2017: The Year of the CATs
This brief provides an overview of the different natural catastrophes in the U.S. in 2017, with a focus on Hurricanes Harvey, Irma and Maria and the California fires. Despite the enormous damages caused by these CATs, the insurance industry has more than enough capital to cover above-average losses.

The Future of Flood Insurance: A Growing Public-Private Partnership
The viability of the National Flood Insurance Program (NFIP) has long been a concern. Opportunity for more insurers to enter the private flood insurance market has increased. They have the interest, capacity and capability to offer more flexible coverages than those offered by the NFIP that may be attractive to both lenders and consumers.

The Importance of Insuring Vehicles from Flood Damage
More than a million cars were damaged or submerged from the floods caused by Irma and Harvey, creating a huge impact on the auto insurance market. Auto insurers have been inundated with 700,000 auto claims that cost a total of $7.7 billion.

Lessons Learned: What Hurricanes Have Taught the Insurance Industry
One significant insight gained from hurricanes is the low rate of homeowners that carry flood insurance. Other takeaways include the necessity to use more advanced technologies for accurate loss assessment and social media for improved communications with customers.

Insurers Have Improved Their Catastrophe Claims Handling Capabilities
This brief presents statistical evidence showing that insurers have increased the rate of claims processing including including closing CAT claims more quickly and settling large volumes of claims more effectively. In addition, insurers J.D. Power’s consumer satisfaction levels are at an all time high.

The Importance of Establishing and Enforcing Strong, Uniform Building Codes
Strong, uniform statewide building codes are essential to reducing both the frequency and severity of property damage following catastrophic weather events. Every $1 spent on mitigation programs that encourage rigid building codes results in $4 of savings in future disaster costs. State rankings of the effectiveness of building codes are provided in this brief.

Puerto Rico Without Insurance: An Island in Turmoil
Puerto Rico is faced with great societal and economic challenges after being hit by two large hurricanes (Irma and Maria) last year. A very serious problem is the fact that nearly everyone on the island has no flood insurance, yet many homes and other structures were destroyed or badly damaged by floods.

The Risk of Wildfires is Growing
The threat of wildfires is becoming more widespread not just in the West and Northwest but throughout the country where many newer homes are being built in wildland-urban interface areas. Homeowners often discover too late that they do not have enough insurance to pay for their fire losses.
INTRODUCTION
Last year was a very active one for natural catastrophes (CATs) that impacted the U.S. and the Caribbean. A report by the National Oceanic and Atmospheric Administration indicates 16 billion-dollar weather and climate disasters occurred in different parts of the country including powerful hurricanes, widespread tornado outbreaks, large hailstorms, massive wildfires, severe flooding events, extreme drought, and a freeze. To put this into perspective, the 2007-2016 10-year average number of U.S. billion-dollar weather and climate disasters was just 9.7, reflecting a 65% increase in 2017.

U.S. 2017 Billion-Dollar Weather and Climate Disasters

This map denotes the approximate location for each of the 16 billion-dollar weather and climate disasters that impacted the United States during 2017.
The insured losses for all 2017 CATs combined are greater than $90 billion,¹ making 2017 the second worst year on record in U.S. history (after 2005).

Representing three-quarters of the total CAT insured losses, the dominant events last year were three Category 4 Hurricanes including Harvey ($25.7 billion), Irma ($18.2 billion), and Maria ($24.0 billion). Damages from any one of these hurricanes significantly dwarfs the insured losses of other large 2017 CATs: wildfires ($13.2 billion, total); tornadoes, hail and strong winds ($7.8 billion, total); and drought ($1.9 billion).²

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¹ PCI, based on Insurance Information Institute, Property Claim Services and FEMA; losses include federal flood losses.
² Property Claim Services and FEMA (hurricane losses) and Aon Benfield (all other losses).
THE YEAR OF THE CATS

Hurricanes Harvey, Irma, and Maria affected roughly 25.8 million people.1 Based on the latest available data, total insured losses including federal flood losses caused by Harvey, Irma, and Maria are about $67.9 billion. A brief overview of each hurricane follows:

- **HARVEY** (late August). Making landfall twice in Southeast Texas and hovering over the region for four days, this massive hurricane brought more than 60 inches of rainfall, causing major flooding with storm surges up to 7 feet in some areas. About 90 people died from this storm.

- **IRMA** (early September). Considered the most powerful Atlantic hurricane in recent history, this storm had a long path that struck many of the Caribbean Islands before moving to the U.S. mainland. It brought heavy rainfalls and dangerous winds to much of Florida and parts of Georgia, Alabama, and South Carolina. Irma killed nearly 100 people; most of these deaths were in Florida.

- **MARIA** (mid-September). This immense hurricane plowed across the Caribbean, largely impacting the U.S. Virgin Islands and creating a desperate humanitarian crisis in Puerto Rico. Rainfalls up to 18 inches caused life-threatening flash floods and mudslides, leaving Puerto Rico in shambles with demolished homes, destroyed businesses, downed power grids, limited access to clean water and medicine, and an uncertain death toll. Thousands of people have fled the island.

