2001, had made insurers less willing to provide terrorism coverage because of uncertainty about the risk of future losses. Policymakers feared that a shortage of terrorism insurance could expose property owners to uninsured risk, slow down commercial construction, and reduce economic activity. Indeed, anecdotal evidence suggested that some large construction projects had been canceled or delayed in part because of the lack of terrorism coverage. Many analysts expected that, in time, insurers would reassess the risk of terrorism, raise capital, and reenter the market. TRIA was intended to fill the gap in the supply of terrorism insurance, at least until private insurers could recover.

Under TRIA, companies that provide commercial property and casualty insurance are required to offer terrorism coverage. In return, the federal government agrees to pay 90 percent of an insurer's losses, above a deductible, in the event of an attack by foreign terrorists. Insurers would pay the deductible and the other 10 percent of losses—up to a total limit for the program of $100 billion. The government would then be required to recoup some of its costs by assessing surcharges on commercial insurance policies sold after the terrorist attack. Participating insurers pay no premiums for TRIA reinsurance, which increases their ability to insure against catastrophes at low prices. The law and the program it created are scheduled to expire at the end of calendar year 2005.

Effects of TRIA on Insurance Markets

TRIA has served its purpose of immediately expanding the supply of terrorism insurance. For owners of high-risk properties, the law has succeeded in increasing the availability and lowering the price of coverage for property and casualty losses from terrorism. As a result, TRIA has led to an increase in the percentage of companies that buy terrorism coverage. It has also given private insurers time to raise financial capital, improve their models of risk, and reenter the market.

The Treasury is scheduled to deliver a report to the Congress this summer that should provide additional information about the effects of TRIA. As part of that

report, the Treasury is conducting a comprehensive survey of insurers and policy-holders about their experiences under the program.

Effects on Prices of Terrorism Insurance

TRIA has contributed to the decline in the price of terrorism insurance, which has fallen by half since the beginning of 2003. In the third quarter of 2004, the typical premium for terrorism coverage represented about 4 percent of the total premium for a property insurance policy—down from more than 10 percent in the first quarter of 2003, according to insurance broker Marsh Inc. That drop occurred as insurers' own deductibles under TRIA were rising, which would normally cause insurers to raise premiums. TRIA is probably not responsible for the entire drop in rates in 2003 because private insurers were building capital and learning more about pricing terrorism risks. In 2004, the median cost of purchasing terrorism insurance ranged from $53 to $80 per $1 million of insured value.

Effects on Purchases of Terrorism Insurance

After the cost of terrorism coverage fell, the percentage of firms buying policies nearly doubled. A recent survey indicates that 44 percent of large companies bought terrorism coverage in the third quarter of 2004, compared with just 26 percent in the third quarter of 2003. Another survey found that 57 percent of commercial property owners purchased terrorism insurance in the third quarter of 2004 versus 24 percent in early 2003. A majority of firms with terrorism coverage are now also buying private insurance for events not covered by TRIA, including acts of terrorism by domestic groups.

Despite those increases, roughly half of all commercial properties still lack terrorism insurance, but that rate of coverage is not necessarily a sign of market failure. Factors other than price affect firms' decisions to buy insurance. For example, many companies that do not buy terrorism coverage apparently do not consider themselves to be potential terrorist targets. (Coverage is higher in cities thought to be at greatest risk—such as New York, Washington, Chicago, and San Francisco—despite higher premiums in those cities.) Moreover, properties owned by shareholders who hold diversified portfolios of such investments are effectively self-insured. If some firms have decided that the costs of terrorism coverage outweigh the benefits, then universal coverage may not be a desirable policy goal.

Financial Condition of Insurers

Insurers' capacity to provide coverage depends on their net worth (assets minus liabilities) and the availability of reinsurance. The largest component of net worth is insurers' accumulated stock of retained earnings. The net worth of property and casualty insurers dropped by nearly $30 billion in 2001 but has since recovered

Table 1.

