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Twelve Capital Event Update: California Wildfires

Update – Monday, 11 December 2017

Event Summary

Over the last few days, California has again experienced another number of wildfires, despite the region having already suffered from several similar events during October, which caused loss of life, destroyed thousands of homes and resulted in potential insured industry losses of more than USD 10 billion.

The hot and strong Santa Ana winds over recent days have caused a fresh outbreak of several wildfires in the state, with the most affected area located around 30 kilometres north of Oxnard in the Santa Barbara region. Whilst damage thus far is rather muted given the early stage of the event, it is possible that a combination of dry vegetation and continued strong winds could have a substantial effect on the region, which may in turn have implications for the reinsurance industry. At the time of writing, a few hundred structures have been lost to the fire (compared to more than 8'000 during October's wildfires), although it is likely that the event will continue to cause damage for several more days at least.

Figure 1: Satellite picture of smoke resulting from Wildfires

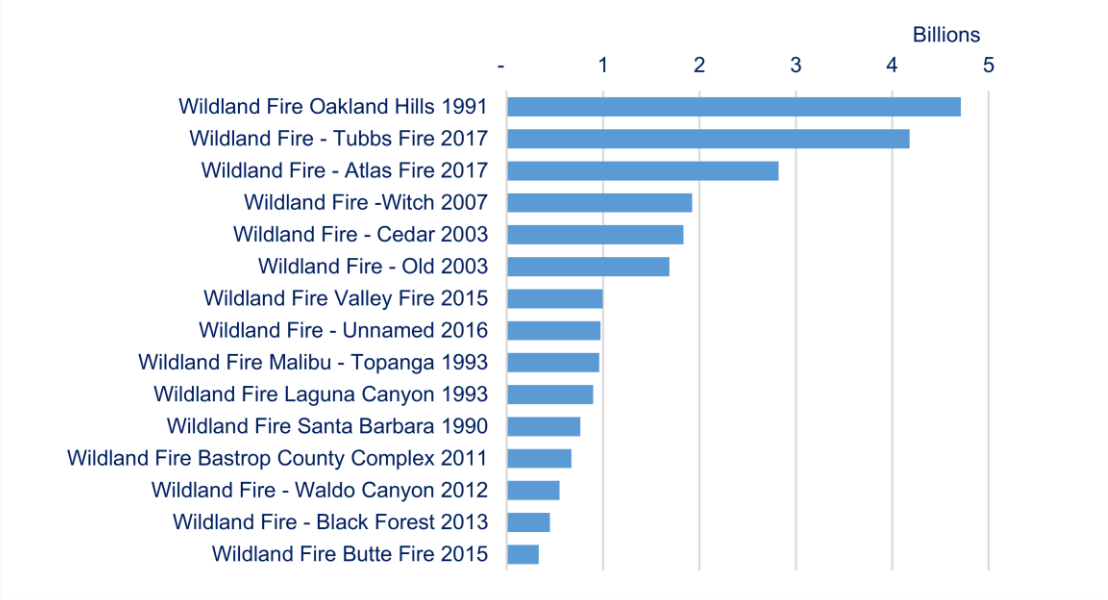
Source: NASA Worldview as at 8 December 2017.

Implications for the Cat Bond Market

Wildfire is a peril that is generally not covered by the majority of cat bonds, although it is included in some multi-peril cat programs, most notably the Residential Re series of bonds which are sponsored by USAA and the Caelus bonds sponsored by Nationwide Mutual.

In a typical year, damage caused by wildfires is unlikely to result in losses to cat bond layers, as the insured industry loss of even large wildfire events only rarely exceeds a few billion dollars. The largest insured industry loss in the PCS database caused by a wildfire thus far stands at around USD 4.5 billion, indexed to today's value. Compared to losses caused by major hurricanes, which often exceed USD 10 billion, this is a relatively small amount and hence explains why the expected loss contribution from wildfires in cat bonds is typically minimal.

Figure 2: Fifteen largest historic wildfire PCS insured loss figures (inflation indexed at 4%)



Source: PCS, Twelve Capital as at 08 December 2017.

