

EconoFact Chats: Home Insurance in an Era of Climate Change

David Marlett, Appalachian State University

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Michael Klein

I'm Michael Klein, executive editor of EconoFact, a nonpartisan, web-based publication of the Fletcher School at Tufts University. At EconoFact, we bring key facts and incisive analysis to the national debate on economic and social policies, publishing work from leading economists across the country. You can learn more about us and see our work at www.econofact.org.

Michael Klein

A national insurance company has the motto that, 'like a good neighbor, they will be there.' But what if they aren't there and withdraw from offering policies, and other home insurance providers likewise pull out of certain markets? In the age of climate change, when 100-year floods occur much more often than once per century. When wildfires burn vast tracts of land, and when hurricanes slam coastal areas, the business of home insurance is becoming more challenging. This is a problem for insurance companies, but also for homeowners, for mortgage companies, and for the government. These issues are yet another consequence of climate change; one that perhaps has not received enough attention, unless, of course, you yourself find it difficult to get insurance coverage. There are wide-ranging consequences of the problems in the home insurance market, as my guest today, David Marlett, has discussed in his research and writing. David is a professor of risk management in the Department of Finance, Banking, and Insurance at Appalachian State University in North Carolina. David, thanks for joining me today on EconoFact Chats.

David Marlett

Thanks, Michael.

Michael Klein

Appalachian State is in the beautiful city of Boone, North Carolina, a place that I was fortunate enough to visit about a year ago, but since then, North Carolina has suffered from terrible flooding. Did this affect you or your friends or family?

David Marlett

My family's okay. We definitely had some damage. We live on a lake, which is actually a flood reservoir, and it did what it's supposed to. It was built decades ago to handle situations like this. So it rose quite a bit, and we lost some trees, but they missed the house. But my colleagues, I had a number of friends and co-workers that lost their homes, their cars, and all their belongings. Quite a few students lost their cars, the contents in their apartment. Tragically, some of those kids, their parents also lost their stuff too, so they got hit twice. The surrounding area, you

mentioned you visited, it gets rural very quickly, but it's also, you have some very high-income areas. You have a lot of second homes, which are multi-million dollar properties, and this impacted a wide range of economic classes. The access was impacted. Roads were blocked or washed out. So the recovery is going to take quite a while, and it's going to be tough because, as we'll talk about, many people did not have insurance.

Michael Klein

Yeah, it's really terrible what happened there, and I do want to talk about that. For people you know who were affected, do you know whether or not insurance covered their losses?

David Marlett

It's a yes and no answer. So after the flood, the university closed down, and they opened up the basketball arena for the Red Cross, they provided free food to the cafeteria, and also offered support for faculty, staff, students, and people in the community, and I was one of the volunteers that offered to help people work through their losses and file their insurance claims. I had some people coming through for several weeks, so I have a lot of first-hand experience with just people that are trying to figure out where to start. So I easily met with over 100 people, and generally, there were good outcomes for the auto claims. So if a student's car was flooded and they have full coverage, flood's covered on the personal auto policy. If a tree blew over and landed on somebody's house and rain came in, that type of water damage is covered, the trees are removed, and those were pretty good outcomes. The tragic ones were flood. And FEMA is saying that less than 1% of the people in our area have flood insurance. I met a total of four over two weeks that had flood coverage. And the other area, which was a bit of a surprise, were landslides. That was a much bigger issue than I think that people expected. And landslides really are not covered anywhere. If it's a mudslide, that might be covered under flood insurance. So we talked to some folks trying to get clarification on what a mudslide is compared to a landslide. Generally, mudslides look like chocolate milk. That would be covered if you have flood insurance. Landslides would not be. So as you can see, it's a really very confusing, difficult situation for consumers to understand how the system works.

Michael Klein

Yeah, I think that's a good illustration of the variety of things. More broadly, David, when I talk about insurance in class, I make a distinction between car insurance and earthquake insurance and why the former works and the latter does not, having to do with idiosyncratic risk versus systemic risk. Can you talk about that a little bit?