Operating Results for U.S. Property and Casualty Insurers, 1994 to 2004

(Millions of dollars)

	Net Premiums Written	Net Underwriting Loss or Gain[a]	Pretax Operating Income[b]	Net Worth[c]
1994	250,709	-22,083	11,604	193,346
1995	259,803	-17,375	19,459	230,001
1996	268,730	-17,162	20,801	255,527
1997	276,568	-6,030	35,469	308,479
1998	281,621	-16,572	23,354	333,327
1999	286,934	-24,429	14,426	334,348
2000	301,000	-32,300	9,500	319,000
2001	323,510	-52,602	-13,800	289,606
2002	369,673	-30,840	5,581	285,386
2003	405,855	-4,635	33,727	346,987
2004[d]	321,225	2,848	31,216	369,018

Source: Congressional Budget Office based on A.M. Best Company, *Best's Aggregates & Averages: Property-Casualty* (Oldwick, N.J.: A.M. Best Company, 2000); A.M. Best Company, "2000 Property/Casualty Results: Insurers Not Out of the Woods" (Oldwick, N.J.: A.M. Best Company, April 16, 2001), for 2000 data; Insurance Services Office, Inc., "Decline in Surplus Tarnishes P/C Industry's Return to Profitability in 2002" (press release, Jersey City, N.J., April 16, 2003), for 2001 data; and Insurance Services Office, Inc., "Sharp Increase in P/C Industry's Net Income Propels Surplus Upward in 2003" (press release, Jersey City, N.J., April 14, 2004), for 2002 and 2003 data; and Insurance Services Office, Inc., "First Nine-Month Net Gain on Underwriting in at Least 19 Years Drives Increase in U.S. Property/Casualty Industry's Net Income" (press release, Jersey City, N.J., December 20, 2004), for 2004 data.

a. Includes dividend payments to policyholders.

b. Excludes the realization of capital gains and losses.

c. Insurers' capacity to issue insurance depends on their net worth (assets minus liabilities), or their capital and surplus. Surplus, the largest component of net worth, is an insurer's accumulated stock of retained earnings. Capital is shareholders' equity in a publicly owned insurance company.

d. Numbers are for the first nine months of 2004 (year-end results are not yet available).

(see Table 1). In addition, underwriting losses (the difference between insurers' income from premiums and their expenses) have declined significantly. In fact, property and casualty insurers are earning underwriting profits for the first time in nearly 20 years—$2.8 billion for the first nine months of 2004—despite losses from four hurricanes in the third quarter of 2004. The net worth of the industry rose to $369 billion on September 30, 2004, from $285 billion at the end of 2002. U.S. reinsurers have also seen a recovery in their net worth and net income (see Table 2). Of course, not all of that net worth will be available to back terrorism coverage because it will be needed to support other types of insurance.

Table 2.

Operating Results for U.S. Reinsurers, 1994 to 2003

(Millions of dollars)

	Net Premiums Written	Underwriting Loss	Net Income	Net Worth[a]
1994	17,839	-1,667	1,936	38,123
1995	21,408	-1,971	2,501	52,692
1996	21,518	-763	3,712	43,727
1997	22,113	-477	4,531	53,264
1998	21,723	-1,288	5,434	54,614
1999	22,803	-3,517	1,473	53,023
2000	27,252	-3,586	1,993	52,365
2001	27,196	-11,150	-2,982	41,900
2002	30,797	-5,618	1,307	46,681
2003	32,982	-566	3,173	62,148

Source: Congressional Budget Office based on Reinsurance Association of America, *Reinsurance Underwriting Review, A Financial Review of U.S. Reinsurers: 2003 Industry Results* (2004), p. 4.

Note: Comparable results are not available for the first three quarters of 2004.

a. Insurers' capacity to issue insurance depends on their net worth (assets minus liabilities), or their capital and surplus. Surplus, the largest component of net worth, is an insurer's accumulated stock of retained earnings. Capital is shareholders' equity in a publicly owned insurance company.

Modeling Insurance Losses

Among its other effects, TRIA has provided time for the insurance industry to improve its ability to predict losses from terrorism and thus price terrorism risk more accurately. Several competing models are now available that predict the risk of losses from terrorism by zip code or by individual location. The level of detail in those models allows insurers to distinguish the higher risk faced by city centers from the lower risk faced by outlying urban areas. Each model contains a list of potential terrorist targets and produces estimates of the severity of losses associated with different types of attacks.

