STATE CAPITOL
ROOM 2195
SACRAMENTO, CA 95814

TEL (916) 651-4110
FAX (916) 266-9353

California State Senate

SENATE COMMITTEE ON INSURANCE

WILLIAM W. MONNING
CHAIR

CONSULTANT
HUGH SLAYDEN

COMMITTEE ASSISTANT
INEZ TAYLOR

Informational Hearing

CATASTROPHIC RISK IN CALIFORNIA:
Are Homeowners and Communities Prepared?

Wednesday May 14, 2014
Room 112

Summary

A major earthquake in the San Francisco Bay Area or in southern California could have an even greater impact on communities than Hurricane Katrina had in Louisiana and Mississippi. According to the Bureau of Labor Statistics Monthly Labor Review in 2007, the exposures in Alameda County from a magnitude-6.9 earthquake on the Hayward Fault would be much greater than Katrina—the country's worst natural disaster in history.

There hasn't been major earthquake event since the Northridge earthquake in 1994 precipitated a homeowners' insurance availability crisis, but California is almost certain to experience a similar disaster, or worse, in the next 30 years.

In October 2003, wildfires in southern California destroyed more than 3,500 homes and damaged thousands more in the costliest fire event since the fires spawned by the 1906 San Francisco earthquake. Insured damage exceeded $3 billion.

California is facing record drought conditions at the same time that residential areas are expanding into traditionally high risk fire areas. The chances of a major fire that damages or destroys large numbers of homes, or whole communities is growing at the same time that some insurers are exiting the homeowners' insurance market for such high risk properties.

Insurance is the primary mechanism to spread losses and rapidly pay defined amounts for the repair of earthquake or fire damage. It is essential for the economic recovery of individuals, families, businesses and communities. Unless property or business owners take action before a

disaster to protect themselves by mitigating or transferring some of the risk, they--or as many hope, the government--will bear the cost of such catastrophic losses. The overwhelming federal disaster relief effort after Hurricanes Katrina and Sandy reinforced the expectation that the federal government is the de facto "insurer" of last resort for mega catastrophes.

The intent of this hearing is to examine the current state of the residential insurance market, whether homeowners are adequately insured against catastrophic risk, including earthquake and the threat of major fires. How can insurance and pre-event mitigation be increased? Is there more the Legislature could or should be doing to increase community readiness and preparedness for a major earthquake or massive fire?

Background

The magnitude 6.7 Northridge Earthquake in 1994 was the costliest natural disaster in the history of California, with more than $25 billion in property damage, and $49 billion in economic losses to the region and state. Seven major freeway bridges in the area collapsed, and 212 bridges were damaged, disrupting traffic in the Ventura-Los Angeles region for weeks following the earthquake. Communication, water and power distribution systems were affected and several fires started. At least 50% of small businesses were still not open nine months after the disaster.

Prior to the Northridge earthquake, insurers dramatically underestimated their potential damage from such moderate earthquakes, and many found themselves dangerously overexposed to earthquake risk. One major insurance company was driven to near insolvency. Insurance rating agencies took note of this increased exposure and downgraded many companies. As a result, insurers didn't want to touch California's homeowners' insurance market anymore because California required all insurers offering homeowners' insurance in the state to also offer earthquake insurance. The only way for a company to reduce its earthquake exposure was to seriously restrict the sale of new homeowners' policies, or to stop writing insurance entirely. This led to the creation in 1996 of the California Earthquake Authority (CEA). The CEA only offers residential earthquake insurance.

Modelling by risk experts has shown that a major earthquake in the San Francisco Bay Area or in southern California could have an even greater impact on homeowners, businesses, employees, and payrolls in the area than Hurricane Katrina had in Louisiana and Mississippi. That region had the benefit of higher insured losses through the National Flood Insurance Program (NFIP). These disasters show that if communities are inadequately prepared, disasters of similar severity, paired with our low level of insured risk, could cripple California's economy.

We are not alone in trying to deal with catastrophic risk. Japan's March 11, 2011, earthquake and tsunamis was the most expensive earthquake catastrophe ever, with more than 15,000 lives lost and economic losses of $300 billion, only approximately $35 billion of which was insured loss. That earthquake increased awareness of the economic challenges of recovery beyond protecting human lives and property to protecting economic interests. Three years later it continues to impact domestic and multi-national business operations and has had long term economic consequences such as loss of market share, higher unemployment, and loss of business entirely.