In terms of total insured losses (including federal flood losses), Hurricane Katrina (2005) and Superstorm Sandy (2012) still rank higher than Harvey, Irma, and Maria. The latest available data indicate that Harvey is the 3rd worst hurricane in U.S. history, while Maria and Irma are 5th and 6th respectively.2

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1 FEMA. A fourth hurricane (Nate) took place in early Oct. 2017, making landfall in Louisiana. Nate was a Category 1 storm whose estimated insured losses are less than 1 billion.
2 PCI, based on data from Insurance Information Institute, Property Claim Services and Federal Emergency Management Agency
THE WILDFIRES OF 2017
While hurricanes devastated parts of the Atlantic and Gulf coasts, wildfires were pervasive throughout the West and Northwest part of the country, especially California. In October, a historic firestorm damaged or destroyed more than 15,000 homes, businesses, and other structures, mostly in and around Napa and Sonoma Counties. This wildfire caused 44 deaths, and represents the costliest wildfire event on record. In early December, uncommonly large fires burned hundreds of homes in the Los Angeles area. The largest of these was the Thomas fire that consumed over 285,000 acres; it is the largest recorded California wildfire. Drought conditions were a catalyst to these and numerous other wildfires including a Montana wildfire that burned at least 1 million acres were in Montana alone. In total, last year’s U.S. wildfires cost $13.2 billion in insured losses and killed 54 people.

OTHER LARGE CATS OF 2017
In addition to hurricanes and wildfires, many other billion-dollar disasters occurred in the U.S. in 2017 resulting in total insured damages of about $10 billion. These events include:

- Extreme drought caused sizable damage to agriculture in the Dakotas and Montana.
- Severe hail, high winds and tornadoes occurred in the Midwest, Texas and eastern states. Denver’s baseball-sized hail resulted in the most expensive hail storm in Colorado history. In addition, two very large tornado outbreaks occurred in the Central and Southern states – with 70 and 79 tornadoes apiece.
- Heavy rainfall, up to 15 inches, in the Midwest caused historic levels of flooding along many rivers.
- A severe freeze heavily damaged fruit crops in the Southeast.
- Heavy, persistent rains across northern and central California led to substantial property and infrastructure damage from flooding, landslides and erosion.

THE IMPACT OF THE 2017 CATS ON THE P/C INDUSTRY
The 2017 year of the CATs, primarily due to Harvey, Irma, and Maria will have repercussions on the property casualty (p/c) insurance industry. According to A.M. Best,7 the expected net underwriting loss in 2017 was $29.3 billion, much greater than its 2016 net underwriting loss.

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5 National Oceanic and Atmospheric Administration.
6 Ibid.
7 A.M. Best, “U.S. Property/Casualty 2018 Review & Preview.”
estimation of $6.5 billion. This will affect the pre-tax operating income, causing it to drop dramatically from $41.1 billion in 2016 to $14.8 billion in 2017. As a result, the 2017 combined ratio is expected to weaken from 100.9 in 2016 to 105.1 in 2017.

Despite the unprecedented underwriting losses in 2017, Best does not foresee any instability in the U.S. personal lines segment in 2018. Given the very strong policyholder surplus of $755.4 billion at year-end 2017, the property casualty industry is highly capitalized to withstand the risks of catastrophic events – even those from last year. With 2017 net written premiums of $554.7 billion, the industry’s low premium-to-surplus ratio (0.734) reveals enough of a cushion to absorb large losses. The insured damages caused by 2017 CATs will not likely create a capacity shortage, and most insurers – especially those with sufficient geographical and product diversification – should be able to cope with their losses and remain solvent.
INTRODUCTION
Floods are the most common and deadly natural disaster in the nation. In an attempt to pro-
vide consumers with available and affordable coverage for catastrophic flood losses, Congress
established the National Flood insurance Program (NFIP) in 1968. Managed by the Federal
Emergency Management Agency (FEMA), this program provides federally-backed flood
insurance to residents and businesses in voluntary participating communities throughout
the country. Flood coverage is mandatory for anyone with a federally funded mortgage on a
home in a high risk flood area.

Private insurers known as “Write Your Own” (WYO) companies partner with the NFIP to
administer the federal flood program. WYO insurers do not underwrite risk or make under-
writing profits, but they get an expense allowance for writing and administering these policies
– under their own names. The federal government is responsible for all program claims and
costs. Flood coverage is identical among all WYO insurers and all rates are established by the
NFIP, not the WYO companies. There are now 67 WYO companies, all of which are regulated
by the states in which they sell flood insurance.

Two major concerns of the NFIP are its current financial condition and the structural
weaknesses in the funding of the program. Since its inception, NFIP rates have not been
actuarially sound by design; the rates for most insured properties, particularly in higher risk
hazard zones, are subsidized below market rates. As a result, the flood program has long
been undercapitalized, with a debt of about $20.5 billion now.

Despite this debt, FEMA makes every effort to ensure the prompt settlement of claims to
NFIP policyholders. Shortly after claims from last year’s hurricanes were filed, FEMA advanced
payments to claimants to help insured flood victims begin their recovery. As of March 15, 2018,
the NFIP and WYO companies had paid $9.6 billion on all claims.1 And in 2017, FEMA obtained
reinsurance, to help manage its flood exposure, extend its claims-paying ability and reduce
the build-up of future debt.