Although substantial progress has been made in modeling terrorism losses, the new models are not as reliable as those for natural catastrophes, which are based on more than 100 years of data rather than on two major events in the past 12 years (the September 11 attacks and the 1993 bombing of the World Trade Center). Terrorism models are hampered not only by a lack of data but also by the absence of an established "theory" of terrorist attacks. However, a generally accepted model of risk is not essential for providing private insurance. Insurance against natural disasters is widely available despite a variety of estimates from competing models of losses from such events.

Notwithstanding concern by some actuaries that existing tools cannot predict losses from terrorism with the degree of accuracy necessary to set prices for coverage, insurers have one benchmark available for setting premiums. The Insurance Services Office (ISO), a company that provides data and analytic services to insurers, currently files advisory estimates of loss costs (expected annual losses over the long term) with insurance commissioners in each state. Once state commissioners approve an ISO advisory, insurance companies operating in that state can use the estimates as a basis for setting premiums without having to undertake the formal rate-filing process. In 2003, all 50 states approved ISO's estimates of loss costs.

Economic Effects and the Cost of TRIA

TRIA was explicitly designed to reduce the short-term adverse effects of terrorism on economic activity, at some cost to taxpayers. Assessing TRIA's success in offsetting the macroeconomic effects of terrorism is difficult because it is hard to know how the economy would have performed in the absence of the law. No claims have been filed under TRIA, but the program exposes taxpayers to substantial risks and costs. In addition, the TRIA program may be increasing exposure to losses by delaying cost-effective adjustments to a continuing risk of terrorism.

Short-Term Macroeconomic Effects

TRIA is a temporary program adopted to avoid a contraction of economic activity. Faced with anecdotal evidence that some major construction projects had been halted because of a lack of terrorism insurance, the Congress acted to keep such projects moving by increasing the availability and lowering the price of terrorism coverage.

After TRIA's enactment, some recovery in retail construction occurred. But the law appears to have had little measurable effect on office construction, employment in the construction industry, or the volume of commercial construction loans made by large commercial banks. Various factors complicate that assessment, however—for example, the lingering effects of the 2001 recession could be masking positive macroeconomic effects of TRIA.

In addition, it appears that the shock to the insurance market from the September 11 attacks did not spill over to the general economy. Surveys indicate that in the six months after September 11, banks did not significantly tighten their commercial lending in response to the shortage of terrorism insurance. Commercial lending may have been little affected in part because firms have alternatives other than insurance for spreading risk. Lenders and investors can reduce their risk through diversification. Real estate investment trusts, which are essentially mutual funds for real estate holdings, and commercial mortgage-backed securities

(CMBs) are especially useful for that purpose. In fact, the extent to which interest rates on CMBs exceeded comparable rates was smaller in the summer of 2002 than it had been before September 11, 2001. That result is consistent with the idea that investors were requiring only a small premium for bearing terrorism risk, partly because CMBs are geographically diversified.

Cost to Taxpayers

No claims have been incurred under TRIA, but that does not mean that the program has no cost. Indeed, the cost—in terms of risk and expected losses—of having the federal government provide terrorism reinsurance is approximately the same as the cost of having the private sector provide it. With a federal program, however, that cost is shifted from owners of commercial properties (who pay for expected losses and the cost of risk-bearing through premiums) to taxpayers. The shift in the cost of risk and uncertainty would occur even if surcharges on future policyholders ultimately offset all federal cash outlays under TRIA.

CBO estimates the expected value of federal outlays from TRIA to be $630 million over the 2005-2015 period (assuming that the law is extended) and the value of governmental receipts from surcharges to be $320 million over that period. (Expected-value estimates reflect CBO's expectation of payments during the period based on the probability of various outcomes, from losses of zero up to very large amounts.) The outlay estimate does not include any charge for the risk and uncertainty borne by taxpayers. Thus, the budgetary estimates are less than the economic cost of such reinsurance.

