

Should the government provide terrorism insurance over the short or long term?

A Role for Government?

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THE TERRORIST ATTACKS ON THE United States in September 2001 created chaos in the insurance industry. Insurers immediately refused to sell more than minimal coverage to any airline for ground damage, placing airlines in difficulty with both creditors and regulators. Property and casualty reinsurers, who will bear the brunt of the \$40 billion or more in claims resulting from the destruction of the World Trade Center, announced that they would no longer sell coverage for acts of terrorism. The insurance industry responded by announcing that acts of terrorism would be excluded from coverage under commercial policies in future renewals, a state of affairs that might place the owners of some commercial properties in breach of loan covenants and may leave commercial lenders hesitant to make new loans.

Soon after the attack, the Bush administration obtained temporary authority for the Federal Aviation Administration to provide insurance coverage to airlines for ground damage — a program that remains in force subject to periodic votes on renewal. More broadly, last November Congress passed and President Bush signed legislation intended to limit the liability of insurance firms that offer terrorism coverage. The legislation requires all commercial insurers of buildings to

begin offering terrorism coverage immediately, though the insurers remain free to set the prices for that coverage. To limit the insurers' economic risk, the government will pay 90 percent of the cost of a terrorist attack that creates losses of more than \$10 billion, up to a total of \$100 billion. For lesser damages during the first year of the program, insurance companies that offer terrorism insurance will pay up to the equivalent of seven percent of their premiums toward damages while the government will pick up the rest of the costs. In the third year, the insurers will be required to pay up to 15 percent of their premiums with the 90 percent share for the government kicking in at \$15 billion in losses. After three years, the federal government is to exit terrorism insurance, leaving coverage to the industry.

Was this government intervention warranted? Should government serve as the insurer of last resort for terrorist attacks against the United States?

THE ECONOMICS OF INSURANCE CRISES

Crisis in the availability of private insurance coverage are not unfamiliar. During the 1980s, certain lines of liability insurance increased in price spectacularly, and a few became altogether unavailable (such as certain lines of medical malpractice coverage). The most recent crisis occurred in the early 1990s following Hurricane Andrew when reinsurers exited the market for coverage of catastrophic risks, leading domestic casualty insurers to fear that another major disaster might threaten their solvency. Such crises also produced political support for governmental actions to reduce insurers' exposure to risk; indeed, one can trace some modern tort reforms and initiatives such as the California Earthquake Authority in part to those episodes. The liability and catastrophe insur-

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ance crises also spawned a fair amount of theoretical and empirical research into the reasons for their occurrence.

Insurance capacity limits The insurance crises of the past, as well as the present situation with respect to terrorism coverage, all arose following large, unanticipated losses for insurers. At first blush, the unwillingness of insurers to sell coverage at such times, or to institute a large increase in required premiums relative to expected losses, presents a puzzle. Insurers are in the business of bearing risk, and it is not obvious why an increase in the riskiness of their business would give them pause. To be sure, premiums will rise when the expected value of covered losses increases, but why should insurers refuse to write coverage at all or charge premiums far in excess of expected losses? Instead, one might expect insurance actuaries to take their best guess regarding future expected losses as new information comes in, and make coverage available for a premium that covers expected costs.

Insurance crises are part of a larger pattern of pricing and

availability in insurance markets, sometimes referred to as the insurance cycle. During the crisis phase, the most affected lines of business experience rapidly increasing prices accompanied by severely restricted quantity. Coverage may become unavailable for a very few types of losses and insureds. During that time, most insurers realize great improvements in profitability and are able to increase their capital from retained earnings. Over time, the crisis phase or tight market lessens and prices may fall as the availability of coverage significantly increases. That period of relative stability typically gives way eventually to a soft market where prices are low, availability is abundant, and insurer profitability is quite low. The soft market generally persists until another large, unanticipated industry loss reduces industry capacity to the point where another crisis arises.

Explanation? Various theories have emerged through the years to explain insurers' behavior during tight markets. Some economists argued that tightness was due to foolish loss fore-

casting that underpredicted losses during periods of rising losses and overpredicted them during periods where losses had stabilized. The difficulty with that theory, of course, is that it relies on perpetual stupidity on the part of insurance actuaries, which is not a very appealing assumption. It also fails to explain why insurance coverage might become unavailable altogether.

