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Catastrophe Funds and Reinsurance Frequently Asked Questions

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Nearly every region of America has to deal with the risk of natural disasters. From New Orleanians girding for hurricane season to Los Angelenos worrying about out-of-control summer wildfires, everyone knows that certain events can result in massive loss of homes, businesses, and lives. Almost all observers agree that the current system for dealing with catastrophes places large burdens on state governments, does not do enough to encourage people to secure structures against the worst, and poses significant financial risks to the insurance industry.

Everybody concerned with catastrophe-related insurance issues agrees that mitigation efforts to strengthen homes, businesses, and communities against natural disasters deserve more attention than they have gotten in recent years. Beyond that, however, widespread disagreement exists. This paper deals with that disagreement. All of these issues have significant implications for the type of insurance that insurers buy—reinsurance.

Discussions in Congress, state capitals, and at insurance industry events have revolved around proposals to transfer some or all "catastrophic" risk to the federal government. (Nobody has defined "catastrophic;" insurers have proposed everything from $10 billion to $300 billion as a catastrophic risk.) Most recent disasters have involved hurricanes, so for the most part, the issue is intertwined with the long-standing National Flood Insurance Program (NFIP).

Proponents of transferring some responsibility for wind insurance to the federal government—including several very large insurance companies, some emergency management professionals, and elected officials from hurricane-prone areas—argue that the private sector simply cannot deal with certain risks. They believe that only the government is big enough to take care of certain risks and that having the government take on these risks would protect both individuals and corporate owners.

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Opponents of such risk transfers—including environmentalists, free market groups, some insurance companies, and nearly all reinsurance companies—argue that the private sector can handle these things on its own and that government-backed reinsurance would encourage unwise development.

During the 110th Congress, the Democratic-controlled House of Representatives passed measures that would have added wind coverage to the National Flood Insurance Program and established a public-private consortium to provide reinsurance to states and private companies. The measures, however, did not move forward in the Senate. President-elect Obama also supports the idea of national reinsurance. However, for the most part, positions on reinsurance break down along regional rather than party lines: Prominent supporters of government-run reinsurance almost all come from hurricane- or earthquake-prone areas and draw equally from both parties.

This paper answers a number of questions about reinsurance in general, the types of legislation that Congress has considered in the past and may consider in the future, and alternative methods for improving America's regulation of reinsurance. Finally, it cautions against rushing into new government-run mechanisms for addressing problems related to reinsurance.

About Reinsurance

What is reinsurance and why is it important in catastrophes? ***Reinsurance is insurance for insurers.*** When an insurer purchases reinsurance, it gives up some short-term revenues in exchange for better balance, distribution, and diversification of its risks. For example, an insurer's management and actuaries might decide that its own reserves and assets are adequate to sustain a probable maximum loss (PML) of $1 billion following a major hurricane. If it wants to sell more coverage for consumers, that same insurer might buy reinsurance that will let it sustain another $200 million in PML. Reinsurance agreements function a lot like insurance policies (though they are bigger and more complex). The insured (an insurance company) makes a claim and the insurer (the reinsurance company) pays money to the insured when it makes a claim. An insurer's purchase of reinsurance coverage does not change the amount of risk or the cost of catastrophes, but merely determines whether the insurer must pay for catastrophic losses from its own resources or get help from a reinsurer.

Do all insurers buy similar amounts of reinsurance? ***No.*** Some insurers buy lots of reinsurance; others buy little or none. How much reinsurance an insurer buys depends on a variety of factors, including its tolerance for risk, business model, and desired return on equity. Insurers' reinsurance strategies often reflect their positions regarding government-backed reinsurance provision. Insurers that have significant catastrophe exposure, but buy relatively less unaffiliated private reinsurance typically favor a larger government role in providing reinsurance. Insurers that provide reinsurance to other companies or buy more of it typically favor a smaller government role in reinsurance.

