



Date of Notice: Friday, March 4, 2016

## PUBLIC NOTICE

### A PUBLIC MEETING OF THE GOVERNING BOARD OF THE CALIFORNIA EARTHQUAKE AUTHORITY

**NOTICE IS HEREBY GIVEN** that the Governing Board of the California Earthquake Authority (“CEA”) will meet in Sacramento, California. Pursuant to California Insurance Code §10089.7, subdivision (j), the Bagley-Keene Open Meeting Act applies generally to meetings of the Board, and the meeting is open to the public—public participation, comments, and questions will be welcome for each agenda item. All items are appropriate for action if the Governing Board wishes to take action. Agenda items may be taken out of order.

**LOCATION:** California Department of Food and Agriculture\*  
Auditorium, Room 130  
1220 N Street  
Sacramento, California

**DATE:** Wednesday, March 16, 2016

**TIME:** 1:00 p.m.

\* Because of facility limitations at this location, this Governing Board meeting will not be available as audio or video on the Internet.

#### AGENDA:

1. Call to order and member roll call:

Governor  
Treasurer  
Insurance Commissioner  
Speaker of the Assembly  
Chair of the Senate Rules Committee

*Establishment of a quorum*

2. Consideration and approval of the minutes of the December 16, 2015, CEA Governing Board meeting.
3. Executive Report by Chief Executive Officer Glenn Pomeroy.
4. Mr. Pomeroy will seek Board approval of a 2016-budget augmentation, to supply projected funding for a pilot risk-reduction program that would provide financial incentives to CEA policyholders who own, and live in, vulnerable houses in high-earthquake-risk areas and wish to benefit from structural retrofits and resulting CEA premium discounts.
5. Chief Communications Officer Chris Nance will present, and seek Board approval of, the 2017 CEA advertising budget.
6. Chief Financial Officer Tim Richison will seek Board authorization to set the CEA participating insurers' respective maximum-earthquake-loss funding-assessment levels, effective April 1, 2016.
7. Kapil Bhatia, Managing Director of Public Finance for Raymond James & Associates, Inc.—the CEA's independent financial advisor—will present to the Board the annual report on the state of the economy.
8. Mr. Richison will present to the Board the CEA financial report.
9. Chief Mitigation Officer Janiele Maffei will update the Board on CEA-mitigation-program projects.
10. Ms. Maffei will update the Board on the California Residential Mitigation Program incentive program ("Earthquake Brace + Bolt"), operated by a joint power authority whose members are the California Governor's Office of Emergency Services and the CEA.
11. Chief Information Officer Todd Coombes will report to the Board regarding 2016 CEA information technology (IT) initiatives and the IT Project Portfolio.
12. Mr. Coombes will update the Board on progress toward centralizing processing of CEA insurance policies.
13. Mr. Pomeroy will update the Board on progress in data collection and reporting that support the Metrics Project.
14. Mr. Pomeroy will update the Board on additional office space, now obtained and under lease (on the floor immediately above the CEA's main office), that will accommodate CEA staff and operations.
15. The Board will meet in closed session to discuss personnel matters and litigation matters, as permitted by California Government Code section 11126, subdivisions (a) and (e), respectively.
16. Public comment on matters that do not appear on this agenda and requests by the public that those matters be placed on a future agenda.
17. Adjournment.

For further information about this notice or its contents:

**General Information:**

Carlos Martinez  
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**Media Contact:**

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To view this notice on the CEA website or to learn more about the CEA, please visit [www.EarthquakeAuthority.com](http://www.EarthquakeAuthority.com)

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Persons with disabilities may request special accommodations at this or any future Governing Board meeting or may request the accommodation necessary to receive agendas or materials the CEA prepares for its Board meetings.

Please contact Carlos Martinez by telephone, toll free, at (877) 797-4300 or by email at [cmartinez@calquake.com](mailto:cmartinez@calquake.com). We would appreciate hearing from you at least five days before the meeting date to best allow us to meet your needs.

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**NOTE:** You might have received this notice because your name, or that of your organization, appears on a public-notice list maintained by the California Earthquake Authority. If in the future you do not wish to receive public notices pertaining to the California Earthquake Authority, please send your request by email to [cmartinez@calquake.com](mailto:cmartinez@calquake.com).



Draft Meeting Minutes are not available.

Please see CEA Governing Board Meeting  
[Approved Minutes.](#)

## **Governing Board Memorandum**

March 16, 2016

Agenda Item 3: Executive Report by Chief Executive Officer Glenn Pomeroy

Recommended Action: No action required—information only

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Chief Executive Officer Glenn Pomeroy will present his Executive Report to the Board.

## Governing Board Memorandum

March 16, 2016

Agenda Item 4: Update on progress to develop pilot risk-reduction program to provide retrofit incentives to selected CEA policyholders

Recommended Action: Approve budget allocation of \$12 million for CEA risk-reduction program

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### Background:

On January 1, 2016, the CEA began offering a 20% hazard-reduction premium discount to qualifying policyholders who live in pre-1940 wood-frame houses built on raised foundations (called in this memo, “target houses”).

The new 20% discount—four times larger than the minimum statutory retrofit discount of 5% the CEA has offered for many years—recognizes that (1) retrofitting older houses according to the *California Existing Building Code* significantly reduces expected losses, and (2) policyholders who have retrofitted their houses should benefit from the reduced risk exposure.

The 20% discount should also provide a clear-cut incentive to policyholders who have not yet retrofitted their older houses to undertake retrofitting measures.

CEA has a concrete opportunity to advocate and support mitigation within its policyholder base by providing a cash incentive from the CEA, paid to tenured policyholders in higher-risk areas who live in target houses.

This initiative has a sound financial basis, in that retrofitting sufficient numbers of houses reduces the CEA’s need for, and therefore its cost of, risk-transfer: When the retrofitted houses are in higher-risk areas where CEA exposure is concentrated, savings on risk-transfer costs can, over time, offset the cost of the retrofit incentives.

Staff presented this concept to the CEA Governing Board in its August 26, 2015, and December 16, 2015, meetings and continued to develop program details, including initial program costs.

### Analysis:

#### 1. An Improved CEA Risk Profile Reduces Costs

Staff’s initial analysis, from the August 26, 2015 Board meeting, shows that when policyholder retrofits improve the CEA’s risk profile, then CEA risk-transfer capacity

can be reduced. Retrofitting target houses in high-risk, high-exposure ZIP Codes produces the greatest reduction in CEA's risk-transfer needs.

In order to maintain a *stable*, improved risk profile, the CEA will offer the risk-reduction-program financial incentive to policyholders who have three years tenure with the CEA. This approach both (a) increases the likelihood that the owners of the retrofitted houses will *remain* CEA policyholders and (b) reduces the likelihood that the CEA portfolio would experience an influx of brand-new, high-risk applicants whose higher-risk houses could otherwise qualify for these retrofit grants.

Staff recommends providing a \$3,000 incentive, paid upon completion of a qualifying retrofit.

## 2. Initial Program Locations and Estimated Cost

There are 10 ZIP Codes—five in Northern California and five in Southern California—in which the CEA has a high concentration of target houses. Providing \$3,000 retrofit grants to the approximately 3,400 target houses in those ZIP Codes translates to a program cost of \$12 million: \$10.2 million in grants and \$1.8 million for administrative costs, assuming full participation.

- The CRMP *Earthquake Brace + Bolt* program is available to the public, without regard to CEA-policyholder status. EBB finds that about 50% of houses accepted into that program follow through to a completed retrofit. It is reasonable to expect, then, that fewer than 100% of the selected CEA policyholders would participate.
- Funding for the program could come from a set-aside of CEA capital.

The new CEA-policyholder program would leverage successful CRMP/EBB techniques by use of a similar approach, including a gradual roll-out of the program—as with EBB, appropriate communication to potentially eligible policyholders and dedicated staff to guide homeowners through the retrofitting process are key measures. To best provide for a successful CEA pilot-program rollout, staff recommends hiring for new policyholder-retrofit-liason positions, to fully support interested and enrolled policyholders.

The potential success of the CEA risk-reduction program must be a *measured* success: CEA staff has begun identifying program-success metrics, which could include:

- The number of policyholders who register for the program after receiving notice that they own a CEA-insured target house.
- The number of policyholders who secure a building permit for the retrofit work.
- Program participants' respective tenure (this would be a longer-term measure and would include whether (and on what terms) the policyholder remains a CEA policyholder, post-retrofit).
- Cost per retrofit.

Recommendation:

Approve further development of the CEA (pilot) risk-reduction program, with a goal of commencing implementation by third quarter 2016:

- Support these eligibility parameters for policyholder properties:
  - three or more years tenure with the CEA;
  - pre-1940 wood-frame construction on a raised foundation, lacking adequate bolting or bracing (or lacking both); and
  - located in higher-risk areas in which the CEA has a concentration of exposure, so that mitigating the target houses will appreciably reduce CEA risk-transfer needs and therefore reduce CEA risk-transfer costs.
- Direct staff to develop an implementation plan and draft program rules, all to be reported to the Board.
- Allocate \$12 million from CEA capital to fund the first full year of the program.

## Governing Board Memorandum

March 16, 2016

Agenda Item 5: Proposed 2017 Advertising Budget

Recommended Action: Approve proposed funding to implement 2017 CEA advertising program

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CEA pointed to 2016 as the year to “go for it” thanks to the first-time confluence of marketing gains—an updated Mandatory Offer letter and more CEA coverage choices, deductible options, lower rates, and retrofit discounts.

Despite these significant marketing gains, increasing CEA policy sales still faces barriers.

Social science barriers still are present, ranging from people’s perceiving their personal safety as unaffected by natural disasters to believing the government will pay for earthquake damage to their homes.

Sales barriers remain as well, including just a third of new CEA policy sales coming with an agent recommendation and a lack of CEA information on many participating insurer (PI) websites. And PI-appointed independent insurance agents are offered incentives from a national trade association to sell non-CEA residential earthquake insurance policies.

Finally, we know from residents responding to Omnibus Survey questions in 2013 about the then-outdated, statutory Mandatory Offer that:

- Cost from earthquake damage is the top reason for obtaining earthquake insurance;
- Misinformation about earthquake insurance is pronounced;
- Fewer than half recalled receiving the Mandatory Offer; and
- Three-quarters said they should get more information about earthquake insurance.

Despite these sales barriers from social-science and market/structural factors, combined with opportunities to meet the requests of many California residents who want more information about earthquake insurance, CEA will continue to work in 2017 in every way possible to make earthquake insurance a household priority.

### Background:

Since its creation, CEA has enhanced its products and reduced its rates four times. CEA also recently succeeded in updating the Mandatory Offer Law to include present language that is more consumer-friendly and to require CEA PIs to distribute a marketing document (at CEA expense) to all their home-insurance policyholders: about 9 million households.

During the last five years, CEA also has built an annualized marketing capability from scratch. Central to creation of this capability have been a dozen research studies that produced results to support branding and creative executions in CEA’s advertising campaigns.

Beginning with CEA’s “Blueprint” advertising campaign launched in 2012, CEA sought to brand its name alongside the “Strength to Rebuild®” tagline. For 2014, CEA rolled out its “California Rocks®” campaign, which connected buying earthquake insurance to daily lifestyle responsibilities, like applying sunscreen.



**Blueprint**



**California Rocks**

New for 2016, CEA already is rolling out its “Your Earthquake Risk Is Real” campaign, which works to transition CEA’s focus from preparedness to recovery.

CEA’s creation of that current campaign keys on two research takeaways:

- Residents acknowledge they have are complacent even if they recognize they may be at risk for earthquake damage—they’re concerned about the next big one.
- Residents want policy options (consistent with 2010 market research); they want control (consistent with 2011 message research); and they want to know their “local” risk and believe they need to be jolted out of complacency (2015 ad-concept research).



**Pressure**



**Plates**

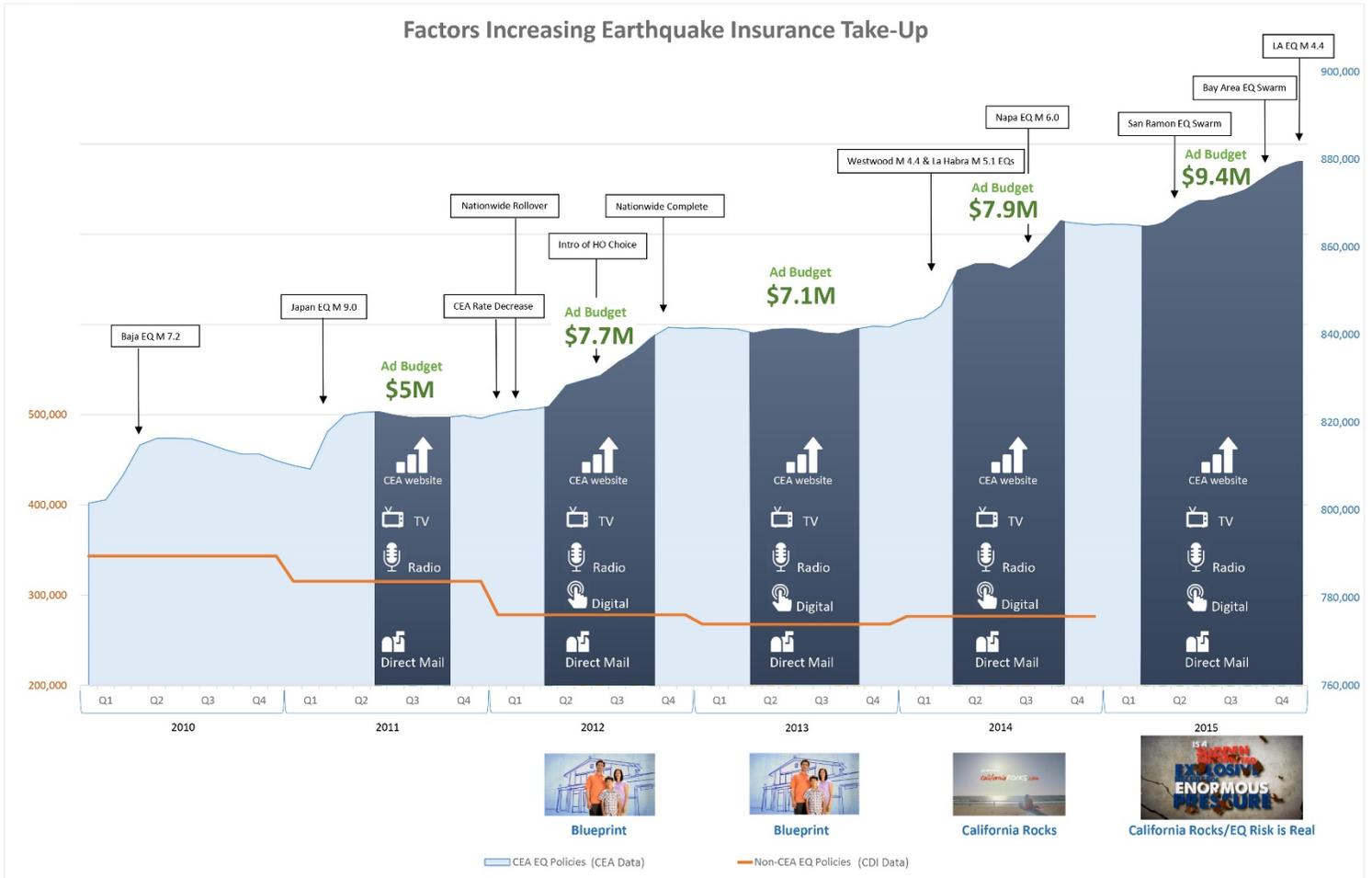


**If, When**



**More, More, More**

While advertising is a significant contributor to increasing new-policy sales for CEA, it does not stand alone. Other important contributors to increasing take-up for new CEA policies include new PIs, more policy choices, lower average rates, and damaging earthquakes.



From 2010 through 2014, according to California Department of Insurance data, take-up for CEA policies has increased, while take-up for residential earthquake policies offered by non-CEA home-insurance companies have decreased.

Additionally, during periods in 2011 through 2015 while CEA advertising was running, the average number of monthly CEA website users (62,742) considering earthquake insurance was more than *twice* the average number of monthly CEA website users (30,423) during periods when no CEA advertising was running.

Analysis:

Prospects for homeowners insurance are in the market every day. As a result, they are being exposed to multiple insurance ads. Advertising industry reports show monthly national advertising by insurance companies in 2013 ranging from \$300 million to \$400 million.

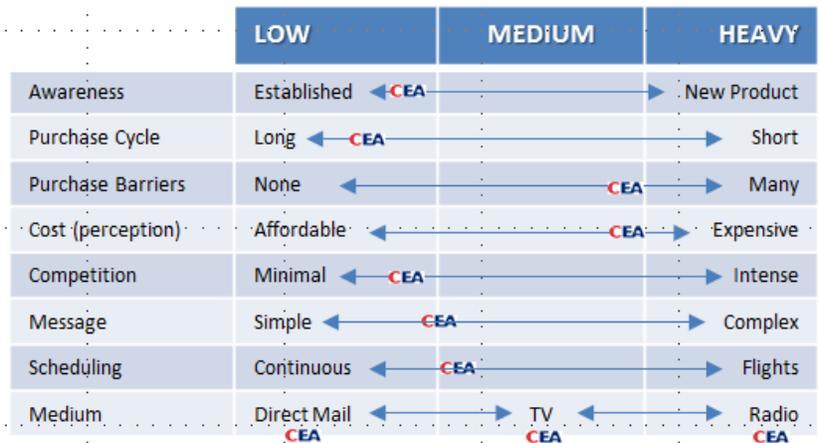
As a result, insurance advertising is one of the top-five advertised categories, nationwide.

So how does CEA stand out in this bombardment of insurance advertising? How can CEA secure new policyholders who are not required to buy earthquake insurance and who believe they don't need the coverage? And how can CEA overcome structural barriers from participating insurance companies that are not motivated to sell CEA policies?

While 2016 spending on advertising remains focused on media channels that have been used over recent years, CEA has a number of enhancements for 2017 that will facilitate tighter overall advertising necessary to help increase future consideration for CEA policies.

Specifically for 2017, CEA will continue delivery of multi-channel communications with repeated *and* customized messages, to consumers and agents alike, to encourage action.

CEA's advertising goal for 2017, under a budget similar to 2016, again will be to deliver about 600 Gross Rating Points (reach times average frequency, which also takes into consideration a strategic mix of broadcast dayparts). This goal was updated through application of both the Ostrow and Naples models for effective (broadcast) advertising frequencies.