Others have suggested that regulatory drag contributes to cycles, with periods of increased losses followed by periods during which regulators constrain the ability of insurers to write coverage in order to protect solvency. Those theories primarily aim at explaining the time series pattern of profitability across the cycle, and are not well suited to explain the quantity changes associated with profit movements over the cycle. And the claim that regulation is the central reason for cycles is at best incomplete. Reinsurance markets are largely unregulated, for example, yet some of the most prominent “crises” (including the catastrophic risk situation in the early 1990s and the current dearth of terrorism coverage) arose from an unwillingness of reinsurers to write coverage.

With particular reference to the liability insurance crisis of the 1980s, still other writers suggested that adverse selection was the problem. As losses grew from changes in liability rules, the story ran, the difference in risk exposure between “good types” and “bad types” increased, leading more “good types” to exit the insurance market leaving behind “bad types” and higher premiums. The theory has some explanatory power, but has a more difficult time with crises in other lines of insurance such as the recent catastrophe insurance crisis (where adverse selection seems much less of a problem) and it does not explain some elements of the liability crisis. For example, many liability policies were canceled during the crisis, but adverse selection should not cause insureds or insurers to cancel insurance that is sold before the market begins to unravel. In addition, if the market was unraveling during the liability insurance crisis, why did total premiums collected approximately triple? An unraveling market should produce a drop in premiums.

Another line of theory emphasizes capital market constraints on insurers as an explanation for tightness in the market. The key assumption here is that external capital is more expensive than internal capital. For insurance companies in particular, it is likely that the capital markets will be suspicious of insurers trying to raise capital in the face of a recent increase in loss payouts. Some such insurers may simply be seeking the reserves needed to write profitable new policies, but others may be hoping to externalize the costs of expected future losses to unwitting new investors. If investors have difficulty telling the categories of insurers apart, all insurers may pay a hefty risk premium for outside capital, especially following a substantial increase in covered losses.

In general, when external capital is more expensive than internal capital, the value of any firm is likely to be concave in internal capital, causing the firm to act as if it is risk averse. That situation arises from the fact that some positive value investment projects will be profitable if financed using internal funds but not if financed using external funds. A reduction in avail-

able internal capital thus reduces the firm’s willingness to undertake some new investment projects, while an increase in internal capital makes more projects profitable. Because investment opportunities exhibit diminishing returns, however, a reduction in internal capital is more costly than a comparable increase in internal capital, producing the concavity noted above. Significant bankruptcy costs can produce a similar result.

An insurer operating under those conditions will act as if it is risk averse, and will manage its insurance portfolio to reduce the variance of the returns. As a result, the insurer will require a greater price to assume risks that are positively correlated with other risks in the portfolio – essentially, a positive risk premium. (A negative “risk premium” is also possible for risks that are negatively correlated with the other risks in the portfolio.) Insurers who effectively diversify their insurance portfolios will be able to offer lower prices (for a given probability of bankruptcy). Competition will thus lead insurers to manage their insurance portfolios to diversify risks either by directly adjusting their exposures sold or by the use of various types of reinsurance. As a result, the risk premiums required by different insurers for the same type of risk will tend to converge.

Shortages With that background, it is easy to see how internal capital affects the “capacity” of the insurance industry. The capacity theory of cycles posits that insurance crises arise from a temporary shortage of industry capital. To go from the firm level discussion above to what happens at the industry level, note that because each insurer’s ability to bear risk is related to its individual level of capital, the aggregate risk that the industry will assume at a reasonable probability of solvency is related to the aggregate level of capital that insurers have in the short run.