Who sells reinsurance? ***Four major groups: reinsurance companies, investors, insurance companies, and state governments*.** Reinsurers are subject to solvency regulation, but not to regulation of rates or insurance forms. (Private insurers always must deal with these things.) Thus, a person or group with a lot of money can start selling reinsurance contracts rather quickly. Some reinsurers operate as ongoing businesses that look much like insurance companies that simply happen to do business with other insurance companies. In other cases, investors—usually hedge funds—engage in reinsurance transactions as a one-off investment without actually operating an ongoing branded reinsurance business. The line between the two is blurred since many reinsurers use their reinsurance business to acquire capital for activities very similar to those of hedge funds, and some hedge funds maintain ongoing reinsurance efforts. Blurring the lines even further, many reinsurers have subsidiaries or affiliates that serve as primary insurers for consumers and businesses. Reinsurers based outside the United States—many are based in Switzerland and Bermuda—often enjoy an advantage over U.S.-based companies because they operate under more favorable business tax codes. In addition, some insurers sell reinsurance to other insurers. Reinsurers can also buy reinsurance themselves, a process known as retrocession or "retro." Finally, one large state government—Florida—has gotten into the reinsurance business for catastrophic events like hurricanes.

Does the fact that some insurers buy reinsurance from their own affiliated companies mean that the reinsurance and insurance industries always have the same interests? ***Generally not, for two reasons.*** First, an insurer purchasing reinsurance from an affiliate that is overexposed to catastrophe risk does not provide the risk diversification that larger insurers seek. (However, buying reinsurance from an affiliated company can be a viable business model for smaller companies or companies with a balanced amount of catastrophic risk.) Second, all other things being equal, almost all insurers would prefer to buy less reinsurance rather than more. Every dollar spent on reinsurance reduces the amount an insurer can spend building reserves, making capital investments, paying claims, providing salaries, and issuing dividends.

Government Provision of Insurance and Reinsurance

Does a government or a specially chartered government corporation have a cost advantage in providing reinsurance relative to private companies? ***No, although their proponents argue they would.*** First, they argue that a government-run reinsurer—or a specially chartered, nominally private entity—presumably would not pay taxes or, at least, pay less in taxes than would a private company. Second, they assert that a government-run reinsurer would not have investors demanding a return on their investment and therefore could sell reinsurance without a "profit load" and thereby offer lower premiums. Finally, proponents say that by virtue of its size and exemption from antitrust laws, a government-run reinsurer might achieve economies of scale that private companies could not. As discussed below, two of these arguments do not hold water and another goal can likely be accomplished by different means.

How important is the tax advantage that a government-run company would enjoy? ***Not very important for non-U.S. based reinsurers, but much more important for those based in the U.S.*** Many private reinsurers operate outside of the United States in part because of more favorable tax treatment in other jurisdictions. Likewise, reinsurance investment strategies take tax treatment into account. Reinsurers do, of course, pay taxes like any other business, but whatever favorable tax treatment a government-sponsored corporation might enjoy would likely not make a big difference because most private reinsurers do everything they can to minimize their tax liability. Relative to U.S.-based reinsurers, nonetheless, a government-backed corporation with tax-free status would have a small advantage in that respect alone.

Would a government reinsurer be able to offer much lower premiums because it would not need to provide profits for stockholders? ***No.*** Insurers can always set up non-profit businesses, known as cooperatives. They do not need the government to do it for them. Non-profit status does not necessarily mean lower prices. Many major primary insurers—State Farm, USAA, and Liberty Mutual, for example—also operate on a non-profit basis. None are necessarily price leaders. This is true beyond the insurance market. All credit unions, the Best Western Hotel chain, and camping gear merchant REI all operate on a non-profit basis—and none of these companies enjoys a consistent cost advantage. To attract and retain top talent and remain competitive, they need to pay comparable salaries and offer similar performance incentives as their for-profit competitors. In fact, they must earn what economists call a "normal profit"—the profit needed to remain economically viable. Very importantly in the reinsurance business, even non-profits also need to retain earnings in order to grow their businesses. In order to operate efficiently, a government-run reinsurer would have to do all of these things just like its private counterparts. If it did not, it would be less stable and probably less well-run than its private sector companies. If it did, then it almost certainly would not have a cost advantage over the private sector.