David Marlett

Sure. So as you know, insurance works by pooling risk. And so you get a large, hopefully number of people or properties or whatever, you pool them together and we transfer the individual risk to the group. So in order for that to work, we need to have some sort of

expectation of what that average expected loss is going to be. So everybody pays the average expected loss rather than the individual actual loss. So that works as long as we can form a relatively accurate estimate of future losses and then charge a premium based on those predictions. But there's times when this doesn't work. If the people in the pool or the properties in the pool are highly correlated, like you mentioned with earthquakes or flooding, if everybody's impacted at the same time, then the system breaks down. You also have to have confidence in your prediction, especially if you're relying on historical data, where you make expectations based on previous weather patterns, previous inflation rates, previous interest rates. All those things changed in the last three or four years. And so when we had high inflation, we had swings in interest rates. When we had labor shortages, supply chain problems, all of those missed the expectation, which created basically the system being stressed like it hadn't been before and essentially breaking down in a number of states.

Michael Klein

So I guess it's a short step from those things that you mentioned to the effects of climate change, both in terms of systemic risk and in terms of how unpredictable it is given historical experience.

David Marlett

Right. And, you know, climate change is clearly the big story. But we're also adding in population migration, where people are moving to the areas that are more prone to damage from climate change, and also inflation. So people are moving to higher risk areas and it's more expensive to rebuild and replace the property. And the outlook for that is not good. Right. I mean, we already have a labor shortage. If we actually have us follow through on these plans for mass deportation, good luck finding anybody to help rebuild. And if we fall into a trade war with the tariffs, then that's another issue that's going to jam up supply chains. But just focusing on climate change itself, there's record high temperatures both on land and water. That's undeniable. When you have higher temperatures, you have more moisture in the atmosphere. So when you have storms, they now have greater rainfall. Hurricanes are the ones that get the most attention. But, you know, probably the story that isn't focused on enough, but insurers are clearly focusing on this, are the severe convective storms. Those traditional hailstorms, ones that generate tornadoes, severe winds, that in the past, might have been a minor event, now they're more frequent, they're more severe. And these events are depleting the financial resources of insurers and reinsurers for the so-called normal events. And so you add in the more severe events with hurricanes, population migration, inflation. It's just a lot of uncertainty for insurers, regulators, and property owners.

Michael Klein

You mentioned, David, about people moving to places with higher climate risk. We actually have an EconoFact memo by Francesc Ortega and his co-authors that points that out. Suppose that

companies were able to figure out the appropriate premiums, but it turns out because of the riskiness, the premiums are too high. What would happen then?

David Marlett

Yeah, and that's sort of where we are right now in many states. And so the process would be, you know, the premiums still have to be approved in nearly every state by the state regulator. So it's a slow process. And it's also impacted by political forces. Many insurance commissioners are either elected or appointed, and you don't get reelected if you let insurance rates go too high. And the governor is not going to reappoint you if they're getting lots of calls because people can't get affordable insurance. So, you know, if they're allowed, if insurers are allowed to charge higher premiums, then the question is, can the consumer actually afford it, or will they choose to go without if they're not required to? I think we're seeing that in Florida currently. I mentioned earlier, I grew up in Florida. I was down there twice in the last month. I'm very familiar with the market down there. And it's changed a lot. You're seeing people now making housing decisions based on the availability of insurance. Is it affordable? And are we going to move? And on top of that, you add in their various state programs to provide insurance coverage as well as federal. And both of these are kind of band-aids to the private market failing. At the end of the day, you're going to have to find some sort of money to subsidize these insurance premiums to pay losses if the private market's not going to do it.

Michael Klein

In fact, we have seen a lot of instances of insurance companies pulling out of states when the premiums are not raised, right?

David Marlett

Right. And the big states, too. I mean, Florida, Texas, California.

Michael Klein

And isn't it the case that certain types of insurance, like flood insurance, that insurance is only available in some areas through the government, not through private companies?

David Marlett

Yeah, there's definitely a piecemeal approach with the way that we insure catastrophic perils in the U.S. It's unlike the rest of the world. It doesn't make a lot of sense. If we were starting clean slate, I would hope we would not design a system like this. So just looking at flood first, that is primarily provided since the 1960s through the National Flood Insurance Program on the federal level run through FEMA. Then there are some private insurance companies who are now getting into the flood business, which is generally a good thing. They're bringing additional capacity, generally good coverage. The National Flood Insurance Program is definitely in debt and struggling on the federal level. So it'd be good to see more private companies enter the market.

