Date of Notice: Friday, March 3, 2017

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 15, 2017**

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 14, 2016, CEA Governing Board meeting.

3. Executive Report by Chief Executive Officer Glenn Pomeroy, which will include an update for the Board on legislative activities of interest to the CEA.

4. Chief Financial Officer Tim Richison will present to the Board the CEA Financial Report.

5. Mr. Richison will seek Board authorization to set the CEA participating insurers' respective maximum-earthquake-loss funding-assessment levels, effective April 1, 2017.

6. Mr. Richison will recommend to the Board transferring money from the CEA's Earthquake Loss Mitigation Fund to the California Residential Mitigation Program ("CRMP"), a joint powers authority whose members are the California Governor's Office of Emergency Services and the CEA.

7. Mr. Richison will present, for Board approval, modifications to the CEA Guidelines for Securing Risk-Transfer.

8. Chief Communications Officer Chris Nance will present, and seek Board approval of, the 2018 CEA advertising budget.

9. Chief Insurance and Technology Officer Todd Coombes will seek Board approval to contract services in support of CEA website design projects.

10. Mr. Coombes will give a report to the Board on CEA insurance and information technology initiatives.

11. 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.

12. Renée Webster-Hawkins, Executive Director of the California Pollution Control Financing Authority, will provide the Board an overview of that financing authority's "California Capital Access Program."

13. Chief Mitigation Officer Janiele Maffei will update the Board on CEA-mitigation-program projects, including the California Residential Mitigation Program incentive program (CRMP Earthquake Brace + Bolt), CEA's financial-incentive and mitigation program (CEA Brace + Bolt), and ongoing mitigation-related research projects.

14. Ms. Maffei will update the Board on the CEA Research Program, including a recap of the February 2017 CEA Research Forum.

15. Chief Actuary Shawna Ackerman and Mr. Coombes will present and recommend to the Board a strategy in preparation for the next CEA Insurance Policy Rate and Form Filing.

16. Enterprise & Strategic Risk Advisor Laurie Johnson will update the Board on CEA enterprise-risk-management-program planning and progress.

17. Mr. Pomeroy will update the Board on progress in data collection and data reporting, which together support the Metrics Project.

18. 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.

19. 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.

20. Adjournment.

For further information about this notice or its contents:

General Information:
Carlos Martinez
(916) 661-5549 (Direct)
Toll free: (877) 797-4300

California Earthquake Authority
801 K Street, Suite 1000
Sacramento, CA 95814
Toll free: (877) 797-4300

Media Contact:
Sarah Sol
Media Relations Manager
(916) 661-5502 (Direct)
ssol@calquake.com

To view this notice on the CEA website or to learn more about the CEA, please visit 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. 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.

Draft Meeting Minutes are not available.

Please see CEA Governing Board Meeting
Approved Minutes.

Governing Board Memorandum

March 15, 2017

Agenda Item 3:	Executive Report by Chief Executive Officer Glenn Pomeroy
Recommended Action:	No action required—information only

Chief Executive Officer Glenn Pomeroy will present his Executive Report to the Board, which will include an update on legislative activities of interest to the CEA.

FINANCIAL REPORT

December 31, 2016

Financial Report Table of Contents

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

Financial Statements
&
Budgets

California Earthquake Authority
Balance Sheet
as of December 31, 2016

Assets		
Cash and investments:		
Cash and cash equivalents	$	14,761,074
Restricted cash and equivalents		23,978,447
Restricted investments		404,136,283
Investments		5,777,386,638
Total cash and investments		6,220,262,442
Premiums receivable, net of allowance for doubtful accounts of $9,328,134		44,074,808
Capital contributions receivable		-
Risk capital surcharge receivable		-
Interest receivable		19,345,925
Securities receivable		13,978,318
Restricted securities receivable		3,065,653
Prepaid reinsurance premium		15,251,226
Transformer reinsurance premium deposit		-
Prepaid transformer maintenance premium		2,979,035
Equipment, net		115,381
Other assets		212,280
Total assets	$	6,319,285,068
Liabilities and Net Position		
Unearned premiums	$	317,465,364
Accounts payable and accrued expenses		11,675,013
Deferred grant revenue		3,000,000
Accrued reinsurance premium expense		-
Loss and loss adjustment expense reserves		188,029
Securities payable		5,193,053
Revenue bond payable		310,000,000
Revenue bond interest payable		4,053,450
Total liabilities		651,574,909
Net position:		
Restricted, expendable		110,442,163
Unrestricted, participating insurer contributed capital		777,384,796
Unrestricted, State of California contributed capital		239,677,386
Unrestricted, all other remaining		4,540,205,814
Total net position		5,667,710,159
Total liabilities and net position	$	6,319,285,068

California Earthquake Authority
Statement of Revenues, Expenses and Changes in Net Position
Year Ended December 31, 2016

Underwriting income:	
Premiums written	$ 619,134,034
Less premiums ceded - reinsurance	(202,192,413)
Less risk capital surcharge	-
Net premiums written	416,941,621
Change in unearned premiums	9,247,565
Net premiums earned	426,189,186
Expenses:	
Losses and loss adjustment expenses	125
Participating Insurer commissions	61,912,842
Participating Insurer operating costs	20,105,024
Reinsurance broker commissions	3,368,587
Pro forma premium taxes equivalent	14,559,078
Other underwriting expenses	48,351,316
Total expenses	148,296,972
Underwriting profit	277,892,214
Net investment income	85,290,988
Other income	401,550
Grant revenue	-
Financing expenses, net	(4,946,787)
Earthquake Loss Mitigation Fund expenses	(5,911,754)
Participating Insurer Contributed Capital	-
State of California premium tax contribution equivalent	14,559,078
Increase in net position	367,285,289
Net position, beginning of year	5,300,424,870
Net position, end of year	$ 5,667,710,159

CALIFORNIA EARTHQUAKE AUTHORITY
Insurance Services
Budgeted and Actual Expenditures
2016 Budget Year
as of December 31, 2016

	Approved 2016 Budget 1/1/2016	Adjustments [A]	Augmentations	2016 Budget after Augmentations and Adjustments	Actual Expenditures	Augmented & Adjusted Approved Budget (d) vs. Actual Expenditures (e)	Percentage used of Augmented & Adjusted Approved 2016 Budget
Human Resources:							
Compensation and Benefits	$ 21,323,212	$ (1,049,819)	$ -	$ 20,273,393	$ 19,549,200	$ 724,193	96.43%
Travel	623,466	(92,250)	-	531,216	411,523	119,693	77.47%
Other	953,620	(294,212)	-	659,408	316,898	342,510	48.06%
Board Meeting	24,100	(8,100)	-	16,000	6,543	9,457	40.89%
Administration & Office	1,325,506	(49,623)	-	1,275,883	366,478	909,405	28.72%
EDP Hardware	325,300	-	-	325,300	445,684	(120,384)	137.01%
EDP Software	1,260,516	-	-	1,260,516	1,049,377	211,139	83.25%
Information Technology	1,802,155	-	-	1,802,155	1,996,429	(194,274)	110.78%
Telecommunications	265,364	(4,950)	-	260,414	238,703	21,711	91.66%
Rent/Lease	1,288,700	(1,420)	-	1,287,280	1,089,340	197,940	84.62%
Compliance	115,000	(50,000)	-	65,000	6,675	58,325	10.27%
Government Affairs	126,000	-	-	126,000	75,698	50,302	60.08%
Insurance	160,000	-	-	160,000	118,113	41,887	73.82%
Internal Audit	120,000	(60,000)	-	60,000	1,688	58,312	2.81%
Intervener Fees	-	-	-	-	-	-	0.00%
Other	53,000	14,000	-	67,000	14,279	52,721	21.31%
Regulatory Expenses	110,000	-	-	110,000	82,696	27,304	75.18%
Total Statutory Expenditures	**$ 29,875,939**	**$ (1,596,374)**	**$ -**	**$ 28,279,565**	**$ 25,769,324**	**$ 2,510,241**	**91.12%**
Audit Services	112,500	-	-	112,500	112,500	-	100.00%
Capital Market	9,277,995	(256,015)	-	9,021,980	9,143,619	(121,639)	101.35%
Claims	337,000	5,000	-	342,000	209,119	132,881	61.15%
Loans	-	-	-	-	-	-	0.00%
Grants [1]	-	-	12,000,000	12,000,000	83,547	11,916,453	0.70%
Investment Services	3,078,493	(98,043)	-	2,980,450	2,894,715	85,735	97.12%
Legal Services	7,790,420	(4,352,500)	-	3,437,920	1,028,370	2,409,550	29.91%
Loss-Modeling	1,039,500	-	-	1,039,500	1,037,500	2,000	99.81%
Marketing Services	13,710,200	(258,039)	-	13,452,161	12,995,524	456,637	96.61%
Producer Compensation	66,040,000	-	-	66,040,000	61,907,028	4,132,972	93.74%
Participating Insurer Operating Costs	24,763,000	-	-	24,763,000	24,632,955	130,045	99.47%
Seismic Related Research	100,000	(100,000)	-	-	-	-	0.00%
Engineering Related Research	1,000,000	(500,000)	-	500,000	67,447	432,553	13.49%
Risk Transfer	193,464,800	7,000,000	-	200,464,800	205,561,001	(5,096,201)	102.54%
Total Non-Statutory Expenditures	**$ 320,713,908**	**$ 1,440,403**	**$ 12,000,000**	**$ 334,154,311**	**$ 319,673,325**	**$ 14,480,986**	**95.67%**
Total Budget Expenditures	**$ 350,589,847**	**$ (155,971)**	**$ 12,000,000**	**$ 362,433,876**	**$ 345,442,649**	**$ 16,991,227**	**95.31%**

[1] Augmentation to fund development of the CEA BB (pilot) program from March 16, 2016 Governing Board Meeting Agenda Item 4.

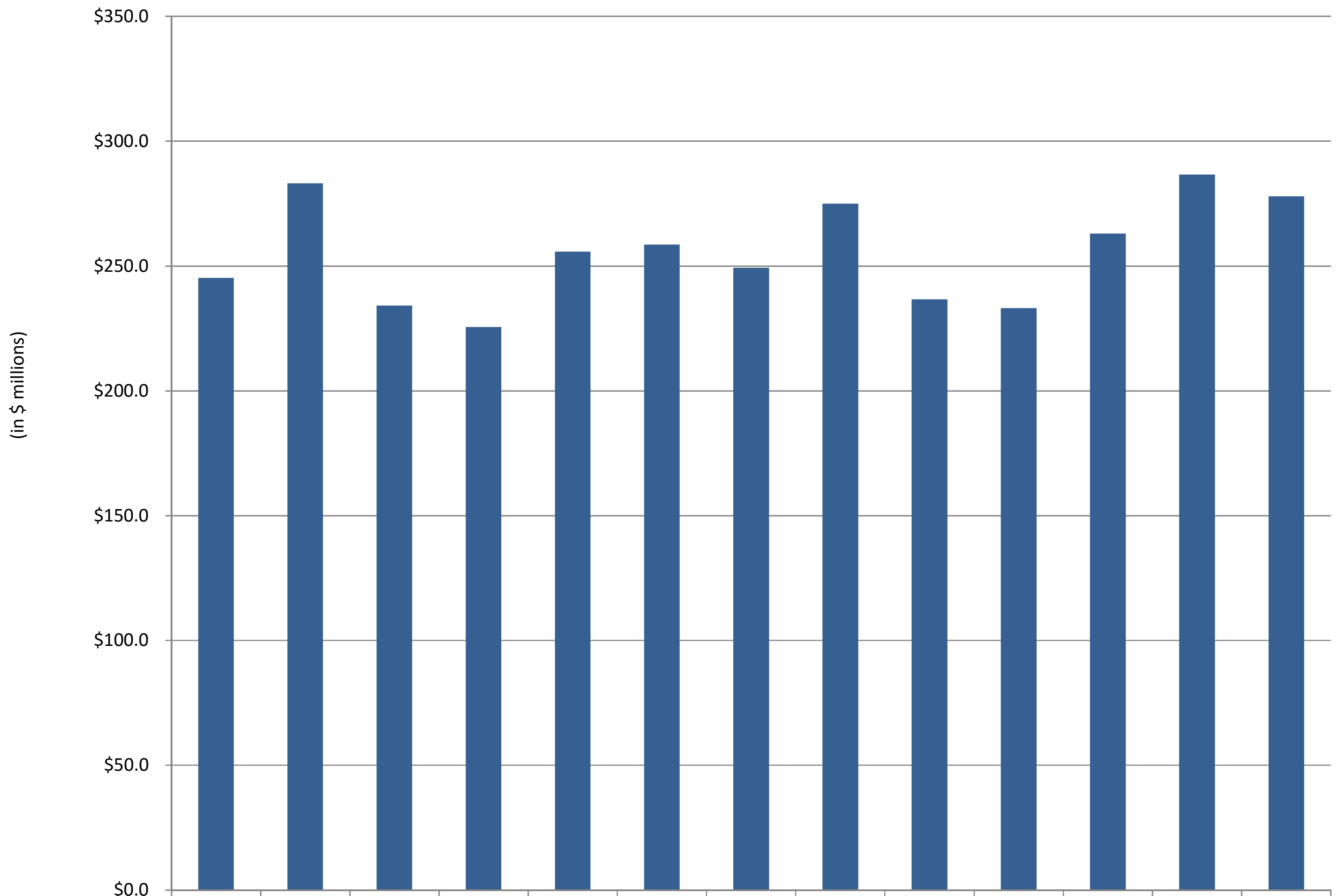
[A] Adjustments to meet insurance services end of year projections.

