As of December 31, 2022

The Strength to Rebuild: Financial Foundations of the California Earthquake Authority

Overview

CEA is the largest single-line writer of residential earthquake insurance in the United States, with more than 1.068 million policies in force, generating nearly $949 million in direct written premiums for 2022, and approximately $19.7 billion in claim-paying capacity. According to the most recent figures provided by the California Department of Insurance (as of 2021), approximately 66% of the residential earthquake policies in force in California as of December 31, 2021, were issued by CEA.

CEA's claim-paying capacity consists of its own capital, reinsurance and other risk-transfer contracts, capital from revenue bonds, a policyholder surcharge, and assessments on its participating insurance companies. CEA could cover all its claims if the 1906 San Francisco, 1989 Loma Prieta or 1994 Northridge earthquake reoccurred today.

Since CEA opened its doors in 1996, its available capital has grown to $6.1 billion and has benefited from consistently positive retained earnings.

A.M. Best Co., the world's oldest and most authoritative rating agency of insurance companies, has rated CEA's financial strength as B++ (Good) as of January 18, 2023.

CEA Is a Publicly Managed, Privately Financed, Not-for-Profit Entity

CEA is a privately financed entity and receives no funding from the State of California budget. California's budget concerns have no impact on CEA's ability to pay its policyholders' claims.

By law, the State of California is not responsible for CEA's liabilities, and CEA does not pay any state liabilities. Therefore, CEA assets cannot be used by the state for any government purposes, such as repairing infrastructure items like bridges and freeways.

CEA insurance capacity is available only to pay claims to residents who have protected their homes and possessions by purchasing a CEA earthquake insurance policy. CEA is not responsible for damage to commercial properties or to uninsured residential properties or their contents.

Private-insurer contributions, calculated based on individual-company market share, formed CEA's seed capital—all participating insurers, regardless of their initial participation date, are subject to capital-contribution requirements. In addition, all participating insurers retain a legal responsibility to pay defined assessments to CEA in the event of large, damaging earthquakes.

About 54% of the funds CEA collects goes toward buying reinsurance and other risk transfer (and to pay the associated costs), contracting with certain outside consultants and vendors, and toward claim-paying capital accumulation. About 10% is allocated to agent commissions and participating-insurer fees. The California Insurance Code requires CEA's operating expenses to be capped at not more than 6% of the premium income CEA receives. CEA has always complied with this limitation and expects to continue to be able to do so.

CEA does not pay federal income tax, which allows it to maximize the growth of its capital. CEA is not permitted to file for bankruptcy protection, and, unlike a private insurer, it cannot be taken over by the state insurance commissioner.

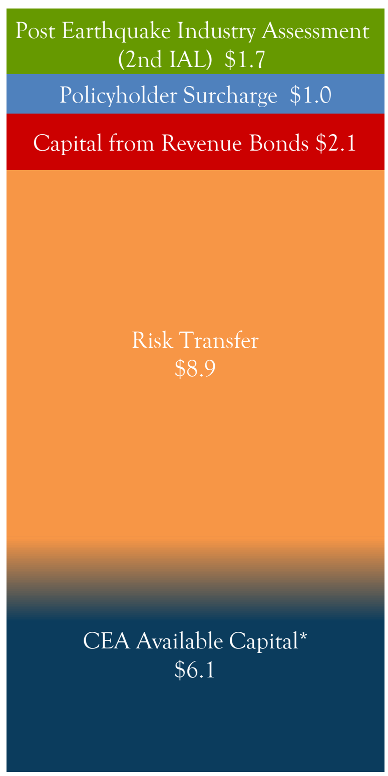
CEA Has Multiple Layers of Claim-Paying Capacity

CEA had approximately $19.7 billion in claim-paying capacity as of December 31, 2022. The components of this capacity (and the order in which these funds would be accessed to pay claims) are approximately as follows:

- CEA capital: $6.1 billion (includes 18-month forward unrealized loss of $382 million as of 12/31/2022).
- Reinsurance and other risk transfer: $8.9 billion, including nine transformer reinsurance contracts that together total nearly $1.9 billion.
- Capital from revenue bonds: $2.1 billion.
- Policyholder surcharge: $1 billion.
- Participating-insurer assessments: $1.7 billion.

