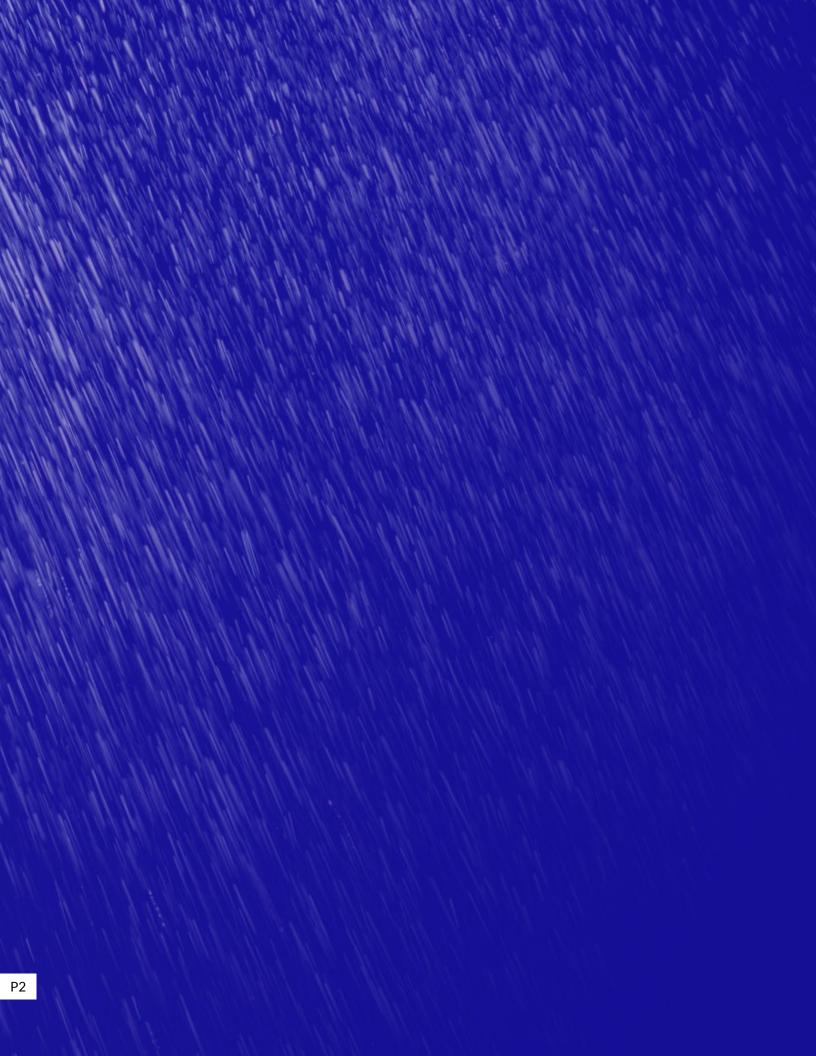


CHUBB®

Rising Waters

A deep dive into flood risk



Contents

Introduction	P04
Methodology	P06
Key findings	P08
(Mis)Understanding flood risk	P12
The data	P14
An escalating issue	P16
Bridging the knowledge gap	P18
Barriers to the true assessment of flood risk	P20
Why they buy	P22
Looking ahead	P24
Recommendations	P26

Introduction

As flooding becomes more widespread and impacts previously low-risk areas, the world of flood insurance and risk management must evolve to keep pace.



Flooding is the most common and most expensive natural disaster in the United States.¹

Yet, despite its devastating impacts, flooding and the risks it poses are largely underestimated and misunderstood. In fact, there is a long-standing paradox of increasingly costly flooding and the confounding low uptake of flood insurance. Flooding continues to grow in scope and intensity and is not just a concern for coastal or riverside communities.

Extreme, torrential rainfall events are happening everywhere and the risk is real. There have been catastrophic flood losses in places – and to properties – that have never before contemplated such a risk. And as global temperatures rise, so will the risk of flooding.

It is with this in mind that Chubb commissioned iResearch to conduct a Chubb Commercial Insurance Flood Risk Survey.

We asked the brokerage community to tell us exactly how prepared their middle market clients are for flood incidents. What we learned from respondents was stark and alarming, but also actionable. Our industry has an opportunity to meet the moment. We must collectively act to ensure that those who are managing the risks of commercial businesses have a clear understanding of the true nature of flood exposure, the vulnerabilities associated with a changing climate, and the property protections available.