The level of capital in the industry is subject to random shocks arising from shocks to asset values and unexpected loss realizations. Unexpected losses can come from several sources, but often arise when insurers have underestimated the probability or severity of large losses. Unusually large and unexpected declines in industry capital will result in a temporary capacity shortfall. After a large shock that changes the perceived probability distribution of losses, insurers will update their estimate of their existing exposure to risk associated with policies currently outstanding. Because of their limited capital and increased exposure to the risk in question, insurers will require a larger premium to bear additional risk. Many insurers may want to cede the risk rather than assuming more. If reinsurance is available, insurers can rebalance existing exposures relatively quickly. But if the reinsurance industry is also experiencing a temporary capital shortage and an increased exposure to the risk, as is typically the case, insurers (and reinsurers) may rebalance their exposures to the risk by waiting until existing policies expire and not renewing, or, in the extreme, they may cancel existing policies when cancellation is contractually possible.

The problems from capacity shortages tend to diminish over time for three reasons: First, the high prices caused by the capital scarcity allow insurers (and reinsurers) to increase their internal capital. Second, those same high returns provide

incentives for insurers to access costly external capital and for new entrants to come into the market. Third, insurers will reduce their risk exposure by curtailing new coverage and renewals as noted. The duration of the tight market conditions depends upon how quickly all three occur.

The theory of insurer behavior has considerable empirical support. Measures of insurers' "capacity" (internal capital), for example, bear a significant relationship to insurers' profitability as the theory would predict. Likewise, the theory predicts that the effects of "overhang" (policies that have already been sold but may still have claims that are not fully settled) on current markets will last longer if previously issued policies have long-tailed coverage. For example, many liability policies cover "occurrences" during the policy period, even if liability judgments associated with them may not be forthcoming for many

TERRORISM INSURANCE

The events of September 11 and their aftermath changed the information available to insurers in three ways: First, they suggested that the probability of very large terrorism losses was significantly greater than previously thought — the expected value of future losses rose considerably. Second and related, they greatly heightened the possibility that losses caused by terrorists might be so large as to be uninsurable. Present concerns about the use of weapons of mass destruction by terrorists suggest that terrorism losses might conceivably be as great as those that might be experienced in wartime. Third, they greatly increased the uncertainty in insurers' subjective probability distributions regarding terrorism losses. The insurance industry must now adjust to those new conditions.

The increase in both the mean and the variance of insurers'

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years because of delays in litigation or latent injuries. Under property insurance, by contrast, coverage is generally for "events" during the policy period, and there is little risk of a covered loss coming to light after the policy period is over. Accordingly, risk overhang will likely persist longer in liability insurance markets than in property insurance markets if the theory is correct. Recent evidence supports the theory, as the liability insurance crisis of the 1980s lasted considerably longer than the catastrophe reinsurance crisis of the early 1990s.

Before leaving this preliminary economic discussion, we should touch on one other point relating to large losses. Some types of losses, such as acts of war, are generally excluded from coverage under property/casualty policies. The preceding discussion adds to our understanding of why that should be so. Losses associated with war will tend to be highly correlated across policyholders. Consequently, they can seriously threaten insurers' internal capital. A healthy insurer will thus be unwilling to sell insurance for such risks without tacking on a substantial risk premium to the price. Of course, the more the price of insurance exceeds its expected value, other things being equal, the less potential insureds will want it. That problem is compounded by the fact that large correlated losses may impair insurers' capital to the point that they will be unable to pay claims — a prospect that further reduces the demand for insurance.

Thus, certain types of losses will only be insurable by the largest insurers with the greatest capital reserves and the highest degree of global diversification. As the number of potential insurers diminishes, market power issues may start to become a concern. And some potential losses are so catastrophic and non-diversifiable that no insurer will insure them for a price that customers will pay.

subjective distribution of terrorism losses creates a short-term "crisis" in the availability of terrorism coverage through the risk overhang phenomenon described above. Insurers in the short term have increased their estimates of their exposure to terrorism risk. Many have found that they have more exposure relative to their capital than they would like and are seeking to shed such coverage until they can manage the risk better. For some insurers, that may entail covering some terrorism losses but perhaps managing them differently by selecting a different mix of exposures, as by insisting on a broader geographic area for the same number of risks.