(Note: Claim-paying capacity layers shown here use rounding; as a result, their sum does not equal the claim-paying capacity of $19.7 billion, which reflects the sum of the unrounded amounts.)

California Earthquake Authority
Claim-Paying Capacity
as of December 31, 2022



*Includes 18-month forward unrealized loss of $382 million as of 12/31/2022.
**Values may not add due to rounding

Total Capacity $19.7B**

Questions and Answers

Question: **The 1994 Northridge earthquake caused more than $40 billion in damage, but CEA has only $19.7 billion in claim-paying capacity. How can you cover all the claims after a major earthquake?**

Answer: CEA would have liability only for a defined portion of the total cost of the economic damage caused by a major California earthquake, because CEA assets are available only to pay claims of residents who have protected their homes and possessions by buying a CEA earthquake insurance policy.

Put another way, like any insuring entity, CEA is responsible for paying its insured losses, not the total cost of all the damage. CEA is not responsible for losses to uninsured residential properties or their contents; commercial properties; or public infrastructure, such as bridges and freeways.

CEA claim-paying capacity is carefully established according to financially conservative standards, with the present level set at a 1-in-350-year level, or a capacity sufficient to pay 100% of CEA's annual claims 99.71% of the time—and only a 0.29% chance that CEA wouldn't be able to pay 100% of its claims in one year.

CEA is a not-for-profit, publicly managed, privately funded organization that provides residential earthquake insurance and encourages Californians to reduce their risk of earthquake loss. People choosing CEA insurance get peace of mind from knowing they can afford to repair, rebuild or replace their covered property that may be damaged by the next damaging earthquake.

Question: **Why a 1-in-350-year level?**

Answer: The rating agencies that rate CEA's debt (Fitch and Kroll) and the agency that rates CEA's financial strength (A.M. Best Co.) base their ratings on the CEA's Governing Board approval - to maintain a minimum -1-in-350-year capacity, or a probability of 0.29% that CEA will exhaust all sources of claim-paying capacity in one year.

Question: **CEA has more than $642 billion in total exposure but only $19.7 billion in claim-paying capacity. How can CEA pay all its claims in a major earthquake?**

Answer: The total exposure of $642 billion (as of December 31, 2022), also called "total insured value" or "in-force liability," is the total amount of coverage CEA has written for all its policies in all parts of the state.

No insurance company maintains claim-paying capacity equal to the total insured value. Instead, insurance companies use mathematical and statistical models to assess and project their potential liabilities. They maintain enough claim-paying capacity to achieve the desired level of safety, often as assessed by rating agencies or regulators, or both.

The rating agencies that rate CEA's debt (Fitch and Kroll) and the agency that rates CEA's financial strength (A.M. Best Co.) expect CEA to maintain a conservative level of capacity, with the present level set at a 1-in-350-year level, or a probability of 0.29% that CEA will exhaust all sources of claim-paying capacity in one year.

Put another way, CEA has the ability to pay 100% of its annual claims 99.71% of the time—there is a 0.29% chance that CEA wouldn't be able to pay 100% of its claims in one year.

Applying the 1-in-350-year benchmark requires CEA to maintain about $18.9 billion in claim-paying capacity for its current exposure.

Question: **How does CEA estimate its losses from earthquakes? How did CEA determine that $18.9 billion in claim-paying capacity is the correct amount needed to cover $642 billion in total exposure?**

Answer: CEA calculates its claim-paying capacity needs by using the best available catastrophe-loss models.

There are three widely recognized, commercial catastrophe-loss models/modelers: CoreLogic, RMS and AIR-Worldwide.

Since 1996, CEA has contracted with CoreLogic for loss-modeling services. And since 2004, CEA has worked with CoreLogic, RMS and AIR-Worldwide to help CEA analyze and understand the nature and financial magnitude of risks presented by CEA's insurance portfolio.

CEA uses modeled-loss output from the three modeling firms, with adjustments for "demand surge" and loss adjustment expense.