CALIFORNIA EARTHQUAKE AUTHORITY
Mitigation
Budgeted Expenditures and Actual Expenditures
2016 Budget Year
as of December 31, 2016

	(a)	(b)	(c)	(d) (d=a+b+c)	(e)	(f) (f=d-e)	(g) (g=e/d)
	Approved 2016 Budget 1/1/2016	**Adjustments[A]**	**Augmentations**	**2016 Budget after Augmentations and Adjustments**	**Actual Expenditures**	**Augmented & Adjusted Approved Budget (d) vs. Actual Expenditures (e)**	**Percentage used of Augmented & Adjusted Approved 2016 Budget**
Human Resources:							
Compensation and Benefits	$ 1,039,631	$ -	$ -	$ 1,039,631	$ 1,011,787	$ 27,844	97.32%
Travel	47,900	(3,700)	-	44,200	23,886	20,314	54.04%
Other	29,850	(3,800)	-	26,050	10,824	15,226	41.55%
Administration & Office	102,100	(57,700)	-	44,400	34,775	9,625	78.32%
EDP Software	-	-	-	-	100	(100)	100.00%
Information Technology	700	-	-	700	615	85	87.86%
Telecommunications	14,000	-	-	14,000	11,912	2,088	85.09%
Rent/Lease	77,700	-	-	77,700	65,913	11,787	84.83%
Total Operating Expenditures	**$ 1,311,881**	**$ (65,200)**	**$ -**	**$ 1,246,681**	**$ 1,159,812**	**$ 86,869**	**93.03%**
Investment Services	11,400	-	-	11,400	11,025	375	96.71%
Legal Services	10,000	-	-	10,000	-	10,000	0.00%
Marketing	575,000	(222,000)	-	353,000	68,305	284,695	19.35%
Seismic - Related	-	-	-	-	-	-	0.00%
Engineering - Related	1,500,000	(900,000)	-	600,000	682,074	(82,074)	113.68%
Total Other Expenditures	**$ 2,096,400**	**$ (1,122,000)**	**$ -**	**$ 974,400**	**$ 761,404**	**$ 212,996**	**78.14%**
Total Expenditures	**$ 3,408,281**	**$ (1,187,200)**	**$ -**	**$ 2,221,081**	**$ 1,921,216**	**$ 299,865**	**86.50%**

[A] Adjustments to meet mitigation services end of year projections.

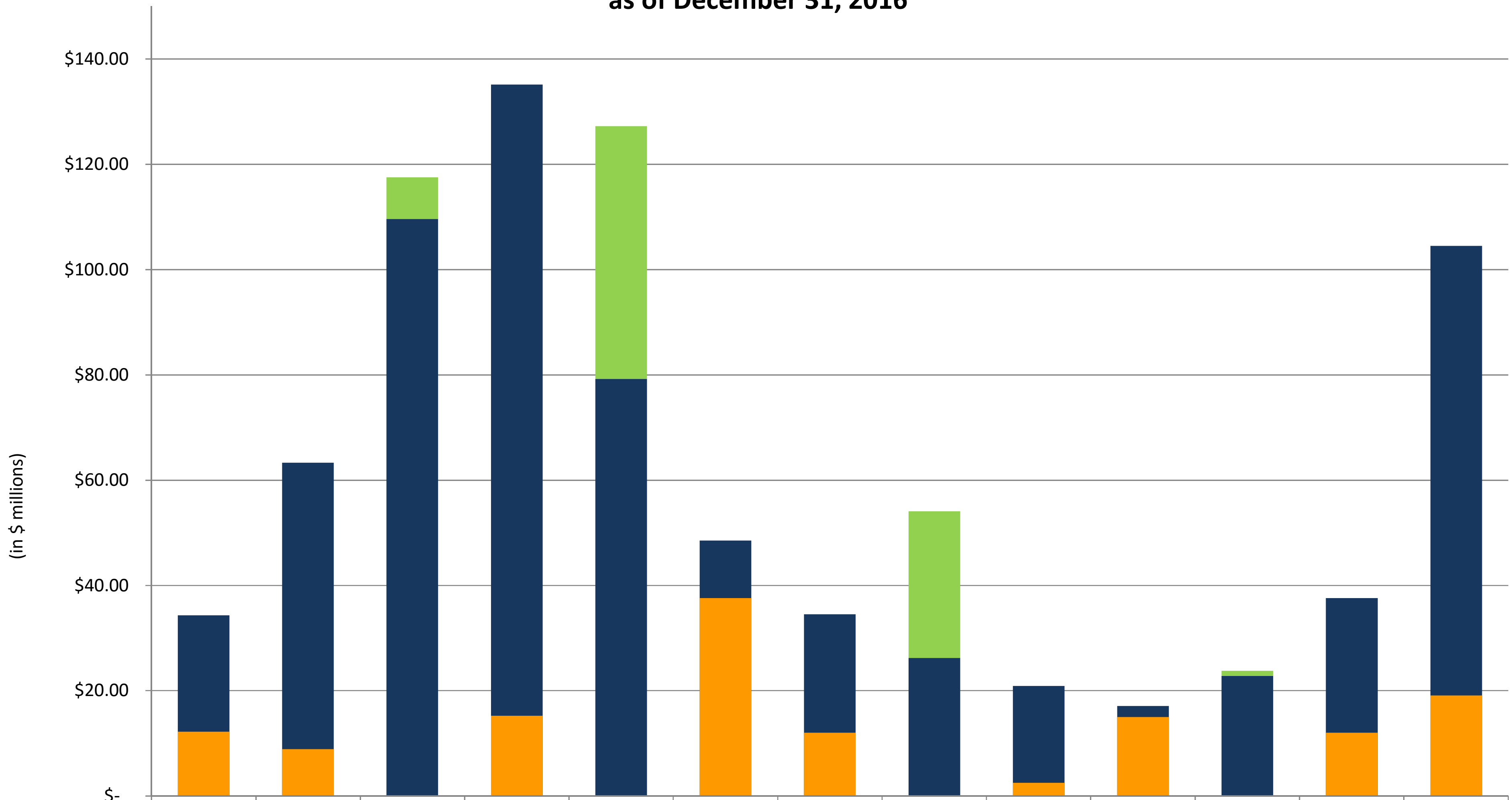
California Earthquake Authority
Annual Capital Accumulated from Premium
as of December 31, 2016



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	$277.9

Investments

California Earthquake Authority
Annual Investment Income
as of December 31, 2016

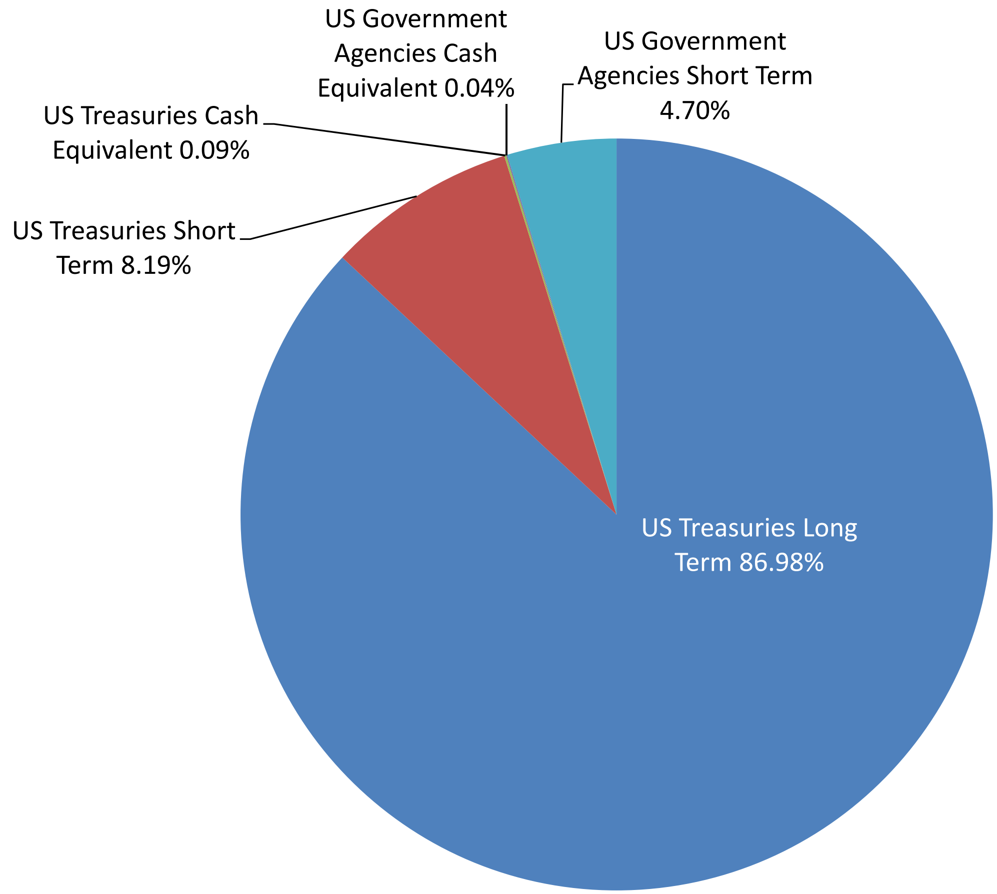


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Net Investment Income*	$22.10	$54.40	$117.50	$119.90	$127.20	$10.90	$22.50	$54.10	$18.40	$2.10	$23.80	$25.60	$85.36
Change Unrealized Gain	$-	$-	$7.90	$-	$48.00	$-	$-	$27.90	$-	$-	$1.00	$-	$-
Investment Income	$34.30	$63.30	$109.60	$135.10	$79.20	$48.50	$34.50	$26.20	$20.90	$17.10	$22.80	$37.60	$104.46
Change Unrealized Loss	$12.20	$8.90	$-	$15.22	$-	$37.60	$12.00	$-	$2.50	$15.00	$-	$12.00	$19.10