Just as with past insurance crises, the problem is likely to go away with time. Barring new, massive terrorist attacks, insurers' capital will increase, the perceived uncertainty about the distribution of losses will diminish, and insurers' risk premiums for covering terror-related losses will fall. Upward repricing of future coverage for terror-related losses will then afford insurers a substantial degree of confidence that the coverage will be profitable.

We may also expect insurers to take steps to protect themselves against excessive exposure in the event of more catastrophic terrorist attacks. Exclusions will be rewritten in a number of particulars. "Act of war" exclusions, for example, may be rewritten to incorporate more clearly the use of weapons of mass destruction by individuals as well as by enemy states. The exclusion of any losses caused by such weapons, especially nuclear weapons, may become more common, as may nuclear hazard exclusions. "Bomb damage" is another category of loss that may become subject to greater exclusions and limitations. One can imagine that such coverage might be excluded from basic casualty policies, for exam-

ple, and available only through separate riders such as those for earthquake and flood damage in many jurisdictions. That would allow insurers to take on risks selectively to ensure adequate diversification, and also would allow coverage to be priced better in relation to each insured's exposure to risk. Insurers will also protect themselves through dollar limits of liability, as they always have in the past.

Those adjustments are well underway. Indeed, we noted in the introduction how insurers are again willing to sell large amounts of coverage to airlines for ground damage caused by aircraft, and are thus urging the government to exit that market. Coverage for terror damage under property/casualty policies will likely return before long as well, subject to the sorts of changes noted above.

to provide ground damage cover for airlines on an ostensibly temporary basis, but until recently had not done much more.

With respect to airline coverage, at least part of the impetus for government participation is regulatory. Airlines are required to carry substantial coverage for ground damage (for which airlines are strictly liable under U.S. tort law), and policy cancellations after September 11 evidently placed airlines in a situation in which they could not comply with such regulations and were consequently unable to fly legally. Some adjustment of government policy was in order at that point, and government provision of insurance on a temporary basis may have been a reasonable choice among the available options (regulatory waivers or changes in liability rules being the others).

Even so, government involvement in the sale of airline cover

If government continues to enable airlines to externalize their risks, then government will become the problem instead of the solution.

Other sources It is also important to note that insurance companies are not the only sources of insurance against terror-related losses. The catastrophe reinsurance crisis of the early 1990s spurred the growth of new financial instruments that allow risks to be laid off in the capital markets. Catastrophe futures and catastrophe bonds now allow any investor to contract to make or receive state-contingent payments in the event of disasters. Payments in the event of a catastrophic loss are dependent on aggregate indices of insurance industry losses, thus eliminating any adverse selection or moral hazard that those contracts might otherwise produce.

Plainly, however, the adjustments that we describe for insurance markets are not yet complete, and we cannot know quite when the market will settle into a new equilibrium. One may therefore ask whether there is a role for government during the transition to a more stable situation. Further, the new equilibrium will likely entail some additional exclusions from coverage, as well as limits on the dollar value of coverage, that make certain risks uninsurable that might previously have been covered. One can further ask if government should step in to make coverage of those risks available.

THE CASE FOR GOVERNMENT INVOLVEMENT

Consistent with our prior discussion, it is useful to divide the analysis between "transition" issues relating to the period of low capital and risk overhang, and longer-term issues relating to risks that are uninsurable in the private market.

Transition Issues The transition to a market that is free of the current capital shortage and risk overhang is ongoing and its duration will depend on future experience with terrorism-related losses. Governments around the world have stepped in

illustrates one of the important potential problems with government participation in the insurance market. At least some private insurers are once again willing to supply coverage, but the airline industry objects that it is too expensive. The government programs supplying temporary cover have consequently been extended beyond their original expiration dates. That policy obviously raises the concern that governments are supplying subsidized coverage, and that political pressures will induce them to continue it. In that event, government becomes the problem rather than the solution, crowding out private insurance with subsidized public insurance and allowing airlines to externalize the risks that they create.