Would economies of scale make a government-run reinsurer more efficient? ***No.*** Insurance works best when insurers manage risk over a broad pool of non-correlated risks. For example, tropical weather events will almost never strike in the Northern and Southern hemispheres at the same time since the seasons are different. Likewise, it is extremely unlikely that an earthquake would strike Japan at the same time that a hurricane would hit Florida. Thus, a reinsurer can offer lower premiums and still make a sufficient return on investment by covering both of these risks—when it takes a loss by paying out massive claims against one event, it will probably make large underwriting profits from the other. A government agency would instead focus on writing policies and selling them *only* in the United States. This would concentrate U.S. catastrophe risk in one government agency, rather than spread it around the global reinsurance markets. Political considerations would almost certainly prevent such an agency from diversifying its risks by offering coverage in other countries. For example, it is unlikely that U.S. taxpayers would want to be on the hook to repair houses in Japan if an earthquake struck there. Therefore, a government-run reinsurer would have to charge higher premiums than private companies to break even in the long run because it would provide coverage within a smaller and, therefore, riskier pool. In addition to diversifying their risks along geographic lines, many private insurers and reinsurers also cover non-correlated risk in different lines of business, such as commercial liability risks, workers' compensation, and medical malpractice. None of the government reinsurance funds being discussed—or likely to be enacted—would offer such risk diversification.

So is there any way that a government-run reinsurer could save money for insurers and consumers? ***Yes—by losing money itself and sticking taxpayers with the bill.*** The supposed advantages of a government-run reinsurer are negligible. Tax treatment might make a small difference at the margin, but, overall, a government-run reinsurer would not be able to function as a price leader while remaining solvent. Thus, if it were to accomplish its intended goal—less expensive coverage—a government-run reinsurer would likely have to under-price its coverage, lose money, and stick taxpayers with the bill to cover the difference. The National

Flood Insurance Program, the closest thing to an existing national government-run reinsurer, has run up almost $18 billion in debts over its 35-year history and has never made a long-term profit.

What is Federal Wind Insurance and how does it relate to the idea of a government reinsurance corporation? ***It is essentially the same thing as a government-backed reinsurance corporation with the same supposed advantages.*** General-purpose federal reinsurance legislation would allow the federal government to write reinsurance for events like hurricanes, tornadoes, earthquakes, and wildfires while federal wind insurance would allow it to write insurance, in theory, only for wind. In practice, the two proposals are pretty similar. Most federal reinsurance coverage would end up covering wind. Federal wind insurance would be added onto the National Flood Insurance Program rather than established as a separate program. However, it is highly likely that the federal government would change the structure of NFIP to make it look a lot like a federal reinsurance corporation.

If other proposals are too expensive why not try a wind insurance pilot program that would provide coverage in only a few areas as a low-risk option? ***Because it is not a low risk option. A pilot program might actually lose more money than a full-scale program and would not work, anyway.*** A smaller program would actually yield worse than a larger one. To produce experimental results quickly and satisfy the politicians who most favor it, such a program would likely take place in pilot areas with the greatest wind risk. This is exactly the opposite of what it means to build a risk portfolio. Rather than pooling price-differentiated high- and low-risk areas, such a pilot program would likely consist of high-risk areas only. In addition, the administrative costs of setting up a small program are likely to be nearly as large as those of setting up a bigger one. Finally, all government programs have a way of growing. Once a bad idea is in practice, it will develop a constituency regardless of its actual worth and will likely prove harder to eliminate.

The Current Situation

How have existing government run reinsurance funds worked out? ***They have failed miserably.*** Florida's Hurricane Catastrophe Fund is the best example. It imposes a potential liability of at least $32 billion on the state's taxpayers, but has no obvious funding mechanism for paying out anything close to this amount. Its actual funding mechanism essentially taxes *all* lines of property and casualty premiums for the benefit of catastrophe exposed homeowners. Even the Fund's own overseers cannot state unequivocally that they can fund its liabilities. The financial crisis of the fall of 2008 makes it even harder to believe it could ever sell the enormous amount of bonds it promises to sell. It charges premiums to insurers who often have to buy private reinsurance, anyway. The Florida Fund has done little to reduce the price consumers will ultimately pay through premiums and post-event taxes. It merely shifts some of the cost of loss into the future—and those costs will have to be repaid.