We hope you find this report useful as you plan and prepare for the future.

Extreme, torrential rainfall events are happening everywhere and the risk is real.

Louis HobsonSVP, North America Flood Insurance Chubb Property & Specialty Group Management

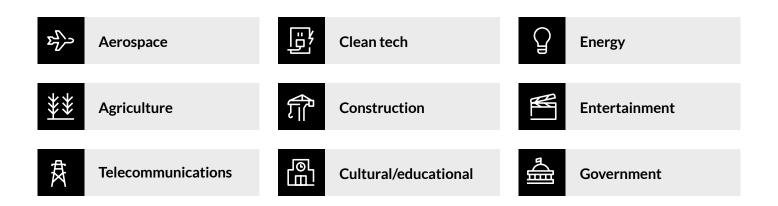


Methodology

Chubb and iResearch surveyed commercial insurance brokers across the US to gain an understanding of their clients' awareness of flood exposures and protections, as well as their familiarity with flood insurance and risk mitigation measures. Respondents included 332 brokers with middle market clients spanning a range of industries.



Client industries:



Client company revenue:

Under \$50 million (49%)

Between \$50 million and \$500 million (29%)

\$500 million and up (23%)

Client company location:

Inland (41%)

Coastal (28%)

Equally inland and coastal (31%)

Note: Percentages may not add up to 100% due to rounding.

Key findings

The degree of flood risk is widely underestimated.

01

Flooding is the most common and most expensive natural disaster. Yet, our survey showed that it is severely under-appreciated, underestimated and misunderstood by middle-market businesses.

02

Under-utilization of flood insurance is widespread. Of the surveyed brokers, 65% believe that less than half their clients need flood insurance.

03

Clients are also underestimating flood risk. 69% of brokers said that very few, few, or a minority of their clients appreciate that flooding is the most common and most expensive natural disaster. Only 19% reported that a majority and 12% said a vast majority of their clients appreciate the severity of the exposure. Less than a quarter of the surveyed brokers say that half or more of their clients nationally buy flood insurance. Of those that do. the Midwest leads all regions (23%), followed by the East (19%), the South (14%), and the West (13%).



Uninformed and misguided purchasing decisions are common.

04

Standard commercial property insurance excludes flood coverage, yet this fact is not well known among brokers and their clients. More than half of brokers (56%) say their clients do not buy flood insurance because they believe that commercial property insurance covers flooding. Further, the survey showed that brokers estimate that 85% of clients think that property insurance covers all or some types of flooding.

05

Many businesses bypass flood insurance due to a false sense of security. The number of clients who purchase flood insurance lags far behind the number of clients brokers say need it. Only 16% of brokers say that at least half of their clients buy flood insurance, and 45% say clients do not even ask for a quote.



Key findings (cont.)

Flood insurance purchase drivers are typically tied to lender requirements and proximity to high-risk areas. Regardless of whether property owners buy flood insurance, flood mitigation is often overlooked.

06

The top drivers of flood insurance purchases are lender requirements, followed by being in a high-risk area, suffering an uninsured flood loss and not being protected against floods.

07

The vast majority of brokers report that most clients forego opportunities to build resilience, going without flood response, mitigation and business continuity plans. 57% of brokers believe that less than a quarter of their clients have a flood mitigation plan. The vast majority (77%) said that less than half of their clients have a flood response mitigation plan in place.



Climate change is increasing interest in flood insurance.

The consensus is that the commercial flood market will continue to grow.

08

Despite the low uptake in flood insurance, a majority of brokers (62%) say climate change has increased interest in the coverage.

09

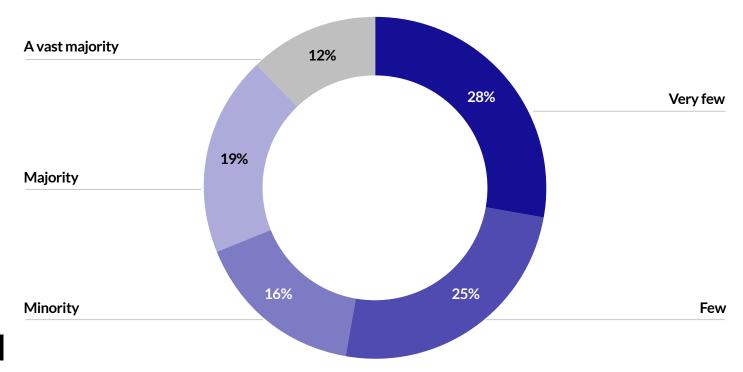
Future growth of the flood insurance market will be driven mostly by (1) increasing awareness that property insurance does not cover most flood damage; (2) an increasing number of catastrophic floods; (3) increasing awareness of climate change-related risks; and (4) an increasing number of people living/working in high-risk areas.



