

SOME THOUGHTS ON NAT CAT AND INSURANCE POLICIES

BY **MICHAEL SCHÜTE** AND **DOROTHEA DIERS**

When we talk about climate change we have to consider that climate change will have an impact on the frequency and the severity of significant Nat Cat events. A rising temperature has an effect on the possibility of storing and transporting water in the sky. A change in the classical streams can induce stable weather situations with steady rain over several days. In combination with a drought period before that event such weather situations can have an effect on the storage of water in the soil. A very solid soil leads to a low reception and therefore to an extreme quick draining of the water. This year for example during the months May and June, we had a period of more than a month without any rain. This period ended with a significant thunderstorm with heavy rain. We have seen lots of damage: roads full of water and fallen trees, cars swimming in the streets like boats, damaged buildings caused by hail and storm, water in buildings due to heavy rain ...

And if you remember July 2021 the Nat Cat event Bernd will get into your mind. In that summer we had a stable weather situation with continuous rain over some days resulting in some of the worst flooding in Europe and particularly in Germany for decades. The flood disaster caused enormous devastation. Many dams overflowed, more than 180 people lost their lives. With estimated losses of 33 billion euros for Germany alone, of which approximately 8.5 billion euros were insured, Bernd was the most expensive catastrophe in Germany to date.

In Germany, insurance for buildings has two different aspects. First, we can insure buildings against the perils fire, water and storm. Normally insurance against these classical perils is considered as the basic product. But do our customers have in mind that this basic product isn't sufficient at all? Let us have a look at the perils storm and water. Insurance against storm covers losses caused by events in combination with hail or >



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heavy windstorm. The latter means if included in the contract that all losses are covered if the storm has a magnitude above a certain value according to the Beaufort scale. Especially flood due to heavy rain isn't included. A water cover doesn't include flood, too. A cover against water means that only water is considered which goes into and runs out of the building through tubes. And water from heavy rain normally doesn't use a way into a building via tubes except for backwater which means that the draining away isn't possible because of overloaded drainpipes. Second, there exists no cover for flood in the basic product of building insurance.

A homeowner should be aware that an insurance only against the perils fire, water and storm isn't sufficient in order to have a protection of his/her home against losses from flood or heavy rain. As a consequence of the climate change and the possible rising number and severity of Nat Cat events a homeowner needs a special addition to the basic insurance which we call in Germany 'Elementarschadenversicherung'. But this is a problem for the insurance industry if such covers must be offered to all customers. As you can see by looking in the year 2021 Nat Cat events have cumulative effects: a large number of claims and a very high loss amount. If you take a look at the region with the normally small rivers Ahr or Erft in 2021 you will see that there were lots of totally destroyed buildings.

A loss distribution should reflect the fact that Nat Cat events with flood and heavy rain can come along with a large number of large loss claims. In contrast to flood, Nat Cat events with claims due to storm or hail are numerous too, but the loss distribution is typically different to the loss distribution for flood claims. An effective insurance cover against flood or heavy rain can lead to enormous insured losses which might exceed any capital buffer. So compulsory insurance cover for Nat Cat with flood can work only with risk mitigation methods (e.g. reinsurance solutions or state protection for cumulative losses).

In insurance industry integrate insights from climate models to understand how impacts of climate change influence the risk landscape become indispensable. Forward-looking perspectives with integrated stress tests are essential to manage long-term strategies. Product strategies have to consider emerging customer needs.

But there is not only work to do for the insurance industry but also for homeowners (reflections about the way to protect their homes by themselves) and the government (not allowing to build houses in problematic zones).

Turning back to fact that climate change exists and has an impact on frequency and severity of the Nat Cat events we see that there is still a lot of discussion about the way to cope with all the open questions. <



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