The 2012 earthquake in Christchurch, New Zealand devastated the central business district, but more than $12 billion of the $15 billion in property damage from that quake was insured loss. According to the British unit of brokerage and risk management firm Marsh LLC, the New Zealand quake had $23 billion in total economic losses and $15.6 billion in insured losses, including life. New Zealand had a relatively high percentage of insured losses in that event as a result of its government-run Earthquake Commission which provides mandatory natural disaster insurance (including floods, tsunamis, landslides, volcanic eruptions and hydrothermal activity) up to $100,000 NZD for residential property. As a result of the very high levels of insurance, Christchurch has made dramatic progress in recovering from that earthquake. Although homeowners pay an insurance premium, the amount is capped and placed in a Natural Disaster Fund. Any coverage beyond that provided by the Commission is paid through private insurance.

The low frequency of earthquake disasters, compared to other natural catastrophes, tends to shape the perception that earthquake risk is much lower than it actually is, even in places where there have been very deadly and damaging events like California. At the same time, the science of measuring earthquake risk has improved dramatically since Northridge. Risk Management Solutions (RMS) evaluated the potential impact of a repeat of the 1906 San Francisco earthquake for the 100th anniversary of the earthquake in 2006. They estimated a total economic loss of $260 billion. In addition, RMS estimated that an M 7.0 earthquake rupturing the southern and northern Hayward Fault would cause $210 to $235 billion in total damage and an M 6.8 earthquake rupturing the southern Hayward Fault (a repeat of the 1868 earthquake) would lead to $112 to $122 billion total damage.

The California Earthquake Authority

The CEA is a privately financed, but publicly managed entity, regulated as a private insurer by the California Department of Insurance (CDI). It has a five-member Governing Board that includes the Governor, State Treasurer, Insurance Commissioner, and non-voting representatives of the Speaker of the Assembly and the Senate Rules Committee. The CDI must approve all CEA rates, just as with any insurer. Rates must be actuarially sound, and there is no government backstop or taxpayer obligation. If the CEA exhausts all available capital and revenue and is unable to pay claims, the CEA may issue revenue bonds not to exceed $1 billion and can impose a post event assessment on CEA policyholders to repay that funding. If that still is insufficient, the CEA can pro-rate

the payment of claims. Claimants have no recourse to the California Insurance Guarantee Fund.

The CEA is a quasi-governmental entity--its Governing Board has only three voting members—the Governor, state Treasurer and Insurance Commissioner. This governmental control has been critical to the CEA's exemption from federal income tax. Operationally, the CEA is run like a private insurer, and is regulated as such by the CDI, but the CEA cannot sell its insurance directly to consumers. At the same time, major decisions are not made like a private insurer. Because of open meeting laws, the three Governing Board members can not consult with each other, except at publicly noticed meetings. They are elected officials, not insurance professionals, and make decisions based on different criteria than would be used by executives of a private insurer. As a result, there has been some friction between the Governing Board and its participating insurers (PI) over the CEA's financial management.

In order to sell CEA policies, in effect transferring their earthquake risk to the CEA, an insurer must become a "participating insurer," make a specified capital contribution to the CEA, and agree to become subject to specified and limited industry assessments to increase the CEA's claims paying capacity in the event of a major earthquake. The statute establishing the CEA required that insurers with a cumulative homeowners' market share of 70% of California's total residential property market participate in the CEA for it to become operational. There are currently 19 PIs representing approximately 73% of the total residential homeowners' market in California. Insurers who have become PIs may subsequently withdraw from the CEA under specified conditions, but if any withdrawal reduces the cumulative insurer participation rate to less than 65% of the total residential market, the Insurance Commissioner is required to make recommendations to the Legislature for the possible termination of the CEA. Such an event could be triggered by the withdrawal of any one of the top four PIs—State Farm, Allstate, USAA or Farmers, who cumulatively write more than 80% of CEA policies. To date, only one PI has withdrawn from the CEA.