(Mis)Understanding flood risk

Nearly three-quarters of brokers (69%) said less than 50% of their clients appreciate that flooding is the most common and most expensive natural disaster. Only 12% of respondents said more than 75% of their clients appreciate the severity of the exposure.

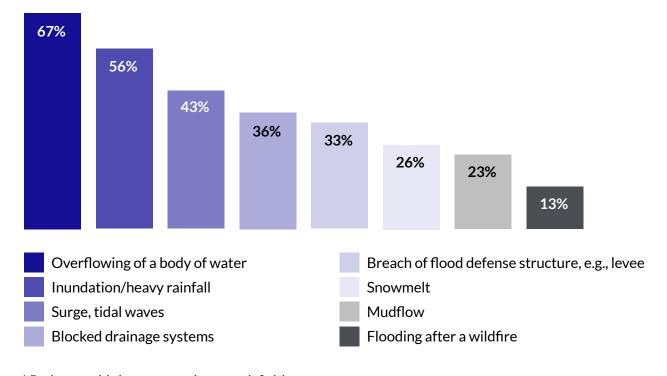
How many of your clients appreciate that flooding is the most common and most expensive natural disaster?





Brokers reviewed descriptors that fit the insurance industry's definition of flood and shared how their clients typically define it. The responses revealed a lack of understanding and lack of consensus around the multiple causes of floods and flood exposure.

How do clients define flood risk?*



^{*} Brokers could choose more than one definition

The data

While flood risk is traditionally associated with coastal or riverside areas, floods are happening all across the United States.²

Flood events are also becoming more severe, intense, and damaging.²

"Flood risk is dangerously underestimated, despite the fact that over the past decade we have experienced record-breaking rainfall event after record-breaking rainfall event," said Matt McMullin, Global Climate Practice Leader and Energy Industry Practice Leader, North America, at Chubb. "Unfortunately, you can't stop the rain. But you can prepare for it," he added. Findings point to a stunning lack of awareness around flood risk.

"You can't stop the rain. But you can prepare for it."



Facts about floods

Over 90%

Over 90% of US natural disasters involve flooding.³

\$850 billion

Floods have cost US taxpayers more than \$850 billion since 2000 and are responsible for two-thirds of the cost of all-natural disasters.⁴

5 - 10 years

Rainfall events that were thought to occur only once every hundred years are now occurring with far greater frequency. In some places, these formerly rare events are now occurring as often as every 5 to 10 years.⁵

25%

Approximately 25% of critical infrastructure, such as police stations, airports and hospitals, are at risk of being rendered inoperable due to flooding.⁶



Rainfall events that were thought to occur only once every hundred years are now occurring with far greater frequency. In some places, these formerly rare events are now occurring as often as every 5 or 10 years.

An escalating issue

Broker responses revealed a major disconnect between the number of clients who actually purchase flood insurance and those perceived to need it.

Only 16% of brokers say more than half of their clients **buy** flood insurance, while 45% say more than half **need** flood insurance. **45% say clients do not even ask for a flood insurance quote**, even though flooding is not covered by standard commercial property insurance.

Meanwhile, 62% of brokers say climate change has led to increased interest in purchasing flood insurance. However, the low uptake in flood coverage indicates that this interest has not translated to protective action.

"With climate change and changes in topography, flood risk has become much more severe and widespread. Rising seas are worsening hurricane storm surges. Unprecedented, intense rainfall is becoming commonplace. At the same time, land that was once porous is now paved over. Sewer systems and infrastructure weren't built for the inundations we are seeing today. For a commercial enterprise, going without flood coverage leaves a fundamental exposure uninsured," said Derek Talbott, President, North American Property & Specialty, Chubb North America.

"For a commercial enterprise, going without flood coverage leaves a fundamental exposure uninsured."

Derek TalbottPresident, North American Property & Specialty,
Chubb North America



The Midwest topped regions where brokers indicated that 50% or more of their clients buy flood insurance.