Long-Term Effects

An increase in the risk of terrorism is analogous to an increase in the risk of natural disasters: it lowers the value of some properties in high-risk areas. Similarly, TRIA is equivalent to a policy of subsidizing property and casualty insurance in an area that appears to have an especially high risk of natural disasters. If the increase in risk is only temporary, then a federal program to provide low-cost insurance might be justified as a means of avoiding an expensive and excessive effort to reduce losses.

If the increase in risk is long-lived and significant, however, such a program could increase the cost to the economy because it could delay action by owners of assets to mitigate risk and reduce losses. Since July 2004, when the report of the 9/11 Commission was published, a consensus appears to have emerged that the current elevated risk of terrorism is likely to continue for years. With a sustained change in the risk of loss, spreading that risk through insurance is only part of an economically efficient response. Taking steps to mitigate risk—such as moving operations to safer areas, installing better security systems, hardening buildings against external attack, establishing disaster-recovery procedures, and setting up systems to protect computerized information—is also important. Firms have been

making additional investments since September 11 to improve their security and avoid losses, but the incentive to do so is muted by subsidized terrorism insurance.[1]

If the federal government continued to subsidize terrorism insurance, it could contribute to deferring the private sector's long-term adjustment to the increase in risk. Less adjustment would mean that losses from any future attacks would be greater than would otherwise be the case. However, the extent to which TRIA may actually be reducing efforts to mitigate risk is unknown.

Policy Implications

Three options for TRIA have been under discussion in the Congress. One is to allow the program to expire at the end of 2005, as scheduled under current law. A second is to extend the program as is. That approach was taken in H.R. 4772 in the 108th Congress. A third option is to modify TRIA. For example, H.R. 4634, which was reported by the House Committee on Financial Services on September 29, 2004, would have continued the program through 2007, raised individual insurers' deductibles from 15 percent this year to 20 percent in 2007, increased the industry retention level from $15 billion now to $20 billion in 2007, and extended reinsurance coverage to providers of group life insurance. CBO estimated that on an expected-value basis, that legislation would have increased outlays by $1.3 billion and receipts by $480 million over the 2005-2014 period. At least two terrorism insurance bills have been introduced in the 109th Congress—the Terrorism Risk Insurance Extension Act of 2005 (S. 467) and the Terrorism Insurance Backstop Extension Act of 2005 (H.R. 1153)—but CBO has not yet estimated their cost.

Letting TRIA Expire

If the perception that the risk of terrorism is likely to remain high is correct, then it would be desirable for property owners and businesses to take measures to reduce their exposure to risk and lower the cost of any attack. They would have a stronger incentive to take such measures if the insurance subsidies conveyed through TRIA were reduced or eliminated. Letting TRIA expire, however, might expose property owners to onerous premiums to cover losses for which they were not responsible.

Would Private Reinsurers and Investors Take Up the Slack? There are indications that private reinsurers would eventually fill some of the gap in supply left by the expiration of TRIA, but that outcome is not certain. Like domestic insurers, global reinsurers have increased their underwriting capacity since September 11,

1. See Congressional Budget Office, *Homeland Security and the Private Sector* (December 2004).

in part by adding capital. Global reinsurers also earned underwriting profits in 2003 for the first time in seven years, according to Standard & Poor's, and shareholders' funds (capital and shareholders' reserves) increased from $244.8 billion in 2002 to $338.3 billion in 2003. More recently, hedge funds have entered the reinsurance business. However, in 2004, the amount of coverage actually purchased in the private terrorism reinsurance market remained low—between $4 billion and $6 billion, by industry estimates.

The experience of other countries provides little evidence about the role that private reinsurers can play. In Europe, public/private risk-sharing agreements on terrorism insurance are common. Typically, the government provides financial support for pools created by insurers. With a pool system, individual insurers pay the first layer of claims, private reinsurers cover middle layers, and a mutual reinsurance pool pays higher layers. Generally, the government picks up losses once a pool's resources are exhausted. For that reason, pure free-market tests of the willingness of private firms to underwrite terrorism coverage are difficult to find, leading to uncertainty about how much coverage the market would provide.