With market benefits that come from five years of Business-to-Consumer (B2C) advertising, CEA can step-up its Business-to-Business (B2B) advertising with PIs and agents by leveraging distribution of the Mandatory Marketing Document alongside agent distribution of direct mail through CEA's Marketing Value Program (MVP).

CEA proposes this ongoing approach to accomplish its 2017 advertising goal through a sales funnel consisting of the following advertising channels:

- **Awareness:** Television is the most efficient platform for delivering awareness, reach, and recall, along with the power of sight, sound, and motion.
- **Interest:** Radio offers the most efficient platform for delivering frequency, and different stations offer varying formats that appeal to different segments of residents.
- **Consideration:** Digital offers the most efficient platform to correlate advertising with CEA's communications strategy focused on moving potential policyholders through its online hub to PI websites. According to *Beyond Price: The Rise of Customer-Centric Marketing in Insurance*, "the Internet is the predominant research channel for insurance shoppers, even when they purchase through an agent or by phone."

Therefore, CEA will pursue a deeper deployment of digital tactics to include:

- Building a foundation with prominent presence on premium direct sites;
  - Placing high-impact rich media units to maximize impact and visibility;
  - Reaching potential policyholders via audience and contextual targeting;
  - Educating users about earthquake recovery via “content discovery widgets”;
  - Securing paid search, and display search, retargeting;
  - Delivering premium video to complement TV advertising efforts; and
  - Performing look-alike modeling to identify new segments.
- **Purchase Actions:** Direct mail offers the most efficient platform for assisting PIs with their promotion of customer CEA-policy-purchase decisions. According to the Direct Mail Association, for 2013 “65-percent of consumers of all ages have made a purchase as a result of direct mail.” And according to *Direct Mail News*, “in 2012 the average response rate for direct mail was 4.4 percent for business-to-consumer and business-to-business mailings, considerably higher than industry expectations.”



Through its 2017 advertising plan, CEA also will continue promoting the *Get Prepared, California!* Auction® in April and the Great California ShakeOut® earthquake drill in October through rotation of TV and radio PSAs in its broadcast/paid-media plan.

And CEA will continue to promote updated TV news anchor/reporter PSAs promoting the need to “bring home your risk for earthquake damage” in its paid-media plan for TV.

Additionally, CEA will continue expanding Spanish and Chinese advertising debuted in 2016.

Finally, CEA will continue working to expand cooperative marketing opportunities for PIs through integration of CEA policyholder profiles and media consumption habits, plus prospecting database indices per PI and ZIP Code.

The advertising budget staff proposes for 2017, which continues combining awareness and education with policy acquisition and retention at about 1.8 percent-of-premium, will again not exceed the P&C industry standard percent-of-premium at 3.4 percent (PIs are at 2.24 percent).

• Television	\$ 2,533,900
• Radio	\$ 2,250,000
• Digital	\$ 3,942,000
• Trade	\$ 102,100
• Direct Mail	\$ 2,530,000
 TOTAL Budget	 \$11,358,000

Most important, CEA’s proposed advertising budget for 2017 aligns with CEA’s rating plan that was approved by CEA Governing Board in December 2014 and then approved by the Insurance Commissioner in March 2015.

Recommendation:

Approve proposed budget up to \$11,358,000 to implement CEA’s 2017 advertising budget.

## Board Memorandum

March 16, 2016

Agenda Item 6: CEA Participating Insurers: Maximum-Earthquake-Loss Funding-Assessment Levels

Recommended Action: Approve April 1, 2016, CEA Participating Insurer Maximum-Earthquake-Loss Funding-Assessment Levels

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### Background:

California Insurance Code section 10089.25 states,

“Beginning December 31, 1997, and annually thereafter on the 30<sup>th</sup> of April, the board shall notify each participating insurer of the maximum earthquake loss funding assessment level that it may be required to meet.”

Insurance Code sections 10089.30 and 10089.31 set forth the calculation for determining the maximum aggregate assessments for the so-called “Second Industry Assessment Layer” and “New Industry Assessment Layer” of the California Earthquake Authority (CEA) financial structure.

### Analysis:

Taking legal effect on July 1, 2008, Senate Bill 430 established the CEA’s authority to assess its participating insurers through a vehicle commonly referred to as the New Industry Assessment Layer (“New IAL”).

This assessment authority was made available to the CEA on December 1, 2008, upon the sunset by law of the CEA’s authority to assess its participating insurers in the First Industry Assessment Layer (“1<sup>st</sup> IAL”). Unlike the 1<sup>st</sup> IAL, which the CEA could access once it had exhausted its available capital (but before the use of risk-transfer financing), the New IAL sits atop the Second Industry Assessment Layer (“2<sup>nd</sup> IAL”) in the CEA’s financial structure.

The 2<sup>nd</sup> IAL and the New IAL would be drawn on to pay policyholder claims once CEA’s available capital, proceeds from debt financing actually available and under contract, and other funds actually available and under contract for risk-transfer products have been exhausted. CEA participating insurers can be assessed in either or both of those remaining IALs in order to return the CEA’s available capital to the statutory minimum capital level of \$350 million (see California Insurance Code section 10089.31).

Consistent with a principle of gradually decreasing the CEA’s dependence on its participating insurers for claim-paying capacity, the law provides that CEA’s maximum assessment capability under the New IAL is subject to annual reductions. Under California Insurance Code section

10089.33 (b) (1)—effective April 1, 2010, and on each April 1<sup>st</sup> thereafter—the maximum aggregate assessment under the New IAL is subject to a 5% annual reduction and a separate reduction, in an amount equal to the “retained earnings differential.” As defined in California Insurance Code section 10089.33(b)(7), the retained earnings differential is calculated as:

“...the positive dollar-amount difference between: (A) the authority's positive one-year retained-earnings growth for the preceding calendar year, minus (B) the authority's capacity growth for the preceding calendar year, both calculated as of December 31. As used in this paragraph, "one-year retained-earnings growth" means the difference between the authority's cumulative retained earnings at December 31 of the preceding calendar year and the authority's cumulative retained earnings at December 31 of the year before the preceding calendar year, calculated in accordance with generally accepted accounting principles as of the preceding December 31. As used in this paragraph, the term "capacity growth" is the one-year amount of purchased risk transfer, such as reinsurance, or borrowed risk transfer such as bonds, put in place in the authority's financial structure to account for the authority's aggregate exposure growth over the preceding year ending December 31. The board shall be authorized and entitled, in its sole discretion, to make all final decisions regarding the authority's level of financial strength and security and the authority's choice and use of financing and risk-transfer mechanisms.”

*Attachment A* is the calculation of the aggregate assessment reduction (commonly referred to as the “roll-off”) of the New IAL, effective April 1, 2016, as well as the resulting New IAL assessment capacity.

The assessment capacity for the 2<sup>nd</sup> IAL is also adjusted when a new company begins participating in the CEA. That adjustment takes into consideration the new participating insurer’s residential property insurance market share at the time it started transferring exposure to the CEA and adds that percentage to the combined percentage of the existing participating insurers when they started transferring exposure to the CEA. During 2015, no insurance company became a new CEA participating insurer, and therefore the aggregate total of the 2<sup>nd</sup> IAL capacity for 2016 remains unchanged from 2015.

Staff has calculated each CEA participating insurer’s respective CEA earthquake market-share percentage, based on the insurer’s written CEA premium level. From this calculation, the CEA determines each insurer’s maximum earthquake-loss-funding-assessment level for 2016.

*Attachment B* shows, for each participating insurer, the maximum earthquake-loss-funding-assessment-level it may be required to meet, upon appropriate assessment duly made by the CEA.

#### Recommendations:

Staff recommends that:

- The Governing Board adopt the New IAL aggregate assessment amount in *Attachment A*, effective April 1, 2016.

- The Board adopt the CEA market-share percentages shown in *Attachment B*, which are to be used to determine the maximum earthquake loss funding assessment levels for CEA participating insurers, effective April 30, 2016.
- The Board authorize CEA staff to notify each participating insurer of its respective April 30, 2016, maximum earthquake-loss-funding-assessment level responsibility.

California Earthquake Authority  
Calculation of New Industry Assessment Layer (Worksheet)

5% of Initial Maximum Aggregate Assessment (\$1.780 billion x 5.0%)		\$89,000,000
Retained Earnings Growth	+	\$319,663,984
Capacity Growth:		
1/1/2016 - New Risk Transfer capacity	\$4,367,107,265	
Series 2006 and Series 2014 Revenue Bond proceeds	+ \$667,800,805	
12/31/2015 - Previous year Risk Transfer capacity	- \$4,091,002,426	
Series 2006 and Series 2014 Revenue Bond proceeds	- \$667,800,805	
Capacity Growth Previous Year	= \$9,793,711,301 - \$276,104,839	
<b>Retained Earnings Differential</b>	<b>=</b>	<b>\$43,559,145 + \$ 43,559,145</b>
<b>April 1, 2016, Aggregate Assessment Reduction</b>		<b>= \$132,559,145</b>
<hr/>		
Prior Year Modified Aggregate Assessment Calculation		\$287,373,701
April 1, 2016, Aggregate Assessment Reduction	-	\$132,559,145
Modified Aggregate Assessment as of April 1, 2016	=	\$154,814,556
Residential Homeowner Market Share calculated at the time each participating insurer joined the CEA*	X	82.7793%
<b>New IAL Assessment Capacity as of April 1, 2016</b>	<b>=</b>	<b>\$128,154,406</b>

**CEA Participating Insurers**  
**2016 Maximum Earthquake-Loss-Funding-Assessment Levels**  
**(Based on CEA Written-Premium Market Share as of December 31, 2015)**

<u>Company Name</u>	<u>CEA Market Share</u>	<u>CA Residential Market Share*</u>	<u>Max Assessment 2nd Layer</u>	<u>Max Assessment New Layer</u>	<u>Total Max Assessments</u>	<u>Written Premium</u>
State Farm Group	34.911490%	17.805423%	\$ 577,989,734	\$ 83,049,524	\$ 661,039,258	\$ 221,493,290
USAA	13.161895%	4.494849%	\$ 217,906,484	\$ 31,310,295	\$ 249,216,779	\$ 83,504,639
Farmers	11.774264%	13.923268%	\$ 194,933,068	\$ 28,009,318	\$ 222,942,386	\$ 74,700,923
Allstate	11.519485%	6.471027%	\$ 190,714,982	\$ 27,403,234	\$ 218,118,216	\$ 73,084,497
Inter-Ins. Exchange	6.869703%	4.930096%	\$ 113,733,835	\$ 16,342,056	\$ 130,075,891	\$ 43,584,306
Safeco	5.902712%	2.284713%	\$ 97,724,475	\$ 14,041,721	\$ 111,766,196	\$ 37,449,308
CSAA <sup>1</sup>	5.250184%	6.191969%	\$ 86,921,303	\$ 12,489,447	\$ 99,410,750	\$ 33,309,390
Mercury	3.376257%	3.555711%	\$ 55,896,844	\$ 8,031,640	\$ 63,928,484	\$ 21,420,408
Nationwide	2.684987%	5.233632%	\$ 44,452,264	\$ 6,387,205	\$ 50,839,469	\$ 17,034,694
Liberty Mutual	2.331035%	4.037608%	\$ 38,592,288	\$ 5,545,203	\$ 44,137,491	\$ 14,789,074
FAIR Plan	0.701835%	0.797809%	\$ 11,619,488	\$ 1,669,567	\$ 13,289,055	\$ 4,452,741
Encompass	0.627717%	0.457827%	\$ 10,392,395	\$ 1,493,250	\$ 11,885,645	\$ 3,982,503
Foremost	0.550434%	1.419955%	\$ 9,112,912	\$ 1,309,405	\$ 10,422,317	\$ 3,492,188
Homesite	0.184386%	0.574768%	\$ 3,052,677	\$ 438,629	\$ 3,491,306	\$ 1,169,826
Armed Forces	0.094356%	0.052922%	\$ 1,562,141	\$ 224,458	\$ 1,786,599	\$ 598,633
MAPFRE	0.048776%	0.085177%	\$ 807,532	\$ 116,031	\$ 923,563	\$ 309,457
Golden Eagle	0.010469%	0.002059%	\$ 173,319	\$ 24,903	\$ 198,222	\$ 66,418
Commerce West	0.000016%	0.017238%	\$ 258	\$ 36	\$ 294	\$ 99
<b>TOTAL</b>	<b>100.00000%</b>	<b>72.33605%</b>	<b>\$ 1,655,586,000</b>	<b>\$237,885,938</b>	<b>\$ 1,893,471,938</b>	<b>\$ 634,442,394</b>

\* Based on California Department of Insurance 2014 California Market-Share Report. The Department's 2015 California Market-Share Report will not be publicly available until May 2016.

<sup>1</sup> ACA was combined with CSAA

<sup>2</sup> Garrison was combined with USAA

## **Governing Board Memorandum**

March 16, 2016

Agenda Item 7: Annual Report on the state of the economy by Raymond James & Associates, Inc., CEA's independent financial advisor

Recommended Action: No action required—information only

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Kapil Bhatia, Director of Public Finance, Raymond James & Associates, Inc.—CEA's independent financial advisor—will present to the Board the annual report on the state of the economy.

# Economic, Financial, Investment, and Risk Transfer Market Overview

Prepared for:



March 16, 2016

**RAYMOND JAMES**

**Kapil Bhatia**

**Managing Director, Public Finance**

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**Section 1**

Economic Overview

**Section 2**

Financial Market Overview

**Section 3**

Risk Transfer Market Overview

**Section 4**

CEA Investment Portfolio



## **Section 1:**

# Economic Overview

## U.S. ECONOMIC OVERVIEW

- Domestic economic sluggishness, low oil prices, European and Asian financial crises, and Federal Reserve actions have combined to create a volatile financial market environment, which have dampened global growth
- There are currently **7.8 million people unemployed in the United States**. In 2015, there were 1.7 million people added to the national civilian labor force
- There are currently **158 million civilians employed in the United States, which is 62.7% of the civilian population of 252 million** - the lowest rate since 1978 was 62.4% in September 2015 – a reflection of structural deficiency
- **U.S. unemployment rate is 4.9% (7.8 million) in January 2016** – down from a high of 9.7% in 2010. **However, the U-6 unemployment rate, which includes persons marginally attached to the labor force and those employed part time due to economic reasons, is 9.9% (15.5 million)**
  - The difference between U-6 and the unemployment rate reflects permanent structural changes to the global economy
- After the Fed's 0.25% December rate increase, **the market expects the Fed not to raise short-term interest rates**. Despite having indicated in December that they would raise rates more than once or twice, **the economy is facing slow growth with headwinds from a strong dollar and declines in the U.S. energy sector**
- **Oil is trading around \$36 per barrel and is expected to remain range bound for the rest of the year** – the World Bank has slashed its forecast for oil prices this year, saying the cost of a barrel of crude will stay near its current lows for the rest of 2016
- The oil producing nations have no reason to cut production and to some extent do not believe in markets or market economics
- The equity markets have been hit hard by the declines in the energy sector and concerns over China – **the S&P 500 has recovered slightly and is relatively flat for the year after being down by approximately 8%**
- **Fixed income markets are strong, however, credit spreads are widening even though interest rates are low**
  - **Municipal issuance was up by 12% in 2015 versus 2014** with \$378 billion issued
  - **Corporate issuance had a record year in 2015 with over \$1.5 trillion issued** – the sixth straight year that corporate issuance has surpassed \$1 trillion

## GLOBAL ECONOMIC OVERVIEW

### Europe

- In many European countries, heavy debt burdens, both private and public, are restraining growth
  - Several of Europe's central banks have cut key interest rates below zero and kept them there for more than a year and Japan has also implemented negative interest rates
- **The ECB, which began its bond purchasing program in March 2015, extended its \$63.5 billion bond buying program to March 2017 (and possibly beyond) from September 2016. The Central Bank also included the debt of regional and local governments, or muni debt, in purchases**
    - ECB Chief Draghi has said that fiscal policies should support the economic recovery while remaining in compliance with the fiscal rules of the European Union. The ECB is prepared to cut rates and expand its landmark quantitative easing program at their next policy meeting in March in the face of the slide in oil prices and China-led slowdown in emerging markets
  - **Eurozone growth in 2015 was estimated at 1.6% by the European Commission in November, and is forecast to creep up to 1.8% this year and 1.9% in 2017**

### China

- **China is growing, albeit slowly – we may see growth slow furthermore because the stock market is tumbling and creating low confidence in the economy**
  - China's fourth-quarter GDP growth is expected to slow to 6.8% from a year earlier
  - Analysts expect the world's second-largest economy will decrease further this year, with growth of 6.5% even if China hikes spending and cuts interest rates again as widely expected

### Interest Rates

- **Interest rates are still low globally with negative rates from 1 to 15 years**
  - 1-year for Italy
  - 1-year for Spain
  - 6-years for France
  - 8-years for Germany
  - 10-years for Japan
  - 15-years for Switzerland

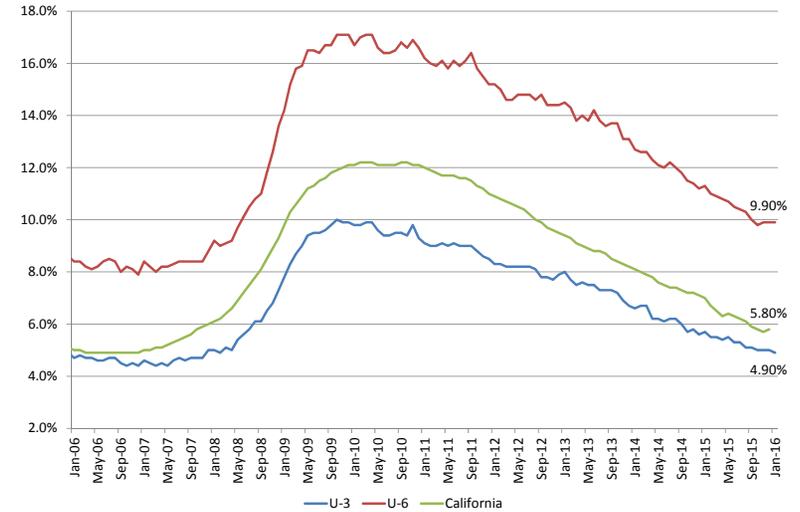
## THE OFFICIAL UNEMPLOYMENT RATE IS DECREASING BUT STRUCTURAL UNEMPLOYMENT REMAINS HIGH