Market power More generally, in thinking about the wisdom of government involvement with insurance markets in any context, one must ask whether there is some market failure that government can address constructively. One familiar source of market failure is market power, and it is conceivable that low capital and risk overhang create a window of time in which market power may arise and be exploited. As we noted above, some risks are so large and non-diversifiable as to be uninsurable, and others are large enough that only the most highly capitalized insurers will take them on. We would not expect market power to afflict the market for coverage of the latter types of risks in the long run because of competitive entry by large insurers or insurance groups. But in a market afflicted by risk overhang, we might imagine that only the very largest insurers with experience writing a particular kind of coverage might offer it for a time and, during that window, premiums might include not only a significant risk premium but a monopoly markup as well.

The airline situation again offers a possible illustration. The largest insurance group in the world by capitalization is AIG,

and that is precisely the first group that announced its willingness to supply ground damage cover to airlines in amounts comparable to those available before September 11. As noted, the airlines have complained vociferously that the coverage is overpriced and have persuaded governments to remain in the market. We cannot rule out the possibility that AIG's premiums contain a monopoly markup and, if so, government participation on a temporary basis might in principle be justified. But it is also impossible to rule out the earlier hypothesis that government coverage is subsidized, and that the higher price of private coverage reflects sensible repricing in the face of increased risk.

Asymmetric information The broader question of whether the government should go beyond assistance to airlines to supply other reinsurance coverage that the market will not supply turns on somewhat different issues. As noted, the capacity limitations and associated risk overhang likely result from the relatively high cost of external capital to insurers, particularly after a series of events that produces large, unexpected losses. The high cost of outside capital, in turn, is likely a product of asymmetric information between insurers and capital markets and a related fear of adverse selection by insurers with large exposure under existing policies. A perceived shortage of coverage can also result from the high risk premiums that insurers will charge to write new coverage when the uncertainty about expected losses is great. Can those circumstances be viewed as a "market failure" remediable by the government?

The answer is somewhat complicated. Beginning with the problem of asymmetric information, there can be no question that conditions of asymmetric information reduce the efficiency of markets relative to a world of perfect, symmetric information. To call that a "market failure," however, is to indulge in the "nirvana fallacy" — the logical error of comparing the performance of actual private firms with that of a hypothetically perfect government. Governments are in no better position than the capital markets to judge the riskiness of placing capital at risk in insurance markets. Indeed, for reasons that we will elaborate at greater length in the next section, there is good reason to think that government management of its risk portfolio when it acts as an insurer will be inferior to that of the private sector. Government reinsurance, therefore, would likely be more threatened with adverse selection than private reinsurance. And we can think of no other direct policy instruments that government might constructively employ to ameliorate the problem of asymmetric information.

Reinsurance If an insurance market is suffering from unraveling because of adverse selection, however, it is well known that government may improve matters by making insurance coverage mandatory. The same possibility seemingly exists, at least in theory, for reinsurance markets. But it is difficult to imagine how mandatory reinsurance would be constructed, and even more difficult to imagine how government would determine when a dearth of reinsurance (or a period where its price seems high) could be addressed through any policy of mandatory reinsurance. Finally, when

the adverse selection problem is only temporarily acute following a shock to the market, the danger arises that any government policies along those lines would be outmoded by the time they were put in place.

One might argue for government participation on slightly different grounds, however, relating to the observation that private reinsurers facing capacity constraints will charge substantial risk premiums to write coverage that may result in large losses. Those risk premiums relate to the concavity of the profit function with respect to internal capital, which derives from the high cost of external capital (and perhaps bankruptcy costs) as noted. Government, one might argue, does not face those problems. In the event of a large, unanticipated call on the resources of government as reinsurer, government can still borrow in the capital markets at an attractive rate (at least, the major Western governments can). It need not pay the sort of premium that insurers must pay to attract external capital, and it need not worry about costs of financial distress. Thus, the argument might run, in normal times when capacity constraints are not terribly important for private insurers, government should not involve itself in providing insurance because the risk premiums of private insurers are small and their superior ability to manage and administer risk surely trumps any gains from shifting risk to the "less risk averse" government. But after a large shock that creates risk overhang accompanied by large risk premiums to compensate private insurers for writing new coverage, the government has a substantial albeit temporary advantage in risk bearing and should enter the market to exploit it.