MIDWEST

23% of brokers said 50% or more of their clients buy flood insurance



SOUTH

14% of brokers said 50% or more of their clients buy flood insurance



EAST

19% of brokers said 50% or more of their clients buy flood insurance



WEST

13% of brokers said 50% or more of their clients buy flood insurance

Locations where brokers indicated that 50% or more of their clients buy flood insurance.



COASTAL

13% of brokers said 50% or more of their clients buy flood insurance



INLAND

11% of brokers said 50% or more of their clients buy flood insurance

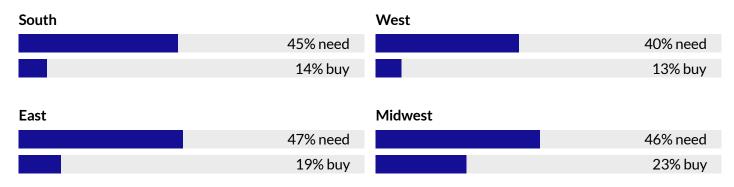


EQUALLY COASTAL AND INLAND

25% of brokers said 50% or more of their clients buy flood insurance

The gap between purchase and perceived need is greatest in the South.

Difference between percentage of brokers who said half or more need flood insurance vs. those saying half or more buy it



Bridging the knowledge gap

So why aren't clients buying flood insurance, even though so much data points to its necessity?

85%

of clients mistakenly believe that property insurance covers all, most, or some types of flood coverage. "Consequently, these clients either underestimate their risk or overestimate their cost of coverage," shared Louis Hobson, Senior Vice President at Chubb North America. 56%

of brokers said their clients do not buy flood insurance because they assume flooding is covered by their commercial property policy. Nearly half (46%) believe their business is protected against flood damage. "These dual findings create a sense of urgency for our industry to set the record straight so property owners are not surprised when they realize their flood loss is not covered," Hobson said.

45%

do not buy flood insurance because they believe they are in a low-risk area. "Clients may be under the impression that flooding is solely a coastal or riverside risk, or they may be relying on outdated or incomplete FEMA flood zone maps. Every company has some level of flood risk because it only takes one extreme rainfall event to cause catastrophic damage," Hobson added.



45%

say they don't buy because it isn't a requirement. "This could change as understanding of the true nature of today's flood risk expands. We may see lenders expand requirements to mirror the reality of the exposure," Hobson speculated.

42%

say it is too expensive. "Rates are commensurate with the risk. Companies with average or low flood risk would be surprised at how affordable coverage for a potentially catastrophic loss can be," Hobson explained.



Clients perceive that property insurance covers:

- All or most types of flooding (45%)
- Limited types of flooding (40%)
- No coverage for flooding at all (15%)

Barriers to the true assessment of flood risk

41% of brokers say clients do not buy flood cover because they do not know how to assess their risk.

There are many factors that impact how clients assess risk and certain barriers can make this process especially challenging. FEMA flood maps, the traditional go-to for publicly available information to assess flood risk, are outdated and incomplete. Moreover, they were not built to reflect some of today's most common causes of severe flooding, such as extreme and severe bursts of rainfall.⁷

Luckily, while FEMA flood maps may not show the full picture, private commercial flood models have improved dramatically in recent years. "Today, we use multiple models from different sources to support a more thorough flood risk assessment, including models that increasingly incorporate the here-and-now impact of climate risk. They can illuminate details like the impact to an area if it is exposed to an accumulation of water due to torrential rainfall," said Gregory Tesche, Senior Vice President, Chubb Commercial Insurance.

"We use multiple models from different sources to support a more thorough risk assessment, including models that increasingly incorporate the here-and-now of climate risk."



Output from these new, higher resolution models is constantly improving.

Clients who access this information will be able to make better, more informed decisions about their risk. However, the availability of resources doesn't mean that they have been widely adopted. Brokers indicated that clients aiming to mitigate flood damage and build resilience into their operations have numerous areas of opportunity.

78%

say less than half have measures in place to limit flood damage 77%

say less than half of their clients have a flood response mitigation plan 72%

say less than half have a business continuity plan that includes flood response

"It can take years for a business to recover from a serious flood. Understanding your risk, preparing, and building resilience can save a family business from catastrophic loss, protect a hospital from having to evacuate patients, and support smart business decisions for a company considering expansion," said Erik Olsen, Senior Vice President and Leader, Property Center of Excellence, Chubb North America.