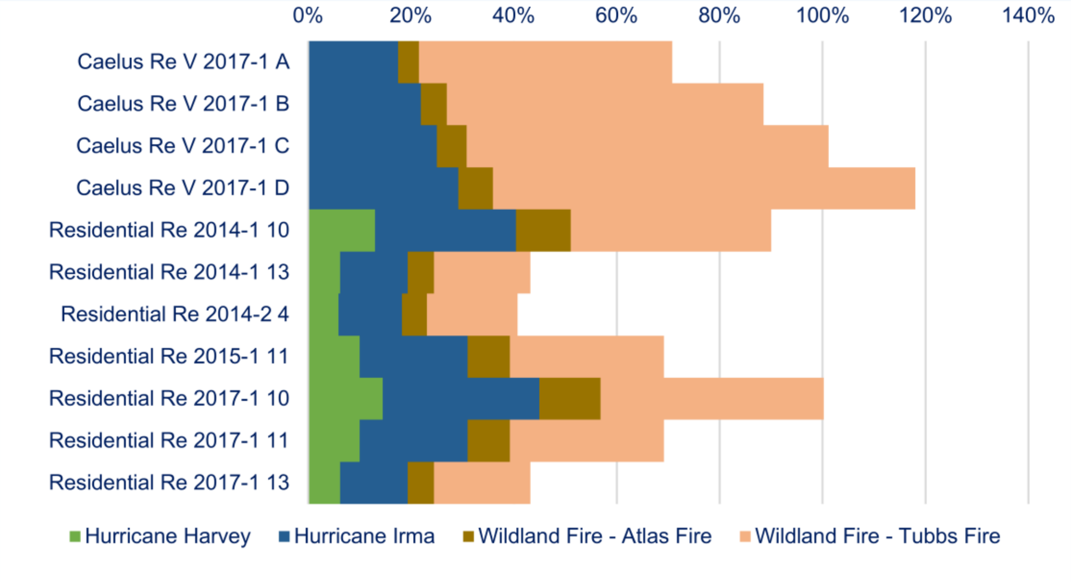
However, because wildfire risk is mostly included as a peril in aggregate bonds, the situation is different this year. Recent events, particularly hurricanes Harvey and Irma, have already eroded a substantial part of the aggregate attachment across many cat bonds and, as a result, there is now less of a buffer to protect investors from losses due to further events.

At this time, both Nationwide Mutual and USAA have published loss estimates for all relevant events in the current risk period, which allows Twelve Capital to estimate the level of attachment erosion present and thus a bond's sensitivity to future events such as new wildfires. The latest PCS estimates also support Twelve Capital's view that the insurance industry's losses from October's wildfires are likely to exceed USD 10 billion.

Figure 3 outlines Twelve Capital's estimate on aggregate attachment losses amongst the most exposed cat bonds. A bar exceeding 100% indicates that the bond could potentially face a complete or partial principal write-down. Based on these estimates, there are several bonds that are likely to already be experiencing losses and others that have a high risk of sustaining a loss from potential future events. Having said this, the majority of bonds listed below are generally trading at a significant discount in the market and hence ILS fund NAVs should already reflect a substantial level of increased risk for these positions.

As with most aggregate structures, these bonds feature annual reset dates where the quantum of losses experienced over the previous year are disregarded if the attachment has not been fully eroded. At this reset point, loss accumulations start to be counted again from zero and, consequently, the risk level of those bonds will revert back to their initial levels if the reset takes place without any prior principal erosion.

Figure 3: Twelve Capital estimates of aggregate attachment erosion for selected cat bonds



Source: Source: Twelve Capital as at 8 December 2017.

As the latest Californian wildfires have only recently begun and, on a relative basis, have not caused substantial damage thus far, it is not yet possible to estimate potential industry losses as the outcome of the current situation remains unclear. In the case of favourable meteorological conditions, the event could prove to be relatively benign, with no additional losses to the reinsurance and ILS markets. The reverse would also be true should meteorological conditions encourage the wildfires to continue to spread. Having said this, it is worth noting that cat bond prices for those few bonds which cover wildfire risks already trade at a significant discount to par, thus limiting potential losses to investors in the space.

Twelve Capital continues to monitor the situation closely and will distribute updated information in the event of any major developments.

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