The difficulty with that argument for government involvement is simply that practical considerations may undermine any gains from temporary government participation as an insurer or reinsurer. The risk overhang problem abates with time, and may well diminish greatly before government can act to install a sensible program. And once the government program is in place, it may long outlive its usefulness. Government is unlikely to set premiums in actuarially sound fashion, and political pressures for subsidies will be intense. Once subsidized insurance is in place, a constituency to retain it indefinitely will emerge, and a considerable risk arises that poorly managed but inexpensive government insurance will crowd out efficiently structured private insurance.

In sum, we think it unlikely that government has much of a constructive role to play as an insurer in addressing the problems associated with temporary insurance "crises," whether in terrorism coverage or in some other line. In offering that conclusion, we stipulate that some sort of response was appropriate to avoid a regulatory shutdown of the airlines after September 11, and that government provision of ground damage insurance on a temporary basis appears to have been a tolerable response so far. The months to come should reveal whether airline industry pressure for long-term subsidization of that coverage can be resisted. But on the broader question of whether the government should leap into the business of providing terrorism reinsurance across the board because of the current capital shortages and risk overhang in that market, we fear that such a policy could cre-

ate longer-term costs that would swamp any short-term gains. A mix of inertia and political pressures makes it unlikely that the government will respond properly, and in an appropriately transitory fashion, to the market disruptions that history suggests will resolve on their own.

Long-term issues Imagine a time in the not-too-distant future when insurers have accumulated enough experience with terror-related losses to be willing to supply coverage for the risks that they believe to be modest and diversifiable. Premiums will be higher than before September 11, and terror coverage for some insureds may have to be purchased separately. But coverage will be available in substantial dollar limits at premiums that are not terribly in excess of actuaries' best estimates of expected losses. At the same time, however, new exclusions in standard policies will likely make coverage for certain cata-

ments assuredly fails to achieve optimal risk allocation in any first-best sense. But government should have other things in its objective function besides optimal risk sharing, including distributional considerations that pure insurance markets will not address as well as the other sorts of expenditure priorities noted above. It would be exceedingly difficult *ex ante* to write a contract that accurately specified the "act of war" contingencies in which the government's promise to pay was credible and the fulfillment of that promise would not divert scarce resources from higher valued uses. That observation, we suggest, may well suffice to justify an "ex post" approach to government assistance in the event of attacks on the nation.

Incentive counterargument Yet, we are mindful of possible arguments to the contrary. One such argument is that properly priced government insurance arrangements might create valu-

A mix of inertia and political pressures makes it unlikely that government will respond properly to terrorism insurance market disruptions.

strophic terrorist acts unavailable altogether, such as acts involving the use of weapons of mass destruction. Here, the unavailability of coverage is not a transitory result of capital shortages and risk overhang, but a lasting manifestation of the fact that some losses are so large and undiversifiable that private insurers will not agree to take them on. Should government offer to insure those types of losses?

One might begin with a simple "no" based on the observation that there are numerous uninsurable losses, and government generally does not step in to cover them. Governments typically do not offer "act of war" coverage, for example, and it is perhaps not terribly difficult to explain why. In the event of a large-scale war, a government promise to pay for losses might not be credible. And even in the event of smaller scale conflicts where government's ability to pay might not be an issue, it is by no means clear that the optimal use of limited government resources is to reimburse property owners for their losses. The needs of national defense, the need for emergency food, shelter, medical care, and so on, may well represent a higher priority.

That is not to suggest that government should do nothing in the event of a national catastrophe that presents a privately uninsurable risk. Quite the contrary, the government should and does act to assist those who have suffered losses. But it does so on the basis of an *ex post* assessment of priorities rather than *ex ante* contracts with some subset of the population that has elected to purchase insurance. The federal assistance to New York and the compensation fund for victims of the September 11 attacks are clear examples of that policy approach. *Ex post* humanitarian assistance in lieu of *ex ante* insurance arrange-

able incentives. To the degree that certain types of activities or properties are at greater risk of harm from terrorist attacks, appropriately calibrated insurance premiums might discourage especially risky activities, discourage the construction of new properties that might represent easy targets, and encourage anti-terrorist precautions.