The aggregate adjusted results based on modeled output from the three modeling firms, compiled by CEA (using the method described below), indicate that $18.9 billion is the correct capacity to cover CEA's current insured risks adequately. If CEA maintained less capacity, its ability to cover its claims would fall short of the required target; if CEA maintained excess capacity, policyholders would be paying more than necessary for earthquake insurance.

Question: What is "demand surge"?

Answer: Demand surge is post-event inflation of the costs of reconstruction and repair, caused by short supplies of both construction material and construction labor; typically, the larger the event, the larger the inflationary effect. CEA includes projections for demand surge in determining its claim-paying capacity.

Question: What are CEA participating-insurer assessments?

Answer: CEA has the statutory and contractual right under various circumstances to assess the residential property insurers that participate in CEA and issue CEA policies, in order to bolster CEA claim-paying capacity or return CEA's capital to the minimum statutory level. Available total assessments stood at nearly $1.7 billion as of December 31, 2022. CEA participating insurers commit to paying these assessments, as and when needed, when they execute CEA's insurer-participation agreement.

Question: Where does CEA obtain reinsurance?

Answer: CEA's reinsurance program as of December 31, 2022, was placed with 120 financially sound reinsurers, using contracts providing a total of $8.9 billion in reinsurance coverage.

Question: What is CEA's transformer reinsurance program?

Answer: As a component of CEA's risk-diversification strategy, transformer reinsurance allows CEA to obtain reinsurance capacity backed by capital sourced from the capital markets rather than solely from reinsurance companies, replacing a portion of what would otherwise be a traditional reinsurance purchase.

A key element of CEA's transformer deals is that CEA has taken what are usually complex, expensive, one-off transactions and established a regular, repeatable risk-transfer method that uses uniform documentation. The transformer transactions are multi-year deals that provide excellent diversification of CEA's sources of claim-paying capacity. Using the same structure in repeated transactions makes it easier for investors to understand and become comfortable with the terms and conditions, which directly and indirectly builds the catastrophe-bond investor base to increase market capacity for follow-on transactions.

Although CEA was the first single-line earthquake insurer to establish a transformer-reinsurance program, this funding method is common in other sectors.

As of December 31, 2022, the transformer reinsurance program has $1.875 billion in sources to pay claims.

CEA has a well-known, ongoing commitment to diversify and expand its claim-paying resources. While traditional reinsurance will continue to be indispensable for CEA, diverse risk-transfer tools that combine traditional, collateralized and transformer reinsurance will help make CEA earthquake insurance more affordable and valuable, and more widely used.

Question: Is CEA the issuer of these catastrophe bonds?

Answer: To clarify, no. The bonds are issued by Bermuda-based special-purpose reinsurers. Over the last 11 years, CEA has sponsored catastrophe bonds from Ursa Re, Sutter Re and Ursa Re II.

Question: Other insurance providers arrange reinsurance deals, buying reinsurance from a special purpose reinsurance vehicle (SPRV) that issues catastrophe bonds. What is different about the relationship between CEA and Ursa Re, Sutter Re and Ursa Re II?

Answer: It is typical in other reinsurance deals that the cedent insurer (the reinsurance buyer) controls the SPRV and the catastrophe-bond transaction. In the case of CEA, Ursa Re, Sutter Re and Swiss Re issued the bonds independently; CEA did not control any aspect of the bond terms, sales method or pricing. Ursa Re, Sutter Re, and Ursa Re II are owned by a charitable trust in Bermuda and are managed by separate management companies.

Question: What is CEA's relationship with private residential property insurers?

Answer: By law since 1985, insurance companies that offer residential property insurance (such as homeowners or renters coverage) in California must also offer earthquake insurance. Insurers that are accepted as CEA participating insurers (and that accept the operational and financial obligations of that participation) satisfy their legal earthquake-insurance-offer requirement by offering CEA policies.

CEA participating insurers are not permitted to issue their own basic residential earthquake policies. CEA participating insurers are subject to irrevocable capital contributions to CEA as a condition of entry, and they become subject to assessments to support CEA's claim-paying capacity.