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Twelve Capital Event Update: California Wildfires

Update – Wednesday, 8 November 2017

- California is currently suffering from what could possibly turn into the most expensive wildfires in the history of the state.
- From an insurance perspective, the wildfires in California are not a single event but rather multiple events occurring at the same time.
- The exposure to wildfire risk in the cat bond universe is rather limited and substantially smaller than US hurricane or earthquake risk.

Event Summary

California is currently suffering from what could possibly turn into the most expensive wildfires in the history of the state. There are several widespread fires burning in multiple locations that have caused the destruction of more than 8’500 structures and resulted in the death of at least 42 people. Whilst most fires have now been contained, there still is substantial uncertainty as to the final economic and insured loss caused by these events. The first official PCS loss number, released on 6 November 2017, estimates insured industry losses at USD 7.3bn. This loss estimate is substantially higher than initial ranges given by most modelling agencies, which expected insured losses to be between USD 2-5bn.

Event Details

From an insurance perspective, the wildfires in California are not a single event but rather multiple events occurring at the same time. This is also reflected by PCS who have assigned three distinct catastrophe codes to the Atlas, Tubbs and Mendocino Lake wildfires. The separation into several individual events is of significant importance for the insured loss calculation, as each event typically benefits from a franchise deductible. Hence, the distribution of insured losses is slightly skewed towards the retention layers for smaller events, which is a small positive for reinsurance and ILS contracts. However, given that at least the Atlas and Tubbs fire are events causing several billion in insured loss each, the franchise deductibles will be exceeded in any event.

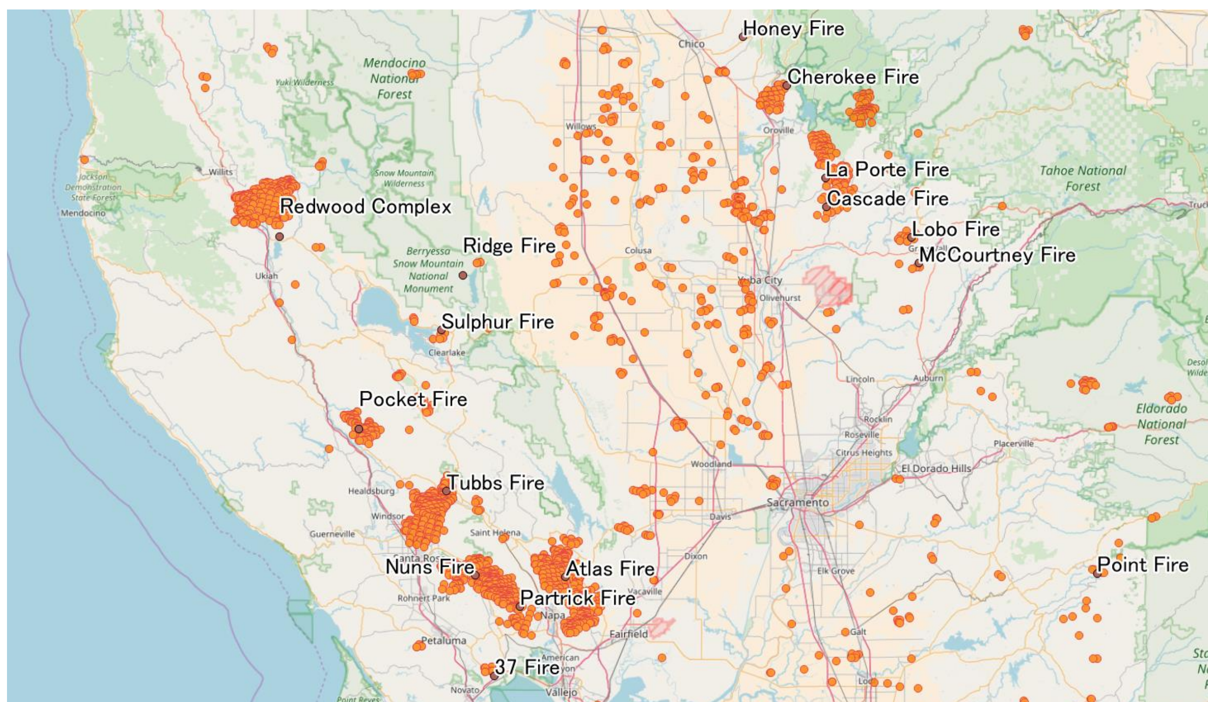

Figure 1: Location of wildfires during 2017 (January to October).
Source: MODIS Active Fire Detections for CONUS (2017) – Through 10/11/2017, as at 8 November 2017.

The damage footprint caused by wildfires is distinctively different from the ones caused by hurricanes. Whilst most category 3 or 4 hurricanes cause moderate damage across large areas, a wildfire typically results in total loss of properties but is more geographically concentrated. This behaviour results in a higher variability of ultimate net losses, as the sponsor-specific distribution or concentration of insured properties becomes more important. For example, if a primary insurer happens to have a geographic concentration in an affected area, insured loss numbers could be very high and very different compared to competitors. This makes modelling wildfire losses post an event difficult and less accurate.

Figure 2: Neighbourhood near Coffey Park in Santa Rosa, California.
Source: RMS, as at 7 November 2017.

Impact on cat bonds

The exposure to wildfire risk in the cat bond universe is rather limited and substantially smaller than US hurricane or earthquake risk. Twelve Capital estimates that the overall exposure of the cat bond market to US wildfire risk is less than 8%. Out of this, the entire exposure is within multi-peril bonds that are mostly structured using aggregate triggers. Given that some more junior cat bonds have suffered an attachment erosion following hurricanes Harvey, Irma and Maria, the wildfires could cause write-downs to several cat bonds.

As the wildfires are unlikely to be large enough to cause any write-downs individually, the ultimate losses to cat bonds will depend not only on the losses caused by the wildfires themselves, but to a larger extent on the losses caused by the previous storm events and their contribution to the ultimate attachment erosion.

USAA, the sponsor of the Residential Re transactions which make up around 5% of the cat bond market, have released estimated loss ranges for all relevant events, which gives an insight in respect of potential impact. Based on the currently available figures, partial write-downs are expected on four cat bonds with a combined outstanding notional of around USD 200m, which is around 0.68% of the entire cat bond market size. At this point, none of these cat bonds are expected to suffer a full write-down, but rather partial losses of principal. Some mandates and funds managed by Twelve Capital are exposed to these affected bonds. The cat bond positions affected by the wildfires have already dropped

substantially in secondary market valuation. Based on current valuation prices, substantial write-downs in affected positions are already priced in and only limited further performance drag can be expected.

Outlook

Most wildfires have now been contained thanks to the enormous efforts by the various fire brigades and support brought in from other states. Twelve Capital continues to monitor the situation closely and will inform upon major developments.

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