Such an argument must rest on the notion that *ex post* assistance provides a *de facto* "insurance," the price of which is not connected to each insured's risk (which results in moral hazard). We do not doubt that *ex post* government assistance will create some degree of moral hazard at the margin, and indeed a number of writers (such as George Priest) have suggested that government disaster assistance does exactly that in other contexts, such as with crop failure and flood insurance. Those writers typically argue that market insurers are better able to police adverse selection and moral hazard problems than government, and urge that government withdraw from disaster insurance and *ex post* disaster relief activities whenever its presence discourages the purchase of private insurance that is otherwise available.

We concur, and certainly do not entertain the possibility that government should supplant private insurers or reinsurers in the provision of terrorism coverage. The question here is a slightly harder one: Should government shift from the provision of *ex post* assistance to *ex ante* insurance coverage with respect to the terror risks that are uninsurable in the private market over the long run? In particular, could such a shift be justified by the superior risk avoidance incentives that would result? We believe the answer is "no," for two reasons.

First, although *ex post* aid in the event of terror attacks does

create some degree of moral hazard, the effect may be relatively modest in that setting because aid to terror victims is likely quite incomplete and uncertain. For example, the notion that the owners of the Sears Tower will eschew valuable precautions against terrorism on the grounds that they expect something approaching full compensation from the government in the event of its destruction, and can avoid any market penalty for lax security because tenants are secure in the knowledge that their decedents will receive compensation for their deaths, seems unconvincing. The moral hazard problem is simply far less acute than it is when farmers who plant their crops near a river that regularly floods are routinely reimbursed for their losses.

Second, even if properly priced government insurance would create some valuable incentives, there is little reason to expect that government insurance would be properly priced. The critics of federal disaster policies have already shown convincingly that when the federal government becomes involved in the sale of insurance against disasters, it does little to classify risks or price policies in an actuarially sound fashion. To the contrary, policies typically are subsidized and lacking in experience-related pricing. Moreover, legislators cannot resist the urge to aid disaster victims who prove to be uninsured after the fact anyway, so rational potential insureds may decline to purchase insurance despite subsidized premiums. In light of that experience, is there any reason to think that government terrorism coverage would be priced in a way that would generate useful precautions against terror?

Special fund counterargument A second possible argument for government sale of insurance ex ante in lieu of government aid ex post is that even if premiums would bear little relation to those that an insurance industry actuary would set, accumulated premiums could create a sizable fund that can be used to finance aid to victims. That argument seems unconvincing. Special government “funds” are fungible with general revenues. (Remember the Social Security “lock box”?) There is little reason to think that any such “fund” to aid terror victims would be segregated for the purpose that it ostensibly serves. There also is little reason to think that a segregated fund is necessary in any event. If the government needs a special reserve fund to aid terror victims, why not also implement one to finance wars or cover expenditures during a severe recession? Further, if a fund is somehow needed, what is the advantage of accumulating reserves through insurance premiums rather than general taxation? We have already disposed of the notion that insurance premiums are likely to create valuable incentives, and we are not aware of any other potential advantage to them. The notion that it is more “equitable” for potential terror victims to contribute disproportionately to the fund through insurance premiums offers a possible argument for government involvement, but at best a weak one – especially given that such individuals and companies may well contribute disproportionately to tax revenues already.

Better policies Even if government should not enter into the provision of terrorism insurance other policy changes might

be constructive. It has long been recognized that the tax treatment of insurance reserves against catastrophic loss (income is taxed as it accumulates) forces premiums higher and reduces private coverage. Other writers have urged reconsideration of that policy. Similarly, we do not rule out the possibility that government might somehow aid in promoting (or not impeding) alternative private instruments for laying off terrorism risks in the capital markets, such as catastrophe bonds and futures. But for the reasons given here, long-term government entry into the market for privately uninsurable terrorism risks seems ill-advised.

CONCLUSION

For the reasons discussed above, the case for more widespread government participation in the market for terrorism insurance seems a weak one. Insurers and insureds are already adjusting to the post-September 11 environment, and we fear that further government involvement will at best prove unnecessary and at worst be a source of serious long-term distortions. **R**

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