The PIs are responsible for selling CEA policies and adjusting claims after an earthquake. In return, the insurers are compensated for agent commissions and administrative adjusting costs. Even though they don't bear the risk on the policies themselves, however, the insurers have little incentive to aggressively market CEA policies, and some PIs sell significantly more CEA policies relative to their residential market share than others. A PI's liability for post-earthquake assessments is driven by its market share of CEA policies, not its overall homeowners' insurance market share. The more CEA policies a PI sells, the bigger its potential assessment obligation. In addition, the PI is not compensated for the costs of mailing the required CEA availability notifications to homeowners or processing the sale of a new policy.

In order to purchase a CEA policy, a homeowner must have a homeowners' insurance policy from a PI. The renewal date for the CEA policy is the same as the homeowners' policy. By statute, the CEA policy provides more limited coverage than a standard homeowners' policy, and specifically excludes coverage for non-dwelling items such as

swimming pools, patios and detached structures. For a homeowner living in a high risk area, that earthquake "mini-policy" can be significantly more expensive than the underlying homeowners' policy. Until 2012, earthquake policy choices were generally limited to a 15% or 10% deductible, and policy limits were based on the limits in the underlying homeowners' policy. In effort to lower premiums and make coverage more attractive, homeowners now have more options, including the choice to buy or not buy personal property and loss of use coverage in order to lower their premium. The high deductible remains a significant obstacle to increasing the take-up rate for CEA policies. For a $300,000 home, for example, a homeowner with a 15% deductible would have to experience more than $45,000 in damage to make a claim for dwelling damage. In order for a house to sustain damage to at least 15% of its value, the house must be located within 20 miles of the fault or on poor soil condition. Because damage for most homeowners generally falls under the deductible threshold, lowering the deductible would significantly increase premiums. As property values and replacement costs have risen over time, so has the absolute dollar amount of this deductible, reducing the value of the coverage. The CEA's contract also contains various exclusions and tight caps on contents and living expenses.

It is likely that one of the biggest reasons for the low take-up for earthquake insurance is that, unlike flood insurance in flood zones and wind peril policies in Florida, mortgage lenders do not require homeowners to purchase earthquake coverage.

> The CEA has conducted market research determine why take-up rates are so low. What are the primary reasons homeowners in high risk areas do not purchase earthquake insurance? The CEA has lowered rates by about 45% over the past several years, but premiums have not gone down. Why? Are premiums the primary obstacle? We know the statewide take-up rate is currently less than 11%. Does the CEA have data on the take-up rates in high risk areas such as the Hayward Fault or the Southern San Andreas? Does the CEA provide incentives, including premium reductions, for homeowners who retrofit? If a homeowner lives in a high risk area but can't afford a full replacement policy, should they be able to purchase more limited coverage that would cover at least some amount of loss? Many consumers now buy many kinds of insurance online, including auto and homeowners insurance. Would consumers be more likely to buy earthquake insurance if they could buy it online directly from the CEA?

Condominium owners face unique challenges in obtaining earthquake coverage. The CEA statute provides coverage for condos, but specifically limits that coverage to interior structural components, personal property, loss of use, and loss assessment coverage if the homeowners association imposes an assessment on condo owners to repair damage to common areas following an earthquake, or for decreased valuation if the HOA does not have adequate insurance or chooses not to rebuild. The maximum loss assessment and loss of value coverage available to condo owners is $75,000. There is no requirement that homeowners associations purchase commercial earthquake insurance, and many do not, even in high risk areas. That leaves condo owners who may want full coverage for the value of their investment with only two choices, accept significant under-insurance and risk their investment, or move. Given the significant number of Californians opting for condominiums as a result of both high real estate prices and convenience, it may be time to rethink the approach to ensuring this large and growing segment of the market so it has the ability to fully protect itself against catastrophic loss.

The Private Earthquake Insurance Market

The CEA currently writes about 73% of all residential earthquake insurance in the state, with about 840,000 policies, but there are still more than 150 private insurers writing at least some residential or commercial earthquake policies. GeoVera, a domestic California insurance company, is the second largest earthquake insurer in the state after the CEA, with about 7% of the total market (including commercial) and more than 85,000 policies in place in 2012. Other private insurers include Chartis Property Casualty (3rd), and Zurich American Insurance (4th).

Insurers use deductibles to prevent their probable maximum loss (PML) from bankrupting the company after a major event. PML is an estimate of the largest loss a company might incur from the coverage of a specific residential or commercial property, or for a portfolio of properties in the largest probable event. Because every insurance company has a specific amount of financial resources, insurance managers need measures to quantify the potential loss that the company might sustain from a catastrophic event. An insurer's capacity is the maximum amount of exposure, or possible losses, that an insurer is willing to accept. This capacity is a business decision that a company makes to ensure a certain return for its policyholders (in a mutual company) or a stock value and dividend rate (in a stockholding company).