Although capital markets are currently absorbing some terrorism risk, the development of global financial instruments for spreading that risk would probably be more rapid without TRIA's subsidized prices. Further, international capital markets are larger than insurance markets and thus have greater capacity to absorb losses. Daily fluctuations in the overall value of traded capital assets worldwide often exceed the losses incurred on September 11, 2001.

In the absence of TRIA, catastrophe bonds—which fully or partly forgive the bond issuer from interest and principal payments in the event of specified catastrophes—might be used for terrorism losses, as they have been used to spread the risk of natural disasters. Two international catastrophe bonds have been issued that combine terrorism risk with other risks. However, before catastrophe bonds can play a major role, tax and regulatory accounting issues will have to be resolved.

How Would the U.S. Economy Be Affected? The immediate economic effects of letting TRIA expire are likely to be small. The economy is stronger now than it was in 2001 and 2002 and therefore is better able to offset the drag from an increase in costs for terrorism insurance. A study sponsored by the insurance industry concluded that failing to extend TRIA would reduce economic growth by 0.4 percent, household net worth by 0.9 percent, and the number of jobs by 0.2 percent in 2008, even without another terrorist attack.[2] That study predicted slower economic growth because of the effect that higher insurance premiums for

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2. R. Glenn Hubbard and Bruce Deal, *The Economic Effects of Federal Participation in Terrorism Risk* (study prepared by Analysis Group, Inc., for the insurance industry, September 14, 2004).

property and workers' compensation insurance would have on businesses' operating costs. However, the study implicitly assumed that costs borne by taxpayers, unlike those borne by owners of commercial properties, do not have adverse effects on economic growth. The study also ignored TRIA's potential for delaying the economy's long-term adjustment to a higher risk of terrorism and the possibility that other policies could offset any economic slowdown.

Letting TRIA expire would not increase the expected cost of terrorism to the economy but rather would change the incidence of that cost. Under TRIA, the cost of terrorism risk is being shared by taxpayers and the owners of commercial properties. If TRIA expired as scheduled, more of the cost would be borne by private firms and insurers, but the total cost would be unlikely to rise.

How Would Insurance Markets Be Affected? One disadvantage of letting TRIA expire is that doing so increases the chances of a market disruption after an unexpectedly large loss, as has been the pattern for natural disasters. In particular, after a terrorist attack, the availability of insurance and reinsurance would drop, and premiums would be likely to spike. How long that effect would last is uncertain. But in the aftermath of catastrophic events that deplete capital, high prices and reduced availability of insurance can persist.

Reinsurers would also probably continue to exclude losses related to nuclear, biological, and chemical attacks from their coverage. That exclusion would be important mainly for the workers' compensation market, since primary insurers for that type of policy must cover losses from all causes. Without federal reinsurance, insurers might be unable to diversify that catastrophic risk, at least in the near term, so premiums for workers' compensation policies could rise substantially. Thus, TRIA's expiration would most likely create shortages in the workers' compensation market. Because of the special challenges posed by that market, policymakers might consider the option of extending TRIA only for workers' compensation policies.

Another disadvantage of letting TRIA expire is that with higher prices, the prevalence of insurance coverage would probably decline. Thus, lawmakers might face the prospect of higher supplemental disaster assistance for uninsured losses in the event of a major attack. In the case of September 11, federal assistance to businesses adversely affected by the attacks exceeded $6 billion, out of total federal aid of more than $30 billion in response to the attacks.

Modifying TRIA

If the TRIA program was extended rather than allowed to expire, the government could take steps to reduce the program's adverse effects on risk mitigation. Charging premiums for federal reinsurance would help encourage property owners to adjust to the higher level of risk. When TRIA was proposed, its supporters

argued against premiums on the grounds that not charging them would have only small effects in the short run and would avoid the need to create a federal entity to set premiums. However, if the primary goal now is to prompt the economy to adjust to a continuing threat of terrorism, then premiums might be set as close as possible to expected losses. Alternatively, to ensure that private insurers and reinsurers had room to compete with the government, policymakers could set premiums higher than expected losses (in other words, add “risk loads”). In addition, periodically raising the deductibles and coinsurance percentages that insurers must bear would gradually remove the government from the market.