*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, 2016

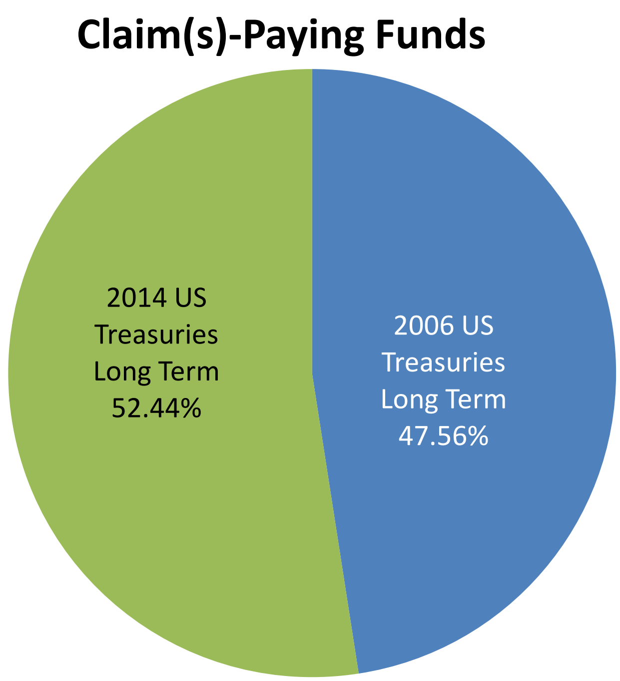
CEA Liquidity & Primary Funds:	**$5,472,958,932**
US Treasuries Long Term	86.98%
US Treasuries Short Term	8.19%
US Treasuries Cash Equivalent	0.09%
US Government Agencies Cash Equivale	0.04%
US Government Agencies Short Term	4.70%
Total:	**100.00%**

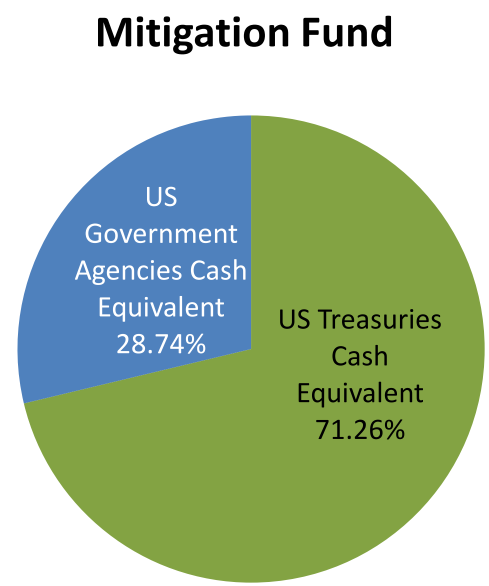


California Earthquake Authority
Investment Portfolio Distribution at Market Value
as of December 31, 2016

Claim(s)-Paying Funds:	**$673,022,364**
2006 US Treasuries Long Term	47.56%
2014 US Treasuries Long Term	52.44%
Total:	**100.00%**

Mitigation Fund:	**$20,955,750**
US Treasuries Cash Equivalent	71.26%
US Government Agencies Cash Equivale	28.74%
Total:	**100.00%**





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[1]	**$ 315,000,000**	**6.169%**	**$ 310,829,067**	**$ -**	**31-Dec-2016**	**A3 Outlook Stable**	**A Outlook Stable**

[1]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 May 2015.

**Fitch rating affirmed October 2016.

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	**$ 40,000,000**	**1.194%**	**$ 39,665,642**	**$ -**	**31-Dec-2016**	**A3**	**A**
2 year bond CUSIP 13017HAC0						**Outlook Stable**	**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 May 2015.

**Fitch rating affirmed October 2016.

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	**$ 60,000,000**	**1.824%**	**$ 59,498,463**	**$ 60,000,000**	**31-Dec-2016**	**A3**	**A**
3 year bond CUSIP 13017HAD8						**Outlook Stable**	**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 May 2015.

**Fitch rating affirmed October 2016.

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	**$ 250,000,000**	**2.805%**	**$ 247,910,261**	**$ 250,000,000**	**31-Dec-2016**	**A3**	**A**
5 year bond CUSIP 13017HAE6						**Outlook Stable**	**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 May 2015.

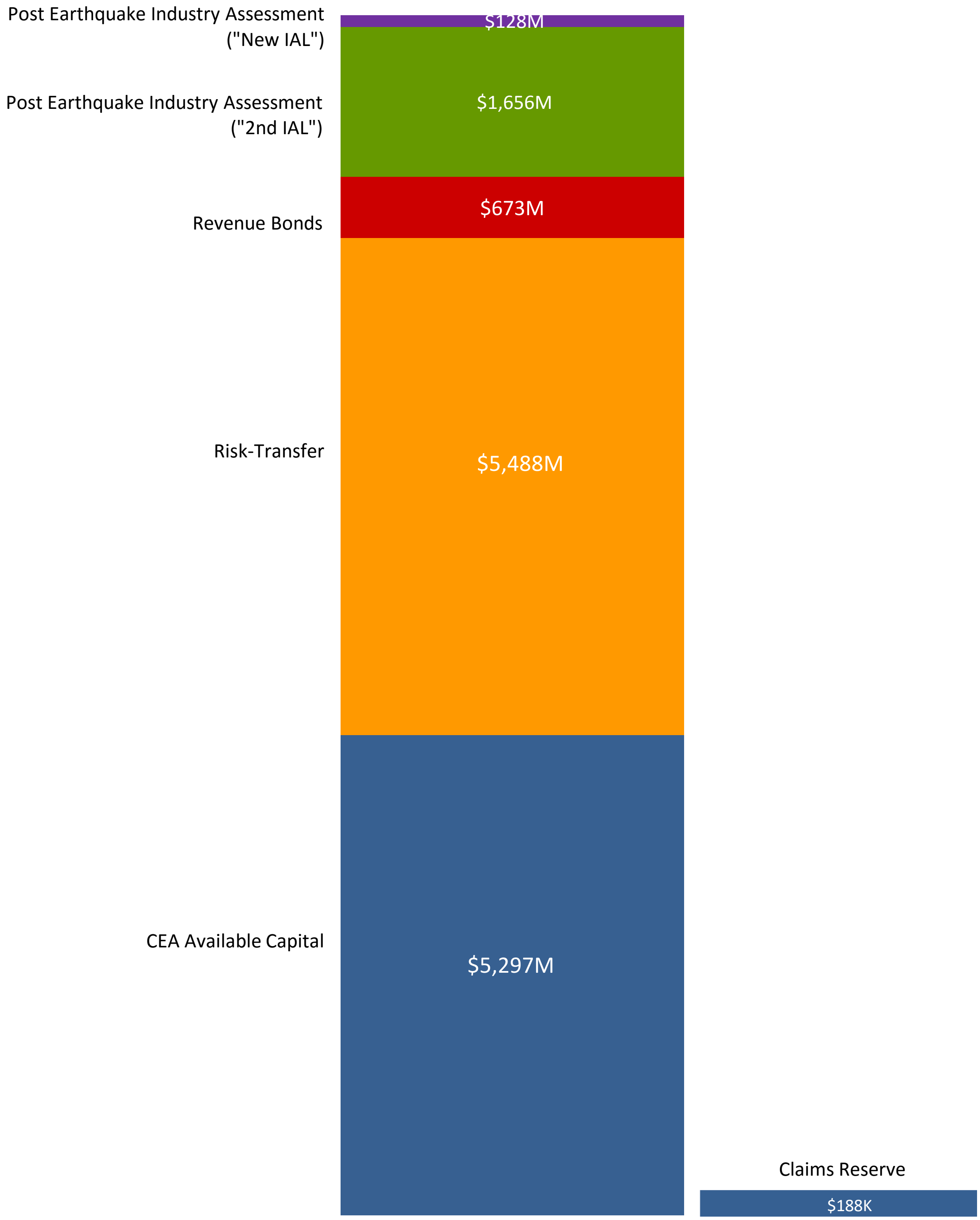
**Fitch rating affirmed October 2016.

Claim-Paying Capacity

California Earthquake Authority
Available Capital Report
as of December 31, 2016

Cash & Investments (includes capital contributions and premiums)	$	6,220,262,442
Earthquake Loss Mitigation Fund Cash and Investments	$	(23,972,415)
Interest & Securities Receivable	$	33,324,243
Premium Receivable	$	44,074,808
Risk Capital Surcharge & Capital Contributions Receivable	$	-
Other Assets	$	212,280
Revenue Bonds	$	(673,022,364)
Debt Service (Interest, Principal & Debt Service (Min. Bal.))	$	(54,053,450)
Unearned Premium Collected	$	(233,090,767)
Accrued Reinsurance Premium Expense	$	-
Accounts and Securities Payable, and Accrued Expenses	$	(16,868,066)
Loss Reserves	$	(188,029)
CEA Available Capital	**$**	**5,296,678,682**

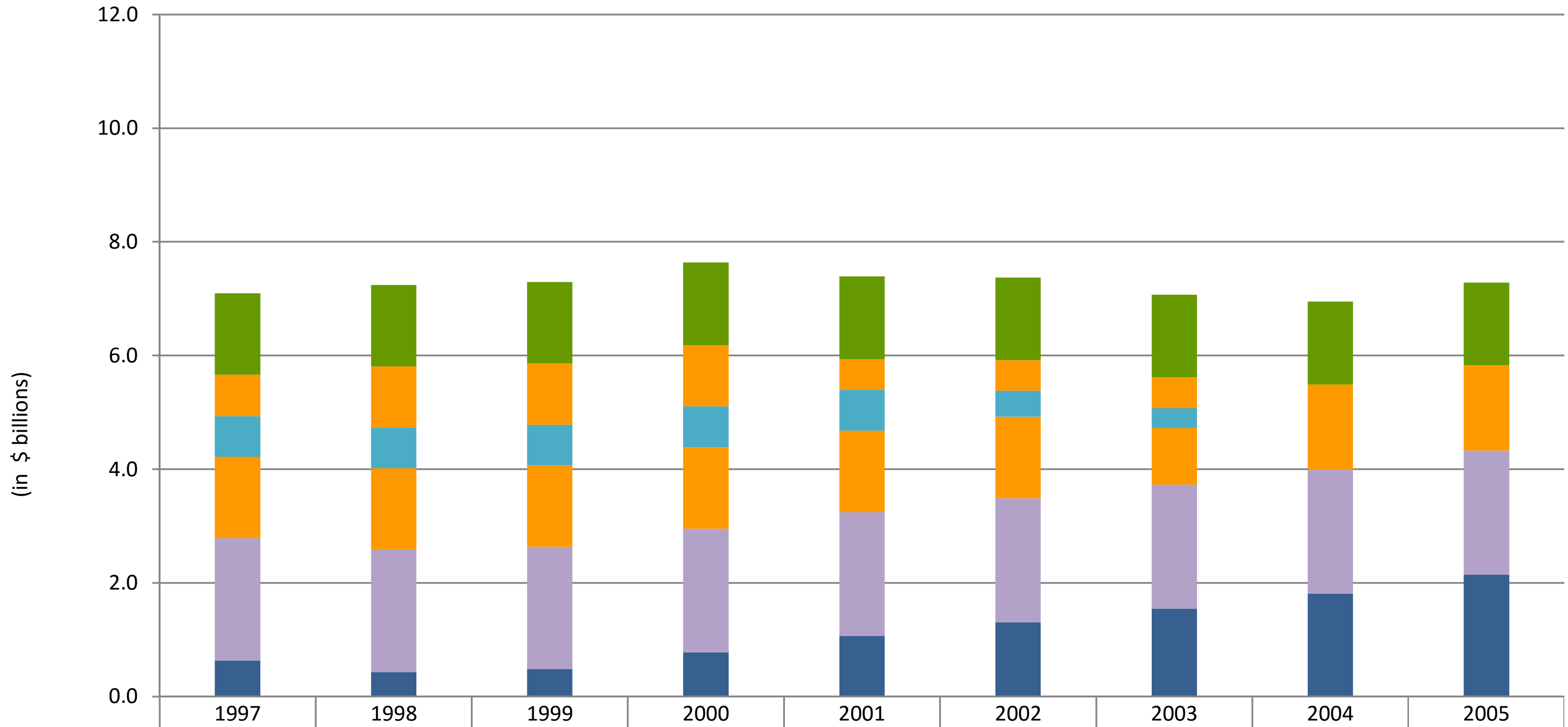
California Earthquake Authority
Claim-Paying Capacity
as of December 31, 2016