The fundamental business goal is the ability to survive their insured obligations in a major earthquake. As a result, for insurers the art of insuring natural catastrophes generally follows a strategy of limiting the potential insured loss in each location where an earthquake is likely to occur. For instance, the CDI has divided the state into eight earthquake zones (Zones A-H). Assuming that the damage effects of any earthquake in one zone cannot extend into another zone, an insurer could limit the number of

earthquake policies to an equal number in each zone. In that way, an earthquake could affect at most only one-eighth of the policies at one time.

Under current federal law, insurance premiums which are collected and not used for claims arising within the year of collection are taxed as insurer profit. There is no ability to reserve profits or accumulate capital for future losses. Because of the long periods of time between major earthquakes, much of the consumer's earthquake insurance premium cannot be held by non-CEA insurers in a catastrophic insurance reserve. Instead, these consumer dollars (which consumers think are paying for their insurance protection) have to be used annually to pay federal taxes.

The result is a very inefficient pricing system for the coverage sought. The higher the ambiguity regarding the probability of a specific loss and its magnitude, the higher the premium will be. As a result, premiums for catastrophic risks are higher than for non-catastrophic risks. In good years, the rates may seem excessive to homeowners and policymakers.

In addition to spreading the earthquake policies geographically and limiting the possible insured loss from any one earthquake, an insurer can look for a risk taker, a reinsurer. For instance, one insurance company might insure a $100 million commercial building for earthquake damage and then make a contract with nine reinsurers to insure $10 million of that building each. In the event of a damaging earthquake, the insurance company and each of the reinsurers would pay only one-tenth of the loss each. Using reinsurance is a common way of making a risk more insurable.

> Should federal law be changed to allow insurers to set aside catastrophic risk premiums in a tax free reserve for low frequency high impact risks such as earthquake? Would this incentivize more private insurers to reenter the earthquake insurance market? If an insurer could allocate funds to a trust or separate account which they could accumulate tax free and be withdrawn only for payment of claims following predefined triggers, would it lower the cost of catastrophe insurance?

Threats to the Financial System

Under federal law, property owners who wish to buy, build, or improve structures in Special Flood Hazard Areas (SFHA) are required to purchase flood insurance to secure financing. Federally regulated or insured lenders must determine if the dwelling in in an SFHA and must provide written notice of flood insurance requirements. There is no similar law at the federal or state level requiring earthquake insurance to secure financing.

A common refrain when discussing the need for or lack of earthquake insurance is that the best earthquake insurance is a mortgage. A leading question when considering whether to buy earthquake insurance is the level of equity one has in their home. The more equity, the more reason there is to buy. If a home is seriously damaged or destroyed

in an earthquake, many homeowners with no insurance and little equity may simply walk away from the home. Prior to the recent housing crisis, it was widely believed that homeowners would not view walking away from a home—and mortgage--as a desirable option. During the recent recession, however, property owners did walk away from highly leveraged properties, leaving whole communities devastated and banks, including many community banks, taking significant losses.

In the Northridge earthquake, multi-unit structures, including condominiums, sustained the greatest damage and condominiums specifically contributed to a high percentage of default losses by the Federal Home Loan Mortgage Association (Freddie Mac). In 1995 Freddie Mac announced it would require earthquake insurance on any condominium loans it funds in high risk earthquake zones, or impose a financing premium. All of California is considered a high risk zone for Freddie Mac financing purposes. A report prepared for Freddie Mac in 1996 concluded the following:

> "Until Northridge, the mortgage industry had emerged financially unscathed from disasters such as Hurricane Andrew, the Oakland fires and the Midwest floods. This time, however, the insurance industry was under no obligation to pay. As the number of loan defaults mounted, the mortgage industry effectively became the insurer of last resort. After foreclosure expenses, property repair costs, lost income from interest, write-downs of loan balances and additional administrative costs, mortgage-related losses totaled, by our estimates, $200 million to $400 million.
>
> "Determined to avoid earthquake losses in the future, some mortgage holders are fundamentally changing the way they manage earthquake risk. If most mortgage market participants adopt similar strategies, the entire housing-finance system will benefit. The effectiveness of these changes fades, however, unless they are coordinated with similar changes taking place in the property-insurance industry and state and federal governments."