- While the official unemployment rate remains the primary measure of changes in labor underutilization, the alternative measures provide different views of the extent to which the economy is not fully utilizing its labor resources
- Analyzing the gap between the official unemployment rate (U-3) and the broadest measure of labor underutilization (U-6) provides extra insight into whether the economy is healing or have the structural deficiency

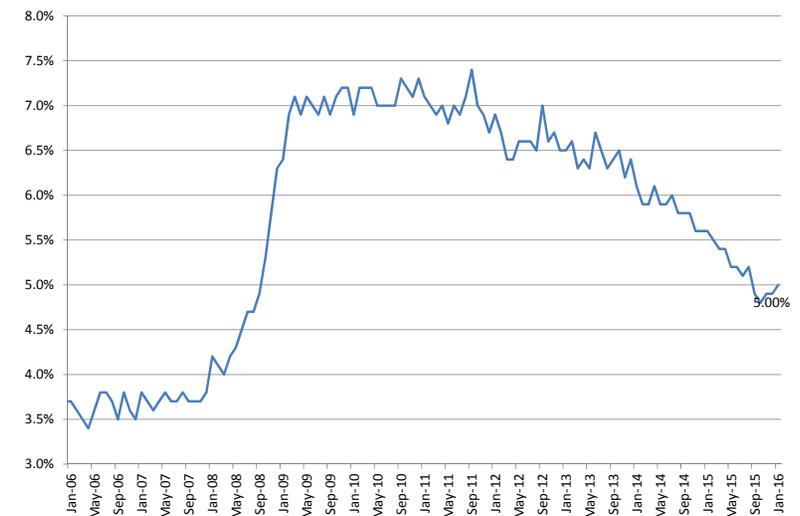
- There are few alternative measures of labor utilization. There is the official unemployment rate (U-3) and three broader measures (U-4, U-5 and U-6), which incorporate individuals who are not captured in the official measure:
  - U-3 is the official unemployment rate (i.e., the unemployed, as a percent of the civilian labor force)
  - U-4 includes the unemployed and discouraged workers
  - U-5 includes the unemployed, discouraged works, and the marginally employed
  - The broadest measure, called U-6, includes the unemployed, the marginally employed, and persons who are underemployed

	U-3	U-6	Difference between U-3 and U-6
<b>Current</b>	<b>4.9</b>	<b>9.9</b>	<b>5.0</b>
Min	4.4	7.9	3.4
Max	10.0	17.1	7.4
Date of Minimum	Oct-06	Dec-06	Apr-06
Date of Maximum	Oct-09	Oct-09	Sep-11

Unemployment Rates - U-3, U-6 and California



Difference Between U-3 and U-6 Unemployment Rates



Source: Bureau of Labor Statistics

## LABOR FORCE PARTICIPATION IS LAGGING

- The labor force participation rate stands at 62.7% - the lowest rate since 1978 was 62.4% in September 2015 – another reflection of structural deficiency
- The labor force participation rate has fallen due to cyclical factors such as workers temporarily dropping out of the workforce because of discouragement over job prospects, but also due to structural forces such as the Baby Boomers reaching retirement age, younger workers staying in school longer, and a need to re-train labor skill sets to match changing nature of the global economy

- The decline in the labor participation rate explains structural unemployment
- There are 15.5 million people unemployed in the United States

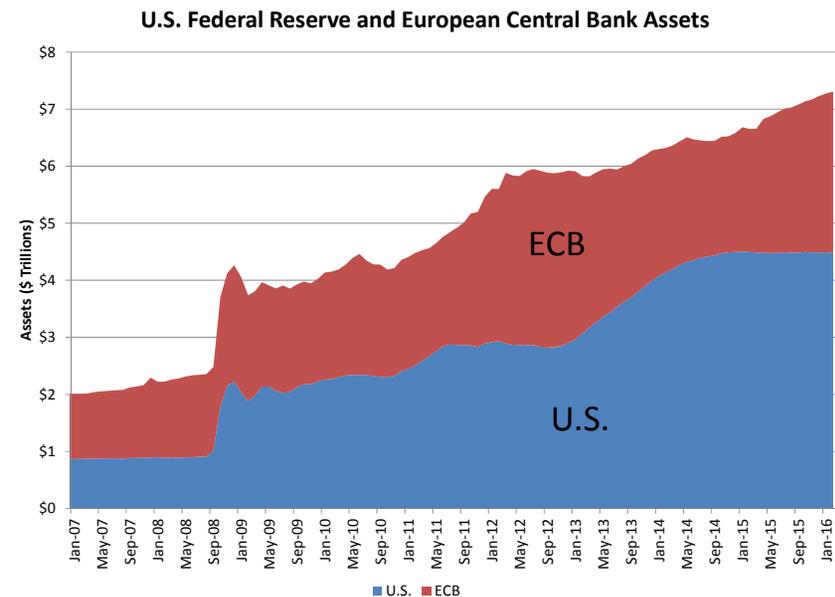
Labor Force Participation Rate



## QUANTITATIVE EASING

- Since the beginning of the financial market turmoil in August 2007, the U.S. Federal Reserve's balance sheet has grown in size and has changed in composition
- Total assets of the U.S. Federal Reserve have increased over 5x from \$870 billion in August 2007, to over \$4.5 trillion
- The ECB's balance sheet has more than increased by 2.5x to \$2.8 trillion from \$1.2 trillion in August 2007 as a result of its bond-buying program

- Since the Great Recession of 2007, global central banks of developed countries have implemented various intervention measures (i.e. Quantitative Easing / bond purchase programs, low or even negative interest rates, etc.), the numbers include:
  - 637 interest rate cuts since March 2008
  - \$12.3 trillion of asset purchases through global Quantitative Easing programs
  - \$8.3 trillion of global debt yielding 0% or less
  - **-1.11%** 2-year Swiss bond, the lowest-yielding government debt in the world
- The balance sheets of the U.S. Federal Reserve (\$4.5 trillion) and the European Central Bank (\$2.8 trillion) total \$7.3 trillion or 20% of the U.S. and Eurozone GDP
- Despite these quantitative easing measures, global growth is still stagnant with inflation expectations for the U.S. and Europe now falling below financial crisis 2008 levels
  - Growth remains anemic
  - Inflation remains low
  - Threat of deflation is high
  - U.S. GDP has grown by 2.9% since January 2007





## **Section 2:**

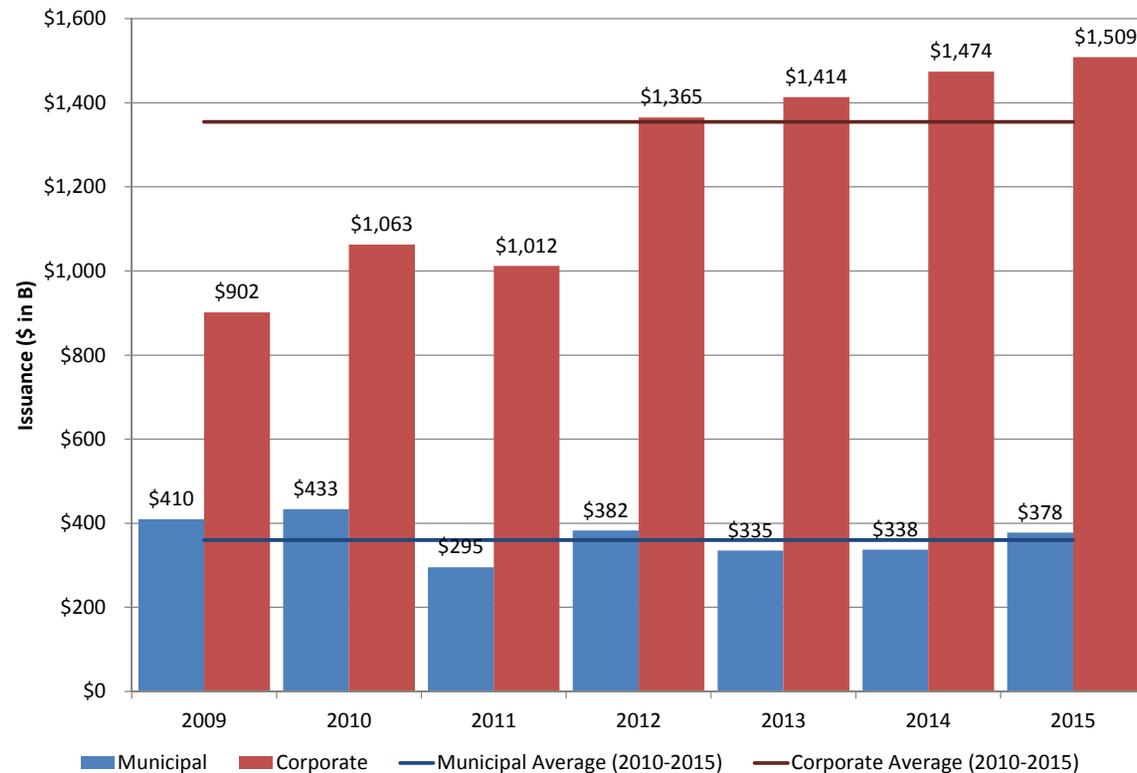
# Financial Market Overview

## BOND MARKETS

- **Municipal issuance was up by 12% in 2015 versus 2014** with \$378 billion issued, and is marginally above the average issuance of \$360 billion over the past five years
- **Corporate issuance had a record year in 2015 with over \$1.5 trillion issued** – the sixth straight year that corporate issuance has surpassed \$1 trillion

- Historically low interest rates have led to record setting corporate bond issuance amid strong investor demand
- Strong market activity
- Strong corporate profits
- Asset bubble

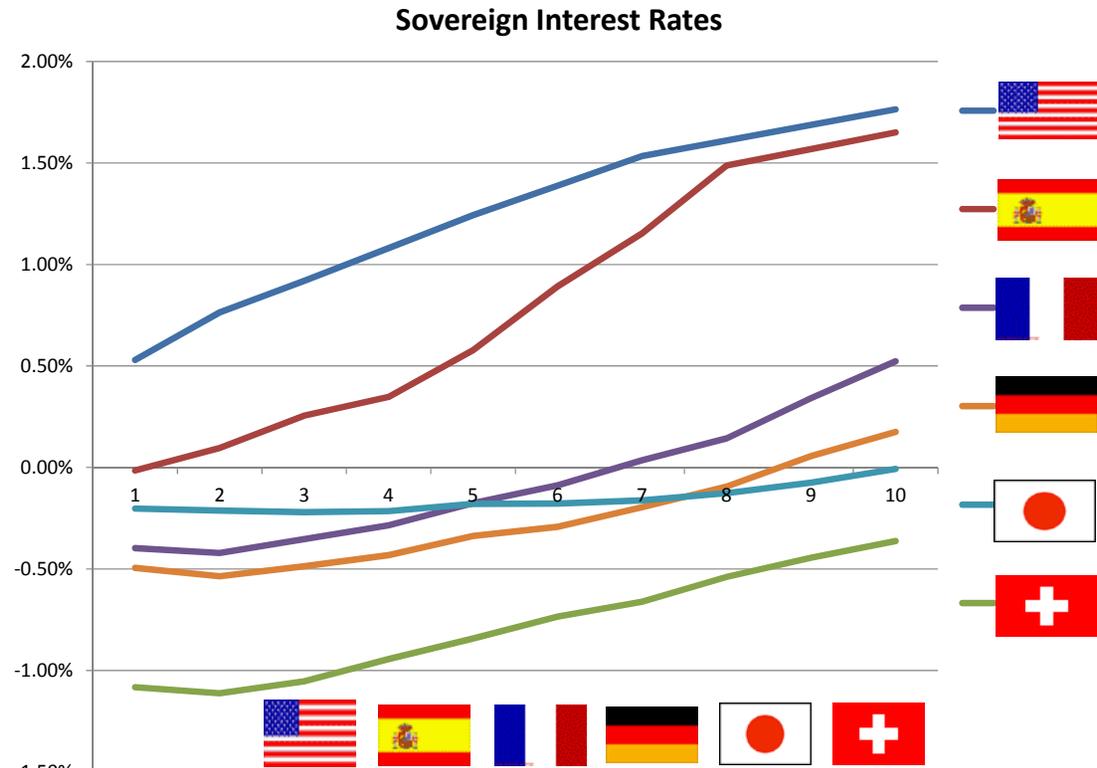
Historical Municipal and Corporate Issuance



## GLOBAL INTEREST RATES

- As there is financial unrest in Europe and Asia, the U.S. is a relatively safer alternative and is attractive from a yield standpoint relative to other countries

- Global interest rates are near historic lows with many below 0%
- Central banks in the Euro Zone, Japan, Sweden, Denmark and Switzerland have pushed their short term interest rate targets below zero, in an effort to weaken their currencies and fight disinflationary pressures
- For larger economies such as Japan and the Euro Zone, inflation remains stunningly weak, despite negative interest rates

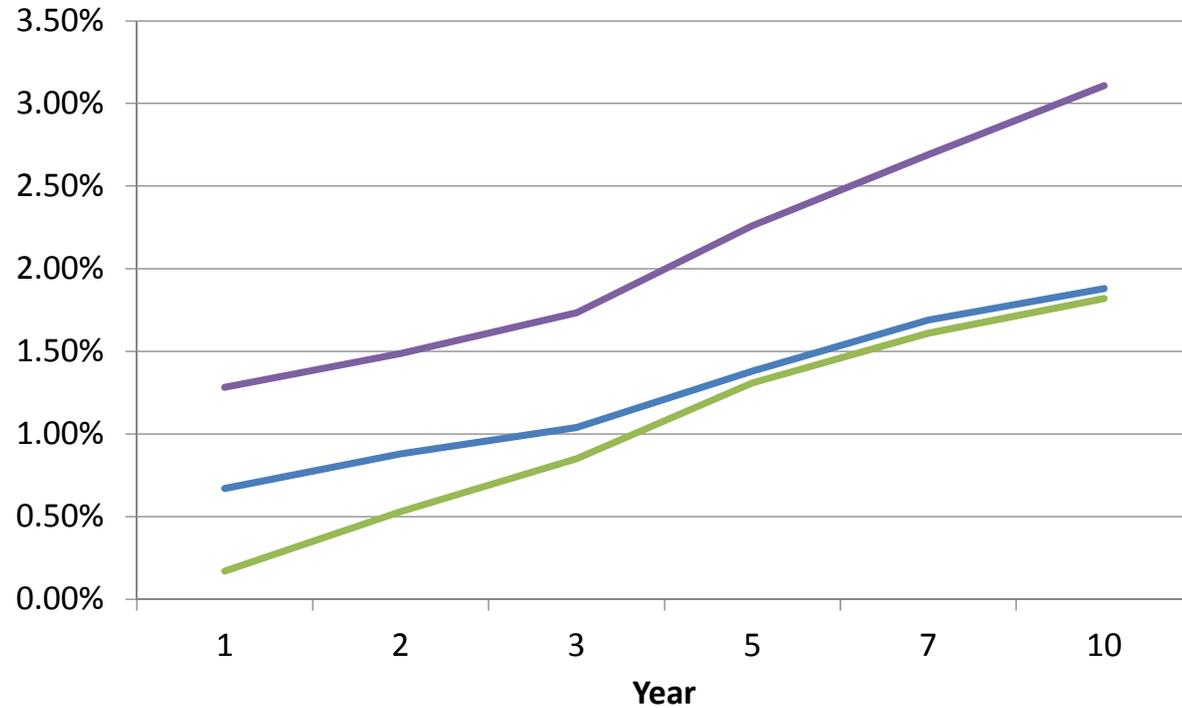


Term	U.S.	Spain	France	Germany	Japan	Switzerland
1	0.53%	-0.02%	-0.40%	-0.50%	-0.20%	-1.08%
2	0.76%	0.10%	-0.42%	-0.54%	-0.21%	-1.11%
3	0.92%	0.26%	-0.35%	-0.49%	-0.22%	-1.05%
4	1.08%	0.35%	-0.29%	-0.43%	-0.22%	-0.94%
5	1.24%	0.58%	-0.18%	-0.34%	-0.18%	-0.84%
6	1.39%	0.89%	-0.09%	-0.29%	-0.18%	-0.74%
7	1.53%	1.15%	0.04%	-0.20%	-0.16%	-0.66%
8	1.61%	1.49%	0.14%	-0.09%	-0.13%	-0.54%
9	1.69%	1.57%	0.34%	0.06%	-0.08%	-0.45%
10	1.77%	1.65%	0.52%	0.18%	-0.01%	-0.36%

Source: Bloomberg

## U.S. INTEREST RATES

### U.S. Treasury Rates



— Current — 1-Yr Prior — 10-Yr Avg

U.S. Treasury Rates					
	1-Year	1.75-Year	3-Year	5-Year	10-Year
Current	0.67	0.83	1.04	1.38	1.88
1-Yr Prior	0.17	0.44	0.85	1.31	1.82
5-Yr Average	0.19	0.38	0.72	1.32	2.31
10-Yr Average	1.28	1.44	1.73	2.26	3.11

- Treasury rates are above their historical lows but still below their 5 and 10-year historical averages
- Rates are not expected to increase



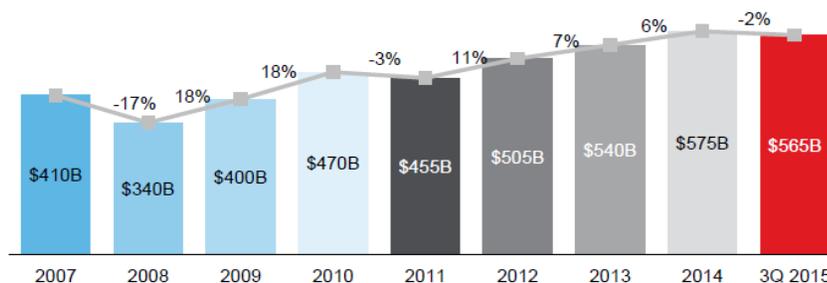
## **Section 3:**

# Risk Transfer Market Overview

- As competition has intensified and capital has remained plentiful, broader terms and conditions have been included in traditional and collateralized reinsurance and it seeks to maintain market share
- Negative trends in the reinsurance marketplace include: a benign loss environment, persistently low interest rates, and stiff competition
- All four rating agencies have negative outlooks for the reinsurance industry due to challenges such as low interest rates, slower demand, and increased competition due to alternative capital