Over the years Congress has regularly renewed and extended the NFIP; its latest reauthoriza-
tion extends through July 31, 2018. The Biggert-Waters Flood Insurance Reform Act (2012) and
the Homeowner Flood Insurance Affordability Act (2014), made landmark changes to move
the NFIP towards risk-based rates. By eliminating certain rate subsidies to increase premium
revenues, these laws were intended to make the federal flood program more financially sound
and allow for greater private sector participation.
THE EMERGING PRIVATE FLOOD INSURANCE MARKET

Historically, flood was considered an uninsurable risk by the private market for a number of reasons including adverse selection whereby people most affected by flood would buy subsidized coverage, causing consumers in other areas to believe risk-based premiums were too high. It was also believed that catastrophic flood losses could negatively impact surplus and lead to private insurance company insolvencies. Regulatory hurdles also limit private insurers from competing with the NFIP since many lending and housing regulators did not recognize non-NFIP policies. As such, few private insurers offered stand-alone flood policies.

Since the passage of Biggert-Waters, the private sector has been more willing to include flood risk in their portfolios – even in coastal areas. It appears a growing desire exists to allocate capital to provide more flood insurance in a private competitive market environment.

Eighty-eight (88) private insurers are now offering stand-alone flood policies and are successfully competing with the NFIP. The 2017 direct written premium volume is $569.5 million, a sizable jump compared to $356.6 million in 2016. This large increase of 60 percent is due primarily to 39 new entrants within the last year. While most of the private market flood insurance has been on the commercial side, it is encouraging that more homeowners may soon have a choice in private market flood insurance. Florida and Pennsylvania have been at the forefront of encouraging the development of private flood insurance markets. Indeed, according to S&P Global, Florida and Pennsylvania are among the top 10 states with the fastest growing private flood insurance market in 2017. This is in no small part due to visionary regulatory activity.
DIFFERENCES BETWEEN THE NFIP AND PRIVATE FLOOD INSURERS

There are many differences between NFIP and private flood insurance. For instance, the NFIP prohibits the denial of coverage to a “repetitive loss property.”\(^3\) Unlike private insurers, the NFIP does not generate loss reserves and since it is not set up to have a capital surplus to cover unexpectedly large events, it does not seek a rate of return for the capital use in the program.\(^4\) In contrast, private insurers must build reserves and capital to cover years of high losses. The NFIP insurance rates are not subject to Federal taxes, whereas private insurers must bear both Federal and foreign taxes.

Rates may vary between the NFIP and private insurers, depending in part on geographical location. A 2017 study by Milliman Inc. and KatRisk, a risk-modeling firm, estimated that flood insurance for roughly 7 out of 10 single-family homes across all flood zones cost less from private insurers than the NFIP.

Private insurers with experience responding to catastrophes, understand the current needs of consumers and the market, and can update programs as needed. Private insurers may also underwrite risks not typically covered by the NFIP. Along this line, the Insurance Services Office, Inc. recently launched a new program that enables insurers to set their own policy limits and provide optional coverage for risks not normally underwritten by the NFIP, such as, property damage to basements and business interruption.

Some insurers’ stand-alone flood policies may contain innovative provisions that respond to lender and borrower needs. Features that may appeal to lenders include backdating, gap policies, and automatic coverage that enhances a lender’s ability to tailor the coverage to its portfolio’s particular characteristics. Insurers’ streamlined services may also help reduce the costs incurred in complying with the mandatory purchase requirements. Further, insurers may have the resources to use new flood-risk assessment technology and data sources allowing a more granular look at flood risk.

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\(^3\) A “repetitive loss property” is any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling ten-year period.

\(^4\) The NFIP collects only enough premiums to pay for claims in a typical historical year; hence, reserves have not been sufficiently built to meet unexpected large events. Biggert-Waters requires FEMA to begin building a reserve equal to 1 percent of total potential loss exposure.
NFIP V PRIVATE MARKET
The presence of additional private insurers may help increase the number of homes and businesses protected by flood insurance which may partly explain the steady decline in the NFIP policies. FEMA data shows that NFIP flood policies have dropped 10 percent, from 5.65 million in 2011 to 5.08 million in 2016. Critics of private market participation in the flood insurance arena frequently cite “cherry picking” as a concern. The allegation is that private companies will only take the most profitable policies from the NFIP. In fact, a CBO report on NFIP Soundness and Affordability indicates that premium shortfalls are largely due to underpricing policies in coastal counties. NFIP policies issued in coastal counties represent three-quarters of all NFIP policies nationwide. In the long-term, reducing the NFIP policy count will lessen the burden on taxpayers.

CONCLUSION
The private flood insurance market continues to grow. According to Deloitte, flood insurance is the largest area for property casualty insurance and reinsurance growth in the U.S., with billions in potential premiums. A larger private market means that consumers will have additional options for purchase of flood insurance. However, a financially sound federal program is still needed. Strong private-public partnerships between stakeholders should improve flood resiliency in the U.S.
The heavy rainfalls from Hurricanes Harvey and Irma (2017) brought extensive flooding, accounting for billions of dollars in flood damage not only to homes, commercial buildings, and infrastructure, but to vehicles as well. Harvey was more of a flood event than a wind event, resulting in an enormous number of cars in the Houston area being submerged under water. According to Car and Driver, one million cars were destroyed by Harvey, making this the worst storm anywhere in terms of damaged cars.

The wrath of both Harvey and Irma demonstrates the importance of having insurance when a vehicle is damaged from flooding. Although flood damage is not covered under a standard homeowners insurance policy, it falls under the comprehensive coverage of an automobile policy. Hence, flood victims can get financial relief for their cars — but only if they have comprehensive coverage.