The report concluded: "If insurance penetration rates, policy benefits and federal post disaster relief decline, mortgage-related losses will multiply further."

Despite Freddie Mac's action to restrict lending for condominiums, earthquake insurance is still not generally required by mortgage lenders as a loan condition, and lenders rarely require earthquake insurance. In 2000, both Freddie Mac and the Federal National Mortgage Association (Fannie Mae) added earthquake as a hazard for which a lender may require insurance, but it has had little impact on lenders.

The CEA statute itself states that if both Freddie Mac and Fannie Mae begin requiring earthquake insurance for single family homes (other than condominiums or townhomes), the CEA would have to stop issuing policies within 180 days. This is because introducing mandatory residential earthquake insurance in California would exceed the current financial capacity and capabilities of the CEA. In such a scenario, the California

Legislature would convene to consider whether the CEA should continue to write earthquake insurance.

The CEA has analyzed the impact of requiring mandatory residential earthquake insurance and concluded it would exceed the current financial capacity and capabilities of the CEA. If the CEA were to fail or become financially unsound, insurance companies offering homeowners' policies would again be obligated under law to offer earthquake insurance as a condition of doing business in this state, and many might again simply cease selling homeowners' insurance.

> Why have lenders not required earthquake insurance in high risk areas? Should homeowners have to bear more of the burden of living in a high risk zone? Should lenders bear some risk if they don't require earthquake coverage? What happens if thousands of homeowners with major earthquake damage simply walk away and default on their loans? Will lenders then refuse to lend just as residents and communities need even greater resources to repair and rebuild? If lenders did require earthquake insurance, where would the insurance capacity come from if not the CEA?

Catastrophic Fire Risk and the FAIR Plan

Southern California was scorched by more than 12 separate wildfires in October and early November 2003. Together, they destroyed or damaged more than 2,800 structures in San Diego, San Bernardino, Ventura, and Los Angeles Counties. The two costliest were the Cedar Fire and the Old Fire—each led to almost identical insured losses of about $1.4 billion[1]. In October 2007, Southern California was hit particularly hard again by an outbreak of wildfires that resulted in the destruction of more than 3,000 buildings. In 2008, fire destroyed more than 1,000 properties, with insured losses of more than $800 million. The most destructive fire in California to date was in October 1991 in residential areas in the hills of Oakland. Its insured losses were $2.9 billion in 2014 dollars.

As urban development continues to encroach on the wilderness fringes, the risk is likely to increase in the future. More than 2 million homes in California are located in high or extreme fire risk zones. A Risk Management Solutions and ImageCat, Inc. analysis published in 2008 found that from 1997 to 2007, close to 1,350 structures burned on average each year, with an estimated annual insured loss of some $490 million – nearly twice the long-term average. Moreover, while on average, less than 10 percent of the burnt areas in the U.S. are in California, around 70 percent of the total insured losses are from properties in Southern California. The counties between Santa Barbara and San Diego house some 60 percent of the Californian population who have been especially hard hit by wildfires.

The California Fair Access to Insurance Requirements ("FAIR") Plan was created by state legislation in 1968 following brush fires and riots in the 1960's that led many insurers to exit urban areas or neighborhoods as too risky to insure. Its stated purpose is

---

[1] All losses calculated in 2014 dollars

“to assure stability in the property insurance market for property located in the State of California,” and to “assure the availability of basic property insurance….” It is not an insurance company, but an insurance pool established to assure the availability of basic property insurance to people whose property has been designated as “high risk” and have been unable to obtain insurance in the voluntary insurance market. It is referred to as the “insurer of last resort.” Applicants for FAIR Plan coverage must show that they have been denied insurance coverage by at least three insurance companies.

The FAIR Plan is a private association based in Los Angeles comprised of all insurers licensed to write property insurance in California. All insurers conducting property business in California must be a member of the Association. FAIR Plan profits and losses are shared by its members in direct proportion to their market share of property insurance written in California. The FAIR Plan is not a state agency and no taxpayer funds are involved.