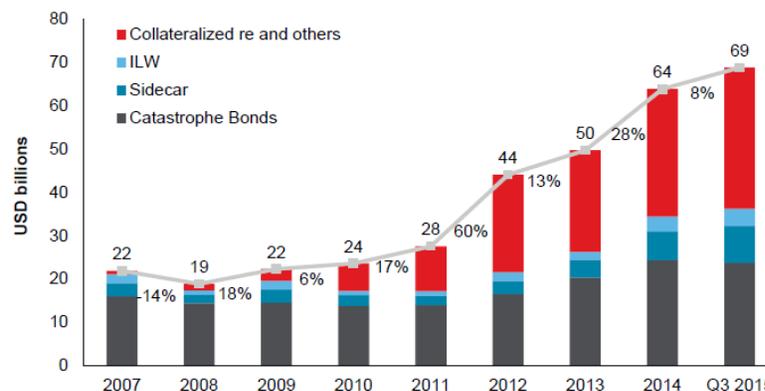
## REINSURANCE MARKET OVERVIEW

- Traditional reinsurer capital has declined modestly to \$565 billion in 2015 compared to \$575 billion at year-end 2014
  - Most capital positions were impacted by unrealized investment losses and/or adverse foreign exchange movement. Despite a modest decline from its peak position in 2014, reinsurance transactions remain supported by high quality capital



Source: Individual company reports, Aon Benfield Analytics

- Alternative capital has increased to \$69 billion and represents 12% of overall reinsurance capital. Collateralized reinsurance continued its upward trend with more than a 10% increase in 2015 to \$33 billion, which represents nearly 50% of the overall capacity provided by the alternative markets



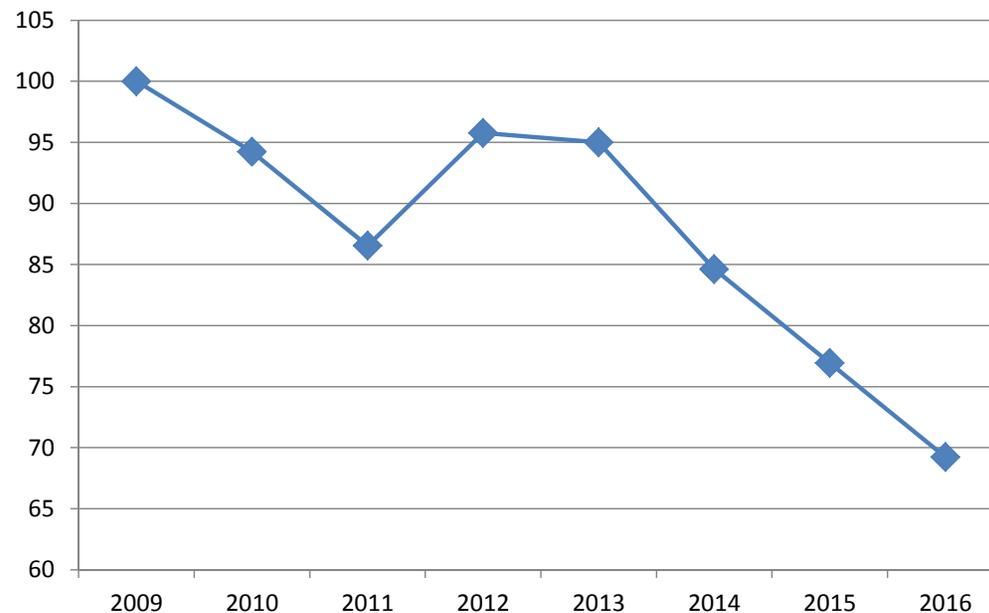
Source: Aon Securities Inc.

## REINSURANCE PRICING CONDITIONS

- Following several years of compound price reductions, risk adjusted rate reductions continue for catastrophe reinsurance but have slowed from prior years
- Reinsurance demand is projected to increase slightly in 2016 due to factors including updates to rating agency capital models, the continued privatization of reinsurable risks from government pools, and reinsurers' expansion into new lines of business and larger demand from less developed or developing countries
- Despite signs of price stabilization in peak property catastrophe zones during the June / July 2015 renewals, the hopeful forecasts for a "softening in the softening" at the January 2016 renewal season have proved illusory in all but a few cases

- A lack of catastrophe loss activity and abundant capital has driven the softening market in recent years
- Rates are projected to be flat to lower by 10% in the U.S. market for 2016

Global Property Catastrophe ROL Index - 2009 to 2016

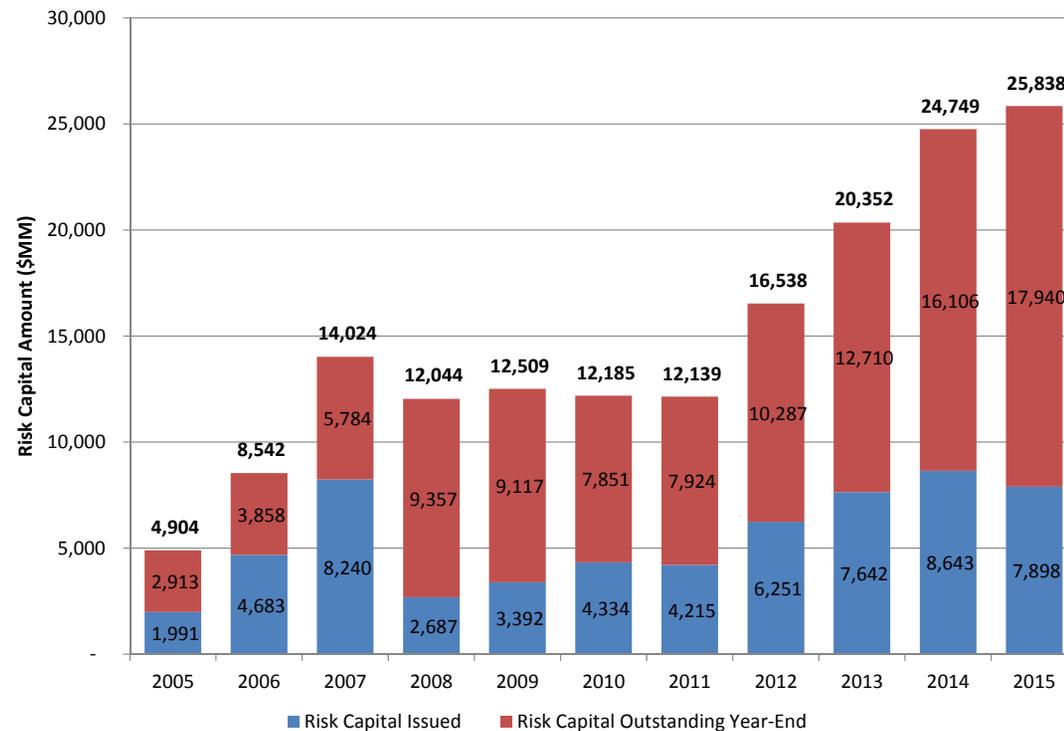


Source: Guy Carpenter

## CATASTROPHE BOND MARKET OVERVIEW

- Pricing has generally stabilized from the absolute lows of 2014, particularly for lower rate-on-line deals as investors have shown stronger demand for higher yielding transactions
- The catastrophe bond market has grown dramatically in recent years and the increased market demand has also driven pricing down
- During 2015 the outstanding catastrophe bond market grew marginally, ending the year at approximately \$26 billion, the highest level ever recorded
- 2016 is also projected to have only minimal to modest change from 2015 as we expect the collateralized reinsurance market to increase in 2016

Risk Capital Issued and Outstanding





## **Section 4:**

# CEA Investment Portfolio

## CEA INVESTMENT POLICIES AND PORTFOLIO OVERVIEW

- CEA's investment portfolio totals \$6.0 billion with an effective duration of 1.95 years and is comprised of liquidity, primary, claims-paying and mitigation funds
- The maximum effective duration pursuant to the investment policy for the total portfolio was changed to 3.00 years from 1.75 years in December 2015

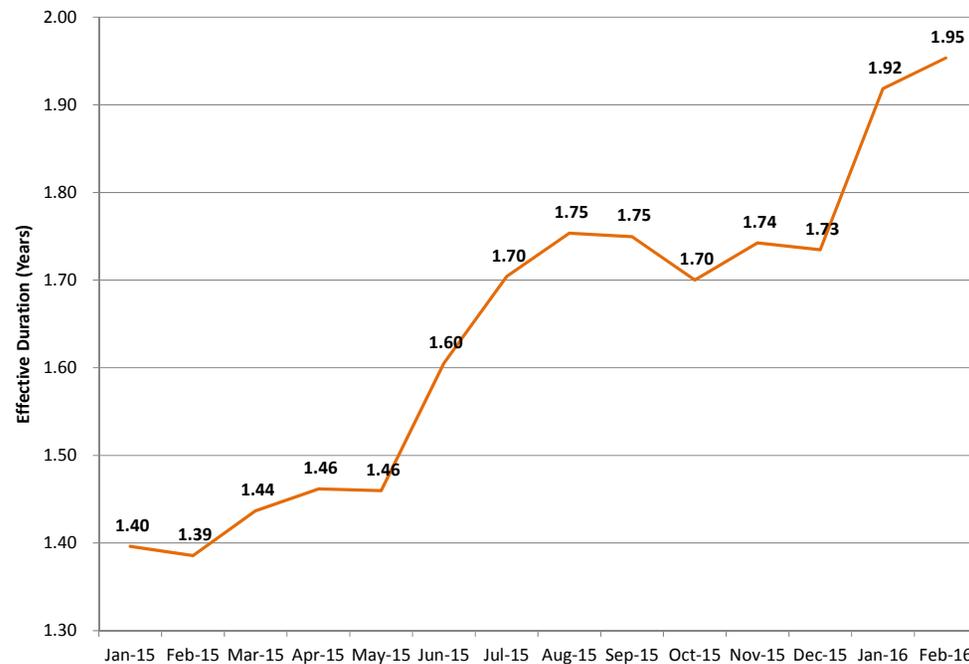
CEA Investment Policy Summary				
Fund	Liquidity	Primary	Claims-Paying	Mitigation
<b>Purpose</b>	Funds to pay for the operating expenses and initial claims from an earthquake	Funds in excess of the Liquidity Fund to pay claims following an earthquake	Bond proceeds from the CEA's issuance of revenue bonds to pay claims following an earthquake	Funds to pay for the mitigation program and associated expenses
<b>Treasuries / Agencies Composition</b>	Up to 100% Treasuries / Max. 50% Agencies	100% Treasuries	Up to 100% Treasuries / Max. 50% Agencies	Up to 100% Treasuries / Max. 50% Agencies
<b>Maximum Final Maturity</b>	181 days	5 years	5 years	91 days
<b>Current Portfolio</b>	\$838 million	\$4.4 billion	\$672 million	\$20 million
<b>1-Year Total Return</b>	0.13%	1.39%	1.42%	0.12%
<b>Effective Duration</b>	0.16 years	2.25 years	2.25 years	0.15 years

CEA Investment Portfolio Statistics - February 28, 2016					
Fund	Market Value (\$000's)	Composition (% of Mkt. Value)	12-Month Total Return	12-Month Income Return	Effective Duration (Years)
Liquidity	\$837,588	14%	0.13%	0.01%	0.16
Primary	\$4,467,384	74%	1.39%	1.35%	2.25
Claims-Paying	\$675,298	11%	1.42%	1.47%	2.25
Mitigation	\$19,791	0%	0.12%	0.41%	0.15
<b>Total</b>	<b>\$6,000,061</b>	<b>100%</b>	<b>1.22%</b>	<b>1.18%</b>	<b>1.95</b>
<b>Primary and Liquidity Combined</b>	<b>\$5,304,972</b>	<b>88%</b>	<b>1.19%</b>	<b>1.14%</b>	<b>1.92</b>
<b>Primary, Liquidity, and Claims-Paying Combined</b>	<b>\$5,980,270</b>	<b>100%</b>	<b>1.22%</b>	<b>1.18%</b>	<b>1.96</b>

## INVESTMENT PORTFOLIO DURATION

- In December 2015, the CEA revised its investment portfolio maximum duration to 3.00 years from 1.75 years
  - The increase in duration will allow CEA to maximize its investment return and take advantage of market conditions
  - As of February 28, 2016, the CEA's overall portfolio duration is 1.95 years
    - Primary Fund – 2.25 years
    - Liquidity Fund – 0.16 years
    - Mitigation Fund – 0.15 years
    - Claims-Paying Fund – 2.25 years
- After the CEA's increase to its duration target from 1.75 years to 3.00 years in December 2015, the overall portfolio's duration has increased to 1.95 years

Total Portfolio - Overall Effective Duration (Years)



## INVESTMENT PORTFOLIO SUMMARY

- **The CEA's revised investment policy overall duration target of 3.00 years will generate additional investment income without taking on any additional risk**
- In December 2015, the CEA revised its investment portfolio maximum duration to 3.00 years from 1.75 years
- The timing of the duration increase was timely due to the Federal Reserve increasing rates by 0.25% at their December 16<sup>th</sup> meeting, which has decreased the 3-year and 5-year Treasury by 27 and 33 basis points, respectively
- Based on the maturity structure of the investment portfolio and reinvesting the Primary Fund and Claims-Paying Fund maturities at a maximum maturity of 5 years:
  - As of January 2017 the overall portfolio duration is projected be approximately 2.40 years with the Primary Fund duration at approximately 2.75 years and the Claims-Paying Fund duration at approximately 2.85 years
  - As of January 2018, the overall portfolio duration is projected to be approximately 2.65 years with the Primary Fund duration at approximately 3.00 years and the Claims-Paying Fund duration at approximately 3.25 years
- By increasing the duration of the portfolio, the CEA is expected to increase its annual investment income by approximately \$10 million

## CONCLUSION

- Domestic economic sluggishness, low oil prices, European and Asian financial crises, and Federal Reserve actions have combined to create a volatile financial market environment, which have dampened global growth
- While the U.S. economy has recovered all jobs lost during the recession, there is a significant portion of the population that is long-term unemployed and the labor participation rate is historically low
- There is a slack in the labor and capital markets and a record low level of labor participation. The labor prospects for the long-term unemployed decline further the longer they remain unemployed
- Despite global quantitative easing measures – the balance sheets of the U.S. Federal Reserve and the European Central Bank total \$7.3 trillion or 20% of total U.S. and Eurozone GDP – global growth is still stagnant with inflation expectations for the U.S. and Europe now falling below financial crisis 2008 levels
- As there is financial unrest in Europe and Asia, the U.S. is a relatively safer alternative and is attractive from a yield standpoint relative to other countries
- With historically low interest rates, the CEA has benefitted from strong investor demands for its Series 2014 Revenue Bonds
- A lack of catastrophe loss activity and abundant capital has driven the softening reinsurance market in recent years – rates are projected to be flat to lower by 10% in the U.S. market for 2016
- The CEA's revised investment policy overall duration target of 3.00 years will generate additional investment income without taking on any additional risk

## DISCLAIMER

The information contained herein is solely intended to facilitate discussion of potentially applicable financing applications and is not intended to be a specific buy/sell recommendation, nor is it an official confirmation of terms.

The analysis or information presented herein is based upon projections and have limitations. No representation is made that it is accurate or complete or that any results indicated will be achieved. In no way is past performance indicative of future results. Changes to any prices, levels, or assumptions contained herein may have a material impact on results. Any estimates or assumptions contained herein represent our best judgment as of the date indicated and are subject to change without notice.



# FINANCIAL REPORT

**December 31, 2015**

## Financial Report Table of Contents

	Page
<b>Financial Statements &amp; Budgets</b>	
Balance Sheet as of December 31, 2015	1
Statement of Revenues, Expenses and Changes in Net Position Year-To-Date December 31, 2015	2
Insurance Services Budgeted and Actual Expenditures for 2015 Budget Year	3
Mitigation Budgeted and Actual Expenditures for 2015 Budget Year	4
Annual Capital Accumulated from Premium as of December 31, 2015	5
<b>Investments</b>	
Annual Investment Income as of December 31, 2015	6
Investment Portfolio Distribution at Market Value CEA Liquidity & Primary Funds as of December 31, 2015	7
Investment Portfolio Distribution at Market Value Claim(s)-Paying Funds & Mitigation Fund as of December 31, 2015	8
<b>Debt</b>	
Schedules of Outstanding Debt 2006 Revenue Bond as of December 31, 2015	9
Schedules of Outstanding Debt 2014 Revenue Bond 2-year as of December 31, 2015	10
Schedules of Outstanding Debt 2014 Revenue Bond 3-year as of December 31, 2015	11
Schedules of Outstanding Debt 2014 Revenue Bond 5-year as of December 31, 2015	12
<b>Claim-Paying Capacity</b>	
Available Capital Report as of December 31, 2015	13
Claim-Paying Capacity as of December 31, 2015	14
Historical Claim-Paying Capacity (CPC) December 31, 1997 through December 31, 2005	15
Historical Claim-Paying Capacity (CPC) December 31, 2006 through December 31, 2015	16
<b>Risk-Transfer Programs</b>	
Risk-Transfer Program Summary as of December 31, 2015	17
2015 Total Premium Risk-Transfer Program as of December 31, 2015	18
Annual Risk-Transfer Premium December 31, 1997 through December 31, 2004	19
Annual Risk-Transfer Premium December 31, 2005 through December 31, 2015	20
Annual Risk-Transfer Premium and Limit December 31, 1997 through December 31, 2004	21
Annual Risk-Transfer Premium and Limit December 31, 2005 through December 31, 2015	22

Note: See Fact Sheets for Policies In Force, Written Premiums, and Exposures.