The massive vehicle damage caused by Harvey and Irma had a huge impact on auto insurers. The latest available data reveal that more than 265,000 personal and commercial auto claims from Harvey were filed, resulting in $3.8 billion of insured losses. Although Hurricane Katrina (2005) ranks #1 in terms of auto claims (350,000), Harvey’s insured auto-related cost was greater than Katrina and Superstorm Sandy (2012), i.e., $2.2 billion and $2.7 billion, respectively. On the other hand, Irma resulted in more than 131,000 auto claims and about $600 million of related insured losses.

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1 Comprehensive coverage pays to repair or replace a covered vehicle that is stolen or damaged by something other than collision (e.g., fire, wind, hail, flood, theft, vandalism and hitting an animal).
2 Property Claim Services and Insurance Information Institute.
Large natural disasters create important opportunities for insurers, reinsurers, federal, state and local officials, business leaders and community leaders to learn and make necessary adjustments to respond to future catastrophic events. The insured losses and damages caused by three extreme hurricanes (Harvey, Irma and Maria) and massive wildfires make 2017 one of the costliest years on record. Valuable takeaways from these events can be used by insurers in collaboration with other stakeholders to review operations and policies and determine how to more effectively manage catastrophic risks and educate the public to be better prepared for future disasters.

A CRISIS IN COVERAGE: TOO MANY UNINSUREDS AND UNDERINSUREDS

One of the most important takeaways from studying the 2017 hurricanes was the large number of uninsured individuals and businesses. Hurricanes can cause a great deal of flooding, and many people do not realize that flood damage is not covered under a standard homeowners policy. As a result, many homeowners who sustain flood damage to homes and autos are often not eligible for insurance support because they did not have flood coverage. Insurance proceeds are the best source of recovery after a natural disaster. While flood victims may get federal aid, it is not a substitute for insurance.

Early estimates by Risk Management Solutions reveal about 63 percent and 68 percent of losses stemming from Hurricanes Harvey and Maria, respectively, were uninsured. About 29 percent of losses from Hurricane Irma also were uninsured.

These uninsured loss statistics are supported by a McKinsey analysis\(^2\) that shows the uninsured flood rates among homeowners in Texas, Florida and Puerto Rico are as high as 80 percent, 60 percent, and 99 percent, respectively. Although flood insurance is not required

\(^1\) Flood is only covered for automobiles insured with comprehensive coverage.
for those who live outside high risk flood-prone areas designated by the Federal Emergency Management Agency (FEMA), homeowners can still obtain this important coverage through FEMA's National Flood Insurance Program (NFIP) or a private flood insurer.

Reasons why people may not have flood insurance, include the following:

• Mistaken belief flood damage is covered under their homeowners' policies.
• Mistaken belief that if they reside outside a high risk flood-prone area, a flood will not occur. While this belief may have been valid at one time, recent studies show that extreme coastal and river flooding is emerging as “the new norm” prompted by rising sea levels and climate change.4
• Liquidated or defaulted mortgages lead to a drop of flood insurance.
• Difficulty understanding the coverage and policy exclusions.
• Mistaken belief that flood insurance may be too expensive.
• Mistaken belief governmental assistance will be available in the event of a flood.

Another key takeaway from studying the 2017 hurricanes was that many people do not have sufficient homeowners coverage to pay for their losses stemming from non-flood hazards such as heavy winds. For example, appropriate coverage amounts for losses from wind may often be underestimated by thousands of dollars. While insurers help homeowners evaluate their coverage needs, homeowners are ultimately responsible for making an informed decision about their policy limits.

Insurance is essential to recovery efforts after a natural disaster. Not only does insurance support efforts to rebuild lives and property after a large loss, but it also helps to stimulate the economy after a large loss. Recognizing the importance of this role, the private and public insurance sector, along with regulators, is taking steps to educate consumers about the importance of having the right type and right amount of insurance to effectively protect against losses after a natural disaster.

INSURER LESSONS ON PRE- AND POST-STORM OPERATIONS
There are other major lessons learned that may help reduce future losses and help disaster recovery efforts function more smoothly in the future. Some of these lessons5 include:

Communication with Policyholders
• Pre-storm communications with policyholders may help emphasize safety and lead to greater protection of property.
• Post-storm communications with policyholders may help with early reporting of claims.
• Early utilization of electronic communication, including social media may help to create continuous communication with CAT victims to advise on emergency services and answer questions.

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3 Federally regulated or insured lenders require flood insurance on mortgaged properties that are located in high risk flood areas. Even if a property is not a high flood risk, a mortgage lender may still require the homeowner to have flood insurance.

4 National Oceanic and Atmospheric Administration.

5 Most of these lessons, or variations of these lessons, are extracted from a presentation given by Florida Farm Bureau Insurance before the Federal Advisory Committee on Insurance on Dec. 6, 2017. To see the entire presentation, go to: https://www.treasury.gov/initiatives/fio/Documents/December2017FACI_FLFarmBureau.pdf.
Pre-storm Operational Preparations
• Facilities – Ensure generators and out-of-state call centers are functional.
• Staffing – Prepare in advance for out-of-state and independent adjusters (including emergency licensing and housing needs).
• Systems – Create plans to immediately implement changes in regulation issued by Insurance Departments, such as, suspended premium billings and cancellations/nonrenewal. Update claims systems as needed.
• Communicate with reinsurers to make sure funds are readily available for paying claims.