Total Capacity $13,242M

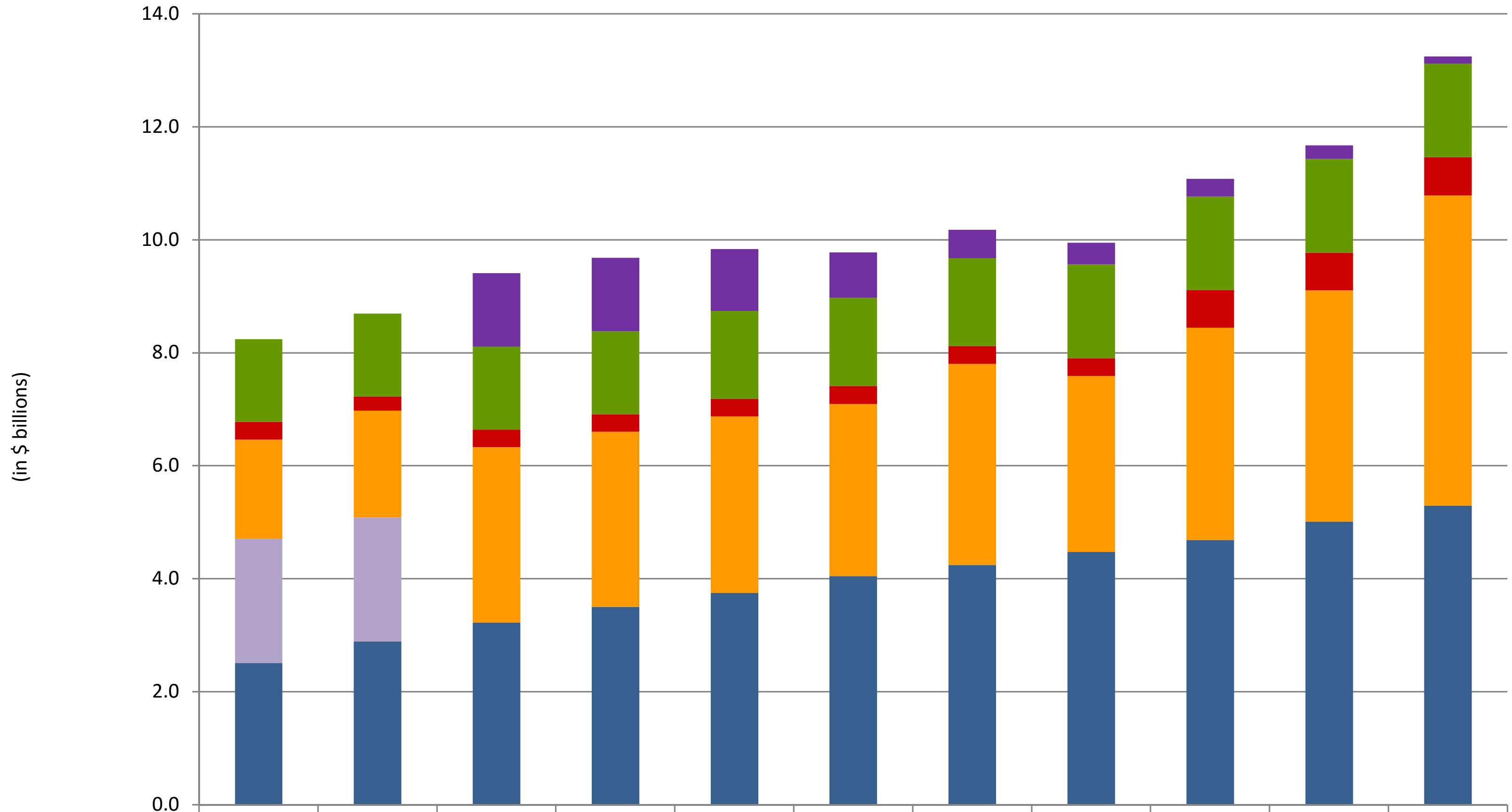
Note: Not drawn to scale

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



	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total CPC	$7.095	$7.240	$7.293	$7.635	$7.390	$7.373	$7.069	$6.948	$7.284
New Industry Assessment	$-	$-	$-	$-	$-	$-	$-	$-	$-
2nd Industry Assessment	$1.434	$1.434	$1.434	$1.456	$1.456	$1.456	$1.456	$1.456	$1.456
Revenue Bonds	$-	$-	$-	$-	$-	$-	$-	$-	$-
Risk-Transfer, 2nd Layer	$0.727	$1.075	$1.075	$1.075	$0.538	$0.538	$0.538	$-	$-
Line of Credit	$0.716	$0.716	$0.716	$0.716	$0.716	$0.456	$0.348	$-	$-
Risk Transfer, 1st Layer	$1.433	$1.433	$1.433	$1.433	$1.433	$1.433	$1.000	$1.500	$1.500
1st Industry Assessment	$2.150	$2.150	$2.150	$2.183	$2.183	$2.183	$2.183	$2.183	$2.183
CEA Available Capital	$0.635	$0.432	$0.485	$0.772	$1.064	$1.307	$1.544	$1.809	$2.145

California Earthquake Authority
Historical Claim-Paying Capacity (CPC)
December 31, 2006 through December 31, 2016



	2006	2007*	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total CPC	$8.244	$8.695	$9.411	$9.685	$9.840	$9.777	$10.179	$9.949	$11.081	$11.667	$13.242
New Industry Assessment	$-	$-	$1.304	$1.304	$1.095	$0.804	$0.500	$0.385	$0.312	$0.238	$0.128
2nd Industry Assessment	$1.465	$1.465	$1.465	$1.465	$1.558	$1.558	$1.558	$1.656	$1.656	$1.656	$1.656
Revenue Bonds	$0.311	$0.254	$0.311	$0.311	$0.311	$0.317	$0.314	$0.314	$0.664	$0.668	$0.673
Risk-Transfer, 2nd Layer	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-
Line of Credit	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-
Risk Transfer, 1st Layer	$1.756	$1.885	$3.100	$3.100	$3.123	$3.050	$3.557	$3.115	$3.759	$4.091	$5.488
1st Industry Assessment	$2.197	$2.197	$-	$-	$-	$-	$-	$-	$-	$-	$-
CEA Available Capital	$2.515	$2.894	$3.231	$3.505	$3.753	$4.048	$4.250	$4.478	$4.689	$5.014	$5.297

Risk-Transfer Programs

California Earthquake Authority
Risk-Transfer Program Summary
as of December 31, 2016

Traditional Reinsurance Contracts	Contract Period	Reinsurance Limit	12-Month Rate-on-Line	12-Month Premium
2016 January Program Contract 1	January 1, 2016 - December 31, 2016	641,212,680	4.30%	27,572,145
2016 January Program Contract 2	January 1, 2016 - December 31, 2016	60,200,000	5.60%	3,371,200
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
2016-2017 January Program Contract 1	January 1, 2016 - December 31, 2017	472,799,040	4.40%	20,803,158
2016-2017 January Program Contract 2	January 1, 2016 - December 31, 2017	99,999,970	5.70%	5,699,998
2016-2017 January Program Contract 3	January 1, 2016 - December 31, 2017	49,999,995	5.00%	2,500,000
2016-2017 January Program Contract 4	January 1, 2016 - December 31, 2017	50,000,000	2.60%	1,300,000
2016-2017 April Program Contract 1	April 1, 2016 - March 31, 2017	757,031,100	3.00%	22,710,933
2016-2018 April Program Contract 1	April 1, 2016 - March 31, 2018	259,876,500	3.10%	8,056,172
2016-2019 April Program Contract 1	April 1, 2016 - March 31, 2019	124,999,920	3.25%	4,062,497
2015-2017 August Program Contract 2	August 1, 2015 - July 31, 2017	200,000,000	4.50%	9,000,000
2016-2019 August Program Contract 1	August 1, 2016 - July 31, 2019	200,000,000	4.15%	8,300,000
2015-2020 August Program Contract 1	August 1, 2015 - July 31, 2020	139,000,000	4.23%	5,879,700
2016-2017 May Program Contract 1	May 1, 2016 - November 30, 2017	100,000,000	3.55%	3,550,000
2016-2018 June Program Contract 1	June 1, 2016 - May 31, 2018	49,999,980	5.40%	2,699,999
2015-2017 August Program Contract 1	August 1, 2015 - July 31, 2017	93,750,000	5.60%	5,250,000
2016-2017 August Program Contract 1	August 1, 2016 - July 31, 2017	93,750,000	5.50%	5,156,250
2016-2019 August Program Contract 2	August 1, 2016 - July 31, 2019	93,750,000	5.80%	5,437,500
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 1 ADDL.	December 1, 2016 - November 30, 2017	99,988,000	5.50%	5,499,340
2015-2017 December Program Contract 2	December 1, 2015 - November 30, 2017	49,999,950	5.60%	2,799,997
2016-2018 December Program Contract 1	December 1, 2016 - November 30, 2018	74,998,000	5.60%	4,199,888
2016-2017 December Program Contract 1	December 1, 2016 - November 30, 2017	80,000,000	5.75%	4,600,000
2015-2018 August Program Contract 1	August 1, 2015 - July 31, 2018	93,750,000	5.80%	5,437,500
Total Traditional Reinsurance		**4,338,408,995**		

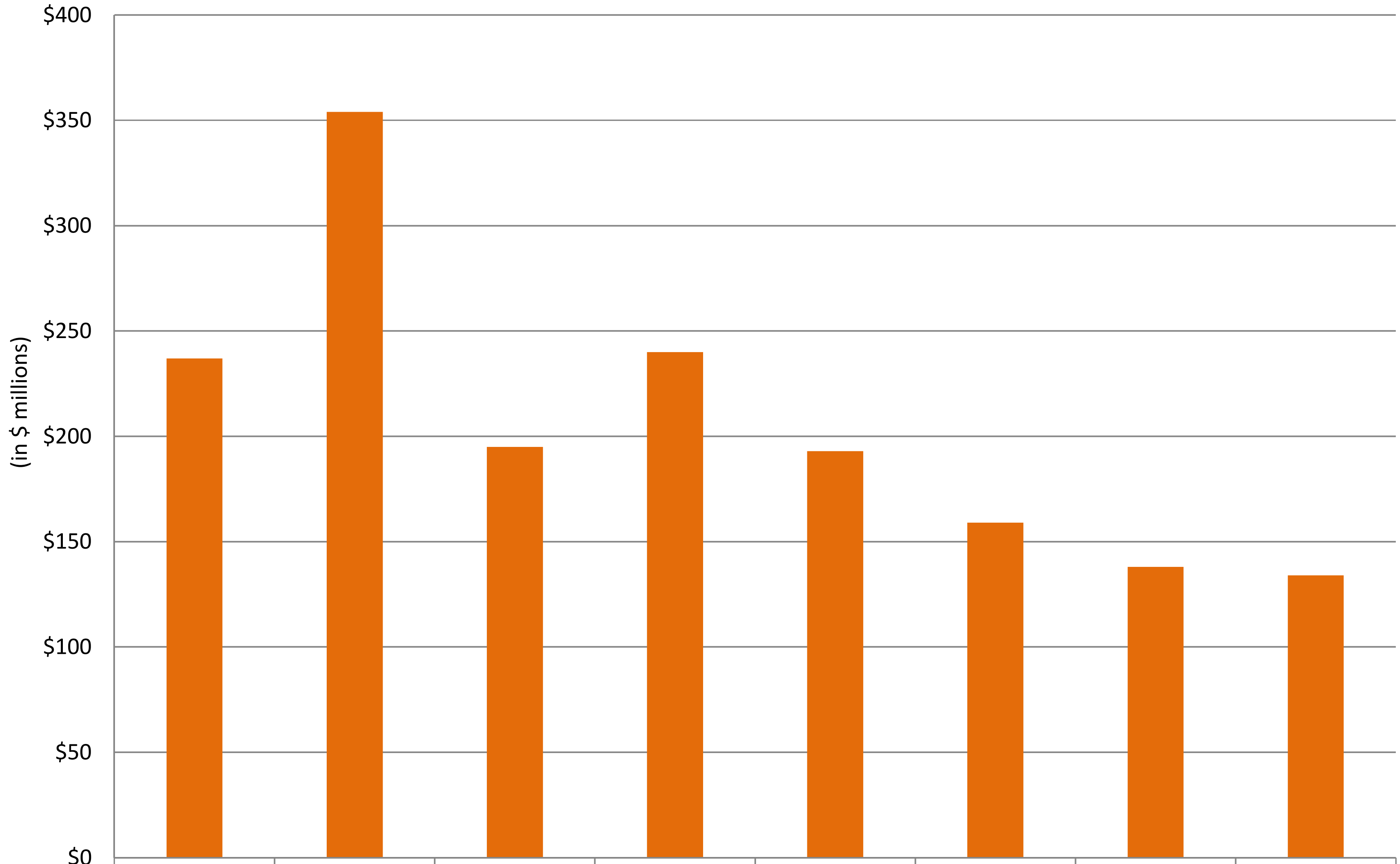
Transformer Reinsurance Contracts	Contract Period	Reinsurance Limit	12-Month Rate-on-Line	12-Month Premium
2014 - 2017 Transformer Reinsurance Contract 1	December 1, 2014 - November 30, 2017	200,000,000	5.05%	10,126,970
2014 - 2017 Transformer Reinsurance Contract 2	December 1, 2014 - November 30, 2017	200,000,000	3.54%	7,220,177
2015 - 2018 Transformer Reinsurance Contract 1	September 16, 2015 - September 15, 2018	250,000,000	5.05%	12,712,517
2016 - 2019 Transformer Reinsurance Contract 1	December 1, 2016 - November 30, 2019	500,000,000	4.04%	20,287,517
Total Transformer Reinsurance		**1,150,000,000**		