# **Financial Statements & Budgets**

**California Earthquake Authority**  
**Balance Sheet**  
**as of December 31, 2015**

**Assets**

Cash and investments:	
Cash and cash equivalents	\$ 114,968,402
Restricted cash and equivalents	24,925,235
Restricted investments	350,303,454
Investments	<u>5,427,063,625</u>
Total cash and investments	5,917,260,716
Premiums receivable, net of allowance for doubtful accounts of \$7,801,037	47,897,293
Capital contributions receivable	-
Risk capital surcharge receivable	-
Interest receivable	15,472,294
Securities receivable	-
Restricted securities receivable	-
Prepaid reinsurance premium	10,004,364
Transformer reinsurance premium deposit	-
Prepaid transformer maintenance premium	1,558,347
Equipment, net	309,658
Other assets	<u>354,407</u>
Total assets	<u><u>\$ 5,992,857,079</u></u>

**Liabilities and Net Position**

Unearned premiums	\$ 326,712,929
Accounts payable and accrued expenses	11,019,119
Payable to California Residential Mitigation Program	-
Accrued reinsurance premium expense	-
Loss and loss adjustment expense reserves	407,911
Securities payable	-
Revenue bond payable	350,000,000
Revenue bond interest payable	<u>4,292,250</u>
Total liabilities	<u>692,432,209</u>

Net position:

Restricted, expendable	28,800,571
Unrestricted, participating insurer contributed capital	777,384,796
Unrestricted, State of California contributed capital	225,118,308
Unrestricted, all other remaining	<u>4,269,121,195</u>
Total net position	<u>5,300,424,870</u>
Total liabilities and net position	<u><u>\$ 5,992,857,079</u></u>

**California Earthquake Authority**  
**Statement of Revenues, Expenses and Changes in Net Position**  
**Year-Ended December 31, 2015**

Underwriting income:	
Premiums written	\$ 634,442,394
Less premiums ceded - reinsurance	(189,085,436)
Less risk capital surcharge	<u>-</u>
Net premiums written	<u>445,356,958</u>
Change in unearned premiums	<u>(15,867,039)</u>
Net premiums earned	<u>429,489,919</u>
Expenses:	
Losses and loss adjustment expenses	1,588,987
Participating Insurer commissions	63,463,204
Participating Insurer operating costs	19,600,543
Reinsurance broker commissions	4,500,000
Pro forma premium taxes equivalent	14,918,888
Other underwriting expenses	<u>38,860,011</u>
Total expenses	<u>142,931,633</u>
Underwriting profit	286,558,286
Net investment income	25,586,552
Other income	405,599
Grant Revenue	3,000,000
Financing expenses, net	(6,118,410)
Earthquake Loss Mitigation Fund expenses	(1,796,466)
Participating Insurer Contributed Capital	-
State of California premium tax contribution equivalent	<u>14,918,888</u>
Increase in net position	322,554,449
Net position, beginning of year	<u>4,977,870,421</u>
Net position, end of year	<u><u>\$ 5,300,424,870</u></u>

**CALIFORNIA EARTHQUAKE AUTHORITY**  
**Insurance Services**  
**Budgeted and Actual Expenditures**  
**2015 Budget Year**  
**as of December 31, 2015**

	Approved 2015 Budget 1/1/2015	Adjustments <sup>A</sup>	Augmentations	2015 Budget after Augmentations and Adjustments	Actual Expenditures	Augmented & Adjusted Approved Budget (d) vs. Actual Expenditures (e)	Percentage used of Augmented & Adjusted Approved 2015 Budget
Human Resources:							
Compensation and Benefits <sup>3</sup>	\$ 16,670,520	\$ 51,624	\$ 232,000	\$ 16,954,144	\$ 16,546,890	\$ 407,254	97.60%
Travel	472,338	(96,475)	-	375,863	268,118	107,745	71.33%
Other	1,094,827	(406,266)	-	688,561	442,780	245,781	64.31%
Board Meeting	33,000	(16,571)	-	16,429	9,464	6,965	57.61%
Administration & Office	1,198,429	(369,367)	-	829,062	703,576	125,486	84.86%
EDP Hardware	115,270	43,000	-	158,270	191,042	(32,772)	> 100.00%
EDP Software	1,204,490	(110,500)	-	1,093,990	1,131,963	(37,973)	> 100.00%
Information Technology <sup>3</sup>	1,255,830	218,593	1,100,000	2,574,423	2,545,542	28,881	98.88%
Telecommunications	241,714	4,483	-	246,197	216,279	29,918	87.85%
Rent/Lease	876,749	(50,425)	-	826,324	725,382	100,942	87.78%
Compliance	10,000	(10,000)	-	-	15,525	(15,525)	> 100.00%
Government Affairs	298,000	(122,000)	-	176,000	48,000	128,000	27.27%
Insurance	189,138	30,862	-	220,000	118,739	101,261	53.97%
Internal Audit	50,000	15,000	-	65,000	312	64,688	0.48%
Intervener Fees	-	-	-	-	-	-	0.00%
Other	3,000	30,231	-	33,231	33,439	(208)	> 100.00%
Regulatory Expenses	150,000	75,000	-	225,000	214,397	10,603	95.29%
<b>Total Statutory Expenditures</b>	<b>\$ 23,863,305</b>	<b>\$ (712,811)</b>	<b>\$ 1,332,000</b>	<b>\$ 24,482,494</b>	<b>\$ 23,211,448</b>	<b>\$ 1,271,046</b>	<b>94.81%</b>
Audit Services	109,000	-	-	109,000	109,000	-	100.00%
Capital Market	9,400,500	(2,700)	-	9,397,800	9,151,348	246,452	97.38%
Claims	10,000	239,620	-	249,620	209,489	40,131	83.92%
Loans	-	-	-	-	-	-	0.00%
Grants	-	-	-	-	-	-	0.00%
Investment Services	3,174,856	(73,000)	-	3,101,856	2,834,817	267,039	91.39%
Legal Services	6,967,920	(4,033,500)	-	2,934,420	3,104,004	(169,584)	> 100.00%
Loss-Modeling	961,500	34,000	-	995,500	887,500	108,000	89.15%
Marketing Services <sup>1</sup>	11,179,355	(705,265)	290,400	10,764,490	9,259,264	1,505,226	86.02%
Producer Compensation	61,684,374	115,626	-	61,800,000	63,463,204	(1,663,204)	> 100.00%
Participating Insurer Operating Costs <sup>2&amp;4</sup>	19,060,471	35,729	1,209,650	20,305,850	19,971,695	334,155	98.35%
Seismic Related Research	100,000	(100,000)	-	-	-	-	0.00%
Engineering Related Research	250,000	100,000	-	350,000	19,000	331,000	5.43%
Risk Transfer	210,213,580	(200,000)	-	210,013,580	193,585,436	16,428,144	92.18%
<b>Total Non-Statutory Expenditures</b>	<b>\$ 323,111,556</b>	<b>\$ (4,589,490)</b>	<b>\$ 1,500,050</b>	<b>\$ 320,022,116</b>	<b>\$ 302,594,757</b>	<b>\$ 17,427,359</b>	<b>94.55%</b>
<b>Total Budget Expenditures</b>	<b>\$ 346,974,861</b>	<b>\$ (5,302,301)</b>	<b>\$ 2,832,050</b>	<b>\$ 344,504,610</b>	<b>\$ 325,806,205</b>	<b>\$ 18,698,405</b>	<b>94.57%</b>

<sup>1</sup>Augmentation to fund an additional marketing project in the 2015 IT project portfolio from February 19, 2015 Governing Board Meeting Agenda Item 12.

<sup>2</sup>Augmentation to cover immediate research and creative costs to directly support marketing-document development from February 19, 2015 Governing Board Meeting Agenda Item 6.

<sup>3</sup>Augmentation for expenses for administration and claim system software and vendor services (CPP Project) from the August 26, 2015 Governing Board meeting Agenda items 15 and 20.

<sup>4</sup>Augmentation for the expenses for the production and distribution of new marketing-documents from the August 26, 2015 Governing Board meeting Agenda item 9.

<sup>A</sup>Adjustment to meet insurance services end-of-year projections.

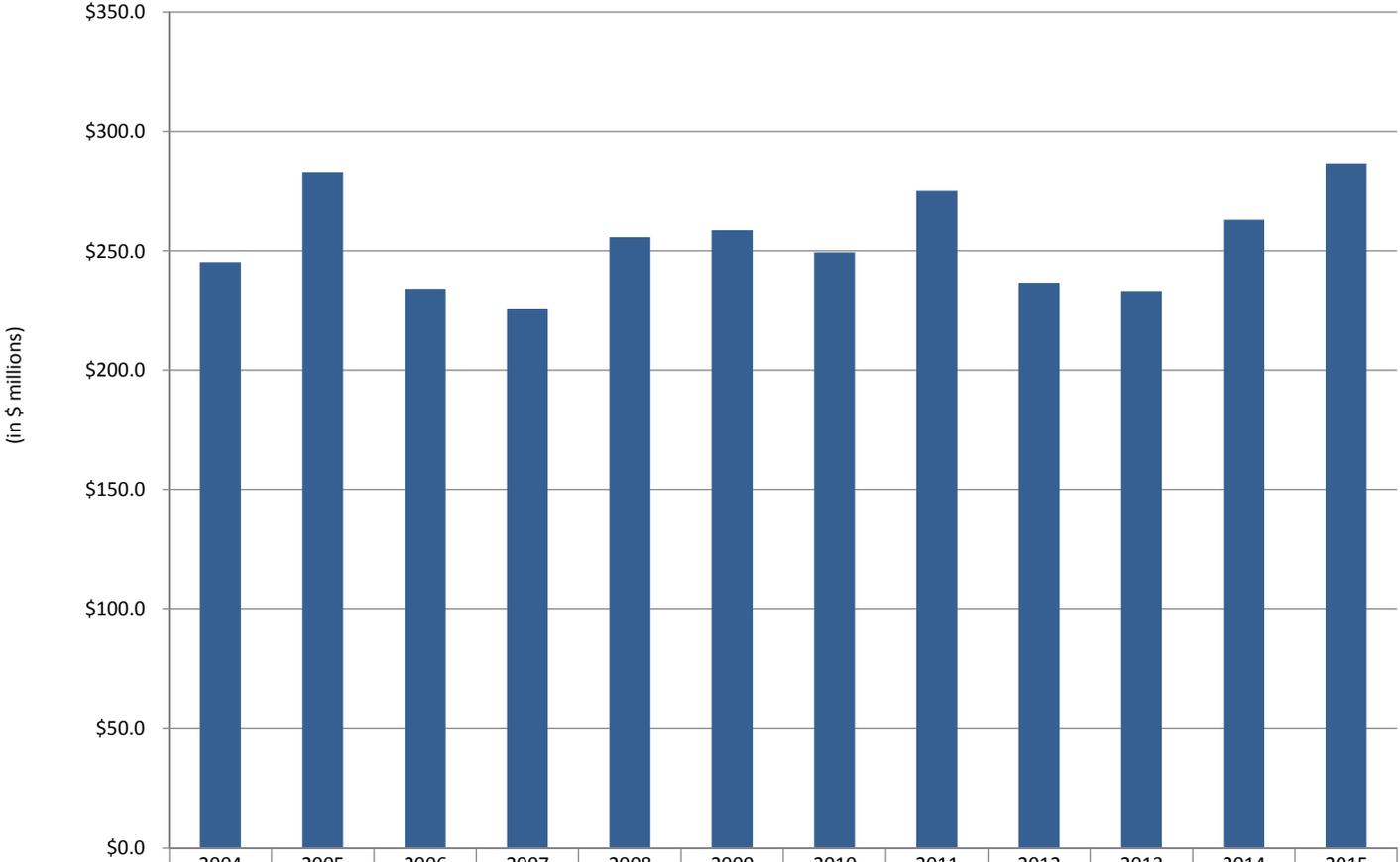
**CALIFORNIA EARTHQUAKE AUTHORITY**  
**Mitigation**  
**Budgeted Expenditures and Actual Expenditures**  
**2015 Budget Year**  
**as of December 31, 2015**

	(a)	(b)	(c)	(d) (d=a+b+c)	(e)	(f) (f=d-e)	(g) (g=e/d)
	<u>Approved 2015 Budget 1/1/2015</u>	<u>Adjustments</u>	<u>Augmentations</u>	<u>2015 Budget after Augmentations and Adjustments</u>	<u>Actual Expenditures</u>	<u>Augmented &amp; Adjusted Approved Budget (d) vs. Actual Expenditures (e)</u>	<u>Percentage used of Augmented &amp; Adjusted Approved 2015 Budget</u>
Human Resources:							
Compensation and Benefits	\$ 1,219,169	\$ -	\$ -	\$ 1,219,169	\$ 1,131,602	\$ 87,567	92.82%
Travel	47,500	-	-	47,500	27,381	20,119	57.64%
Other	19,000	-	-	19,000	11,592	7,408	61.01%
Administration & Office	69,600	-	-	69,600	46,049	23,551	66.16%
Information Technology	-	-	-	-	(1,409)	1,409	0.00%
Telecommunications	1,500	-	-	1,500	12,013	(10,513)	>100.00%
Rent/Lease	700	-	-	700	49,113	(48,413)	>100.00%
<b>Total Operating Expenditures</b>	<b>\$ 1,357,469</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,357,469</b>	<b>\$ 1,276,341</b>	<b>\$ 81,128</b>	<b>94.02%</b>
Investment Services	28,400	-	-	28,400	12,889	15,511	45.38%
Legal Services	50,000	-	-	50,000	3,900	46,100	7.80%
Marketing <sup>1</sup>	38,000	38,000	48,675	124,675	87,346	37,329	70.06%
Seismic - Related	19,000	(19,000)	-	-	-	-	0.00%
Engineering - Related <sup>2</sup>	1,019,000	(19,000)	20,000	1,020,000	429,880	590,120	42.15%
<b>Total Other Expenditures</b>	<b>\$ 1,154,400</b>	<b>\$ -</b>	<b>\$ 68,675</b>	<b>\$ 1,223,075</b>	<b>\$ 534,015</b>	<b>\$ 689,060</b>	<b>43.66%</b>
<b>Total Expenditures</b>	<b>\$ 2,511,869</b>	<b>\$ -</b>	<b>\$ 68,675</b>	<b>\$ 2,580,544</b>	<b>\$ 1,810,356</b>	<b>\$ 770,188</b>	<b>70.15%</b>

<sup>1</sup>Augmentation to cover research fees, a house-inspector focus group, and report development/publication from May 15, 2015 Governing Board Meeting Agenda Item 14

<sup>2</sup>Augmentation to cover home inspectors conducting inspections in Phase II from May 15, 2015 Governing Board Meeting Agenda Item 14

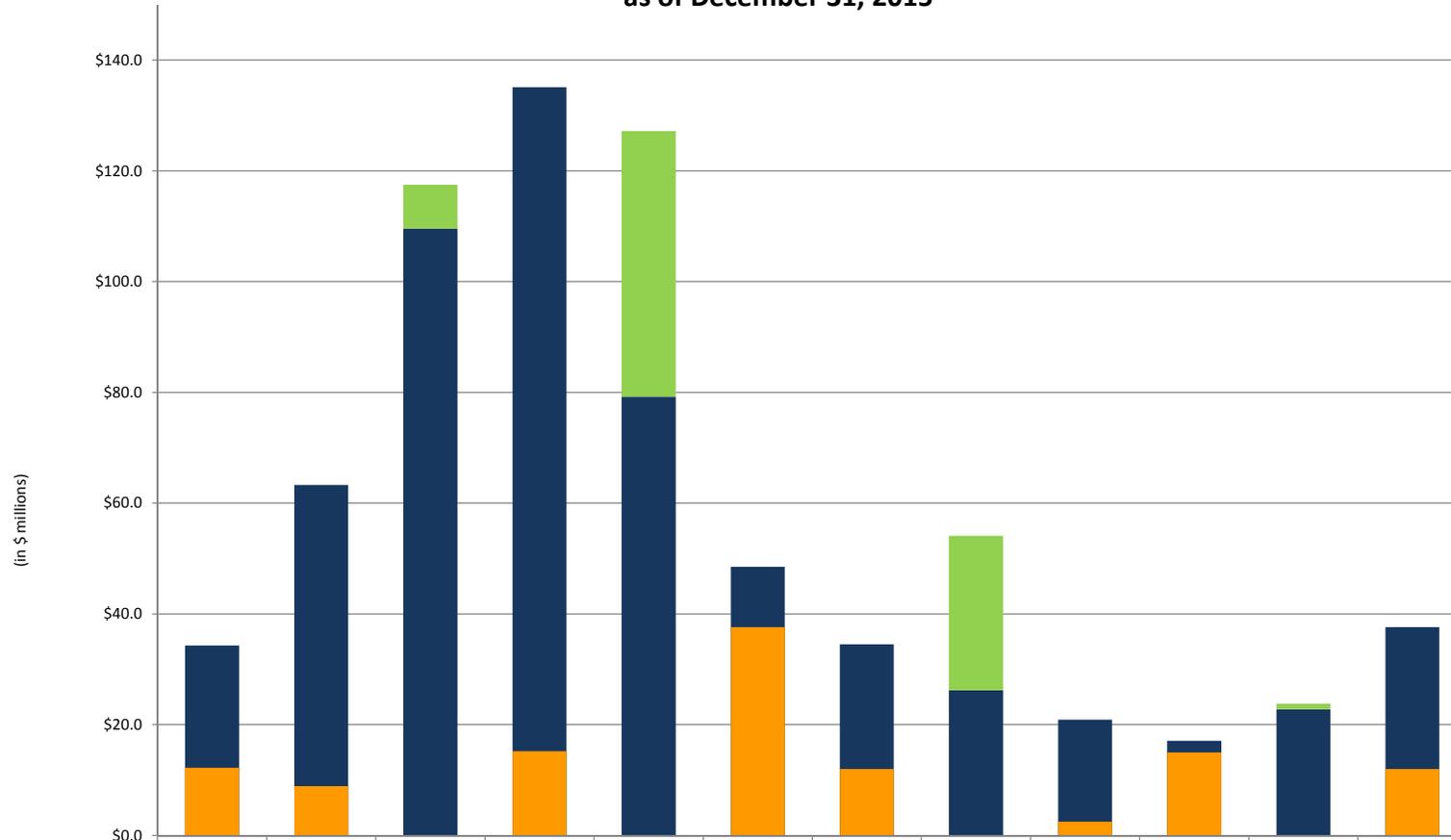
**California Earthquake Authority  
Annual Capital Accumulated from Premium  
as of December 31, 2015**



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Capital Accumulated from Premium	\$245.2	\$283.1	\$234.1	\$225.5	\$255.7	\$258.6	\$249.3	\$275.0	\$236.7	\$233.1	\$263.0	\$286.6

# **Investments**

**California Earthquake Authority  
Annual Investment Income  
as of December 31, 2015**

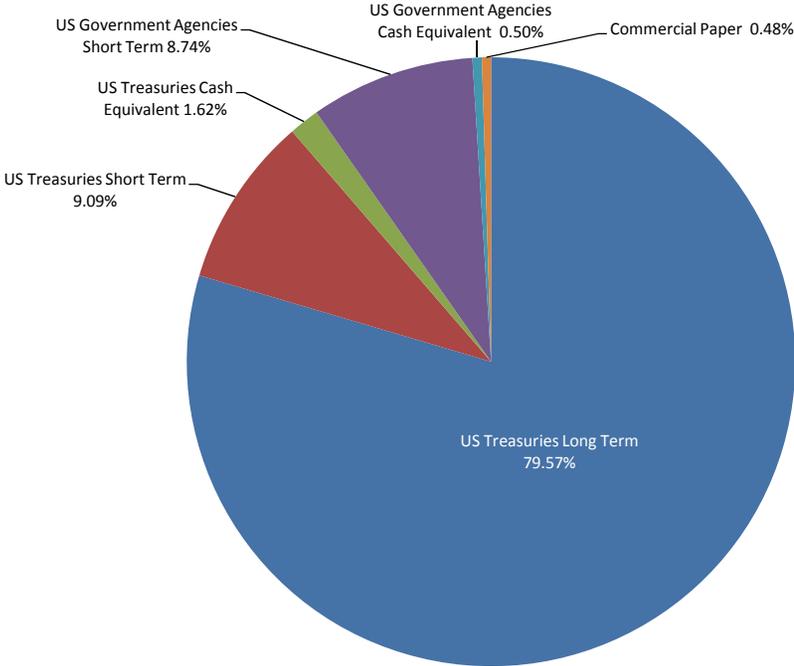


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Net Investment Income*	\$22.1	\$54.4	\$117.5	\$119.9	\$127.2	\$10.9	\$22.5	\$54.1	\$18.4	\$2.1	\$23.8	\$25.6
Change Unrealized Gain	\$0	\$0	\$7.9	\$0	\$48.0	\$0	\$0	\$27.9	\$0	\$0	\$1.0	\$0.0
Investment Income	\$34.3	\$63.3	\$109.6	\$135.1	\$79.2	\$48.5	\$34.5	\$26.2	\$20.9	\$17.1	\$22.8	\$37.6
Change Unrealized Loss	\$12.2	\$8.9	\$0	\$15.2	\$0	\$37.6	\$12.0	\$0	\$2.5	\$15.0	\$0	\$12.0

\*Net Investment Income is investment income net of unrealized gain or unrealized loss and ties to the financial statements.

