Four ways Hurricane Florence could ricochet across the insurance industry

John W. Rollins, FCAS, MAAA Nancy P. Watkins, FCAS, MAAA

It is clear that Hurricane Florence is a storm that threatens life and property across the Carolinas and the Appalachian region, and will have a significant financial and economic impact. What is less clear is how the aftermath of such a historic storm may play out in affected property insurance markets that are driven both by modern analytics and long-standing public policy. As information emerges about the direct impacts of Florence, we examine four ways this potentially historic hurricane may indirectly create changes in the insurance industry.

1) Florence may heighten the urgency for legislative and industry change to increase flood insurance protection across the region and beyond.

As with Hurricane Harvey in 2017 and nearly every recent large-scale flood, we expect that the majority of households affected by Florence will lack flood insurance, exacerbating their financial vulnerability and delaying economic and community recovery. The National Flood Insurance Program (NFIP) reports dwelling policy counts of 107,061 in North Carolina and 140,654 in South Carolina.¹

Based on the best available storm footprints at this time plus data from the NFIP, U.S. Census Bureau, and National Hurricane Center, Milliman estimates that fewer than 10% of households affected by Florence in the Carolinas are likely to have federal flood insurance. Many homeowners forego flood insurance because they do not believe they face flood risk, because they mistakenly believe their homeowners policy covers floods, or because they believe that they will recoup their losses through federal disaster aid. Unfortunately, lacking insurance coverage means consumers get less funding for repairs and receive these funds more slowly. In recent storms, studies show that Federal Emergency Management Agency (FEMA) individual disaster aid is often less than \$6,000 on average.²

The above estimates include only NFIP policies and do not consider flood coverage provided through private insurers. Private residential flood insurance options are rapidly emerging in states such as Florida that have encouraged new insurers through legislative and regulatory means. Up until now, the

1 https://bsa.nfipstat.fema.gov/reports/1011.htm. Retrieved on September 11, 2018.

2 Wharton School of Business, "The Emerging Private Residential Flood Insurance Market in the U.S.," July 2018, page 3.



states most affected by Florence have not seen a large number of new private flood insurers–only \$21 million in direct premium was written in 2017³ in North and South Carolina. This may be changing as the Carolinas, like other regions, examine how to accelerate the growth of private flood insurance options. Two recent Milliman white papers on flood risk⁴ and the private insurance markets⁵ estimated that a large majority of consumers across five coastal states could be privately insured for flood, often for the first time, at premium rates likely to be lower than those currently charged by NFIP. The aftermath of Florence may expedite the discussion among federal and state policymakers, insurers and reinsurers, and state insurance regulators about how to close the overall protection gap.

2) Florence may provide unprecedented data on wind and flood damage, changing catastrophe models and affecting insurance company strategy.

Insurable damage from hurricanes is caused by wind and flooding, which are reflected as separate perils in insurance contracts as well as the catastrophe simulation models that guide insurer decisions. Catastrophe models calculate simulated wind damage based on both the maximum intensity and the time duration of winds at a given location. Within the "guts" of the models, different modeling firms combine these effects differently to produce the location damage estimates, which are then aggregated across all modeled locations to get the final loss estimate for a storm. Unlike less powerful or faster-moving storms, Florence will have produced both intense and long-lasting winds at the most severely affected locations. The tragedy of severe damage will be accompanied by unprecedented empirical data on how wind speed and duration interact to cause such damage, ultimately improving the models that so many stakeholders use.

Both inland flooding from excessive rainfall and coastal flooding from storm surge are severe threats and are modeled separately. Florence generated a significant storm surge as it approached the Carolina coast at a steep angle and across a relatively shallow ocean floor, but it also slowed as it made its impact,

³ SNL Financial market share reports based on year-end 2017 NAIC financial data.

⁴ http://www.milliman.com/insight/2018/What-could-private-floodinsurance-look-like-in-New-Jersey-and-New-York/

⁵ http://www.milliman.com/insight/2017/ Could-private-flood-insurance-be-cheaper-than-the-NFIP/

producing prodigious inland rainfall even in areas where winds are moderate and storm surge nonexistent. The storm will likely provide a wealth of data on all sources of flooding. The insurance industry and others will watch closely as scientists digest the data and update the models that help match insurance capital to risk and determine rates along the U.S. coastline.

3) Florence could change the "market of last resort" in affected states.

Coastal states, including the Carolinas, have state-run insurance markets of last resort, but the residual markets in most states are relatively small. For example, the South Carolina Wind & Hail Underwriting Association (SCWHUA) has approximately 23,000 policies in force and \$7.5 billion in total insured value, generating \$47 million in annual premium.⁶ SCWHUA is also heavily reinsured, with coverage beyond a 100-year "return period."

North Carolina is another matter-the combined "Beach Plan" (North Carolina Insurance Underwriting Association or NCIUA) and "FAIR Plan" (North Carolina Joint Underwriting Association or NCJUA) have over \$90 billion in total insured value and 360,000 policies between them and write over \$340 million in annual premium.⁷ Further, the associations can levy an assessment on homeowners insurers operating in the state, totaling well over \$1 billion, or about 40% of total annual homeowners direct written premium in North Carolina.⁸ The assessments are designed to help pay for a storm like Florence-a storm that could produce losses that may exceed the NCIUA/NCJUA's \$1.7 billion of accumulated surplus.

- 6 http://scwind.com/pdf/2018CatProgram.pdf. Retrieved on September 11, 2018.
- 7 https://www.snl.com/web/client?auth=inherit#news/article?id=464110 33&KeyProductLinkType=4. Client access September 11, 2018. https://www.ncjua-nciua.org/DocLib/finance/NCIUA_Audited_ Financial_December_2017.pdf. Retrieved on September 11, 2018.
- 8 SNL Financial market share reports based on year-end 2017 NAIC financial data.

Insurer groups have been advocating for a reform of the assessment law for some time, claiming it is a disincentive to offer coverage in the state. If or when the bill for Florence comes due and if private insurers reconsider their business strategy in coastal markets, North Carolina's attention may turn to its unique hurricane insurance financing structure.

4) Florence may push established insurers to reduce regional exposure, leaving room for an influx of local specialists.

Given the expected severe retained losses from Florence, the difficulty of sorting out wind and flood damage on some properties, and the double whammy of net assessment exposure in North Carolina, it remains to be seen whether the nationalbrand insurers will tolerate a continued significant presence in the affected areas. Upside surprises on loss totals in inland regions would be a further factor. If large insurers choose to rebalance their risk, the Carolinas could see a market evolution not unlike that of Florida after Hurricane Andrew over 25 years ago.

Established insurers such as State Farm, Nationwide, USAA, and Allstate⁹ currently dominate market share in Hurricane Florence's affected areas. After Andrew, many insurers gradually reduced their overall catastrophe exposure by steadily shedding policies in Florida, even in relatively inland regions. In their wake grew a class of Florida-based, catastrophe specialist homeowners insurers, with support from the state's policymakers. Interestingly, many of these insurers have now matured their Florida books and are expanding outside Florida, already aggressively competing for business in coastal areas of the region. As insurers and their reinsurers react to losses from Florence, market composition may evolve to reflect differentiation in long-term strategies.

9 SNL Financial market share reports based on year-end 2017 NAIC financial data.

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CONTACT

John W. Rollins john.rollins@milliman.com

Nancy P. Watkins nancy.watkins@milliman.com

milliman.com

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