Total Risk-Transfer Program		**$ 5,488,408,995**

California Earthquake Authority
2016 Total Premium Risk-Transfer Program
as of December 31, 2016

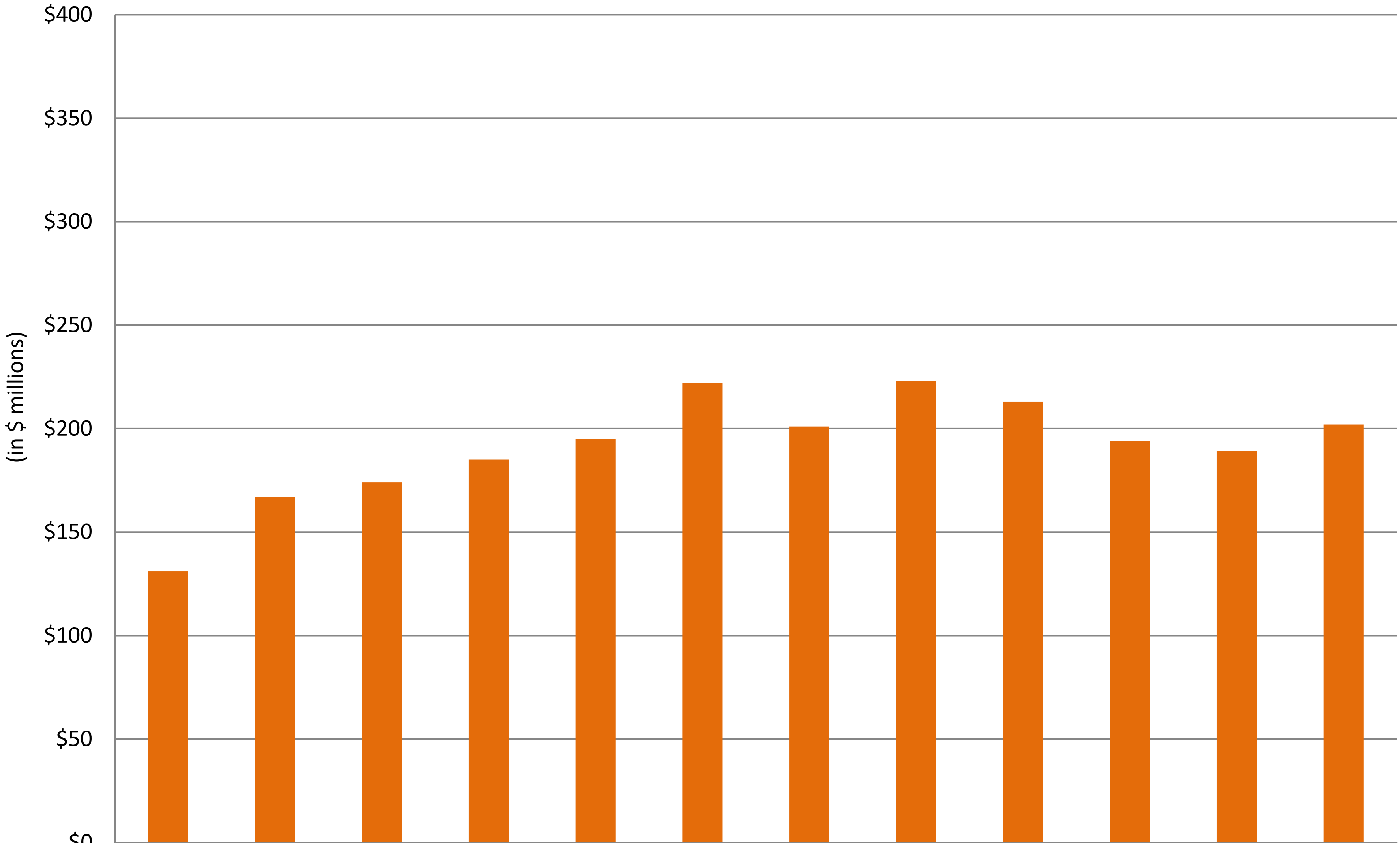
Traditional Reinsurance Contracts	Contract Period	Reinsurance Limit	12-Month Rate-on-Line	2016 Premium
2016 January Program Contract 1	January 1, 2016 - December 31, 2016	641,212,680	4.30%	27,572,145
2016 January Program Contract 2	January 1, 2016 - December 31, 2016	60,200,000	5.60%	3,371,200
2015-2016 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
2016-2017 January Program Contract 1	January 1, 2016 - December 31, 2017	472,799,040	4.40%	20,803,158
2016-2017 January Program Contract 2	January 1, 2016 - December 31, 2017	99,999,970	5.70%	5,699,998
2016-2017 January Program Contract 3	January 1, 2016 - December 31, 2017	49,999,995	5.00%	2,500,000
2016-2017 January Program Contract 4	January 1, 2016 - December 31, 2017	50,000,000	2.60%	1,300,000
2015-2016 April Program Contract 1	April 1, 2015 - March 31, 2016	624,992,490	3.00%	4,687,444
2014-2016 April Program Contract 1	April 1, 2014 - March 31, 2016	253,099,320	3.85%	2,436,081
2014-2016 April Program Contract 2	April 1, 2014 - March 31, 2016	122,499,960	3.75%	1,148,437
2016-2017 April Program Contract 1	April 1, 2016 - March 31, 2017	757,031,100	3.00%	17,033,200
2016-2018 April Program Contract 1	April 1, 2016 - March 31, 2018	259,876,500	3.10%	6,042,129
2016-2019 April Program Contract 1	April 1, 2016 - March 31, 2019	124,999,920	3.25%	3,046,873
2015-2017 August Program Contract 2	August 1, 2015 - July 31, 2017	200,000,000	4.50%	9,000,000
2016-2019 August Program Contract 1	August 1, 2016 - July 31, 2019	200,000,000	4.15%	3,458,333
2015-2020 August Program Contract 1	August 1, 2015 - July 31, 2020	139,000,000	4.23%	5,879,700
2016-2017 May Program Contract 1	May 1, 2016 - November 30, 2017	100,000,000	3.55%	2,366,667
2016 June Program Contract 2	June 1, 2016 - November 30, 2016	50,000,000	5.50%	1,375,000
2016-2018 June Program Contract 1	June 1, 2016 - May 31, 2018	49,999,980	5.40%	1,574,999
2015-2016 June Program Contract 1	June 1, 2015 - May 31, 2016	25,000,000	3.60%	450,000
2013-2016 May Program	May 1, 2013 - April 30, 2016	100,000,000	5.60%	1,866,667
2015-2016 August Program Contract 1	August 1, 2015 - July 31, 2016	187,500,000	5.50%	6,015,625
2015-2017 August Program Contract 1	August 1, 2015 - July 31, 2017	93,750,000	5.60%	5,250,000
2016-2017 August Program Contract 1	August 1, 2016 - July 31, 2017	93,750,000	5.50%	2,148,438
2016-2019 August Program Contract 2	August 1, 2016 - July 31, 2019	93,750,000	5.80%	2,265,625
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 1 ADDL.	December 1, 2016 - November 30, 2017	99,988,000	5.50%	458,278
2015-2017 December Program Contract 2	December 1, 2015 - November 30, 2017	49,999,950	5.60%	2,799,997
2016-2018 December Program Contract 1	December 1, 2016 - November 30, 2018	74,998,000	5.60%	349,991
2016-2017 December Program Contract 1	December 1, 2016 - November 30, 2017	80,000,000	5.75%	383,333
2015-2018 August Program Contract 1	August 1, 2015 - July 31, 2018	93,750,000	5.80%	5,437,500
Total Traditional Reinsurance Premium				**166,910,245**
Transformer Reinsurance Contracts	**Contract Period**	**Reinsurance Limit**	**12-Month Rate-on-Line**	**2016 Premium**
2014 - 2017 Transformer Reinsurance Contract 1	December 1, 2014 - November 30, 2017	200,000,000	5.05%	10,154,641
2014 - 2017 Transformer Reinsurance Contract 2	December 1, 2014 - November 30, 2017	200,000,000	3.535%	7,244,117
2015 - 2018 Transformer Reinsurance Contract 1	September 16, 2015 - September 15, 2018	250,000,000	5.05%	12,747,106
2016 - 2019 Transformer Reinsurance Contract 1	December 1, 2016 - November 30, 2019	500,000,000	4.04%	4,965,213
Total Transformer Reinsurance Premium				**35,111,077**
Total Risk-Transfer Program Premium				**202,021,322**