The FAIR Plan offers a bare bones fire insurance policy for both the structure and contents. No coverage is provided for liability or coverage for other perils such as burglary. The homeowner or business generally must also purchase a "wrap around" policy or other supplemental coverage from the private insurance market when purchasing a FAIR Plan policy.

According to data from the CDI, the FAIR Plan’s market share for fire policies has fluctuated, from a high of 18.23% in 2005 to 7.46% in 2012. It increased during the mid-2000s as a result of major fires that destroyed a large number of homes, and the departure of several large insurance carriers from the California market.

Nonetheless, the FAIR Plan share of the homeowners’ insurance market remains very small. With approximately 130,000 FAIR Plan policies in place in the state, including commercial coverage, only about 20,000 of those policies are in brush wildfire zones. The majority of its policies are in urban and inner city areas. Even if some insurers have opted to stop writing high wildfire risk and some homeowners are receiving cancellation notices, there apparently remain many insurers willing to offer homeowner policies, possibly requiring more effort on the part of the homeowner in high risk areas to secure coverage.

> The committee has heard anecdotal evidence that insurers are growing reluctant to write policies in high risk fire areas. Nevertheless, the FAIR Plan market share appears to have decreased significantly over the past several years. California has not experienced a major fire with significant residential losses since 2008, but ongoing drought conditions increase the likelihood of one or more major fires in the coming years. Is there a shortage of insurers willing to write this risk? Could there be an availability crisis if California experiences one or major fire events in the near future?

Is National--or State--Catastrophe Insurance or Guarantee the Answer?

Natural disasters have become an increasingly expensive problem all around the country, including floods, hurricanes, tornados, earthquakes, wildfires and drought. The seeming increasing frequency of major natural disasters, including Hurricanes Katrina and Sandy –some of the costliest natural disasters in U.S. history--has prompted calls for some form of national catastrophe insurance protection. Hurricane Katrina caused more than $140 billion in damage and $41 billion in private insured losses, according to the Insurance Information Institute. Disaster losses are expected to escalate in the coming years, in part because of increases in development along the nation's coasts. According to one catastrophe modeling company, catastrophe losses will double every decade due to growing residential and commercial density and more expensive buildings.

The principal difference between Hurricane Katrina and a future Hayward Fault earthquake involves the role of catastrophe insurance in funding reconstruction and recovery. Following Hurricane Katrina in 2005, a total of $70 billion in insurance payments—53% of the economic loss— including payouts from the NFIP, were made to residents and businesses to help rebuild and recover in coastal Louisiana and Mississippi. In contrast, only between 6% and 10% of the total residential losses and between 15% and 20% of the commercial losses of a major Hayward Fault earthquake are expected to be reimbursed by insurance[2]. Overall, insurance payments will cover between 10% and 14% of the total loss—and total between $12 and $30 billion.

Currently, the only national disaster insurance for homeowners is provided through the NFIP, part of the Federal Emergency Management Agency. Flood, like earthquake coverage, is generally excluded under homeowners' policies and many commercial property policies. The NFIP makes federally-backed flood insurance available to homeowners, renters, and business owners in exchange for state and community floodplain management regulations that reduce future flood damages. Much like CEA policies, NFIP policies are sold through private insurers who issue the policies and adjust claims. NFIP also requires Federal agencies and federally insured or regulated lenders to require flood insurance on all grants and loans for acquisition or construction of buildings in designated special flood hazard areas, referred to as the Mandatory Flood Insurance Purchase Requirement. Special flood hazard areas are those within a floodplain subject to a 1 percent chance of flooding in any given year, commonly referred to as the 100-year flood. Only about 1 percent of homeowners outside the 100 year flood zone purchase flood insurance.

Is Federal Help on the Way?

In 2005, the insurance commissioners of California, Florida and New York proposed a national catastrophe insurance program that would include earthquake and hurricane risk. The goal was to spread catastrophic risk broadly among insureds, insurers, reinsurers,

---

[2] Although fewer businesses carry earthquake insurance, those policies are higher value and are likely to result in larger payouts.

states and the federal government in a public-private partnership. That measure failed to garner significant support in Congress.

California Senators Dianne Feinstein and Barbara Boxer have introduced the Earthquake Insurance Affordability Act that would authorize a federal guarantee of limited post-earthquake borrowing by actuarially sound state residential earthquake insurance programs. Under the proposal, the CEA would be able to sell post-event bonds in the private capital market. This would reduce the need to purchase reinsurance pre-event, allowing them to reduce rates and lower deductibles. With more people insured, post event disaster assistance would cost less to the state and federal government, and communities could recover more quickly.