**California Earthquake Authority  
Investment Portfolio Distribution at Market Value  
as of December 31, 2015**

<b>CEA Liquidity &amp; Primary Funds:</b>	<b>\$5,220,423,109</b>
US Treasuries Long Term	79.57%
US Treasuries Short Term	9.09%
US Treasuries Cash Equivalent	1.62%
US Government Agencies Short Term	8.74%
US Government Agencies Cash Equivalent	0.50%
Commercial Paper	0.48%
<b>Total:</b>	<b>100.00%</b>

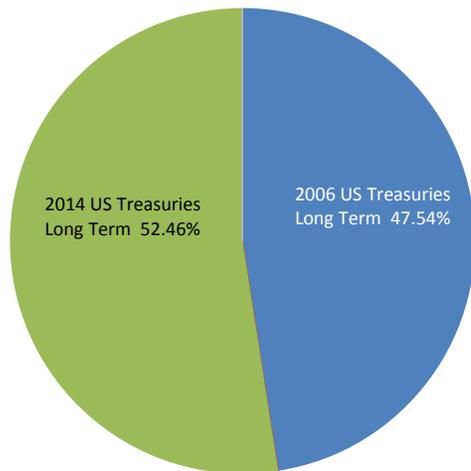


**California Earthquake Authority  
Investment Portfolio Distribution at Market Value  
as of December 31, 2015**

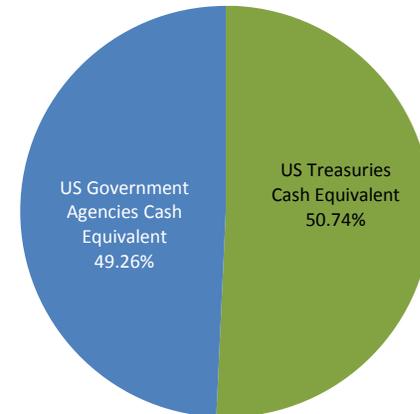
<b>Claim(s)-Paying Funds:</b>	<b>\$667,800,805</b>
2006 US Treasuries Long Term	47.54%
2014 US Treasuries Long Term	52.46%
<b>Total:</b>	<b>100.00%</b>

<b>Mitigation Fund:</b>	<b>\$20,397,684</b>
US Treasuries Cash Equivalent	50.74%
US Government Agencies Cash Equivalent	49.26%
<b>Total:</b>	<b>100.00%</b>

**Claim(s)-Paying Funds**



**Mitigation Fund**



# Debt

**California Earthquake Authority  
Schedule of Outstanding Debt - Defeased**

DEBT	ISSUANCE AMOUNT	INTEREST RATE	NET PROCEEDS	OUTSTANDING PRINCIPAL	AS OF DATE	MOODY'S RATING*	FITCH RATING**
Series 2006 Revenue Bonds <sup>1</sup>	\$ 315,000,000	6.169%	\$ 310,829,067	\$ 31,500,000	31-Dec-2015	A3 Outlook Stable	A Outlook Stable

<sup>1</sup>As of November 6, 2014, interest and principal are fully funded in escrow for remaining interest and principal payments.

**DEBT-SERVICE SCHEDULE**

The table below shows the annual-debt-service requirements for the Series 2006 Bonds.

Payment Date	Outstanding Principal	Principal	Interest	Debt Service	Annual Debt Service
1-Jan-16	\$31,500,000	\$0	\$971,618	\$971,618	
1-Jul-16	\$0	\$ 31,500,000	\$971,618	\$32,471,618	
2016					\$33,443,236

\*Moody's rating since September 2014.

\*\*Fitch rating affirmed October 2015.

**California Earthquake Authority  
Schedule of Outstanding Debt**

DEBT	ISSUANCE AMOUNT	INTEREST RATE	NET PROCEEDS	OUTSTANDING PRINCIPAL	AS OF DATE	MOODY'S RATING*	FITCH RATING**
Series 2014 Revenue Bonds 2 year bond CUSIP 13017HAC0	\$ 40,000,000	1.194%	\$ 39,665,642	\$ 40,000,000	31-Dec-2015	A3 Outlook Stable	A Outlook Stable

**DEBT-SERVICE SCHEDULE**

The table below shows the annual-debt-service requirements for the Series 2014 Bonds.

Payment Date	Outstanding Principal	Principal	Interest	Debt Service	Annual Debt Service
1-Jan-16	\$40,000,000	\$0	\$238,800	\$238,800	
1-Jul-16	\$0	\$40,000,000	\$238,800	\$40,238,800	
2016					\$40,477,600

\*Moody's rating since September 2014.

\*\*Fitch rating affirmed October 2015.

**California Earthquake Authority  
Schedule of Outstanding Debt**

DEBT	ISSUANCE AMOUNT	INTEREST RATE	NET PROCEEDS	OUTSTANDING PRINCIPAL	AS OF DATE	MOODY'S RATING*	FITCH RATING**
Series 2014 Revenue Bonds 3 year bond CUSIP 13017HAD8	\$ 60,000,000	1.824%	\$ 59,498,463	\$ 60,000,000	31-Dec-2015	A3 Outlook Stable	A Outlook Stable

**DEBT-SERVICE SCHEDULE**

The table below shows the annual-debt-service requirements for the Series 2014 Bonds.

Payment Date	Outstanding Principal	Principal	Interest	Debt Service	Annual Debt Service
1-Jan-16	\$60,000,000	\$0	\$547,200	\$547,200	
1-Jul-16	\$60,000,000	\$0	\$547,200	\$547,200	
2016					\$1,094,400
1-Jan-17	\$60,000,000	\$0	\$547,200	\$547,200	
1-Jul-17	\$0	\$60,000,000	\$547,200	\$60,547,200	
2017					\$61,094,400

\*Moody's rating since September 2014.

\*\*Fitch rating affirmed October 2015.

**California Earthquake Authority  
Schedule of Outstanding Debt**

DEBT	ISSUANCE AMOUNT	INTEREST RATE	NET PROCEEDS	OUTSTANDING PRINCIPAL	AS OF DATE	MOODY'S RATING*	FITCH RATING**
Series 2014 Revenue Bonds 5 year bond CUSIP 13017HAE6	\$ 250,000,000	2.805%	\$ 247,910,261	\$ 250,000,000	31-Dec-2015	A3 Outlook Stable	A Outlook Stable

**DEBT-SERVICE SCHEDULE**

The table below shows the annual-debt-service requirements for the Series 2014 Bonds.

Payment Date	Outstanding Principal	Principal	Interest	Debt Service	Annual Debt Service
1-Jan-16	\$250,000,000	\$0	\$3,506,250	\$3,506,250	
1-Jul-16	\$250,000,000	\$0	\$3,506,250	\$3,506,250	
2016					\$7,012,500
1-Jan-17	\$250,000,000	\$0	\$3,506,250	\$3,506,250	
1-Jul-17	\$210,000,000	\$40,000,000	\$3,506,250	\$43,506,250	
2017					\$47,012,500
1-Jan-18	\$210,000,000	\$0	\$2,945,250	\$2,945,250	
1-Jul-18	\$105,000,000	\$105,000,000	\$2,945,250	\$107,945,250	
2018					\$110,890,500
1-Jan-19	\$105,000,000	\$0	\$1,472,625	\$1,472,625	
1-Jul-19	\$0	\$105,000,000	\$1,472,625	\$106,472,625	
2019					\$107,945,250

\*Moody's rating since September 2014.

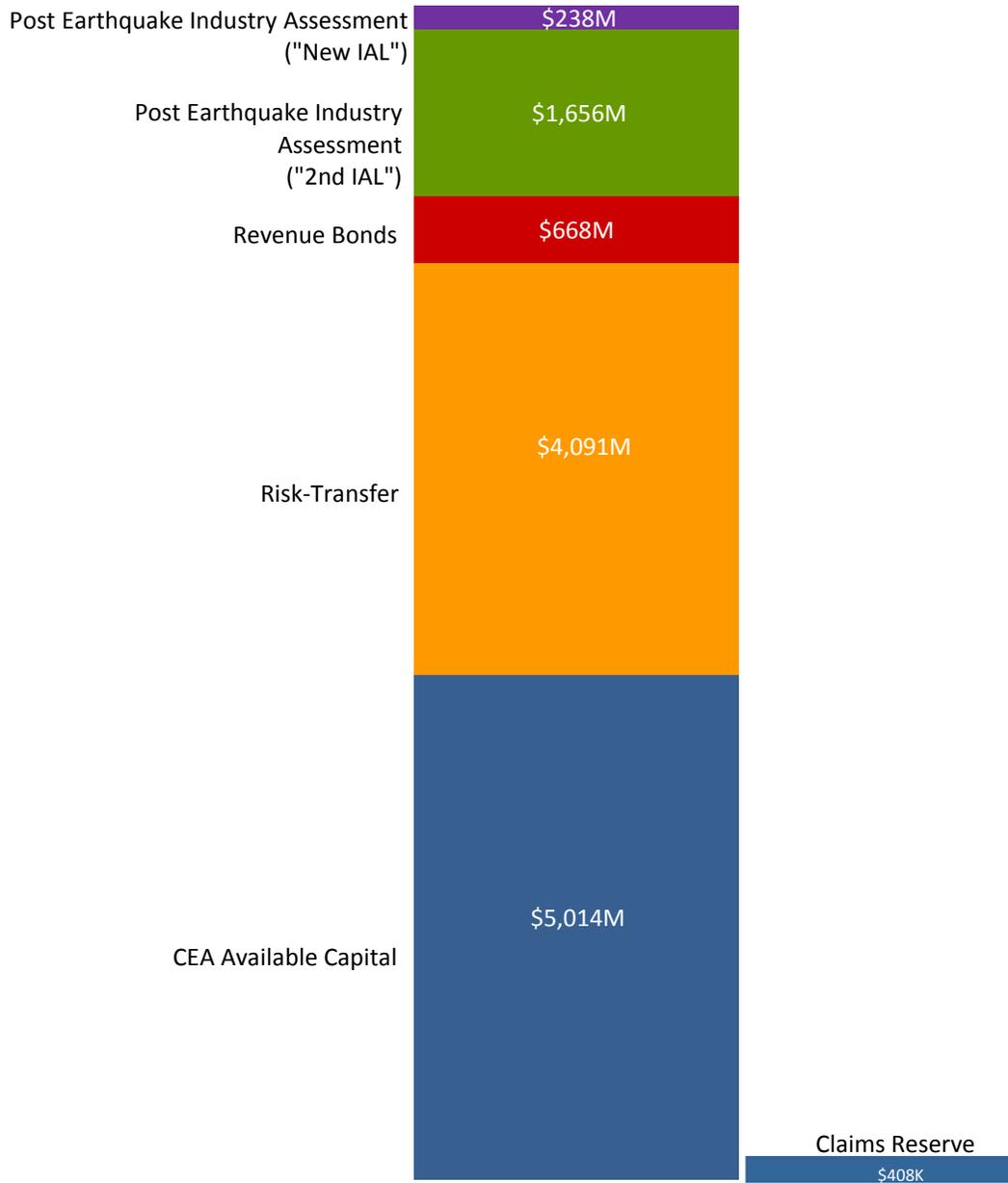
\*\*Fitch rating affirmed October 2015.

# **Claim-Paying Capacity**

**California Earthquake Authority  
Available Capital Report  
as of December 31, 2015**

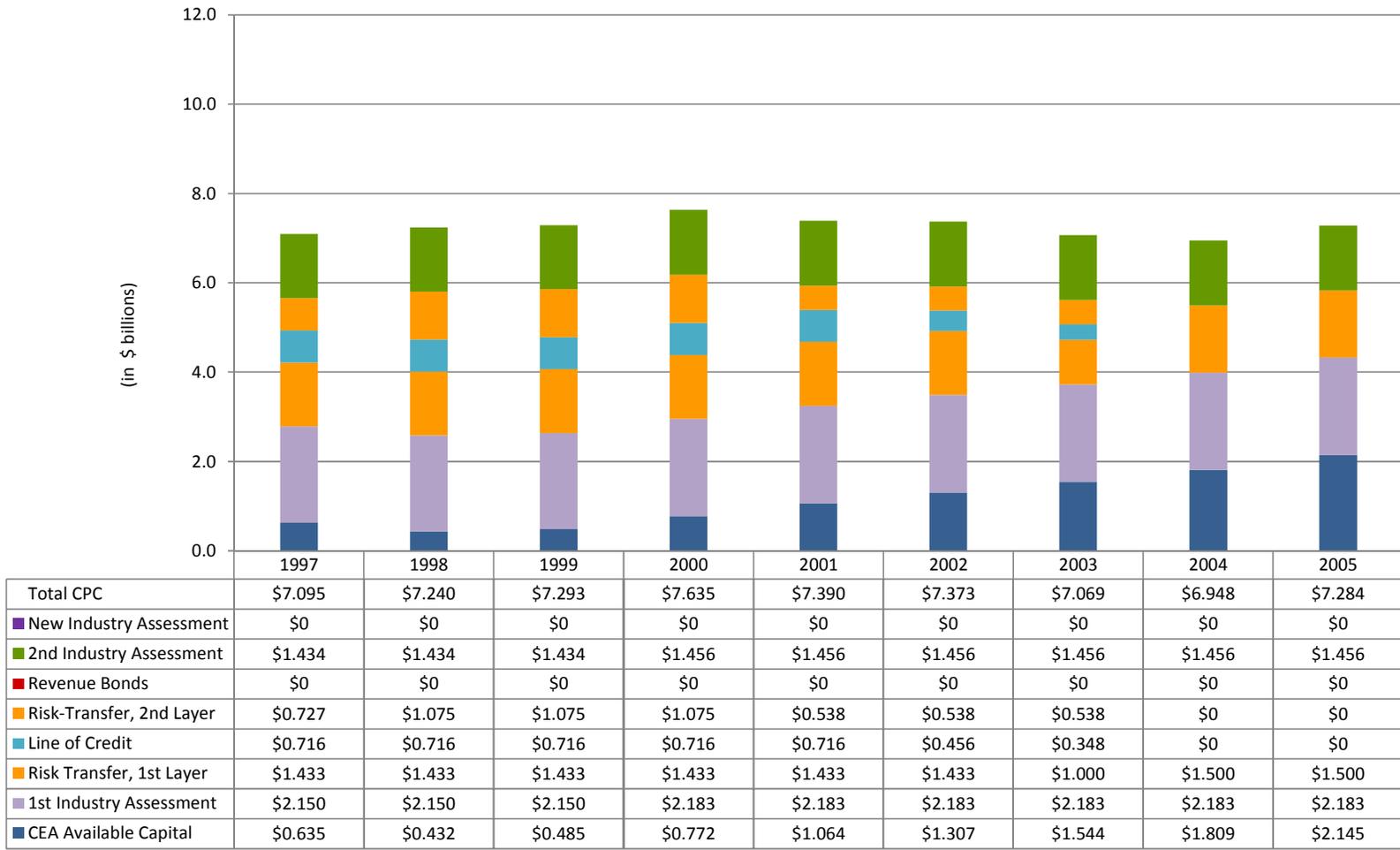
Cash & Investments (includes capital contributions and premiums)	\$	5,917,260,716
Earthquake Loss Mitigation Fund Cash and Investments	\$	(23,429,463)
Interest, Securities & Restricted Securities Receivable	\$	15,472,294
Premium Receivable	\$	47,897,293
Risk Capital Surcharge & Capital Contributions Receivable	\$	-
Other Assets	\$	354,407
Revenue Bonds	\$	(667,800,805)
Debt Service (Interest, Principal & Debt Service (Min. Bal.))	\$	(24,292,250)
Unearned Premium Collected	\$	(239,793,008)
Accrued Reinsurance Premium Expense	\$	-
Accounts and Securities Payable, and Accrued Expenses	\$	(11,019,119)
Loss Reserves	\$	(407,911)
CEA Available Capital	<b>\$</b>	<b>5,014,242,154</b>