Is there a shortage of reinsurance capacity in the United States? ***No, at least for companies willing to pay enough.*** Some insurers claim that reinsurers will not sell them reinsurance they want to buy and are willing to pay for. However, given that reinsurance is not rate regulated, it is nearly impossible for any company to literally not be able to buy reinsurance. For the right price, *somebody will always be able to write reinsurance*. Some insurers claim that they cannot receive a reasonable return on equity—or any return at all—while buying reinsurance sufficient to write the policies their customers would like to buy. However, some blame this on artificial price controls imposed by various states like Florida and North Carolina and insurers' own business decisions to provide more catastrophe-prone policies than they can really afford to back.

Is it possible that a major disaster could wipe out the entire insurance and reinsurance industry? ***Sure, but that is unlikely.*** It is possible to conceive of lots of disasters—a major asteroid hitting Earth, for example—that would result in trillions of dollars' worth of claims that would bankrupt just about every insurer and reinsurer around. Yet if a disaster on this scale actually were to take place, it would be pointless to sell insurance against it since no reinsurance scheme anyone has proposed would be large enough to sustain a disaster like this without going bankrupt itself. A reinsurance facility big enough to survive *any* disaster would simply drain enormous amounts of capital from other sectors of the economy. Inevitably, some combination of charity, private debt issue, public debt issue, and taxes will pay for rebuilding after any disaster this huge. Insurance company stockholders—like anybody else who buys stock—will have to take on the risk of seeing their investments become worthless.

How should policy makers deal with disasters that would hurt the insurance industry a great deal, without driving every company out of business? ***Some regulatory changes could help the insurance industry deal with such events better than it can now.*** A $300 billion disaster would not wipe out the insurance and reinsurance industries, but could lead to a significant number of companies becoming insolvent. Ultimately, in most cases, state guarantee funds—funded through taxes on premiums—would pay all or part of these insolvencies. States could also encourage existing wind pools to raise premiums to build up reserves. Finally, federal tax law changes could allow insurance companies to set aside reserves and defer taxes on them. Insurers and policy makers should also consider cooperative, private sector arrangements—some of which might resemble national catastrophe funds (see below).

Many people, including several members of Congress, have disputed insurers' "flood/wind" dividing line. There have been instances after some storms in which policyholders claimed that wind destroyed their house while insurers claimed that water (covered only through the National Flood Insurance Program) did the damage. How big of a problem is this? ***It is a problem, but smaller than media reports and some members of Congress claim.*** Even after Hurricane Katrina, over 95 percent of claims were settled within a few months with no dispute over the flood/wind issue. Over 98 percent were done within a year. That said, the homes in dispute were often clustered close together and tended to be occupied by affluent people who lived near the shore and had the capacity to carry on extended legal battles. Furthermore, given that many of the non-disputed claims were small scale claims involving reasonably minor damage, about one in 10 claims involving the wholesale destruction of a house *did* involve some dispute over flood/wind damage. Nonetheless, the flood/wind divide is *not* the major problem confronting America's insurance environment.

But who is right on the flood/wind divide? ***It's almost impossible to say for certain, so it is better for the law to allow flexibility.*** Ultimately, both law and policy language prove ambiguous, and will likely to remain so for the foreseeable future. Nearly all policies include coverage for wind damage, while explicitly excluding flood damage when the water flows from a river, lake, or the ocean. The problem is that when a hurricane entirely destroys a home, it is almost always impossible to know for certain whether water or wind caused the damage. In general, when ambiguity exists, the law requires that insurers pay claims. But if insurers can show *unambiguously* that water, not wind, caused the damage, then they have no legal obligation to pay. That means that, in real-world cases, some insurers who probably did not have a legal obligation to pay some claims paid them anyway. Other insurers have fought and lost in court, while others have fought and won. Knowing who was "right" and "wrong" probably requires looking at each individual case separately and understanding each insurer's internal business decision-making process.

Some Proposed Solutions

If government-run reinsurance will not lower long-term insurance premiums unless the government loses money on them, what will? ***Encouraging people in high-risk areas to build better by making them pay their own insurance costs.*** Americans who choose to build in risky locations have to build in a better and more storm-resistant fashion. While some states, most prominently, Florida have tough building codes for coastal areas, making homeowners bear the full insurance costs of their decisions of where to build would provide an enormous incentive to build better. The most important thing government must do is to stop subsidizing building in flood-prone areas through suppression of insurance rates. In addition to rate suppression plans, insurance in many coastal areas is currently under-priced because it operates through subsidized government-backed wind/beach pools and catastrophe funds. To phase out premium subsidies, it may be politically necessary to provide owners of older structures built under lower-than-market insurance premiums help to retrofit their homes and businesses. A tax credit for this—tied to particular homeowners rather than a geographic location—is one possible option.