Post-Storm Operations
• Advanced technologies (e.g., drones and granular satellite imagery) may improve the accuracy of damage assessments and speed in handling claims.
• Geocoding and blockchain technology may increase claims assignment and settlement efficiency.
• Meeting and talking with victims may help process claims as quickly.
• A local call center may help with initial claim volume and increased communication needs of victims.
• Changes to e-titling rules at the state and federal level may help banks and insurers to expedite procedures to settle total loss auto claims.

ANOTHER LESSON: BEWARE OF SCAM ARTISTS
Insurers are constantly investigating potential fraud practices, especially after natural disasters. These events tend to bring out numerous scam artists who look for ways to take advantage of victims during times of crisis and make a profit. Unscrupulous third-party vendors, unlicensed contractors and public adjusters often reach out to victims and have them sign an “assignment of benefits” to start repair work. By doing so, policyholders essentially give up their claims rights, which can result in exorbitant costs, delays and even lawsuits that ultimately hurt everyone.

Dishonest public adjusters and contractors may charge large upfront fees – e.g., after Superstorm Sandy (2012), some New Jersey residents were “charged as much as 50 percent of their insurance recovery.”\(^6\) Work done by a dishonest contractor may be poor or incomplete and some individuals often file false and inflated claims or use their position of trust to access the homeowner’s Social Security number and other personal data for identity theft. Since public adjusters have a vested interest in the final settlement amount, some commit fraud to increase insurance payouts. In one case, a public adjuster in North Miami Beach pled guilty to first-degree fraud for pocketing $360,000 from 82 clients.\(^7\)

Insurance fraud is a very serious criminal activity, not to be taken lightly. During 2004-2009, the Florida Division of Insurance Fraud made 31 arrests related to public adjuster fraud.\(^8\) State, national and local authorities regularly issue urgent consumer alerts about shady contractors just before and after disasters. More states have passed laws establishing tougher licensing requirements for public adjusters and to prevent contractors from offering inducements to get business. Insurers and regulators are also working together to improve public awareness.

\(^7\) South Florida SunSentinel.com, March 10, 2011.
of fraud. Their anti-fraud messages include avoiding door-to-door contractors, verifying licenses and doing background checks, getting a signed contract, working with insurance agents, and understanding one’s rights. These types of coordinated partnerships have proven to be effective, and more are needed to get the word out.

BETTER PREPARATION FOR THE GROWING FLOOD THREAT
Communities can also gain valuable insights from past natural disasters. Local authorities may recognize the need to plan for and adapt catastrophic events and ensure the community infrastructure (roads, bridges and dams, etc.) is fortified to withstand the forces of a possible natural disaster. Loss mitigation systems along with a strong, uniform statewide building code may help minimize property damage and protect the environment. This is important because responsible land-use policies that ensure loss prevention may spur future growth and land development. In addition, less property damage following a CAT event reduces the need for federal/state disaster aid and can help expedite a community’s recovery. Recovery is a benefit both to society and to the economy.
Catastrophes (CATs) are becoming more frequent and more destructive. Although recovery from the three 2017 Category 4 hurricanes (Harvey, Irma and Maria) is far from over, the valuable insights gained from previous mega-storms enabled insurers and the Federal Emergency Management Agency (FEMA) to become more proactive and better prepared in responding to these types of disasters. Improvements in claims handling capabilities have resulted in shorter claim settlement periods on average and more claims being closed at a faster pace. As a result, disaster victims recover more quickly.

- **Insurers have expedited their claims settlement process.**
  
  On average, a claim from Hurricane Harvey (2017) was closed in 15.5 days, while claims from Hurricane Isaac in 2012 and Hurricane Ike in 2008 (were closed in 25 and 43.7 days, respectively. Three months after Superstorm Sandy wallop New York (2012), the average number of days for a payment to be made (although the claim may not have closed) was 20.4 days.¹

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Notes: Claims represent both those with payments and those without payments. Harvey, Sandy and Ike claims are settled by private insurers only. Sandy claims reflect time of report to payment (not necessarily closure). Isaac claims are settled by Louisiana Citizens Property Ins. Corp.

Sources: Texas department of Insurance, PCI and Insurance Journal article.

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The National Flood Insurance Program (NFIP) has expedited its claim settlement process. Based on FEMA data, 91.4 percent of Irma claims and 94.9 percent of Harvey claims were closed in fewer than 5 months. This timing is similar to that of private insurers that closed 94.6 percent of Sandy claims in 5½ months. In contrast, the NFIP, with the help of “Write Your Own” (WYO) insurers, settled 88 percent of the claims from Hurricanes Charley, Ivan, Frances and Jeanne (all occurring in 2004) within 7 months. It took slightly longer – 7½ months – to close 92 percent of Hurricane Katrina claims and 86 percent of Hurricane Rita claims in 2004.

Notes: Claims for all hurricanes except Sandy were submitted to NFIP. Sandy claims were submitted to private insurers writing in New York.

Sources: FEMA, Insurance Journal article and GAO.

Based on the above results, the NFIP’s has improved its time frame for settling claims. This is especially noteworthy when comparing 124,074 Harvey and Irma claims reported to the NFIP to 33,888 claims from the four hurricanes of 2004. The NFIP’s delay in closing Katrina and Rita claims (about 177,000 and 10,500 submitted, respectively) may have been due, in part, to the “wind vs. water” debate that peaked in 2005. Attempts to determine the cause of damages – “Is it wind or is it water?” – slowed the investigation and settlement process of these two storms.

