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Have We Entered an Ever-Growing Cycle on Government Disaster Relief?

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"Hurricane Sandy was not an isolated event. Indeed, the incidence of extreme events is far more frequent. Twenty of the 30 most expensive insured catastrophes worldwide from 1970 to 2011 have occurred since 2001---13 of them were in the United States. What's next? And who will pay?"

Michel-Kerjan and Kunreuther. Paying for Future Catastrophes.
New York Times Sunday Review, November 2012

1. Federal Disaster Relief Is Greater and More Frequent

America has suffered historical losses from terrorism, natural disasters, environmental disasters and financial crises since 2001. The upward trend in losses from natural disasters in particular has had an impact on post disaster relief to assist individuals, businesses and also the affected communities in rebuilding destroyed assets and providing temporary housing to displaced victims. Under the current system, the Governor of an affected state can request that the President declare a "major disaster" and offer special assistance if the damage is severe enough.[1] A look at the number of U.S. presidential disaster declarations between 1953 to 2011 clearly reveals an upward trend (see Figure 1).

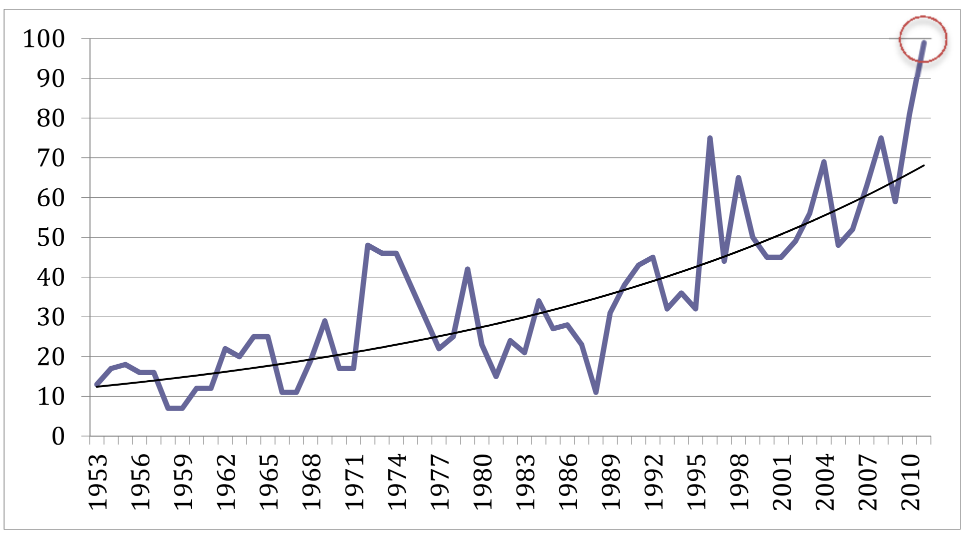

Figure 1. U.S. Disaster Presidential Declarations Per Year, 1953-2011.

[1] Public infrastructure are primarily rebuilt with federal funds through the Stafford Act, with only 25 percent picked up by state and local governments. Individuals and small businesses can apply for low-interest disaster loans from the Small Business Administration (rates vary from 4 percent to 8 percent); individual assistance grants are also available from FEMA to cover uninsured losses.

Overall, the number of Presidential disaster declarations has dramatically increased over time, from 191 declarations over the decade 1961-1970 to 597 for the period 2001-2010 (Michel-Kerjan and Kunreuther, 2011). As Figure 1 also shows, many of the peak years correspond to Presidential election years.

This is consistent with experience that Presidential election years spur disaster assistance. Four salient examples are the Alaska earthquake (March 1964) Tropical Storm Agnes (June 1972), Hurricane Andrew (September 1992) and the four Florida hurricanes (August-September 2004). In 1996 and 2008 (both presidential election years) there were 75 presidential declarations. This record number was exceeded in 2010 when there were 81 major disaster declarations, and again in 2011 with 99 declarations.

The more pronounced role of the federal government in assisting disaster victims in recent years can also be seen by examining several major disasters occurring in the past 60 years and how much federal disaster relief represented as a proportion of the total direct economic losses, as shown in Table 1 (see also Cummins, Suher and Zanjani, 2010).