But the concern is if you have the private market come in and they're very good at risk identification, they pull out the good risk that the National Flood Insurance was currently insuring. They leave the higher risk, which makes the federal program even in worse shape. Now, looking at other perils, we can talk about that later, but that's the primary one on the federal level. There's a number of state programs also.

Michael Klein

Economists call that adverse selection, right?

David Marlett

Right.

Michael Klein

So it's a good example of that. Again, we have another memo by Francesc Ortega and his co-author, Ivan Petkov, about the lack of flood insurance. So, you know, David, I'm wondering if flood insurance is being provided by the government because private companies don't find it fiscally sustainable, probably the government wouldn't find it fiscally sustainable either, right?

David Marlett

Right. I mean, the National Flood Insurance Program has to be renewed every several years. It's sort of a band-aid approach. They've been trying to revise their rating, but it's deeply in debt, and the Treasury will forgive that debt periodically. But it's been struggling financially.

Michael Klein

So people talk about reinsurance. Can you explain what that is and what its role would be in this situation?

David Marlett

Yeah. Reinsurance is probably the biggest financial sector that people have never heard of. And in simple terms, it's insurance for insurance companies. So insurance companies will try to obtain protection for the unlikely extreme events like earthquakes, hurricanes, and those sorts of things. And they buy the protection from reinsurance companies. Governments also do this. FEMA buys reinsurance. These state insurance programs I mentioned earlier, they will buy reinsurance against catastrophic events. And most of the big reinsurance companies are based in Europe, the UK, and Bermuda. There are some in the U.S., Asia is developing, but it's primarily the European and Bermuda market. But it's a private market. I mean, they're in this to make money. Their rates are not regulated. So they swing wildly, which puts the insurance companies in the U.S. in a tough spot because if their reinsurance rates unexpectedly increase dramatically like they did in '22 and '23, they can't get those rate increases essentially passed on because their rates are regulated. And so the regulator might take two, three years if they even allow it. And so

you have a situation where the insurers have really realized that their reinsurance has gone up. They're paying more losses. They cannot get the rate increases that they expected. And so their only option at that point is either to pull back. You withdraw your coverage. You pull out of a market or you transfer more of the risk to the consumer through higher deductibles or reduced coverage terms.

Michael Klein

And I guess the spike in the reinsurance premiums reflects the fact that what we were talking about before, that there's a systemic risk with these kinds of events, not idiosyncratic risk. And so when it happens, it happens everywhere and it ends up being a big pay-out.

David Marlett

Yeah, a lot of it was driven by losses in climate. But the last several years, the economic conditions played a very big factor as well. Again, the unexpected inflation, when the interest rates spiked, a lot of these reinsurers, they hold a large bond portfolio. So the value of those portfolios dropped considerably in a short time period. And a strong US dollar hurts as well, which is a little surprising. But if they're based in, say, Europe and they're using a euro and they're paying claims in dollars, a strong dollar makes it more expensive for them to pay their claims.

Michael Klein

So, David, we've been discussing the problems with the home insurance market and how it's affecting the insurance companies. But there are much bigger consequences of this, like I talked about in the introduction. So what are some of these consequences that arise when there's a lack of affordable home insurance?

David Marlett

Widespread and it impacts everybody. In order to have a resilient community, one that can recover from a catastrophic event, you have to have some sort of program that's going to help pay for losses. Insurance tends to be the one that historically we've used, combined with different governmental programs. Any sort of economic growth...you have to have insurance coverage in order to buy a home. I mean, the lender is not going to provide you money unless your collateral is insured. Their collateral's insured. My wife is in real estate and she's asked more questions about homeowners insurance and insurance coverage than ever. I mean, just because the markets here are being severely impacted...the ability of people to buy and sell houses. If you've been in Florida recently, there are more for sale signs in Florida than you've seen in years, maybe decades. Because people can't afford the insurance premiums and they've just kind of reached that point that either you can't get the coverage or it's too expensive. So they're getting out.