3 Write Your Own (WYO) insurers collaborate with the NFIP in providing flood insurance to consumers. They write and service the standard flood insurance policy in their own names and process claims, for which they receive an expense allowance. The federal government retains responsibility for underwriting losses.
5 FEMA and GAO.
OVERALL CUSTOMER SATISFACTION HAS GONE UP

Insurers’ improved claims service has not gone unnoticed by others. According to the latest J.D. Power “Claims Satisfaction Study” (2018), overall customer satisfaction among homeowners filing property insurance claims is at an all-time high (860 out of 1,000 points), despite record-high property losses following natural disasters in North America. A Power representative states: “The last two years of record catastrophic losses have put P&C insurers to the test, and many have risen to the occasion, driving overall customer satisfaction levels to new highs.”

Insurer improvements were also observed by the head of a Jacksonville, Fla.-based insurance agency who, in the wake of Hurricane Irma, expressed his approval of insurers’ CAT response in light of the massive volumes of claims. He also noted fewer complaints made by consumers about their inability to access their carriers.6

CONCLUSION

While there is always room for improvement, insurers continue to rise to the challenge of increased CAT events.7 Both the NFIP and private flood insurer claims settlement rate improved. This becomes clear when examining the volume of claims from similar events.

Despite the severe intensity of the hurricanes that caused enormous destruction last year, both the private and public sectors are well positioned to meet the challenges of future complex natural disasters.

The Importance of Establishing and Enforcing Strong, Uniform Building Codes

BACKGROUND
A building code is only the minimum acceptable standard used to regulate the design, construction, and maintenance of buildings for the purpose of protecting lives and properties from the hazards of unsafe structures and conditions. By increasing construction standards to make buildings more resistant to damage, the frequency and severity of property claims will decrease over time and provide a positive stabilizing effect on costs. A study on Hurricane Charley (2004) by the Insurance Institute for Business & Home Safety (IBHS) found a 40 percent reduction in the frequency and a 60 percent reduction in the severity of hurricane-related damage to homes built to stronger building code standards. Less property damage speeds up the recovery process, causes less disruption to families and businesses and puts less pressure on the insurance market.

Not only do strong building codes and mitigation help communities survive and remain resilient, but they reduce the need for disaster assistance funds. A new study by the National Institute of Building Science (NIBS)1 reveals that each dollar spent on hazard mitigation projects results in a long-term savings of $6 in future disaster costs. In addition, for every $1 spent on designing and constructing new buildings to exceed the provisions of the 2015 model building codes developed by the International Code Council, saves $4 in future disaster costs. NIBS estimates that implementation of hazard mitigation projects along with establishing building codes that exceed 2015 model building codes for new construction would prevent 600 deaths, 1 million nonfatal injuries and 4,000 cases of post-traumatic stress disorder.

Not only should a statewide building code be strong, but it is also important that the code be uniform, with the same standards applying to virtually every type of structure (residential, commercial, industrial, schools, farm buildings, etc.) in all jurisdictions of a state. In order to be effective, compliance with the building code is critical — strong enforcement to ensure compliance is a key factor in saving lives and minimizing the impact of a natural disaster on overall losses and premiums.

HOW STATES RANK
Thanks to its aggressive stance, Florida's building codes are now ranked the strongest among 18 hurricane-prone states as determined by the IBHS. In its latest report on assessing state building codes, entitled “Rating the States 2018,” Florida is given a score of 95 (out of 100), one point higher than its score in 2015. Homes and buildings there were able to withstand Hurricane Irma’s powerful winds last year, demonstrating the effectiveness of the state’s building codes. Had these codes not been as rigorous, the damage could have been much worse.

Louisiana has a score of 83 (which is better than three years ago), while Texas, Mississippi and Alabama — also vulnerable to Gulf Coast hurricanes — have among the lowest scores (34, 28 and 27, respectively) because they do not have mandatory statewide building codes. It is distressing that Texas’ 2018 score dropped compared to three years ago; its lax building codes

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contributed to the large losses sustained from Hurricane Harvey. Note: one positive result that came from Harvey is the adoption of new building code regulations requiring builders in unincorporated parts of Harris County, Tex. to adhere to construction standards within a 500-year floodplain, effective Jan. 1, 2018.

### 2018 and 2015 State Scores

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<tr>
<th>State</th>
<th>2018 New Score</th>
<th>2015 Score</th>
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<td>DELAWARE</td>
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In conclusion, the insurance industry supports and seeks to advance building code standards, legislation, and regulation governing construction that is likely to reduce losses. In order to reduce deaths, injuries, and property damage, insurers will continue working with other stakeholders to make sure that building codes are strong, effective and up to date.
THE IMPORTANCE OF ESTABLISHING AND ENFORCING
STRONG, UNIFORM BUILDING CODES


In September 2017, two powerful hurricanes (Irma and Maria) slammed into different parts of the Caribbean. First, Hurricane Irma skirted Puerto Rico and left one million residents without power. Two weeks later, Maria completely devastated this U.S. territory and its population of 3.47 million people. Regarded as the worst natural disaster to hit the island in nearly 90 years, Maria's 155 mph wind speeds knocked out power throughout the entire island, destroyed homes, uprooted trees, and caused widespread flooding. Tens of thousands of residents left Puerto Rico, while many more are living in temporary shelters on the island; thousands of businesses have shut down. Nearly six months after the storm, electricity still has not been fully restored to about 200,000 families and businesses.¹

The recovery from the two hurricanes has been extremely slow, due largely to the fact that most homeowners in Puerto Rico do not have insurance. Air Worldwide states that only about one-half of the island's residents have homeowners coverage (lower than the U.S. average).

