TWELVE CAPITAL EVENT SUMMARY

2024 HURRICANE SEASON: HURRICANE HELENE



1 OCTOBER 2024

WHAT



WHERE



A low-pressure area dev

PATH



Hurricane Helene is the eight named storm and the fifth hurricane of the 2024 Atlantic Hurricane Season. It was named a Tropical Storm on 24 September when forming off the East coast of the Yucatan peninsula. As a Category 4 Hurricane, it had maximum sustained winds of 140mph and a lowest central pressure of 938mbar.

Helene made landfall as Category 4 on 27 September in the sparsely populated Big Bend region of Florida, southwest of the city of Perry. Unlike initial expectations, the eye of the storm missed the capital city of Tallahassee, hitting an area close to where Hurricane Debby and Idalia made landfall in 2024 and 2023 respectively.

A low-pressure area developed in the western Caribbean on 22 September. The system was rapidly upgraded to a Tropical Storm and then to Hurricane status as it entered the Gulf of Mexico. It headed N-NE towards Florida's Big Bend area. After landfall, the wind field weakened as it headed but the rainfall is still an ongoing element.

Impact

Helene's initial development generated limited damages to Mexico and the Western Caribbean, mostly related to heavy rainfall, which reached localised levels above 10 inches. Starting 26 September, Helene was characterised by rapid intensification thanks to low mid-level wind sheer, high relative humidity and sea surface temperature. Helene's wind field was extremely wide, with tropical-storm-force winds extending over 450 miles across, reaching into the Centre and the Gulf Coast of Florida as well as areas typically not exposed to wind of this strength.

The storm released above 20 inches of rain over Florida, Georgia, and North Carolina, leaving over 3 million people without electricity. Most importantly, strong winds generated record-level storm surges in several areas across Western Florida, with around 7.2 feet in the East Bay area of Tampa. After landfall, flash flood warnings were released in Georgia into the mountains of the western Carolinas.



Hurricane Helene Track and Surge Inundation (30 September)

Twelve Capital Event Assessment

Twelve Capital has monitored the development of Helene and evaluated the potential impact on portfolios since its formation.

We highlight some key takeaways from the storm development:

- The event underscores the ongoing protection gap in flood insurance, with many affected areas having minimal coverage, likely leading to significant uninsured losses.
- Conditions in the Northern Atlantic (specifically in the Gulf of Mexico), supported the rapid intensification of Helene in addition to a higher moisture content and thus precipitation.
- Elevated speed at landfall led the storm to continue a long inland travel carrying material rainfall and elevate winds into Georgia and the Southern Appalachian.

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Industry Loss Estimate

Several factors could lead to uncertainty around Helene's total bill for the insurance industry. While the landfall took place in a sparsely populated area, the range of tropical-strength wind was widespread across Florida. Moreover, the extent of losses from flooding (both rainfall and surge related) are likely to be material. At time of writing, several market participants¹ released loss estimates for Hurricane Helene, many pointing to USD mid- to high-single digit bn insured losses. Non insured losses are likely to be materially higher, with Moody's analytics indicating USD 15-26bn for total property losses.

Impact on the Cat Bond Market

Given current loss and damage estimates, Twelve Capital does not expect outright losses to per-occurrence Cat Bonds, however it is likely that there will be continued aggregate erosion to a number of bonds. Aside from the strongest winds in the Big Bend region, much of the wind damage may fall below the higher named storm deductibles, with most structures built to withstand tropical-storm-force winds. We are closely monitoring the FEMA sponsored bonds that cover hurricane induced flooding. The effects of surge, rainfall, and flooding are still ongoing, so it is too early to tell the exact impact, especially given uncertainty with respect to FEMA policies further inland.



NFIP Exposure Map

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