Rethinking catastrophe risk management at the point of underwriting

By Michael Gannon, Marketing Manager, Verisk Insurance Solutions – Underwriting

After years of reduced interest income, insurers are seeking help from other sources of revenue to achieve profitability. For many companies, the task of contributing more to the bottom line is falling to the underwriting department.

However, recent history has proven that to be a significant challenge. In fact, according to the Insurance Information Institute (I.I.I.), the cumulative underwriting deficit from 1975 through 2011 was $479 billion, with $70 billion since 2008.

Many factors contribute to profitability, but in recent years, catastrophe losses have been a major obstacle for insurers trying to maximize profit. The difficulty becomes clear when reviewing quarterly earnings statements, which often blame catastrophe losses when reporting underwriting losses.

Catastrophe losses aren’t new. However, what is new — and what has been steadily emerging over the past decade — is a dramatic increase. In fact, of the $354 billion in U.S. catastrophe losses reported by Verisk’s Property Claim Services® (PCS®) since 1950, more than 65 percent have occurred during the past 12 years.

If that trend continues, homeowners underwriting departments will find it difficult to contribute to the profitability of their organizations unless insurers place a stronger emphasis on catastrophe risk management at the point of underwriting.

The new normal

Today, many homeowners underwriting departments are well positioned to achieve profitability in a “normal” underwriting environment — one without multibillion-dollar catastrophe losses. However, the normal underwriting environment is quickly becoming a thing of the past, forcing underwriting departments to take steps to adjust to the “new normal.”

Because of their geographic extent and the number of properties affected, hurricanes and tropical storms (tropical cyclones) have received the most attention from insurers over the years. However, severe thunderstorms rival tropical cyclones as the costliest catastrophe peril for U.S. insurers.

Hurricane Andrew was the catalyst for the wide acceptance of catastrophe modeling to manage catastrophe risk at the portfolio level. Will Hurricane Sandy...
and the $53 billion of severe thunderstorm losses over the past three years be the catalyst for a new way for homeowners insurers to manage catastrophe risk at the point of underwriting?

Why are losses increasing?
The increased cost of replacing property and the growth of exposures in high-risk areas have contributed to the increased cost of catastrophes. AIR Worldwide estimates that coastal exposures grow at a rate of approximately 7 percent each year. That helps explain why Sandy — relatively weak in terms of hurricane strength — may ultimately cost insurers as much as $20 billion.

Modeling historic events using current exposures reveals the extent of the increased risk that insurers face.

In September 1965, Hurricane Betsy made landfall in Key Largo, Florida, and Grand Isle, Louisiana. According to PCS, the storm cost insurers $515 million. Estimated total economic losses of more than $1 billion make Betsy the first billion-dollar loss.

If a storm of the same size and intensity as Betsy took the same track today, AIR estimates the losses would total $45 billion considering current exposures and replacement values. According to AIR, the Miami Hurricane of 1926 would be the costliest historical hurricane if it were to recur today, with expected losses totaling $125 billion.

The relatively recent Northridge earthquake would cost insurers $23 billion today, according to the AIR analysis, compared with the $12.5 billion it cost insurers in 1994. The 1812 New Madrid, Missouri, earthquake would be the costliest historical earthquake today, potentially costing insurers $112 billion, according to AIR.

AIR recently analyzed the top 10 costliest historical hurricanes and top 10 costliest historical earthquakes based on 2011 exposures. Only 3 of those 20 events actually appear on PCS’s list of the top 20 costliest catastrophes and would still be considered a top 20 event today.

Increased exposures in high-risk areas also have the potential to affect future wildfire losses. According to the Federal Registry, approximately 46 million people live within the wildland-urban interface — homes built near or among lands prone to wildland fire.

### Decade | Annual Average Acres Burned
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1970-1979 | 3.2 million
1980-1989 | 3.0 million
1990-1999 | 3.3 million
2000-2009 | 6.8 million
2010-2012 | 7.0 million
Does Location Matter?

Catastrophic losses are widespread across the United States. During the ten years between 2000 and 2009, 47 states had at least one catastrophe declared by PCS (at least $25 million in claims loss estimates). The losses are also widespread, with 33 states each incurring at least $1.6 billion of insured losses during that time period. From 2010 to 2011, the two highest insured losses incurred were for wind and thunderstorm events — $7.3 billion affecting 13 states and $6.9 billion affecting 20 states, respectively. Hurricane Irene ranked third with $4.3 billion in losses. See The Financial Effects of Natural Disasters as shown on our interactive map: www.iso.com/disasters.

At the same time, the National Interagency Fire Center reports that an average of 7 million acres have burned each year since 2000, significantly more than the 3 million acres burned each year between 1970 and 1990.

Managing risk at the underwriting and portfolio levels
Catastrophe losses are unavoidable, and portfolio-level risk transfer strategies will continue to be a primary catastrophe risk management solution for U.S. insurers. However, it may be time for homeowners insurers to rethink the way they manage catastrophe risk at the point of underwriting.

Some leading homeowners insurers and many commercial insurers have begun implementing comprehensive catastrophe risk management strategies during the underwriting process. Despite the relatively modest replacement cost values of residential and small commercial structures (compared with larger commercial risks), the sheer volume of risks demands similar attention of all homeowners insurers writing in catastrophe-prone areas.

There are many ways homeowners insurers can enhance underwriting strategy in catastrophe-prone states, but there's no one-size-fits-all approach. Peril exposure, risk tolerance, business processes, technological capabilities, resource allocation, and other factors all differ by insurer. However, one common element critical for homeowners writers is the ability to facilitate virtually any catastrophe risk assessment in an automated process that won’t significantly affect current underwriting operations.

Incorporating a more detailed assessment of catastrophe risk at the point of underwriting will help underwriters make better risk selection decisions, apply the most appropriate rate, and manage exposure concentrations in real time. That will increase the likelihood of writing profitable policies while decreasing the likelihood of unanticipated loss in catastrophe-prone areas. Furthermore, since the portfolio improves as it grows, insurers will also see benefits when negotiating reinsurance treaties.

Homeowners underwriting departments need to take steps today to position themselves to contribute to the bottom line tomorrow.

For more information on the dollar losses of past catastrophes adjusted for inflation, please read: Top 10 Historical Hurricanes and Earthquakes in the U.S.: What Would They Cost Today at www.isopro.com/Top-10-Historical

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