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CONTACT: Peter Winicov, Wharton Communications
1.215.746.6471
winicov@wharton.upenn.edu

WHARTON STUDY ANALYZES POTENTIAL FOR PRIVATE INSURANCE COMPANIES TO OFFER FLOOD INSURANCE

Prices charged by private insurers could be lower than current prices charged by the National Flood Insurance Program (NFIP)

PHILADELPHIA, December 16, 2011 – The Wharton Risk Management and Decision Processes Center at the Wharton School of the University of Pennsylvania released a study today that analyzes the role private insurance companies could play in offering residential flood insurance.

The year 2011 was the most costly year for natural disasters worldwide (\$350 billion); in the U.S. alone, there were nearly 100 Presidential disaster declarations, two-thirds of which were from hurricanes and floods.

In the U.S., residential flood insurance is provided mainly by the National Flood Insurance Program (NFIP), established in 1968. Today it covers more than five million households (\$1.25 trillion of property) across the country and has been renewed more than a dozen times over the past three years (including after first being allowed to lapse). It is set to expire again today unless renewed by Congress and the President as part of a continuing resolution; see <http://www.fema.gov/business/nfip/nfip-reauth.shtm>.

The NFIP has brought important benefits to those living in hazard-prone areas over the years. For example, in the aftermath of Hurricane Ike in 2008, it provided insured flood victims with \$2.6 billion in claim payments. Hurricane Katrina triggered nearly \$18 billion in claims payments, 99 percent of which were settled in less than one year.

But the NFIP also faces important challenges: For example, it is now \$17.8 billion in debt due to historical levels of flood claims following the 2005 and 2008 hurricane seasons, many residents in flood-prone areas are not insured, and many maps used to determine flood zones are outdated.

There is a growing consensus that the NFIP needs reforms. The Federal Emergency Management Agency (FEMA), which is responsible for the NFIP, has recently proposed several reform options, including privatization of flood insurance. Many believe, though, that private flood insurance will always be more costly than what the NFIP currently charges.

However, an innovative study by the Wharton Risk Center with state-of-the-art probabilistic catastrophe flood modeling conducted by CoreLogic[®], suggests otherwise.

The Risk Center analyzed the likelihood of future catastrophic flooding – and the potential cost of providing private flood insurance–in a pilot study focusing on two flood-prone counties in Texas. The study found that prices charged by private insurers could potentially be lower than current prices charged by the NFIP in some parts of those counties.

The analysis calculated the “actuarially fair” flood insurance premium, based on the probabilistic risk models, for more than 300,000 residences in Galveston and Travis Counties. The Wharton study then compared these rates to the rates currently charged by the NFIP.

Based on those estimates, the report shows in the regions analyzed that there are certain areas where NFIP premiums, are, on average, “too high” (and other areas where premiums on average are “too low”).

“This presents opportunities for private insurers to provide coverage in some of those areas, to complement the NFIP,” said Erwann Michel-Kerjan, Risk Center managing director and study co-author. “There are several practical barriers that would need to be addressed for private insurers to sell such coverage, but if done, this could significantly increase the number of residents with proper coverage, thus reducing the need for government disaster relief.”

The study also performed detailed cost-benefit analyses for various flood mitigation measures, and found that elevating residences can significantly reduce the likelihood and consequences of flood damage in some areas. This is most cost-effective for new construction, highlighting the importance of enforcing building codes in hazard-prone areas.

Study co-authors Jeff Czajkowski, Howard Kunreuther and Erwann Michel-Kerjan note that this report proposes the first detailed methodology for a quantitative analysis of the pricing of private insurance with current NFIP premiums and quantifies the cost and benefit of flood risk reduction measures. It also shows to key stakeholders the importance of quantification in helping determine more effective public policies.

The Executive Summary and full report, “*A Methodological Approach for Pricing Flood Insurance and Evaluating Loss Reduction Measures: Application to Texas*” are available online at www.wharton.upenn.edu/riskcenter.

Among the key findings:

Toward Financial Stability of the NFIP:

- The NFIP is not actuarially balanced for two reasons: (a) the NFIP calculates its premium pricing based on the average annual loss, without considering the impact of all probable catastrophic disasters on its ability to pay claims and the funding of future extreme events; and (b) approximately 25 percent of NFIP policies are subsidized.
- Charging risk-based premiums will reduce the likelihood of fiscal shortfalls.
- To address the affordability of risk-based flood insurance premiums for low-income citizens currently residing in flood-prone areas, the report proposes further research on the possible establishment of an insurance voucher program, similar to food stamps.

Comparing Premiums -- NFIP versus the Study Catastrophe Model:

- The Wharton analysis discovered pockets in the study regions where NFIP premiums are, on average, “too high” and some areas where premiums are, on average, “too low” relative to the probabilistic flood model results. For example, in the moderate-risk flood zone in Travis County, the NFIP’s premium rates are nearly twice the rates indicated by the flood model data, on average. Rates in Travis County’s low-risk flood zone are on average up to 16 times higher than those indicated by the flood model data.

- The study thus finds that premiums that would be charged by private insurance companies might not be higher than those charged by the NFIP (even including administrative costs and cost of capital). Hence, opportunities exist for private insurers to provide coverage on the basis of actuarially fair rates in certain areas to complement the NFIP.
- The study highlights the importance of microanalysis of the flood exposure of residents.

Effectiveness and Cost of Mitigation:

- Flood mitigation measures, such as elevating houses, result in a significant reduction in the likelihood and consequences of flood damage in Galveston and Travis Counties in Texas. For example, elevating a house by 2 feet will reduce expected losses by 40 to 50 percent on average.
- Elevating existing houses cannot be justified solely on economic grounds if the homeowner has to bear 100 percent of the cost. Elevating new construction is much less costly, highlighting the importance of enforcing building codes in hazard-prone areas.

About the Wharton School and the Wharton Risk Management and Decision Processes Center

[The Wharton School of the University of Pennsylvania](#) — founded in 1881 as the first collegiate business school — is recognized globally for intellectual leadership and ongoing innovation across every major discipline of business education. The most comprehensive source of business knowledge in the world, Wharton bridges research and practice through its broad engagement with the global business community. The School has 5,000 [undergraduate](#), [MBA](#), [executive MBA](#), and [doctoral](#) students; more than 9,000 annual participants in [executive education programs](#); and an [alumni network](#) of 88,000 graduates.

Established in 1984, the Wharton Risk Management and Decision Processes Center develops and promotes effective corporate and public policies for low-probability events with potentially catastrophic consequences such as natural and technological hazards and national and international security issues. The Wharton Risk Center research team (about 75) investigates the effectiveness of strategies such as risk communication, information sharing, incentive systems, insurance, and public/private collaborations. For more information, visit: <http://www.wharton.upenn.edu/riskcenter>.

About CoreLogic

CoreLogic (NYSE: CLGX) is a leading provider of consumer, financial and property information, analytics and services to business and government. The Company combines public, contributory and proprietary data to develop predictive decision analytics and provide business services that bring dynamic insight and transparency to the markets it serves. CoreLogic has built one of the largest and most comprehensive U.S. real estate, mortgage application, fraud, and loan performance databases and is a recognized leading provider of mortgage and automotive credit reporting, property tax, valuation, flood determination, and geospatial analytics and services. More than one million users rely on CoreLogic to assess risk, support underwriting, investment and marketing decisions, prevent fraud, and improve business performance in their daily operations. The Company, headquartered in Santa Ana, Calif., has more than 5,000 employees globally. For more information, visit www.corelogic.com.

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