**California Earthquake Authority  
Claim-Paying Capacity  
as of December 31, 2015**

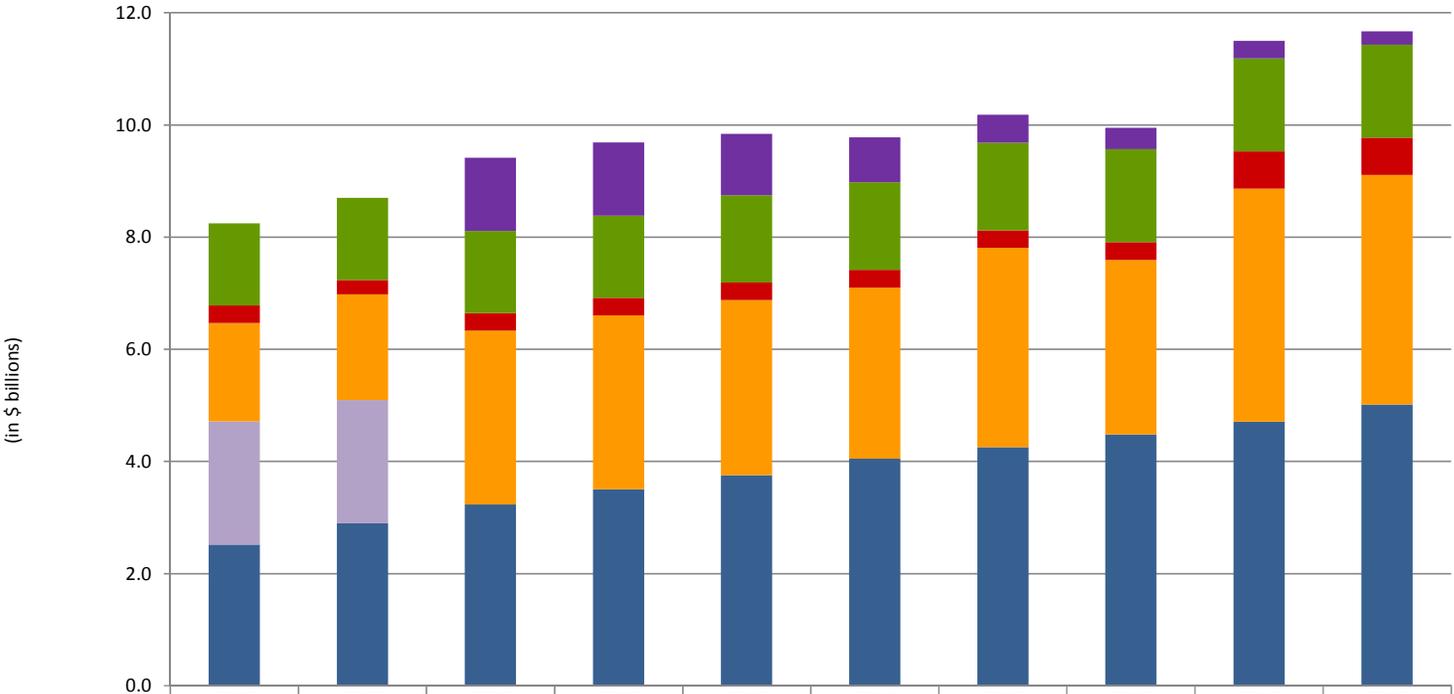


Note: Not drawn to scale

**California Earthquake Authority  
Historical Claim-Paying Capacity (CPC)  
December 31, 1997 through December 31, 2005**



**California Earthquake Authority  
Historical Claim-Paying Capacity (CPC)  
December 31, 2006 through December 31, 2015**



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total CPC	\$8.244	\$8.695	\$9.411	\$9.685	\$9.840	\$9.777	\$10.179	\$9.949	\$11.496	\$11.667
New Industry Assessment	\$0	\$0	\$1.304	\$1.304	\$1.095	\$0.804	\$0.500	\$0.385	\$0.312	\$0.238
2nd Industry Assessment	\$1.465	\$1.465	\$1.465	\$1.465	\$1.558	\$1.558	\$1.558	\$1.656	\$1.656	\$1.656
Revenue Bonds	\$0.311	\$0.254	\$0.311	\$0.311	\$0.311	\$0.317	\$0.314	\$0.314	\$0.663	\$0.668
Risk-Transfer, 2nd Layer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Line of Credit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Risk Transfer, 1st Layer	\$1.756	\$1.885	\$3.100	\$3.100	\$3.123	\$3.050	\$3.557	\$3.115	\$4.159	\$4.091
1st Industry Assessment	\$2.197	\$2.197	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CEA Available Capital	\$2.515	\$2.894	\$3.231	\$3.505	\$3.753	\$4.048	\$4.250	\$4.478	\$4.705	\$5.014

# **Risk-Transfer Programs**

**California Earthquake Authority  
Risk-Transfer Program Summary  
as of December 31, 2015**

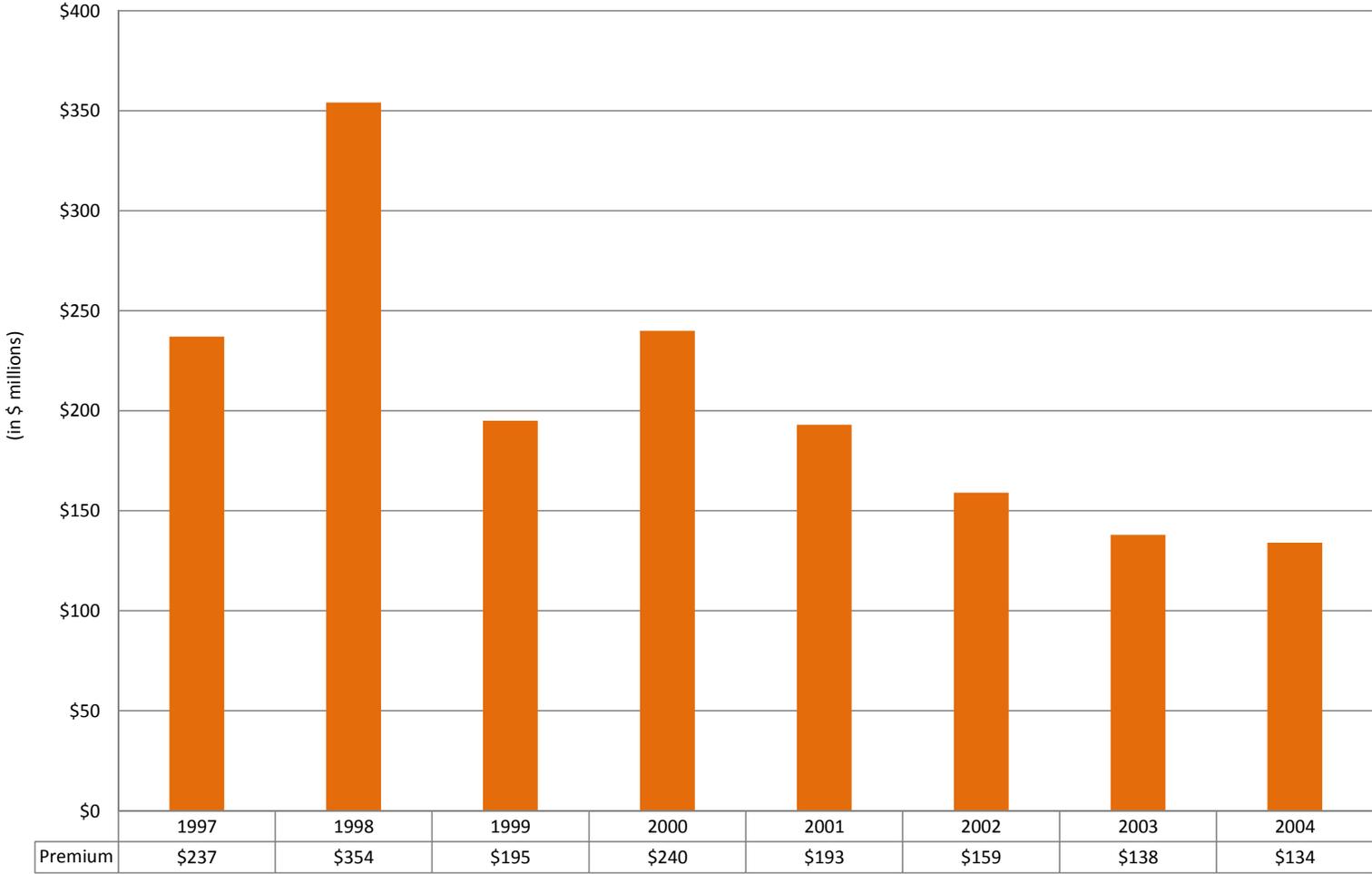
<b>Traditional Reinsurance Contracts</b>	<b>Contract Period</b>	<b>Reinsurance Limit</b>	<b>12-Month Rate-on-Line</b>	<b>12-Month Premium</b>
2015 January Program Contract 1	January 1, 2015 - December 31, 2015	315,491,770	4.50%	14,197,130
2015 January Program Contract 2	January 1, 2015 - December 31, 2015	178,387,500	3.25%	5,797,594
2015 January Program Contract 3	January 1, 2015 - December 31, 2015	99,999,960	6.00%	5,999,998
2015-2016 January Program Contract 1	January 1, 2015 - December 31, 2016	156,431,990	4.55%	7,117,656
2015-2016 January Program Contract 2	January 1, 2015 - December 31, 2016	146,871,900	3.30%	4,846,773
2015-2016 January Program Contract 3	January 1, 2015 - December 31, 2016	24,999,990	5.40%	1,349,999
2014-2015 January Program Contract 1	January 1, 2014 - December 31, 2015	454,227,620	5.50%	24,982,519
2014-2015 January Program Contract 2	January 1, 2014 - December 31, 2015	49,999,996	6.45%	3,225,000
2015-2016 April Program Contract 1	April 1, 2015 - March 31, 2016	624,992,490	3.00%	18,749,775
2014-2016 April Program Contract 1	April 1, 2014 - March 31, 2016	253,099,320	3.85%	9,744,324
2014-2016 April Program Contract 2	April 1, 2014 - March 31, 2016	122,499,960	3.75%	4,593,749
2015-2016 August Program Contract 1	August 1, 2015 - July 31, 2016	187,500,000	5.50%	10,312,500
2015-2017 August Program Contract 1	August 1, 2015 - July 31, 2017	93,750,000	5.60%	5,250,000
2015-2017 August Program Contract 2	August 1, 2015 - July 31, 2017	139,000,000	4.50%	6,255,000
2015-2018 August Program Contract 1	August 1, 2015 - July 31, 2018	93,750,000	5.80%	5,437,500
2015-2020 August Program Contract 1	August 1, 2015 - July 31, 2020	200,000,000	4.20%	8,400,000
2015-2017 December Program Contract 1	December 1, 2015 - November 30, 2017	124,999,980	5.50%	6,874,999
2015-2017 December Program Contract 2	December 1, 2015 - November 30, 2017	49,999,950	5.60%	2,799,997
2013-2016 May Program	May 1, 2013 - April 30, 2016	100,000,000	5.60%	5,600,000
2015-2016 June Program	June 1, 2015 - May 31, 2016	25,000,000	3.60%	900,000
<b>Total Traditional Reinsurance</b>		<b>\$ 3,441,002,426</b>		

<b>Transformer Reinsurance Contracts</b>	<b>Contract Period</b>	<b>Reinsurance Limit</b>	<b>12-Month Rate-on-Line</b>	<b>12-Month Premium</b>
2014-2017 Transformer Contract 1	December 1, 2014 - November 30, 2017	200,000,000	5.05%	10,100,000
2014-2017 Transformer Contract 2	December 1, 2014 - November 30, 2017	200,000,000	3.54%	7,070,000
2015-2018 Transformer Contract 1	September 16, 2015 - September 15, 2018	250,000,000	5.05%	12,625,000
<b>Total Transformer Reinsurance</b>		<b>650,000,000</b>		
<b>Total Risk-Transfer Program</b>		<b>\$ 4,091,002,426</b>		

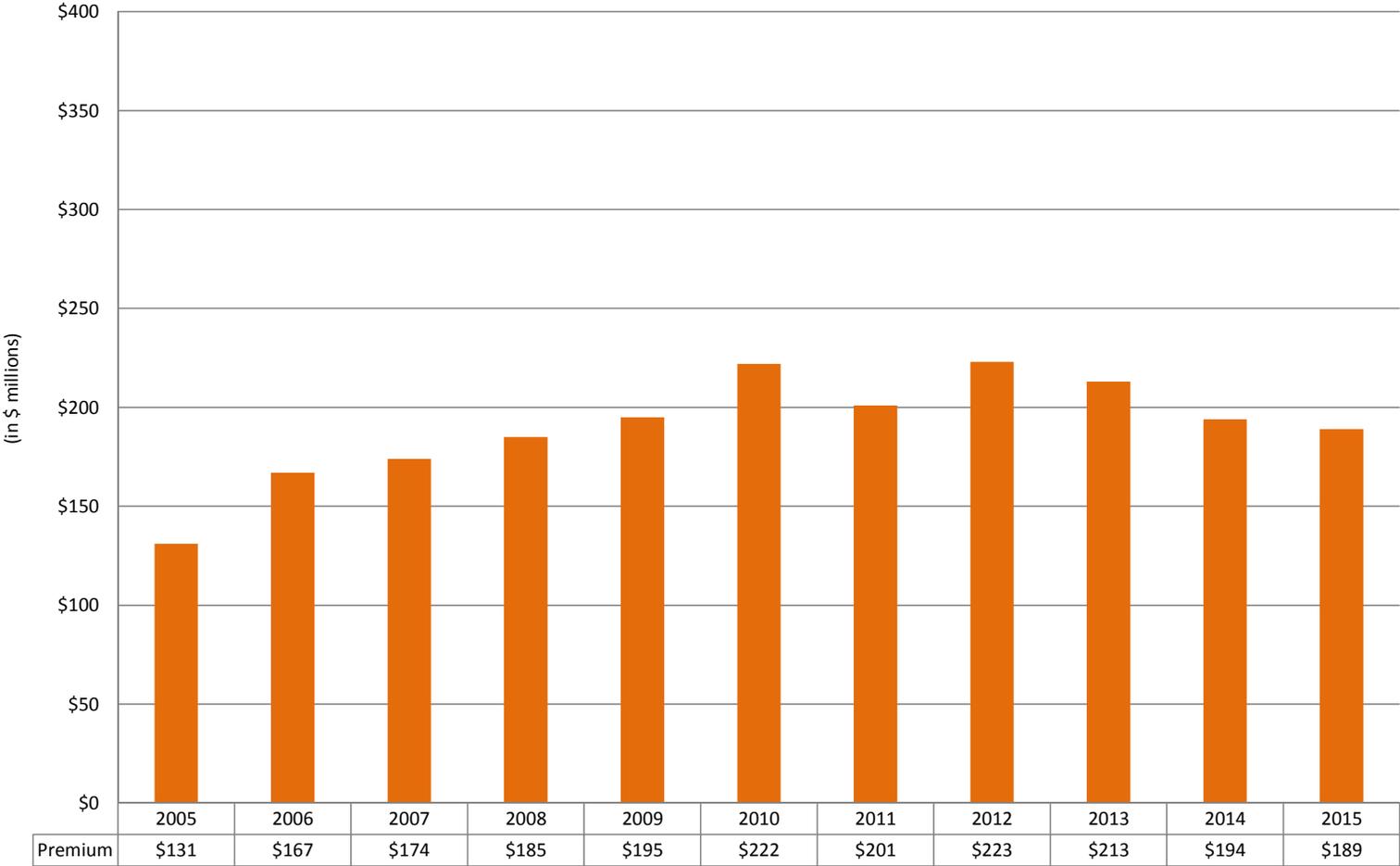
**California Earthquake Authority**  
**2015 Total Premium Risk-Transfer Program**  
**as of December 31, 2015**

<b>Traditional Reinsurance Contracts</b>	<b>Contract Period</b>	<b>Reinsurance Limit</b>	<b>12-Month Rate-on-Line</b>	<b>2015 Premium</b>
2015 January Program Contract 1	January 1, 2015 - December 31, 2015	315,491,770	4.50%	14,197,130
2015 January Program Contract 2	January 1, 2015 - December 31, 2015	178,387,500	3.25%	5,797,594
2015 January Program Contract 3	January 1, 2015 - December 31, 2015	99,999,960	6.00%	5,999,998
2015-2016 January Program Contract 1	January 1, 2015 - December 31, 2016	156,431,990	4.55%	7,117,656
2015-2016 January Program Contract 2	January 1, 2014 - December 31, 2016	146,871,900	3.30%	4,846,773
2015-2016 January Program Contract 3	January 1, 2014 - December 31, 2016	24,999,990	5.40%	1,349,999
2014-2015 January Program Contract 1	January 1, 2014 - December 31, 2015	454,227,620	5.50%	24,982,519
2014-2015 January Program Contract 2	January 1, 2014 - December 31, 2015	49,999,995	6.45%	3,225,000
2015-2016 April Program Contract 1	April 1, 2015 - March 31, 2016	624,992,490	3.00%	14,062,331
2013-2015 April Program Contract 2	April 1, 2013 - March 31, 2015	84,999,960	5.30%	1,126,249
2014-2015 April Program Contract 1	April 1, 2014 - March 31, 2015	518,583,000	3.70%	4,796,893
2014-2015 April Program Contract 1 ADDL	October 1, 2014 - March 31, 2015	202,999,440	3.70%	1,877,745
2014-2016 April Program Contract 1	April 1, 2014 - March 31, 2016	253,099,320	3.85%	9,744,324
2014-2016 April Program Contract 2	April 1, 2014 - March 31, 2016	122,499,960	3.75%	4,593,749
2012-2015 September Program	September 1, 2012 - August 31, 2015	100,000,000	5.70%	3,800,000
2015-2016 June Program	June 1, 2015 - May 31, 2016	25,000,000	3.60%	525,000
2013-2015 August Program Contract 3	August 1, 2013 - July 31, 2015	250,000,000	5.90%	8,604,167
2013-2016 May Program	May 1, 2013 - April 30, 2016	100,000,000	5.60%	5,600,000
2013-2015 June Program	June 1, 2013 - May 31, 2015	50,000,000	5.65%	1,177,083
2014-2015 August Program Contract 1	August 1, 2014 - July 31, 2015	187,500,000	4.80%	5,250,000
2014-2015 August Program Contract 2	August 1, 2014 - July 31, 2015	187,500,000	6.00%	6,562,500
2014-2015 August Program Contract 3	August 1, 2014 - July 31, 2015	136,500,000	4.50%	3,583,125
2015-2016 August Program Contract 1	August 1, 2015 - July 31, 2016	187,500,000	5.50%	4,296,875
2015-2017 August Program Contract 1	August 1, 2015 - July 31, 2017	93,750,000	5.60%	2,187,500
2015-2017 August Program Contract 2	August 1, 2015 - July 31, 2017	200,000,000	4.50%	3,750,000
2015-2018 August Program Contract 1	August 1, 2015 - July 31, 2018	93,750,000	5.80%	2,265,625
2015-2020 August Program Contract 1	August 1, 2015 - July 31, 2020	139,000,000	4.20%	2,432,500
<b>Total Traditional Reinsurance Premium</b>				<b>153,752,335</b>
<b>Transformer Reinsurance Contracts</b>	<b>Contract Period</b>	<b>Reinsurance Limit</b>	<b>12-Month Rate-on-Line</b>	<b>2015 Premium</b>
Transformer Contract 2 (2012 - I)	February 7, 2012 - February 13, 2015	300,000,000	7.45%	2,815,956
Transformer Contract 3 (2012 - II)	August 1, 2012 – August 7, 2015	300,000,000	5.05%	11,333,614
2014-2017 Transformer Contract 1	December 1, 2014 - November 30,2017	200,000,000	5.05%	10,120,791
2014-2017 Transformer Contract 2	December 1, 2014 - November 30,2017	200,000,000	3.54%	7,084,554
2015-2018 Transformer Contract 2	September 16, 2015 - September 15,2018	250,000,000	5.05%	3,978,186
<b>Total Transformer Reinsurance Premium</b>				<b>35,333,101</b>
<b>Total Risk-Transfer Program Premium</b>				<b>189,085,436</b>