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



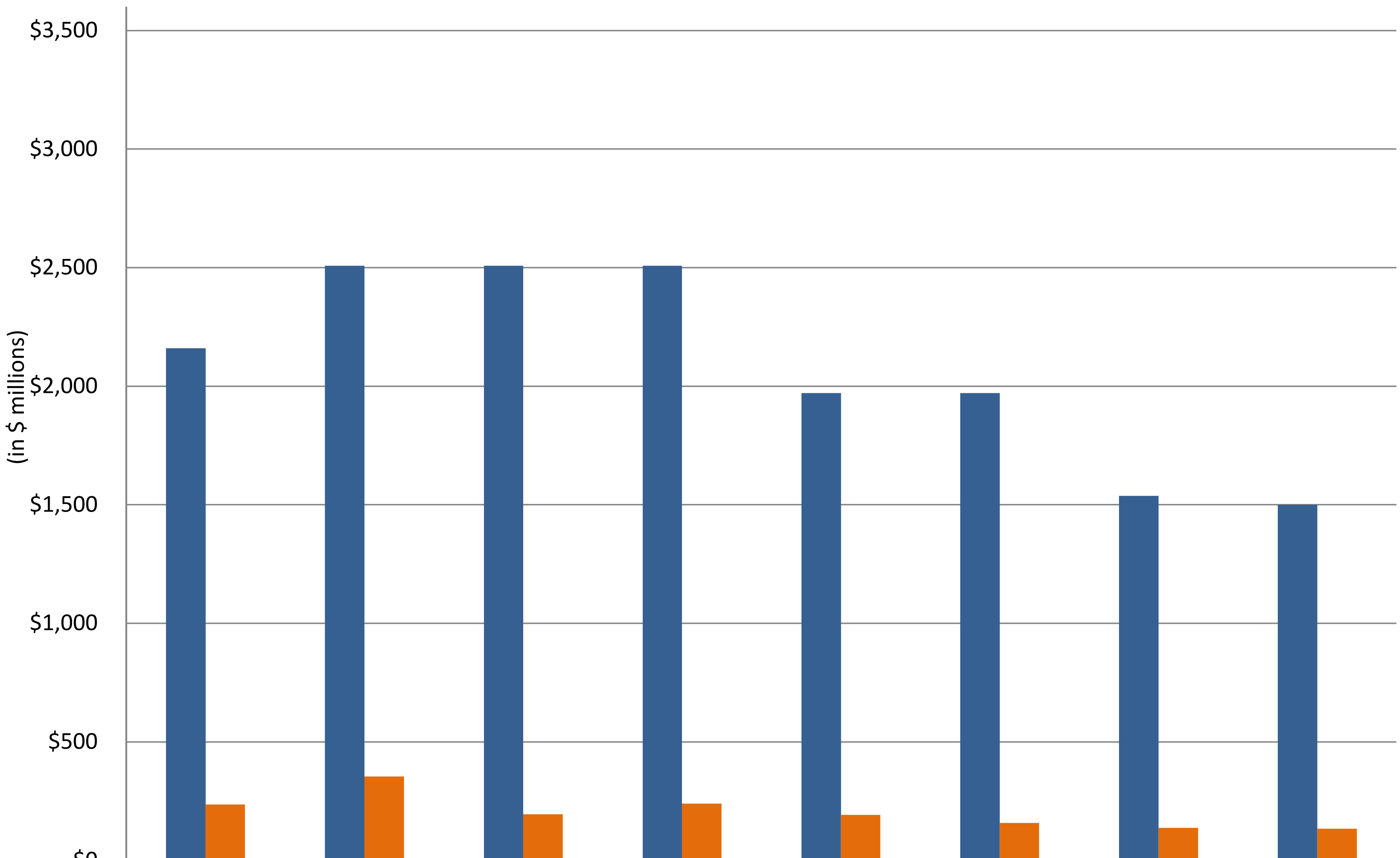
	1997	1998	1999	2000	2001	2002	2003	2004
Premium	$237	$354	$195	$240	$193	$159	$138	$134

California Earthquake Authority
Annual Risk-Transfer Premium
December 31, 2005 -December 31, 2016



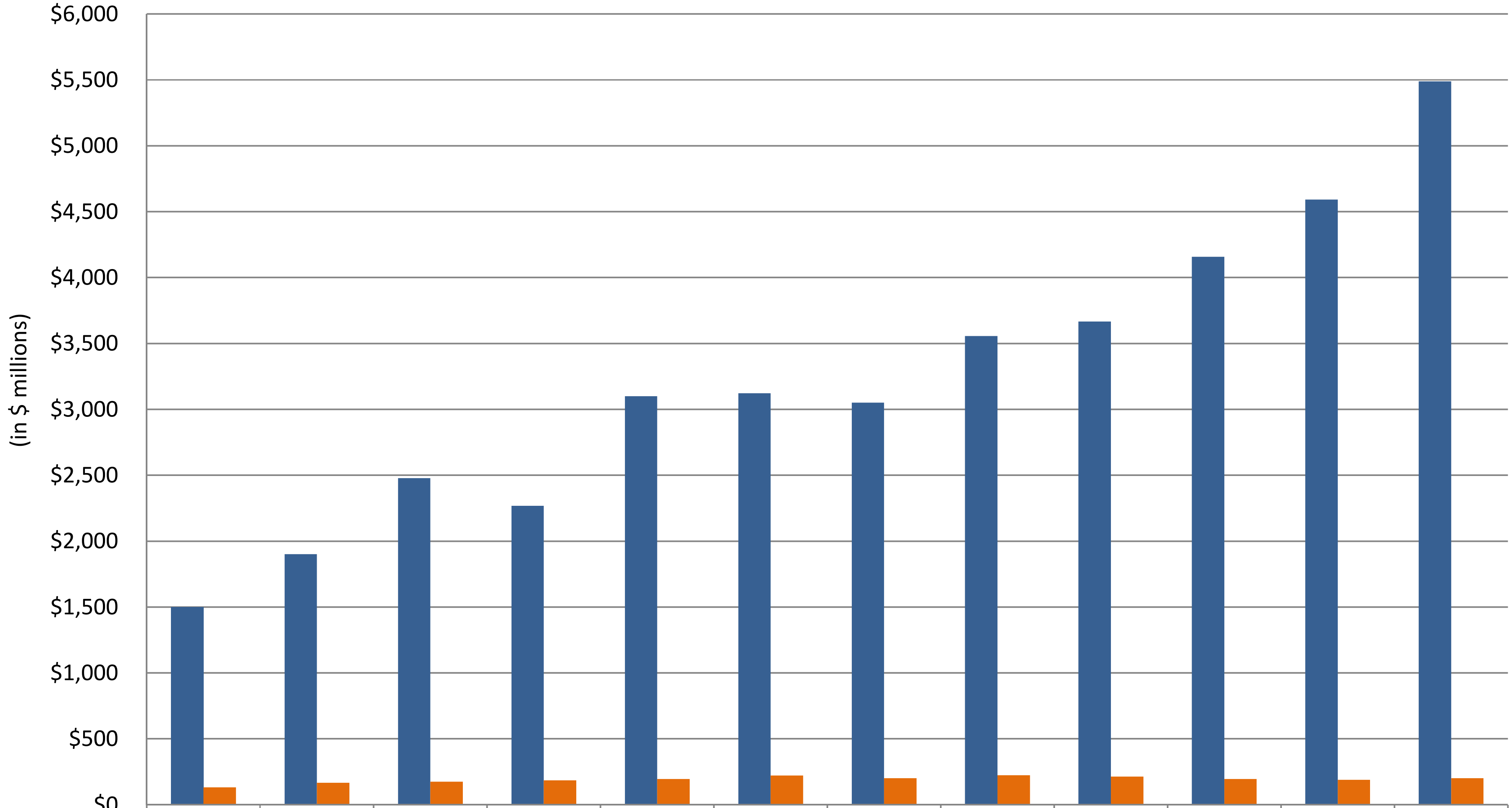
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Premium	$131	$167	$174	$185	$195	$222	$201	$223	$213	$194	$189	$202

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



	1997	1998	1999	2000	2001	2002	2003	2004
Limit	$2,160	$2,509	$2,509	$2,509	$1,971	$1,971	$1,538	$1,500
Premium	$237	$354	$195	$240	$193	$159	$138	$134

California Earthquake Authority
Annual Risk-Transfer Premium and Limit
December 31, 2005 - December 31, 2016



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Limit	$1,500	$1,902	$2,478	$2,268	$3,100	$3,123	$3,050	$3,557	$3,665	$4,159	$4,591	$5,488
Premium	$131	$167	$174	$185	$195	$222	$201	$223	$213	$194	$189	$202

Board Memorandum

March 15, 2017

Agenda Item 5:	CEA Participating Insurers: Maximum-Earthquake-Loss Funding-Assessment Levels
Recommended Action:	Approve April 1, 2017, CEA Participating Insurer Maximum-Earthquake-Loss Funding-Assessment Levels

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<u>Background</u>:

California Insurance Code section 10089.25 states,

> "Beginning December 31, 1997, and annually thereafter on the 30th 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.

<u>Analysis</u>:

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 ("1st IAL"). Unlike the 1st 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 ("2nd IAL") in the CEA's financial structure.

The 2nd 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 1st 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, 2017, as well as the resulting New IAL assessment capacity.

The assessment capacity for the 2nd 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 2016, no insurance company became a new CEA participating insurer that had residential property insurance market share, and therefore the aggregate total of the 2nd IAL capacity for 2017 remains unchanged from 2016.

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 2017.

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, 2017.

- 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, 2017.
- The Board authorize CEA staff to notify each participating insurer of its respective April 30, 2017, 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			+	371,899,903		
Capacity Growth:						
1/1/2017 - New Risk Transfer capacity		$6,328,585,788				
Series 2006 and Series 2014 Revenue Bond proceeds	+	$667,525,229				
12/31/2016 - Previous year Risk Transfer capacity	-	$5,488,408,955				
Series 2006 and Series 2014 Revenue Bond proceeds	-	$667,525,229				
Capacity Growth Previous Year			-	$840,176,833		
Retained Earnings Differential			=	($468,276,930)	+	$ -
April 1, 2017 Aggregate Assessment Reduction					=	$89,000,000
Prior Year Modified Aggregate Assessment Calculation						$154,814,556
April 1, 2017 Aggregate Assessment Reduction					-	$89,000,000
Modified Aggregate Assessment as of April 1, 2017					=	$65,814,556
Residential Homeowner Market Share calculated at the time each participating insurer joined the CEA					X	82.7793%
New IAL Assessment Capacity as of April 1, 2017					**=**	**$54,480,829**

CEA Participating Insurers
2017 Maximum Earthquake-Loss-Funding-Assessment Levels
(Based on CEA Written-Premium Market Share as of December 31, 2016)

Company Name	CEA Market Share	CA Residential Market Share*	Max Assessment 2nd Layer	Max Assessment New Layer	Total Max Assessments	Written Premium
State Farm Group	33.239887%	17.311363%	$ 550,314,906	$ 18,109,366	$ 568,424,272	$ 205,778,910
Farmers	13.005588%	13.904368%	$ 215,318,697	$ 7,085,552	$ 222,404,249	$ 80,513,986
USAA	12.892547%	4.233625%	$ 213,447,199	$ 7,023,966	$ 220,471,165	$ 79,814,178
Allstate	10.555640%	6.090140%	$ 174,757,703	$ 5,750,800	$ 180,508,503	$ 65,347,039
Inter-Ins. Exchange	7.179178%	5.340744%	$ 118,857,474	$ 3,911,276	$ 122,768,750	$ 44,444,301
Safeco	6.284659%	2.124725%	$ 104,047,942	$ 3,423,935	$ 107,471,877	$ 38,906,582
CSAA[1]	5.297719%	6.376622%	$ 87,708,290	$ 2,886,241	$ 90,594,531	$ 32,796,706
Mercury	3.871748%	3.840011%	$ 64,100,112	$ 2,109,360	$ 66,209,472	$ 23,968,915
Nationwide	2.970813%	5.371939%	$ 49,184,371	$ 1,618,524	$ 50,802,895	$ 18,391,481
Liberty Mutual	2.461660%	4.137679%	$ 40,754,902	$ 1,341,133	$ 42,096,035	$ 15,239,455
Foremost	0.656306%	1.468794%	$ 10,865,707	$ 357,561	$ 11,223,268	$ 4,063,007
FAIR Plan	0.639109%	0.817465%	$ 10,581,006	$ 348,192	$ 10,929,198	$ 3,956,549
Encompass	0.592086%	0.446057%	$ 9,802,487	$ 322,573	$ 10,125,060	$ 3,665,438
Homesite	0.215871%	0.746120%	$ 3,573,937	$ 117,609	$ 3,691,546	$ 1,336,400
Armed Forces	0.082727%	0.052578%	$ 1,369,622	$ 45,071	$ 1,414,693	$ 512,142
MAPFRE	0.045667%	0.140006%	$ 756,055	$ 24,880	$ 780,935	$ 282,711
Golden Eagle	0.008794%	0.000298%	$ 145,589	$ 4,791	$ 150,380	$ 54,440
TOTAL	**100.00000%**	**72.40254%**	**$ 1,655,586,000**	**$54,480,829**	**$ 1,710,066,829**	**$ 619,072,240**

* Based on California Department of Insurance 2015 California Market-Share Report. The Department's 2016 California Market-Share Report will not be publicly available until May 2017.