In stark contrast, about 90 percent of Puerto Rico's commercial buildings (many of which are pharmaceutical companies and hotels) are covered; damage to these properties contributed to most of Maria's $20 billion insured commercial loss.

Additionally, an overwhelming majority of residents in Puerto Rico do not have flood insurance. According to the Wharton Risk Management and Decision Processes Center (University of Pennsylvania), fewer than 4 percent of Puerto Rican households have flood insurance. About 0.4 percent of the island's housing units have flood coverage from the National Flood Insurance Program (NFIP), and the remaining 3.6 percent have flood coverage through the private sector.²

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¹ USA Today article, March 5, 2018.
Among the homeowners who do have residential flood insurance policies in Puerto Rico, roughly 90 percent are policies issued by private insurers which is significantly higher than the U.S. average of about 2 percent. One possible reason for the higher rate of private flood rate may be because the NFIP rates do not account for different construction practices, making many private flood policies less expensive than NFIP policies. Another reason may be that private flood insurers offer flexible coverage options, e.g., higher coverage limits and flood coverage paired with vandalism coverage.3

Due to the extensive damage to roads, bridges, the power grid, the sanitation system and lost tourism revenue, Puerto Rico’s uninsured losses from Irma and Maria are very high. Reasons for the high uninsured rate on the island may include the following:

• With an average household income of about $19,000, people may not be able to afford insurance. Before Irma and Maria, about 46 percent of the population were living below the poverty level.4

• Residents do not want to for the reason stated above, pay a deductible on a standard homeowners policy when damage occurs. Rather than getting homeowners insurance, they may prefer to rely on the potential of receiving government assistance.

• Although loan institutions require insurance on mortgaged properties, there are only slightly more than 500,000 active mortgages in Puerto Rico. More than 10 percent of these mortgages are delinquent (three times higher than the U.S. average), threatening owners with foreclosures by the lenders.5

• Informal building is quite common in Puerto Rico. These homes, ranging in the hundreds of thousands, are usually constructed by the owners without a mortgage and are very basic. They tend to be built without permits and in squatter communities. Since they have no mortgages, homeowners insurance is not required or obtained.

4 Data USA, https://datausa.io/profile/geo/puerto-rico/.
5 Black Knight Financial Services.
• Other homes in Puerto Rico have been passed down from one generation to another. These homes are likely located in depressed areas and do not have a mortgage.

• Maintaining reasonable flood standards in Puerto Rico may be too expensive for many municipalities and counties. As such, the 11 percent of Puerto Rico residents who live in high-risk flood zones may not purchase flood insurance.

It will take many years for Puerto Rico to fully recover from Hurricanes Irma and Maria. Without insurance, the territory’s economically depressed communities may struggle to effectively rebuild. Providing relief to the island is especially difficult, given its current debt crisis (even before the hurricanes struck) and geographic location. Homeowners and communities whose homes and properties were destroyed or badly damaged will have to rely on low-interest federal aid and other public or charitable sources. Despite a bleak outlook, the magnitude of the devastation caused by Irma and Maria could present an unprecedented opportunity for Puerto Rico to rebuild and modernize its infrastructure and buildings.

6 https://medium.com/living-beyond-floods/96-uninsured-in-parts-of-puerto-rico-to-be-hit-hardest-by-hurricane-irma-683d87f465c1. The population of the U.S. Virgin Islands (105,000) is very small compared to Puerto Rico’s population.
The Risk of Wildfires is Growing

BACKGROUND
According to the National Interagency Fire Center, roughly 71,500 wildfires (aka wildland fires or forest fires) burned 10 million acres of land in the United States in 2017.1 Each year, hundreds if not thousands of homes and buildings are destroyed by wildfires – 4 out of 5 wildfires are usually started by humans. They can sometimes last for weeks, consuming large portions of land, causing numerous fatalities, destroying homes and communities that could be vulnerable to secondary events such as mudslides. Conflagrations are most prevalent in the Western part of the U.S., where heat, drought and frequent thunderstorms create optimal wildfire conditions.

Wildfires were the second most costly natural disaster in the U.S. in 2017. These events are becoming more intense and more destructive. During the 10-year period, 2007-2016, economic losses caused by wildfires totaled roughly $15.8 billion. In 2017 alone, wildfire damage was higher at $16.2 billion.2 In terms of insured losses, wildfires cost about $9.3 billion during the period of 2007-2016, compared to insured payouts of $13.2 billion in just 2017.

California bore the brunt of last year’s wildfires. Two massive fire outbreaks occurred in October and December, killing at least 46 people and damaging or completely destroying 16,000 homes and more than 700 businesses.3 Specifically:

- From October 6 to October 25, wildfires spread through eight counties in the Napa Valley region, consuming 245,000 acres of land and destroying more than 8,700 homes and other structures. At least 23 people died.