The CEA contends that a federal guarantee for loans would be a cheaper way to finance claims payments. A Congressional Budget Office analysis of a similar bill introduced in 2007 estimated that the cost to the federal government associated with loan guarantees and post-disaster loans would be negligible. Nonetheless, this proposal, like others before it, is unlikely to pass in the near or medium term.

Previous Legislative Proposals

Following the Loma Prieta earthquake in 1989, but before the Northridge earthquake prompted a crisis in the homeowners' insurance market leading to the creation of the CEA, there were several legislative proposals to create state administered programs to address earthquake risks. Although not adopted, these measures proposed dramatic changes to how California approached earthquake risk:

- SB 2608 (C. Green, 1990) proposed the creation of a state administered program of mandatory earthquake insurance on residential property to assume sole liability for up to the first $100,000 in earthquake damage claims, relying upon accumulated premiums, bond issuance authority, and reinsurance to avoid the need for an unfunded state obligation or pro-rata reduction in claims payments in the event the fund did not have enough resources to pay all claims. The premiums would be actuarially sound, with a 5% deductible of the policy limits.

- AB 3638 (Farr, 1990) proposed creation of a constitutionally protected Earthquake Recovery Trust Fund insuring property in the state against earthquake losses. It would impose a fee on every loan secured by residential real property equal to $.50 per thousand of outstanding principal on the loan, and fees upon every policy of earthquake renters' insurance. The fees collected would be leveraged by the addition of state government obligation bonds. The funds would be available to cover an insurer's residential claims costs after a catastrophic earthquake if, and only if, the insurer has been marketing a more affordable earthquake insurance policy to the residential sector. Funds would not be available for low to moderate impact earthquakes

Major Challenges Ahead

As a compromise measure meant to return stability to California's residential homeowners' insurance market, the CEA can be called a success. However, almost 18 years after its creation, the CEA has yet to be tested by a major seismic event. It is in the interest of the state and the insurance industry to ensure the long-term viability of the CEA to provide earthquake insurance, and ensure the stability of the broader homeowners' insurance market. But as a mechanism to ensure homeowners are protected against earthquake risk, the CEA has failed to meet expectations. The percentage of homeowners with earthquake policies has continued to fall even as rates have gone down (although not premiums because of higher home values and increased replacement costs). Although CEA policy holders will be able to recover more quickly than other homeowners, the lack of penetration means that whole communities will likely be devastated for extended periods of time.

If California's severe drought conditions continue for some time, the chance of widespread and devastating fires grows. As more and more areas of California are designated as high or extreme fire risk, homeowners' insurers may become more reluctant to take on what becomes perceived as catastrophic risk.

To date, the private market has also shown little interest in taking on more natural catastrophe exposure for residential or commercial risks. High premiums and big deductibles discourage most property or business owners from voluntarily purchasing such coverage. Without some kind of government backing or participation to spread the risk prior to such an event, recovery will take longer and ultimately cost more for all taxpayers.

- Since formal insurance programs for terrorism and floods have been created at the federal level in response to previous disasters, should Californians simply expect the federal government to continue providing de facto insurance coverage for large natural disasters such as earthquakes through existing disaster aid programs?

- Would a formal engineering based system of rating residential and commercial resiliency to catastrophic events assist in reducing risks or encouraging mitigation?

- What role can the insurance industry play in encouraging mitigation through incentives and what changes in institutional structure are needed for this to take place?

- How can other parties like financial institutions, construction and real estate industry aid the process of disaster preparedness? What are the processes affecting public decisions to invest in loss reduction activities? How can these be affected through different strategies?

- What are the challenges in enforcing building codes? Are new powers or tools needed? Building codes are generally designed to reduce loss of life. Should a new standard that ensures resiliency—occupancy and functionality--after an earthquake be adopted or encouraged?

- Can community based programs play a key role in encouraging mitigation, including retrofitting?

- Is it time to consider at least some mandatory earthquake coverage in the highest-risk earthquake zones? Mandatory mitigation?

- A major earthquake will affect all Californians regardless of where they live. Is it appropriate to levy a small fee on all property insurance policies in the state to fund disaster education and mitigation efforts?