What should ultimately happen to insurance premiums? ***They should rise in many coastal areas.*** Quite simply, the best long-term strategy to discourage building in high-risk areas, and to encourage better building by those who choose to do so anyway, is to permit insurance premiums to rise to the appropriate risk-based level. This will provide enormous incentives to build better. Over the long term, higher insurance premiums would bring with them larger discounts for homeowners who secured their property. With a broader spread of prices, rates might actually go down for people in high-risk areas who engaged in recommended property mitigations. People not willing to bear those costs would have to live in lower risk areas.

But won't higher premiums hurt the poor? ***Not the truly poor.*** The truly poor rarely own homes or pay homeowner's insurance premiums. Among those who rent, commercial insurance rates (which are generally much less regulated) are already embedded in their rents. That said, government housing policy has clustered poor people in areas more likely to be subject to disasters. The wealthiest areas of New Orleans, for example, were back in business just days after Hurricane Katrina. The poorest ones mostly still have not been rebuilt. Changing insurance regulation will not make things worse and could actually make things better if it encourages some more poor people to move away from disaster-prone areas.

What about homeowners who are barely making ends meet? ***Any change in the premium structure should take their needs into account.*** Plenty of homeowners in coastal areas would encounter serious problems if insurance rates suddenly went up following the discontinuation of subsidized government-backed insurance programs. Reasonably few of these people live below the actual poverty line, but many may face significant financial discomfort if premiums were to rise quickly. For them, time-limited short-term assistance is worth considering. Federal and state governments could use tax-credit programs to help transition the entire market to risk-based rates. One way to ensure that the program would be temporary would be to limit eligibility to incumbent homeowners only. Those who sold their houses within a few years of the program taking effect might also be allowed to recognize a capital loss if a home value declined as a result of the discontinuation of the program.

What about the well off? ***They can pay higher insurance premiums.*** Well-off people who choose to live in hurricane prone areas can move if they want to or pay higher insurance premiums. They do not need government help.

Are there some areas where people just should not build? ***Yes.*** Some hurricane-prone areas are very dangerous for human habitation. Why are some places called barrier beaches and barrier islands, anyway? In locations like these the chances of any structure being blown away, flooded, or otherwise destroyed are just too severe. Private insurers should face no compulsion to sell polices in these areas and government should not do so either. For that matter, government should not encourage building by providing infrastructure support in these areas. If people can secure coverage, however expensive, and comply with building codes, then there should be no means to stop them from building. That said, much of the land would probably find better use as parks, golf courses, and wildlife habitat.

Additional Regulatory Reform for Reinsurance

Which regulatory changes would most help expand capacity in the reinsurance market? ***Let U.S.-based reinsurers and insurers reserve large sums of money against catastrophes without paying large amounts of taxes up front.*** Many reinsurers operate offshore because the United States' treatment of insurance company reserves places reinsurers at a disadvantage. (If insurers were to invest or tap these reserves for other purposes, they would have to pay taxes—and perhaps some additional penalties—on them.) Better structured reserves will enable insurers to handle ever-larger catastrophes in the future.

Could private insurers establish catastrophe funds without a government guarantee? ***Yes, but they would not have much use without some preferential tax status.*** Insurance companies can already collaborate to establish a non-profit private business cooperative to buy reinsurance. In fact, the McCarran-Ferguson Act (15 U.S.C. 1011) exempts the entire "business of insurance" from federal antitrust laws. Such cooperatives could buy reinsurance on the global market and could achieve better economies of scale than a government-backed corporation. Thus, as discussed above, two of the three supposed advantages of a government-backed corporation (non-profit status and economies of scale) are already possible under current law. Tax-deferred reserving for catastrophes, on the other hand, is not possible under current law. Simply allowing it for all insurance transactions—or at least for special cooperatives—would make the most sense. Ultimately, it could likely do a great deal to make the United States more secure against catastrophes.