Source: PCI based on Insurance Information Institute graph (all losses are adjusted to 2017 dollars)

2 PCI, based on Insurance Information Institute data and Aon Benfield, “Weather Climate and Catastrophe Insight.”
THE RISK OF WILDFIRES IS GROWING

• In December, five major fires ravaged Southern California, destroying over a thousand homes and buildings. One of these blazes, known as the Thomas Fire that impacted Santa Barbara and Ventura Counties, was the largest wildfire ever recorded in the state – Thomas caused up to $2.5 billion in insured losses.

• The California Department of Insurance reports that the cost of insurance claims from the October-December fires reached more than $12 billion, making the 2017 fire season the costliest on record.4

MORE PEOPLE AND HOMES ARE VULNERABLE TO WILDFIRES

Although large wildfires typically occur in western states, the risk is increasing throughout the country as newer homes are built near wildlands. The “wildland-urban interface” (WUI) – i.e., areas where homes are built near or among lands prone to wildland fires – is growing in size, resulting in more conflagrations that threaten lives and structures. By 2030, it is estimated that this area will cover about 126 million acres in the U.S.5 Within the perimeter of recent wildfires (1990–2015), there were 286,000 houses in 2010, compared with 177,000 in 1990.6

In terms of acreage, WUI areas are most prominent in Georgia, North Carolina, Pennsylvania and Texas. Each of these states has approximately 10 to 13 million acres of WUI. Two states with the greatest number of people living in a WUI area are California (11.2 million) and Texas (8 million).7 Verisk, a leading data analytics provider, reports that Montana and Idaho have the highest proportion of households, respectively 28 percent and 26 percent, identified as high or extreme wildfire risks.

4 Insurance Information Institute.
PRE-DISASTER MITIGATION APPROACHES

In light of the growing number of wildfires and other natural catastrophes, communities should be prepared for future disasters. Greater emphasis on pre-disaster mitigation may help ensure that communities are well-equipped to withstand catastrophic events of all kinds. The rebuilding of communities in the wake of wildfires may also present opportunity to adequately prepare those communities for future disasters.

Some steps that can be taken to help combat the threat of wildfires include:

- **Property Mitigation**: Preparing one’s home by removing fuels, is critical to providing the best first line of defense for homes against wildfires. PCI supports private public partnerships with local governments and communities to implement mitigation programs for individual homes and communities.

- **Building Codes**: There are scientifically proven building materials and methods that harden homes against the threat of wildfire including fire resistant roofing materials and siding. Wildfire building codes can ensure that communities and individual homeowners build homes to proven standards to protect homes.

- **Financial Preparedness**: Prior to a wildfire, consumers should consider an annual insurance check-up to ensure they have proper coverage. Taking a video of home inventory and providing it to your insurance company can assist the consumer and company in determining the correct amount of coverage.

- **Forest Management**: Currently, many communities in the Wildland Urban Interface (WUI) abut National Forest land. Appropriate management of these lands including reducing wildfire fuels through tree thinning and prescribed burns, as well as, other mechanisms can ensure that fires burn with less intensity around the WUI. Less intense fires allow homeowner mitigation efforts to be more effective and make it safer for professionals fighting fires.

- **Federal Land Use Evaluation**: Regarding wildfire mitigation, in its 2018 Policy Book, the National Cattlemen’s Beef Association supports legislative and regulatory changes requiring managers of all federal lands (including lands managed under the Conservation Reserve Program, and Endangered Species Act) to utilize multiple-use vegetation management activities such as livestock grazing, thinning, and timber harvesting to prevent the build-up of fuel loads that can perpetuate a catastrophic fire. The NCBA encourages the serious consideration of utilizing livestock grazing as a first alternative for, among other things, reducing wildfire potential and increasing public safety. The NCBA also supports prescribed burning to reduce wildfire fuel load.
INSURERS ARE MORE PREPARED TO RESPOND TO WILDFIRES

Insurers are improving the quality of their inspection process, with inspectors looking out for fire hazards such as brush buildup around homes. Additionally, there has been an increase in the number of inspections, with insurers making a more concerted effort to not only inspect new business but also perform regularly scheduled inspections as policies are renewed.

Homeowners suffering losses in a wildfire are often victimized a second time by unscrupulous contractors. Insurers engage in due diligence by investigating potential fraud that can result from natural disasters. For example, it is not uncommon for unscrupulous contractors to file false insurance claims after a wildfire. In addition, there may be inflated claims for alleged smoke and ash damage. Some unlicensed public adjusters may raise a red flag if they file false and inflated claims for their clients. Insurers consistently work with their policyholders to fight against dishonest service providers.

CUSTOMERS HAVE SATISFACTORY INSURANCE EXPERIENCES

A recent J.D. Power survey found that customer interaction with their insurers after filing a homeowners claim was favorable, despite record-high property losses in 2017. In fact, the overall customer satisfaction was at an all-time high (reaching a score of 860 out of a possible 1,000). According to Consumer Reports, the single best predictor of how satisfied customers are is based on the carrier’s damage estimates. Good customer communication paired with insurer access influences high customer satisfaction levels.

CONCLUSION

In light of the growing demand for new housing, especially in WUI areas, the human and economic consequences of being in the path of a deadly wildfire are increasing. Families and businesses in these areas need to be better prepared and take proactive measures to safeguard their properties and protect themselves financially by having adequate insurance coverage. To better manage the wildfire risk, insurer best practices include working with policymakers to reexamine the efficacy of building codes and land use policies that impact wildfires.