Michael Klein

What about broader risks to the financial system as a whole?

David Marlett

Certainly with the banking sector, they have exposure. I've been curious what's going to happen in North Carolina because we have so many homes that were uninsured for the flood losses. If they had a mortgage, I haven't seen anything yet. I've been talking to my colleagues in banking to see if they're hearing anything. But just common sense is you're going to see a lot of defaults based on those claims. Because most of the properties that were destroyed were not in flood zones, so they were not required to have it. So they could have a mortgage and not be required to have flood insurance.

Michael Klein

I guess they actually were in flood zones, though, weren't they?

David Marlett

Well, yeah, from a practical standpoint, they were. Yes, from FEMA's charts, they were not necessarily.

Michael Klein

And that speaks to the fact that things are very different now, that the traditional or historical floodplain charts are maybe no longer so relevant.

David Marlett

Yeah, they get dated pretty quickly. I mean, throw in climate change, but also just development. If somebody builds an apartment complex and paves over a field, now you don't have that place for the water to run off. So in Boone, a lot of the places that were damaged the worst were low-lying areas that used to be locations that water would go in and go into a field and eventually work its way into the ground. But now you had apartments or a Walmart or something like that there, which were damaged.

Michael Klein

So it's a really complex issue. It's not just climate change. It's also people's responses, the way that development has occurred, and a range of other things as well.

David Marlett

Absolutely. At times, it's a little discouraging, and it's certainly heartbreaking to see how many people have lost generational wealth. They've lost a home that their grandparents had in some cases. And a lot of the folks, my colleagues that lost everything, they were business professors. It isn't like they were just being reckless. But the source of optimism that I hang on to is that

long-term, through mitigation and wiser development and changing the way we build houses and where we build them, we can get through this. We're going to get there. And Florida is a great example of that.

Michael Klein

Can you speak a little bit more about mitigation efforts?

David Marlett

Yeah. So, if we can find ways, and we can find ways, to build homes that are more resistant to damages and able to recover and not be unusable after an event, then eventually we will have a stronger housing stock. And just to go through some examples, I grew up near Tampa. I was just in Clearwater a couple days ago and attended a conference on disaster resilience. And in the Tampa Bay area, that's where Helene started. It ended up over us, but it started down there. And Milton also went through. So, a lot of homes, as I drove around, were damaged. But it was very clear the ones which had been built in the last decade versus the ones that were older. From a wind standpoint, the roofs stayed on. They were fine. They were elevated. They were, you know, the bottom floor was more of a garage area that would wash out. And these are nice houses, and the people were in them, and life is going on. The older homes, which were single-level, much lower elevation, older design, were either unoccupied. They had piles of drywall out front. They were going to be out of those homes for a long time.

Michael Klein

I guess there's a parallel here with earthquakes, right? Because people learned how to build buildings that were more earthquake-resistant. And now they have to do the same thing with floods and hurricanes and so on.

David Marlett

Absolutely. I lived in New Zealand for a while, and the Christchurch area following the earthquakes down there. And that's their main issue is earthquakes. And, yeah, same deal. They can design structures that are more resistant. A really interesting presentation I heard this week at that conference was on wildfires. And that hasn't been an issue for us in our area as much. But just from an educational standpoint, things that consumers can do to reduce their risk of wildfire, clear shrubs from around your house. Don't use pine needles for mulch. Move the stacks of firewood away from your house, which my son and I are going to do later this holiday. Like, it makes perfect sense once you think about it. Why would you put a bunch of kindling right next to your house if an ember lands on it? Keep leaves out of the gutter. So from an educational standpoint, there's some simple things we can do. But it's really going to be more of a government mandating certain building codes and consumers demanding certain types of construction when they buy a house.

Michael Klein

So I hope you and your son have a good time moving the firewood and enjoy Thanksgiving dinner after that. We're recording this the day before Thanksgiving. David, thank you very much for joining me today. This is a really important issue, one that seems to fly under the radar until it actually hits people or we see nationally, the terrible events like what happened in North Carolina. So I wish you and your colleagues and your students the best in recovering from this. And I appreciate you sharing your insights today on EconoFact Chats.

David Marlett

Thank you, Michael.

Michael Klein

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