

ESSAY

# Insuring Coastal Cities Against the Next Hurricane Harvey

Americans don't like being forced to buy flood coverage, but it may be the best way to protect the booming economies most at risk



People float belongings out of their flooded neighborhood in the aftermath of Hurricane Harvey, Houston, Texas, August 30.

PHOTO: TANNEN MAURY/EPA-EFE/SHUTTERSTOCK

*By Greg Ip*

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**It's too soon** to know the full economic toll of Hurricane Harvey but not too soon to predict that it won't have much impact on Houston's future economic growth. The storm has extracted such a high price in human misery and economic damage because so many workers and businesses have been lured to the Gulf Coast of Texas, as they have been to coasts around the world. Such areas offer unusual economic opportunities, and no natural disaster will alter that basic reality.

The downside of these advantages is that coastlines will continue to become ever denser population and economic centers, which guarantees that storm-related disasters will get even costlier. What should be done about it?

As the disaster in Texas has unfolded, commentators have criticized the National Flood Insurance Program for encouraging development in risky flood zones by selling insurance too cheaply. But Houston illustrates a more serious problem: Not enough people have flood insurance of any kind.

Only about 10% of Americans are covered—one of the lowest rates among advanced economies, according to the Organization for Economic Cooperation and Development.

Though the paucity of insurance money will slow recovery in Houston, it is unlikely to alter the metropolitan area's long-run growth trajectory. It remains the center of the nation's oil, gas and petrochemical industries, and now boasts 2.1% of the country's jobs, up from 1.6% in 1992. The same story holds for many other coastal zones. Since 2001, New York has reversed a long decline and is now booming. Abroad, economic activity is clustering in vulnerable coastal cities such as Shanghai, Guangzhou, Mumbai and Jakarta.

The reasons for each region's growth vary, but they all share advantageous locations and a concentration of human capital. A 1997 study in the *Journal of Comparative Economics* found that productivity is 85% higher in China's coastal zones than in its inland regions. A 1998 study by economists at Harvard University found that landlocked countries grew 1 percentage point more slowly than coastal countries from 1965 to 1990, in part due to higher transportation costs and less urbanization.

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The World Bank reckons that by 2050, 16% of the world's population will live in large coastal cities exposed to cyclones, hurricanes and earthquakes, up from 11% in 2000. This alone promises to make disasters more expensive. Rising sea levels, a result of climate change, compound the threat. A 2015 study

by Risk Management Solutions, a company that assesses catastrophic risks, found that the annual probability of a storm causing \$10 billion worth of damage in Miami will rise from 1.3% in 2010 to 6% in 2100. For New York, the probability rises from 1% to 4%.

Many of those losses won't be insured. Private insurers are deterred from offering policies by the tendency of flood claims to come all at once from the same place, which can rapidly deplete their capital. Created in 1968, the National Flood Insurance Program is now the dominant source of flood insurance, but it has a \$25 billion deficit, much of it from Hurricane Katrina in 2005 and superstorm Sandy in 2012.

An estimated 50% to 80% of Texas properties flooded by Harvey aren't insured, mostly because they aren't located in the zone with a 1% annual risk of flooding (the 100-year flood zone), where insurance is required on any property with a federally backed mortgage. This is a problem because insurance is a faster, fairer and more effective way to rebuild stricken properties than is post-disaster government aid.

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Howard Kunreuther, co-director of the Wharton Risk Management and Decision Processes Center at the University of Pennsylvania, says that the binary cutoff at 1% annual risk of flooding conveys a false sense of safety to people just outside that zone. They still face significant flood risk, but they may not know it.

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A committee advising the Federal Emergency Management Agency, which runs the flood-insurance program, has recommended replacing the 1% standard with risk assessments based on each structure's elevation. Mr. Kunreuther says that homeowners, insurers and lenders would then know their actual flood risk. The prospect of lower premiums would give an incentive to homeowners to invest in flood protection by, for example, elevating their house.

The next challenge would be persuading people to buy the insurance. As the health-care debate showed, Americans don't like being forced to buy coverage they don't think they'll need. But in the case of flooding, it may be the best way to protect our burgeoning coastal economy.

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