[1] ACA was combined with CSAA

[2] Garrison was combined with USAA

Governing Board Memorandum

March 15, 2017

Agenda Item 6:	Recommendation to transfer money from the CEA's Earthquake Loss Mitigation Fund to the California Residential Mitigation Program
Recommended Action:	Approve recommended transfer of money

<u>Background</u>**:**

CEA staff periodically asks the Governing Board to authorize a transfer of money from the CEA's Earthquake Loss Mitigation Fund for use by the California Residential Mitigation Program (CRMP)—that funding supplied by CEA supports operation of the CRMP's Earthquake Brace + Bolt (EBB) programs, and staff routinely updates the Board on program status.

To date, the Board has approved such transfers in the following amounts:

- December 2010 $500,000 (initial funding)
- May 2013 $1,000,000 (to complete EBB pilot program and begin expansion)
- December 2014 $3,000,000 (to expand EBB in 2015)
- June 2016 $1,000,000 (to expand EBB in 2016)

<u>Analysis</u>**:**

CRMP staff will discuss 2016 EBB accomplishments and outline CRMP program goals for 2017. (*Attachment A* to this memo is the 2017 CRMP budget approved by the CRMP governing board in January 2017.)

In 2017, CRMP plans to complete 2,505 retrofits.

- As of January 31, 2017, the CRMP treasury showed a balance of $265,918.
- Funds available for use by CRMP in 2017 include $3 million received by CEA as a grant from the Department of Insurance (CDI), in turn made possible by a 2016-2017 state-budget appropriation to CDI. CDI-grant funds from CEA are held by CRMP in a separate account, solely for retrofit-incentive grants.
- The 2017 CRMP budget also includes $150,000 in funds CEA anticipates receiving through FEMA's "Hazard Mitigation Grant Program." CEA will transfer those funds to CRMP, which will use the money for remaining "Napa EBB" grants.
- In addition to grants, EBB expenses include ongoing administrative and operational costs (e.g., marketing, call-center services, and third-party-evaluation services).

Continuing its understanding with CalOES, CEA remains, as between those two partner entities, the sole CRMP funder.

In order for CRMP to execute its 2017 EBB program, CRMP will require additional CEA mitigation funds in the amount of $ 5.4 million.

Recommendation:

Staff recommends the Governing Board approve a transfer to CRMP of funds from the CEA Earthquake Loss Mitigation Fund in the amount of $5.4 million to fund and expand the CRMP EBB program in 2017, as described above.

California Residential Mitigation Program
2017 Approved Budget

Revenue		
FEMA	$	150,000
Department of Insurance		3,000,000
Total Revenue	**$**	**3,150,000**
CRMP Administration Expenses		
Human Resources		
Travel	$	37,000
Total Human Resources		**37,000**
General Office		
Board Services		3,500
Administration & Office		62,150
Insurance		38,000
Financial Audit		50,000
Legal Services		200,000
Total General Office		**353,650**
EBB Program Expenses		
Software/Information Technology		23,650
Call Center		110,000
Home Inspection Services		95,000
EBB Marketing		325,000
EBB Program Education		75,000
Grants to Homeowners (2,505 payments at $3,000)		7,515,000
Total EBB Program Expenses		**8,143,650**
Total Administrative and Program Expenses	**$**	**8,534,300**

Governing Board Memorandum

March 15, 2017

Agenda Item 7:	Revised CEA Guidelines for Securing Risk-Transfer*: Traditional Reinsurance and Alternative Risk Transfer*
Recommended Action:	Approve revised CEA Guidelines for Securing Risk-Transfer*: Traditional Reinsurance and Alternative Risk Transfer* Approve

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Background**:**

At its December 17, 2014, meeting, the Governing Board approved revised *Guidelines for Securing Risk Transfer: Traditional Reinsurance and Alternative Risk Transfer* (the *Guidelines*).

The *Guidelines* provide standards by which the CEA determines whether a reinsurer would be eligible to participate on the CEA's reinsurance program, and if so, what maximum (dollar amount) line of reinsurance the CEA would accept from that reinsurer. The *Guidelines* expressly provide that they should be modified periodically to respond to changing reinsurance-market conditions and reinsurance products, to encompass other financial tools from other segments of the financial community, and to adjust to economic changes.

Analysis**:**

Historically, the CEA has relied on reinsurance—predominantly, traditional reinsurance—for about a third of its total claim-paying capacity. The cost of CEA's risk-transfer purchases (both traditional and transformer reinsurance) that are required to meet the CEA's capacity needs is, and has been for years, a significant recurring expense that exerts upward pressure on premium rates for CEA policyholders.

Available capacity and price are subject to wide swings on account of market conditions, global catastrophes, and other factors beyond CEA's control. Multi-year reinsurance contracts relieve CEA of some year-to-year uncertainty, but there remain significant risks. While staff believes the risk-transfer limits CEA is likely to require for the next 12 months should be obtainable on acceptable terms, there is no guarantee that the capacity the CEA requires in the future will be available at CEA's desired pricing and on CEA's desired terms.

Because CEA has a fairly rigid financial structure that depends to a great degree on risk-transfer, any potential limits on traditional and transformer reinsurance-market capacity will affect, and may constrain, the overall claim-paying capacity of the CEA—and that can hinder CEA's ability to provide affordable earthquake coverage to Californians.

As has been discussed frequently and at length with the Board in connection with its approvals of past risk-transfer proposals and transactions, the risk-transfer market is dynamic: Coordinating CEA's risk-transfer needs with current market conditions is crucial, meaning the CEA must be positioned to execute risk-transfer transactions efficiently and effectively, when market conditions in the reinsurance and capital markets are, in the judgment of CEA financial staff and CEA's retained professional financial, legal, reinsurance, and risk-transfer experts, likely to be receptive to the CEA's participation and unique requirements.

The Board has well recognized these needs in recent actions: On December 13, 2012, it authorized CEA staff to accomplish these ends in a flexible, yet prudent, manner, to allow CEA to act quickly when market conditions are favorable to meet the tight time limits and deadlines inherent in highly time-sensitive risk-transfer transactions, in amounts and at pricing according to the staff's discretion, while in full compliance with the *Guidelines* and under documented conditions. And on December 14, 2014, the Board authorized CEA staff to put into effect a revision to the Guidelines' rating tables, to more accurately reflect rating-systems comparisons among Moody's, A.M. Best, and Standard and Poor's.

Description of Key Revisions to the Guidelines

This section outlines the proposed revisions to the Guidelines and the reasons for those revisions.

The Lloyd's of London section is removed, and the "Lloyd's of London: Non-rated syndicate reinsurer financial-strength-calculation formulas" (page 7) is replaced with formulas used by traditional reinsurers (page 4), in determining that reinsurer's maximum qualifying line.

Staff has determined that positive changes at Lloyd's regarding transparency of funds available by Lloyd's syndicates to pay claims provides CEA with the same level of knowledge regarding financial strength as CEA is able to obtain from traditional reinsurers. The changes at Lloyd's therefore support staff-proposed *Guidelines* changes to (1) eliminate the separate financial strength determination and associated level of reinsurance limits and (2) base judgments regarding all reinsurers, including Lloyd's syndicates, on the same criteria.

A provision of the current *Guidelines* deals with CEA's purchase of reinsurance provided by expatriate reinsurers. Staff proposes rewording this section to make clearer when CEA would use expatriate reinsurers.

A clean version of the proposed *Guidelines* appears as *Attachment A.* A redline version of the proposed *Guidelines* appears as *Attachment B.*

Recommendations:

Staff recommends the Board approve the revised *Guidelines for Securing Risk Transfer: Traditional Reinsurance and Alternative Risk Transfer*, as described above.

California Earthquake Authority

GUIDELINES FOR SECURING RISK TRANSFER: Traditional Reinsurance and Alternative Risk Transfer

Adopted/Approved by the CEA Governing Board on December 13, 2012
Revised/Approved by the CEA Governing Board on December 17, 2014
Revised/Approved by the CEA Governing Board on March 15, 2017

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INTRODUCTION

The CEA's *Guidelines for Sources of Claim-Paying Capacity: Providers and Products* were first issued in 1999 (referred to as the "Original Guidelines") and have been modified and updated periodically. The Original Guidelines included recommendations of the best reinsurance- related business practices for the CEA in connection with accessing the reinsurance market, with a primary focus on traditional reinsurance. They described how the CEA evaluates reinsurers and reinsurance products and also provide minimum standards that reinsurance providers should meet to qualify as suitable for the CEA. These *Guidelines for Securing Risk Transfer: Traditional Reinsurance and Alternative Risk Transfer* (referred to as the "Guidelines"), which incorporate and build upon the Original Guidelines, seek to establish a more comprehensive approach by recommending best business practices for accessing the traditional reinsurance market as well as alternative risk transfer markets, such as the alternative risk transfer products funded by the sale of catastrophe bonds, collateralized reinsurance issued by institutional investors (such as hedge funds and pension plans) that are not traditional reinsurers, and other similar markets. By adopting these Guidelines, the CEA's Governing Board recognizes the evolution of alternative risk transfer since the Original Guidelines were first issued in 1999 and reaffirms its commitment to stable and efficient risk transfer, whether in the traditional or alternative markets.

These Guidelines may be updated periodically by the CEA's Governing Board in its discretion, including to respond to changing conditions in the reinsurance and broader financial markets, as well as legal and regulatory developments.

GOALS

These Guidelines seek to accomplish four principal goals, presented in order of priority, while mitigating the CEA's potential legal liability and ensuring regulatory compliance:

1. *Financial Strength:* To minimize the risk to the CEA that a provider might fail to pay claims under a reinsurance contract because of the provider's financial condition.

2. *Stability:* To encourage the CEA to secure claim-paying capacity from providers and use products that, together, can endure all market conditions.

3. *Efficiency:* To enable the CEA to select the most efficient claim-paying capacity, including at rates on line that are competitive with other sources of claim-paying capacity.

4. *Flexibility:* To provide for reasonable flexibility by allowing for alternative products and stable sources of claim-paying capacity that are more cost-effective.

GENERAL STRATEGY

The CEA recognizes that it must be in a position to access the entire global risk transfer market to meet its capacity needs, including through the purchase of traditional reinsurance and the use of alternative risk transfer structures. In order to most effectively accomplish the four principal goals outlined above, the CFO, in consultation with the CEO, the General Counsel, other appropriate staff or officers at the CEA, and the Governing Board, must prepare and submit to the Governing Board for its approval, on at least an annual basis, a comprehensive risk transfer strategy that sets forth the basic risk transfer goals and benchmarks for the ensuing year, including potential capacity constraints and anticipated exposures to be transferred to the risk transfer markets.

TRADITIONAL REINSURANCE

The Guidelines in this section apply to all providers of traditional reinsurance and all traditional reinsurance contracts to which the CEA is a party.

STABILITY OF RISK TRANSFER PROGRAM

Unlike a private insurance company, the CEA cannot go without claim-paying capacity if reinsurance market capacity diminishes or demand for reinsurance capacity exceeds supply— recoveries from sources of external capacity are a direct source of the CEA's financial ability to pay its policyholders' claims. If risk capital (reinsurance capacity) becomes unavailable, the CEA's claim-paying capacity will shrink and it could be materially and adversely affected. To provide uninterrupted availability of earthquake coverage for California's residential property insurance policyholders, the CEA must endeavor to buy from providers that can endure all market conditions.