"Building resilience requires looking at flood exposure through the lens of a changing climate. This can be challenging, as typical long-term, emissions-driven climate change models and natural CAT flood models are two totally different animals," Olsen further explained. Chubb developed a property resilience assessment (PRA) to help companies better understand how current and future climate events will impact key locations and their day-to-day business. In turn this helps them make informed decisions – from creating business continuity plans to taking fundamental steps to harden assets and facilities. "With a holistic understanding of their flood risk, businesses can prioritize investment resources and construct actionable plans to address worst-case scenarios and create business continuity," Olsen said.

"With a holistic understanding of their flood risk, businesses can prioritize investment resources and make actionable plans to address worst-case scenarios and create business continuity."



SVP, Leader Property Center of Excellence, Chubb North America



Why they buy

The survey also found that the top reason clients do buy flood insurance isn't directly tied to risk - the number one factor in whether a client purchased flood insurance was lender/contractual requirements (58%).

That said, other top factors included being in a "high risk" area (50%) or having the hindsight of suffered uninsured flood losses (39%). Counterintuitively, climate change was only a motivator for 20% of purchasers.

What are the main reasons clients buy flood insurance?*

Mandatory/required by the lender (58%)

In a high-risk area (50%)

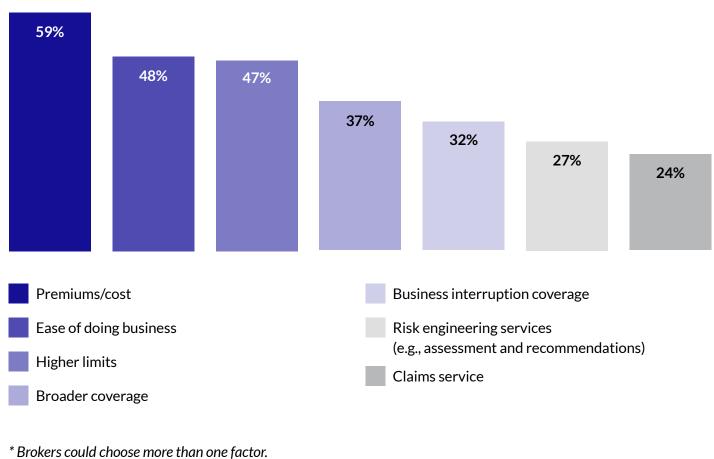
Recent flooding in area (31%)

Suffered uninsured flood losses (39%)

Brokers also indicated that price is most often the deciding factor (59%) when their clients purchase flood insurance. This is followed by ease of doing business (48%), high limits (47%), and broader coverage (37%). In coastal areas, where clients presumably consider their properties at higher risk, higher limits (58%) were essentially as important as premium (59%).

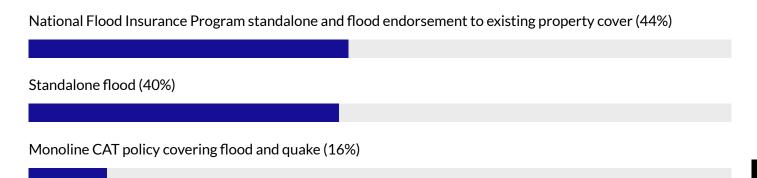
^{*} Brokers could choose more than one reason.

What are the deciding factors when purchasing commercial flood insurance?*



Brokers could choose more than one juctor.

Clients also had preferences regarding the form of their flood insurance.



Looking ahead

Brokers anticipate growth in flood insurance purchases, albeit modest given the geographic spread and intensity of flood exposure.



The changing nature of flood risk

Over the next three years, 50% say that 20% or more of their clients will buy flood insurance, compared to just 31% of brokers who say that today.

The top drivers brokers noted as affecting the growth of the commercial flood market align with a need to increase awareness of the role of property insurance and the changing nature of flood risk.