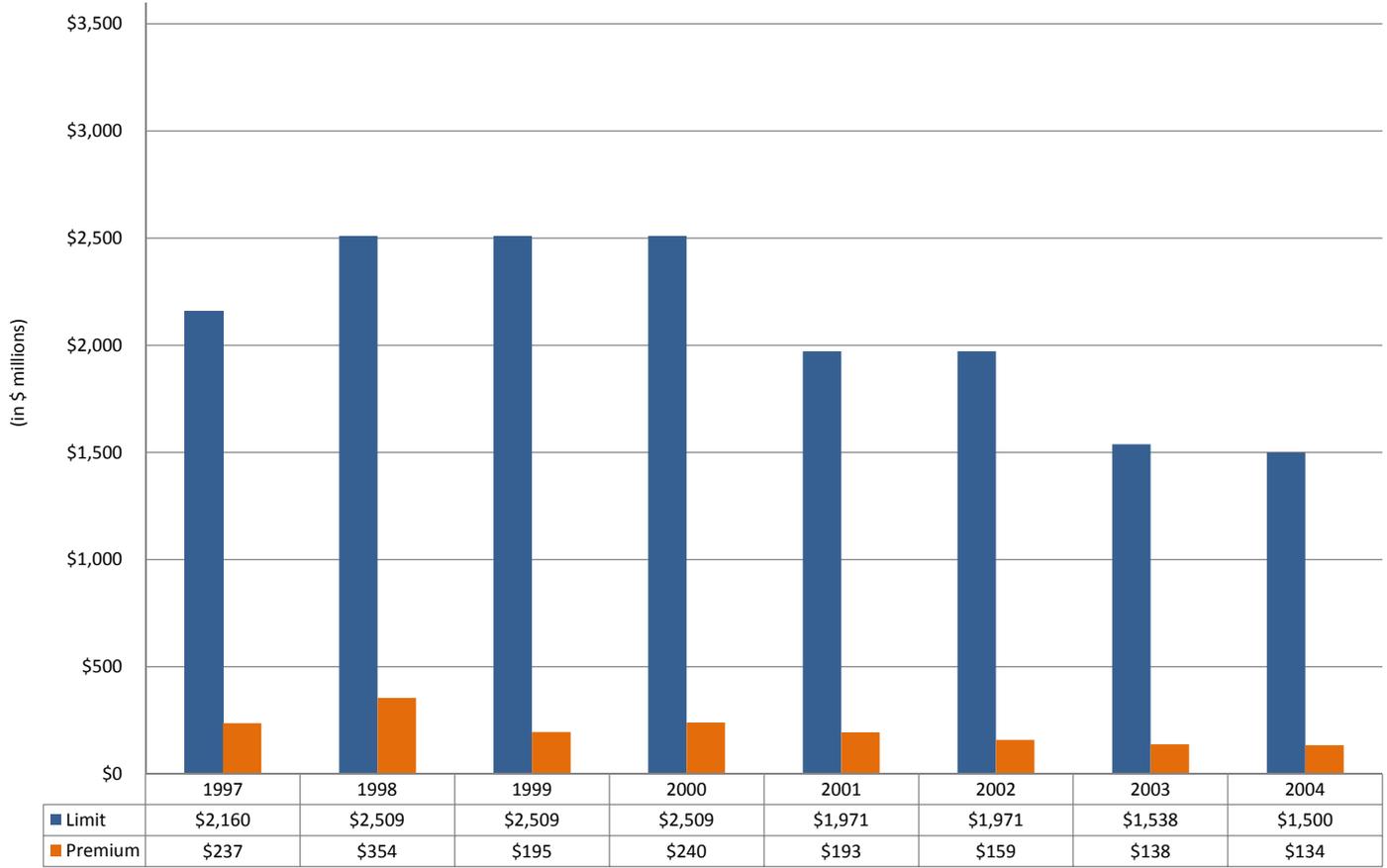
**California Earthquake Authority  
Annual Risk-Transfer Premium  
December 31, 1997 - December 31, 2004**



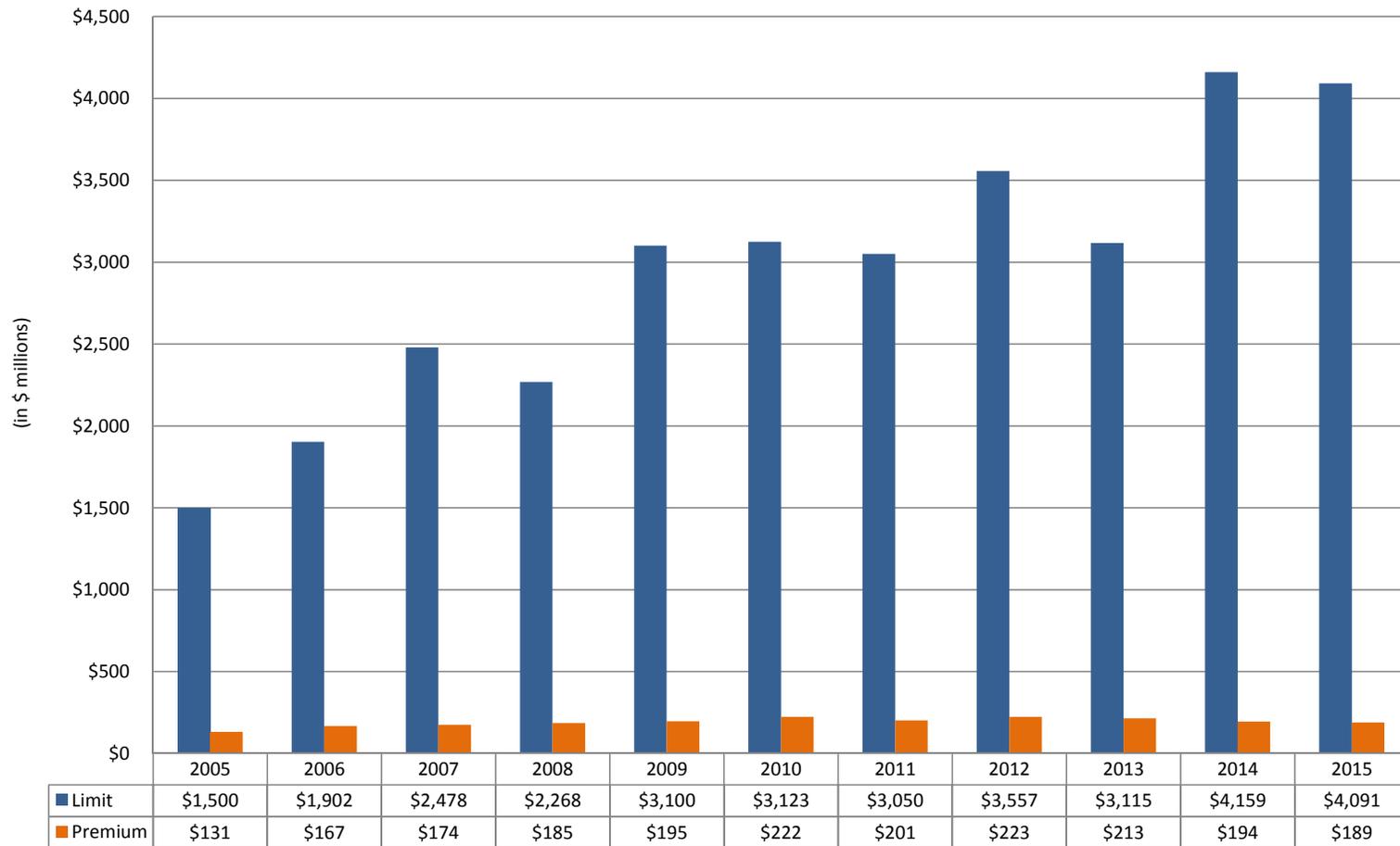
**California Earthquake Authority  
Annual Risk-Transfer Premium  
December 31, 2005 -December 31, 2015**



**California Earthquake Authority  
Annual Risk-Transfer Premium and Limit  
December 31, 1997 - December 31, 2004**



**California Earthquake Authority  
Annual Risk-Transfer Premium and Limit  
December 31, 2005 - December 31, 2015**



# Governing Board Memorandum

March 16, 2016

Agenda Item 9: CEA Mitigation Program: Projects

Recommended Actions: No action required—information only

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## Background and Analysis:

The CEA Mitigation Department currently manages multiple projects focused on expanding mitigation resources to homeowners and technical professionals, as well as collecting data to further mitigation efforts.

## Guidelines Development

The earthquake-guidelines-development project will create statewide retrofit standards that can be used to reduce earthquake damage in single-family dwellings.

When complete and adopted, the guidelines will extend Chapter A3 of the International Building Code, currently adopted (by reference) into the California Building Code, and which provide the current limited standards for retrofitting cripple-wall dwellings.

In addition to uniform standards for homeowners, contractors, and engineers, the new guidelines will help the CEA and others establish and expand (1) incentive programs to encourage seismic retrofits, such as that of the California Residential Mitigation Program, and (2) enhance the CEA's ability to develop and provide suitable mitigation discounts for CEA-insured homeowners.

The CEA is funding the project, and CEA chief mitigation officer Janiele Maffei and Mike Mahoney of FEMA are managing the project jointly.

The entity chosen to contract for management of the guidelines project is the Applied Technology Council ("ATC"). The program technical committee, managed by ATC, is charged with guiding the schedule and budget for the second year of the project.

The ATC 110 project technical team is divided into three groups simultaneously working on these three seismic vulnerabilities:

- Houses with unbraced and unbolted cripple walls
- Houses with living space or rooms over a garage
- Hillside houses

The groups have identified sample buildings that represent the majority of California dwellings.

## FEMA P-50 and P-50-1 Training

FEMA developed the *Simplified Seismic Assessment Form for Detached, Single-Family, Wood-Framed Dwellings* (FEMA P-50), a simple, standard assessment form to evaluate a house's resistance to earthquake damage based on:

- Structural attributes
- The location of the house, relative to earthquake hazards

This assessment form, and the accompanying FEMA P-50-1, helps the homeowner identify how to:

- Strengthen their house
- Lower their earthquake risk

The CEA was a contributing funder to the FEMA P-50 development.

While the evaluation tool has been available for use by inspectors, it has not been widely distributed or used. For that reason, CEA has taken the initiative to bring the evaluation tool—and training on its use—to California home inspectors.

The tool has three purposes:

1. To provide a resource for a homeowner interested in completing a retrofit, to learn which risks and vulnerabilities need to be addressed
2. To provide homeowners information—at time of sale—on potential earthquake-related risks and vulnerabilities
3. To provide an additional inspection resource for the CEA's Hazard Reduction Discount programs

To assist in creating a market for this tool, CEA coordinated six FEMA P-50 and P-50-1 trainings, with primary focus on home inspectors, although other parties expressed interest in the training (engineers, contractors, and municipal building inspectors and officials). A total of 214 individuals participated.

The goal of training home inspectors is to assist them in offering a new product—a seismic evaluation available to homeowners:

- at the time of sale,
- upon consideration of a seismic retrofit, or
- for insurance verification.

Other participants stated these reasons for attending:

- interest in the topic
- desire to add services to their portfolio
- opportunity to earn credit toward their continuing-education requirements

The six 2015 training sessions were held in collaboration with the California Real Estate Inspection Association (CREIA), FEMA, ATC, CalOES, and Simpson Strong-Tie. CEA took the lead in coordinating the sessions held in Santa Clara, Stockton, Riverside, Norwalk, and Mather/Sacramento.

A proposal to CalOES is in process, requesting NEHRP (National Earthquake Hazards Reduction Program) funding for six training sessions in 2016, with a goal of creating 200 trained home inspectors throughout California by year-end 2016.

### **'End-to-End' Mitigation Website**

In the course of operating the *Earthquake Brace + Bolt* program and through public outreach by the CEA Mitigation Department, a gap was identified in bringing earthquake-hazard, mitigation, and preparedness information to California homeowners. While several organizations and websites offer information on identifying geological hazards, structural vulnerabilities, and insurance options, the information does not appear in a single source for homeowners.

In the coming year CEA staff plans to seek information to identify both existing and missing resources, with a goal of incorporating them into a single, multi-issue website for homeowners. This will be the “E2E”—End-to-End—website, which can provide access to these resources:

- 1. Hazard identification and dwelling vulnerability.** *What hazards threaten my house?* (Liquefaction, landslide, earthquake-rupture zone, faults.) Resources exist for identifying this information.
- 2. Identify dwelling vulnerability.** *How is my house vulnerable to damage from these hazards? What are my risks?* (House inspectors, FEMA P-50 inspections, contractors, engineers.)
- 3. Mitigation/retrofit solution.** *What type of retrofit do I need: prescriptive or engineered?* (Chapter A3, Plan Set A, LA Standard Plan Set, engineered solution, costs, timetables, cost/benefit analysis.)
- 4. Professional resources.** (Contractors, engineers, home inspectors, financial planners, real estate agents/brokers, financial institutions, etc.)
- 5. Financial resources.** *Now that I know what I need to do and who to hire to do it, how do I pay for it? Is there financial assistance?* (CEA Hazard Reduction Discount, EBB, banks and financial institutions, other CEA programs.)
- 6. Insurance.** *Mitigate your known vulnerabilities; insure the unknown ones.*

## CEA Governing Board Memorandum

March 16, 2016

Agenda Item 10: *Earthquake Brace + Bolt* update

Recommended Action: No action required—information only

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### Background:

Homeowners in the *Earthquake Brace + Bolt* (EBB) program ZIP Codes are eligible for an incentive payment of up to \$3,000 to help pay costs associated with seismically retrofitting their houses. EBB is operated by the California Residential Mitigation Program, a joint powers authority whose members are the CEA and California Governor's Office of Emergency Services.

### Analysis:

#### **2015 EBB Expansion**

In 2015, EBB was available in 28 ZIP Codes in seven cities: Oakland, San Francisco, San Leandro, Los Angeles, Pasadena, Santa Monica, and Napa. The program goal was to complete 600 retrofits in 2015.

As of March 8, 2016, 501 retrofits were completed and 83 retrofits are pending with building permits issued.

#### **2016 EBB Expansion**

Funds provided by CEA from its Loss Mitigation Fund will provide for 600 retrofits in 2016.

In addition, the Legislature and Governor included in the 2015–2016 state budget an appropriation of \$3,000,000 to the California Department of Insurance, with direction that the Department grant that money to the CEA, which would then contribute the funds to the CRMP's EBB program.

The CEA contracted with the Department to secure that grant, and the Department has transferred the funds, which through EBB and commencing in 2016 will provide up to 1,000 additional retrofits for California homeowners.

Homeowner registration for the 2016 EBB program opened for a month on January 20<sup>th</sup> in 18 cities and more than 100 ZIP Codes. EBB launched the program with a well-attended press conference on the steps of San Francisco City Hall. CEA CEO Glenn Pomeroy and CRMP Executive Director Janiele Maffei were joined by:

- Tina Curry (Deputy Director/CalOES and CRMP Board Member)
- Assemblymember David Chiu
- Supervisor Mark Farrell
- Patrick Otellini (San Francisco Chief Resiliency Officer)
- Joanne Hayes (San Francisco Fire Chief)
- Anne Kronenberg (Executive Director, San Francisco Dept. of Emergency Management)
- Tom Hui (Director, San Francisco Building Inspection Department)
- A San Francisco homeowner who had completed an EBB retrofit in 2015.

A total of 4,427 homeowners qualified for the program. EBB will use a random, electronic selection process to accept 3,200 homeowners into the program—twice the number of the retrofit goal. The remainder will be notified they are on a waiting list.

### **Additional 2016 Funding: FEMA Hazard Mitigation Grant Program**

FEMA has approved the CEA’s Hazard Mitigation Grant Program application, which sought funds made available by FEMA in the aftermath of the damaging August 2014 earthquake that affected Napa. The funds, supported by a partial EBB-funding match by the CEA, will provide EBB retrofit grants for 100 houses.

Registration for the 2016 *Napa Earthquake Brace + Bolt* (“Napa EBB”) expansion is open from February 22 through March 22. Following a review by FEMA of qualifying addresses, homeowners will be selected in a random, electronic selection process and notified of either program-eligible or waiting-list status.

### **Future Funding Opportunities**

We continue to look for additional funding for EBB beyond CEA’s Loss Mitigation Fund, to expand incentive payments to more homeowners. The number of houses in need of retrofits far exceeds the level of funding now available or identified.

CEA is submitting another application for additional FEMA Hazard Mitigation Grant Program funding, and we are hopeful the State of California will continue its support through the Department of Insurance for 2016–2017.

### **Recommendation:**

No recommendation—information only.

## **Governing Board Memorandum**

March 16, 2016

Agenda Item 11:                   Progress Report on the 2016 CEA IT Project Portfolio

Recommended Action:       No action required—information only

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Chief Information Officer Todd Coombes will present an update on the 2016 CEA IT Project Portfolio, including progress, changes, and expenditures.

## **Governing Board Memorandum**

March 16, 2016

Agenda Item 12:                   Centralized Policy Processing Update

Recommended Action:       No action required—information only

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Chief Information Officer Todd Coombes will present an update on the Centralized Policy Processing (CPP) initiative.

## Governing Board Memorandum

March 16, 2016

Agenda Item 13: Update on data collection and reporting that support the Metrics Project

Recommended Action: No action required—information only

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Chief Executive Officer Glenn Pomeroy will update the Board on the established CEA Metrics Project.

## Governing Board Memorandum

March 16, 2016

Agenda Item 14: Update on obtaining additional office space that will accommodate CEA staff and related operations

Recommended Action: No action required—information only

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Chief Executive Officer Glenn Pomeroy will update the Board on the progress in obtaining additional office space, now up obtained and under lease (on the floor immediately above the CEA's main office), that will accommodate CEA staff and related operations.