Table 1: Role of the Federal Government in Paying for Natural Disaster Losses

Disaster	Federal relief as % of total damage
Hurricane Sandy (2012)	> 75% *
Hurricane Ike (2008)	69%
Hurricane Katrina (2005)	50%
Hurricane Hugo (1989)	23%
Hurricane Diane (1955)	6%

*Based on $60 billion federal relief figure (including the $9.7 billion additional borrowing capacity provided to the federally-run NFIP to pay its flood insurance claims). *Sources: Michel-Kerjan and Volkman Wise (2011).*

Media coverage in the immediate aftermath of catastrophes often raises compassion for victims of the tragedy (Moss 2010). The magnitude of the destruction often leads governmental agencies to provide disaster relief to victims even if the government claimed that it had no intention of doing so before the disaster occurred.

It is surprising how little data is *publicly* available on the amounts of federal aid that victims of disaster actually have received for, say, the disasters that occurred in the past 20 years. Likewise, no granular accounting of how taxpayers' money is used for federal relief (that is, how much money went to what city to do what exactly) is publically available on an historical basis (to the best of my knowledge). An initiative to create accessible record-keeping could be an important move towards more transparency, accountability, and ultimately, more responsibility.

It is also critical to better communicate information about relief programs that are available to victims of disasters, maximum compensation recipients can expect, and the conditions and limitations to obtaining such relief (for example, what collateral is required for a SBA loan).

2. This Ever-Growing Relief Environment Has Consequences, But Not All Relief Policy Tools Create Moral Hazard

The expectation of governmental disaster relief funding for individuals and businesses results in economic disincentives to reduce their own exposure and/or purchase proper insurance coverage (Michel-Kerjan and Volkman Wise, 2011). If individuals assume that they will be bailed out after a disaster, they will be less likely to purchase insurance or avoid locating in high-risk areas (Brown and Hoyt, 2000).

The irony is that governmental disaster relief is usually earmarked to rebuild destroyed infrastructure, not as direct aid to the victims. To the extent that a large portion of such disaster relief goes to the states, post-disaster assistance also distorts the incentives of state and local governments to pre-finance their disaster losses through insurance and other mechanisms. Cities and states are not well-incentivize to incur upfront cost to make them more resilient to future disasters.

In a recent study jointly conducted with Carolyn Kousky and Paul Raschky, we examine the influence of federal disaster aid on individuals' flood insurance purchase decisions over a 10-year period (2000-2009) (Kousky, Michel-Kerjan and Raschky, 2013). We estimate the effect of grants from the Federal Emergency Management Agency's Individual Assistance (IA) program and low-interest loans to homeowners from the Small Business Administration (SBA).

We find that IA grants to individuals, while of fairly limited size, lead to a statistically significant reduction in insurance coverage purchased: **a $1,000 increase in the average IA grant decreases average insurance coverage by $4,300.** We also find that the moral hazard impact of federal aid is more important for large disasters.

Overall, **low-interest SBA loans have no effect on insurance demand**, maybe because borrowers have to pay it back, while IA is "free money."

While relief certainly helps those in need, they would have been better off being covered by an insurance contract. **Insurance**, as one of the largest industries in the world and an **effective risk-transfer mechanism**, can play an important role in dealing with these losses by providing financial protection following a disaster. It can also encourage property owners and businesses in hazard-prone areas to invest in cost-effective mitigation measures. But for insurance markets to work well, insurance premiums should be determined by demand/supply forces, rather than being artificially suppressed by insurance regulators, as they are today for homeowners' insurance in many states of the Union.

Risk-based premiums might be challenging to implement politically though, so it is important to address affordability issues as well, for instance by the development of means-based insurance voucher programs (see Kunreuther and Michel-Kerjan, *At War with the Weather*, 2011 and Howard Kunreuther's remarks at the Roundtable today on our ongoing work in this area).

3. Conclusion

Disasters will only get worse because of growing population in high-risk areas, aging infrastructure, low levels of public and private investment in risk reduction measures, and predicted climate-related extremes. Superstorm Sandy is another reminder of our vulnerability.

America has entered a dangerous cycle of ever-growing reliance on *ex post* government relief rather than building *ex ante* physical and financial protection. With over $15 trillion of insured assets in coastal states from Texas to Maine, and much more uninsured, making America more resilient to disasters should become a national priority of the Administration and Congress. Let's make this happen before another massive disaster hits the country. The clock is ticking.

I commend the Committee for organizing this Roundtable today on such an important topic.

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