TWELVE CAPITAL EVENT SUMMARY

2024 HURRICANE SEASON: HURRICANE DEBBY



09 AUGUST 2024

WHAT



WHERE



PATH

At the time of writing, estimates by Moody's RMS for total insured losses from Debby in the USA are low at around USD 1bn — this is a reflection of Debby's passage over sparsely populated areas, modest strength, and limited flood insurance penetration. The impact of precipitation-induced flooding represented by far the greatest threat to life and property damage. As this is an ongoing event there is uncertainty around the final loss number, and who may be impacted.

No direct impact to the Cat Bond Market is expected, although there will be continued aggregate erosion to some bonds. The majority of insured losses from Hurricane Debby are anticipated to fall within primary insurers' retentions under their reinsurance coverages. We monitored the Cat Bonds sponsored by the Federal Emergency Management Agency (FEMA) with combined outstanding notional of USD 350m providing protection for the National Flood Insurance

Program (NFIP) –at the time of writing we do not expect any losses to these notes, however the storm still has the potential to cause significant flooding across the Mid-Atlantic and North-eastern states.



Hurricane Debby is the fourth named storm and the second North Atlantic hurricane to make landfall in the USA in 2024. It developed from a tropical disturbance in late July over the Greater Antilles. As a Category 1 Hurricane, it showed maximum sustained winds of 80 mph and lowest pressure of 979 mbar

Debby made landfall as a Category 1 Hurricane in the sparsely populated Steinhatchee area in Florida on August 4^{th} , close to where Hurricane Idalia hit in 2023. It made a second landfall as a Tropical Storm in the area North of Charleston, South Carolina, on August 7^{th} .

Disorganized disturbances appeared in the Greater Antilles in late July. The storm moved North/North-West and gradually organized itself. After landfall, it crossed the North of Florida into Georgia. After a second brief passage in the Atlantic it made second landfall and dissipated over South and North Carolina.

Impact

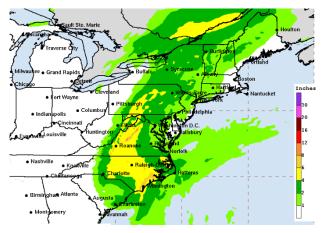
The disturbance preceding Debby brought heavy rain over the Great Antilles, specifically in Cuba, causing scattered areas of flooding.

Wind-related damages were modest, given Debby's relatively contained strength and impact in sparsely populated areas. Localised tornadoes watches were also issued.

A combination of high tides and storm surge (sea water being pushed inland by storm winds) resulted in significant flooding in certain coastal areas of Western Florida. Large amount of rain accumulation in Florida, Georgia, South Carolina and southeast North Carolina were recorded, with local amounts to 25 inches, resulting in some localised flash and urban flooding, particularly in the flood-prone areas North of Charleston.

Industry Loss Estimate

Impact on the Cat Bond Market



Debby Rainfall Forecast (8[™] August)

Twelve Capital Event Assessment

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

We highlight some key takeaways from the storm development:

- Given the disorganised nature of the disturbance preceding Debby, models showed two potential developments for the storm: one East and one West of the Florida peninsula. Neither pointing to material risks to highly populated areas
- Some uncertainty underpinned models around the development of Debby after initial landfall in Florida
- Models accurately predicted Debby's strength
- Certain limitations (ex incorporation of flood defences and flood exposed areas detailed data) make flood risk modelling complex

Track Hurricane Debby

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