"As the planet warms, the expectation is that we will see more and more intense, more frequent, more severe rainfall events, leading also to more severe flooding"

said Stefan Uhlenbrook, Director of Hydrology, Water and Cryosphere at the World Meteorological Organization.⁸

Top drivers of flood market growth*

Increasing awareness that property insurance doesn't cover most flood damage (69%)

Increasing number of catastrophic floods (60%)

Increasing awareness of climate change-related risks (53%)

Increasing number of people living/working in high-risk areas (49%)

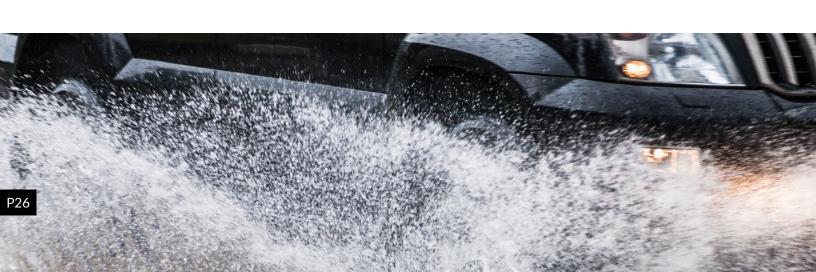
^{*} Brokers could choose more than one driver.

Recommendations

Flood risk is no longer just a consideration for the coastal property in a hurricane path or the Midwest business with its headquarters on a riverbank.

Extreme weather makes flood risk far more pervasive. As this report shows, far too many middle market companies are unaware, unprepared, and – often unknowingly – uninsured.

"It is incumbent on insurance carriers and brokers to educate the marketplace and ensure our mutual clients are aware of their risk and the protections available to them in a commercial property policy," said Hobson. "Flood insurance is not optional, it's optimal.
For those not in a traditional flood-prone area near
the coast or bodies of water, flooding should be
considered akin to fire risk. You may not be high risk,
but you'd never go without coverage," said Talbott.



Fundamental risk management for flooding should include flood insurance. Here's a roadmap to achieving more thorough protection and resilience:

Assess



Quote



All clients should have ready access to models to help visualize and understand risk factors. Leveraging the advancing tools at its disposal, the industry can show, not just tell, clients of all sizes about their flood risk.

Flood insurance quotes should accompany commercial property quotes for all of those outside of the traditional high-risk flood zones, making it easy for businesses to consider and purchase coverage. Not only is this sound due diligence given the uncertainty and potential severity of the risk, but it also sparks the conversation that can bring clarity and transparency to what is and is not covered by commercial property insurers.

Unlock resilience



Adapt



Carriers have tools, technology, and expertise to support resilience, from risk assessments and checklists to mitigate flood exposure to templates to support business continuity planning. These should be as easily accessible to businesses as flood coverage itself.

Insurers, brokers, and clients must partner to adapt to a changing reality. Flood risk models are advancing as new data becomes available. The science around climate change and its impacts continues to evolve. Technology and tools to mitigate flooding continue to advance. It's an ongoing journey to build and maintain resilience in a changing world.

A final note

As the uptake of flood insurance becomes more widespread and commonplace, more of the nation's businesses will be properly protected, bringing newfound stability and sustainability to the historically volatile flood insurance market.

- https://www.pewtrusts.org/en/research-and-analysis/articles/2022/12/15/flooding-is-nearly-a-daily-occurrence-throughout-the-us
- 2. flooddefenders.org
- $3. \ https://resilience.iii.org/resilience-blog/floods/hurricane-ians-inland-impact-highlights-flood-protection-gap-in-florida-and-beyond/$
- 4. flooddefenders.org
- $5.\ Based on the First Street Foundation Precipitation Model. https://firststreet.org/research-lab/published-research/article-highlights-from-the-precipitation-problem/$
- 6. First Street Foundation's 3rd National Risk Assessment: Infrastructure on the Brink. https://assets.firststreet.org/uploads/2021/09/The-3rd-National-Risk-Assessment-Infrastructure-on-the-Brink.pdf
- 7. https://www.washingtonpost.com/climate-environment/interactive/2022/fema-flood-risk-maps-failures/
- 8. https://public.wmo.int/en/media/news/heatwaves-wildfires-mark-summer-of-extremes

The information contained in this document is intended for general informational purposes only and is not intended to provide legal or other expert advice. You should consult knowledgeable legal counsel or other knowledgeable experts as to any legal or technical questions you may have. Neither Chubb nor its employees or agents shall be liable for the use of any information or statements made or contained in any information provided herein. This document contains links to third-party Web sites solely for informational purposes and as a convenience to readers and not as an endorsement by Chubb of the entities referenced or the contents on such third-party Web sites. Chubb is not responsible for the content of linked third-party sites and does not make any representations regarding the content or accuracy of materials on such linked Web sites. The opinions and positions expressed in this report are the authors' own and not necessarily those of Chubb.

Chubb. Insured.[™]