To most effectively accomplish this goal, the CEA will consistently consider the following steps:

1. Enter into multi-year agreements when cost-effective and advantageous under the existing economic environment.

2. Take steps to ensure that future markets are available to which CEA risk can be transferred.

3. To the extent feasible, transact directly with entities that are the primary bearers of the ultimate risk (the "primary risk bearers").

4. Distinguish clearly between primary and secondary market capacity.

The CEA distinguishes primary market capacity from secondary marked capacity as follows:

- Primary market capacity offers direct contact between the CEA and the ultimate risk bearer and is therefore generally more stable than secondary capacity. Direct contact will generally permit a more thorough and effective exchange of knowledge between the CEA and the ultimate risk bearer—this direct collaboration can mature into a long-term relationship that enhances uninterrupted access to risk capital, which is crucial to the CEA's mission.

- Secondary market capacity means the entity executing the transaction with the CEA is not the ultimate risk bearer—instead, it may be a fronting entity that is a conduit of risk and premium to a retrocessionnaire or bondholder (in secondary markets). In such a case, while the contract counterparty is directly liable to the CEA under the terms of the reinsurance contract for the payment of claims, it is the secondary market that has accepted the ultimate risk of CEA loss.

Because of certain general advantages of primary market capacity, the CEA prohibits any *specific retrocession* of CEA risk without the advance written permission of the CEA. In those cases where the CEA has approved the retrocession of CEA risk, such risk should be applied against the maximum permitted line of the direct reinsurer and each retrocessionaire, as described in the next section of these Guidelines.

The CEA has relied on reinsurance intermediaries and independent financial consultants to help CEA evaluate the economic environment at the time of securing reinsurer participations, and to consider reinsurers that might occasionally (with CEA permission) use retrocessional reinsurance to manage risk.

5. The CEA cannot depend entirely on a few entities or markets to provide all its claim-paying capacity. An inordinately large allocation to one reinsurer could disadvantage the CEA. The CEA at its sole discretion may moderate this guideline in response to compelling and appropriate circumstances.

FINANCIAL STRENGTH OF REINSURER

The reinsurer's financial strength and its ability to fulfill its promise of claim-paying obligations are the primary considerations in determining whether a reinsurer qualifies to do business with the CEA. Depending on the severity of the CEA's losses, a reinsurer's failure to make timely payment to the CEA could be the equivalent of a failed promise to a CEA policyholder, because reinsurance recoveries are a primary source of the CEA's ability to pay claims. Accordingly, in obtaining claim-paying capacity from traditional reinsurance sources, the CEA should apply the following criteria at inception of the reinsurance contact, but also should maintain the flexibility to take appropriate action, including by means of the credit enhancements described below, if these criteria are no longer satisfied.

In the sole judgment and discretion of the CEA, acting with the advice of staff and experts, the CEA may waive or modify any allocation guideline if to do so would bring substantial benefit to the CEA without compromising the basic goals of financial strength, stability, and efficiency.

General Criteria

To qualify as a CEA reinsurer, a reinsurer must meet both of the following standards (all amounts in US dollars):

- Policyholders' surplus (PHS) of at least $150 million; and
- An A.M. Best financial strength rating of at least A-, or a Standard & Poor's (S&P) financial strength rating of at least A-, or a Moody's financial strength rating of at least A3.

The CEA should use the following criteria to allocate lines of reinsurance to reinsurers:

1. The rating agencies A.M. Best, S&P, and Moody's assign ratings to reinsurers that signify a reinsurer's financial strength. Each rating agency analyzes key financial ratios to measure leverage, liquidity, asset quality, and other balance-sheet and income-statement indicators of financial strength. They also assess management qualifications and take into account a reinsurer's exposure to natural disasters. It is therefore appropriate that the rating A.M. Best, S&P, or Moody's assigns a reinsurer should influence the size of that reinsurer's participation in CEA reinsurance contracts.

2. "Economic mass" — a company's policyholders' surplus ("PHS") — is an indicator of financial staying power and should directly influence the CEA participation allocation. No reinsurer should be allocated combined participating shares in CEA reinsurance contracts for a given contract period that would generate total liabilities (not including exposures to reinstated limits, if any) greater than 10% of that reinsurer's PHS.

Lloyd's Syndicates

The financial statements of syndicates at Lloyd's do not state a policyholders' surplus; therefore, unlike with non-Lloyd's reinsurers, policyholders' surplus cannot be used as an allocation criterion for Lloyd's. The CEA must instead use a "policyholders' surplus equivalent" in lieu of using policyholders' surplus. The CEA will use one or more of the following, as specified in this paragraph, as policyholders' surplus equivalents:

- The syndicate's premium receipts plus its reserves. This is commonly referred to as "Syndicate Level Assets."
- Any additional capital dedicated by a syndicate's member(s) for the syndicate's liabilities by a deposit of funds into any of three trust funds in which members' assets may be held—the Lloyd's deposit fund, the special reserve fund, or the personal reserve fund—each of which is available to meet cash calls made on the member with respect to syndicate needs. This is commonly referred to as "Members' Funds at Lloyd's."
- The syndicate's volume of business measured in gross written premiums net of acquisition costs underwritten by a syndicate's business plan accepted by Lloyd's (Lloyd's requires syndicates to have a stated amount of capital to support the amount of gross written premiums in the business plan). This is commonly referred to as the syndicate's "stamp capacity."

For purposes of determining a syndicate's maximum line allocation, the CEA will calculate the policyholders' surplus equivalent as follows:

- If the syndicate has disclosed to the CEA both its Syndicate Level Assets <u>and</u> its dedicated Members' Funds at Lloyd's, the combination of Syndicate Level Assets and dedicated Members' Funds at Lloyd's will be used as the policyholders' surplus equivalent.
- If the syndicate has disclosed to the CEA its Syndicate Level Assets but not its dedicated Members' Funds at Lloyd's, the Syndicate Level Assets will be used as the policyholders' surplus equivalent.
- If the syndicate has not disclosed to the CEA its Syndicate Level Assets, the syndicate's stamp capacity will be used as the policyholders' surplus equivalent.

3. To properly scale a reinsurer's CEA participation level to its rating and PHS, the following guidelines will be used when allocating lines of reinsurance contracts:

Table 1

(For reinsurers with PHS between $ 150 & $300 million)

Maximum Line (% of PHS)	A.M. Best Rating*	Standard & Poor's Rating*	Moody's Rating*
0% - 1 .5%	A-	A-	A3
1.51% - 3.0%	A	A+	A1 to A2
3.01% - 6.0%	A+ or A++	AA- to AAA	Aa3 - Aaa

Table 2

(For reinsurers with PHS greater than $300 million)

Maximum Line (% of PHS)	A.M. Best Rating*	Standard & Poor's Rating*	Moody's Rating*
0% — 3.0%	A-	A-	A3
3.01% — 5.5%	A	A to A+	A1 to A2
5.6% — 8.0%	A+	AA- to AA	Aa3 - Aa2
8.01%— 10.0%	A++	AA+ to AAA	Aa1 to Aaa

*For a company that is rated by two or more of the rating agencies mentioned above, the lowest of the ratings will apply in apply these guidelines.

The maximum line allocation is calculated as follows: The sum of all the reinsurer's authorized lines on all CEA reinsurance contracts that are or will be effective for the same period is compared to the maximum permitted line from Table 1 or Table 2. The reinsurer's authorized lines that will be compared to the maximum permitted line will be the aggregate of all lines of CEA risk assumed by reinsurer for that period, regardless of whether any such lines are assumed as primary market capacity, as a fronting entity, as a retrocessionaire, or in any combination of these.

4. The CEA buys reinsurance from the global reinsurance community. Many of the CEA's reinsurers are not domiciled in the United States, and many of those reinsurers provide financial reports based on currencies other than U.S. dollars. Exchange rates fluctuate daily, and an exchange rate moving downward in relation to the U.S. dollar means diminished financial security for the CEA. To manage this risk, the CEA will employ the following procedure:

a. In assigning reinsurance-contract participations, the CEA will calculate a non-U.S.-domiciled reinsurer's PHS based on its domicile's exchange rate against the U.S. dollar not more than 30 days before the date of binding that reinsurer's participation in a reinsurance contract. This is called the "Base Exchange Rate."

b. If during the term of a reinsurance contract a reinsurer domicile's exchange rate falls below the Base Exchange Rate, the CEA will reevaluate compliance with the Guidelines for any reinsurer based in that domicile.

Credit Enhancement

The CEA, at its sole discretion, may accept certain credit-enhancement tools in support of reinsurance-line allocations for reinsurers, including reinsurers participating in Alternative Transactions, that do not meet the above financial strength criteria and would therefore ordinarily fall outside the Guidelines. This guideline, which permits the CEA certain flexibility in waiving or modifying allocation guidelines, is not intended to reserve or grant, and does not reserve or grant, any rights whatsoever to any person or entity other than the CEA and its Governing Board. Credit enhancement may include, without limitation, any of the following:

1. ***Collateralization.*** The CEA may allow Reinsurers to provide the CEA with collateral, in a form acceptable to the CEA, to support an allocation of reinsurance limit outside the Guidelines. All such Collateral must be posted in a collateral account established in a U.S.- based bank with a long-term credit rating of at least "A-" from Standard & Poor's or "A-" from A.M. Best, using a form of collateral account control agreement approved by the CEA. The collateral account control agreement must require that collateral in the account be solely held in the form of specified types of permitted assets, consisting of one or more of the following:

a. Cash, in United States Dollars;

b. Interests in money market mutual funds rated in the highest rating category by Moody's or Standard & Poor's and registered under the Investment Company Act of 1940 that invest solely in direct obligations of the U.S. Treasury and have a per share value of $1.00 or more;

c. Direct obligations of the U.S. Treasury, excluding Treasury "separate trading of registered interest and principal securities" zero coupon bonds (Treasury STRIPS) or Treasury Inflation Protected Securities (TIPS); or

d. Other assets that the CEA may, at its option, permit upon a determination, in the sole judgment and discretion of the ART Subgroup (as that subgroup is described in the Alternative Risk Transfer section of these Guidelines), acting with the advice of staff and experts, as needed, that the assets provide levels of safety, security, and liquidity comparable to the categories of assets specified in subparagraphs (a) through (c) immediately above.

2. ***Letters of Credit.*** The CEA may allow reinsurers to provide one or more letters of credit, in a form acceptable to the CEA, to support an allocation of reinsurance limit outside the Guidelines. All letters of credit must meet appropriate format and security standards, which may include, without limitation, the following criteria:

a. The letter of credit is issued by a U.S.-based bank with a long-term credit rating of at least "A-" from Standard & Poor's or "A-" from A.M. Best.

b. The letter of credit is a clean, irrevocable, unconditional direct pay letter of credit payable to the CEA and in form and substance satisfactory to the CEA.

c. The letter of credit is issued for a term expiring no earlier than the termination date of the reinsurance contract for which the reinsurer is securing its line by the letter of credit, and includes an evergreen provision that automatically extends the term for at least one additional year beyond the expiration date unless the issuer of the letter of credit gives written notice of non-renewal to the CEA by certified mail not less than 60 days prior to the expiration date, and in the event of such a non-renewal or other expiration of the letter of credit, the subscribing reinsurer agrees to obtain replacement letters of credit to the extent necessary to comply with its collateralization requirements.

3. ***Parental Guarantees.*** A reinsurer that has exceptionally strong capitalization, or a company that is affiliated with a strongly capitalized parent that is willing to provide, and does provide, a written parental guarantee, may be acceptable even if it fails to meet the criteria in the above allocation guidelines. In deciding whether to accept a parental guarantee as a credit enhancement, the CEA will consider the following:

a. A subsidiary of a quality parent typically enjoys superior liquidity and access to capital.

b. A strong parent would likely not abandon a failed subsidiary and would fulfill the subsidiary's obligations because of the damage that abandonment would inflict on the parent's reputation. Parent companies that are not insurers, however, should be carefully examined for appropriate risk appetite and other desirable, relevant attributes.

The CEA, in its discretion, may require a reinsurer to provide credit enhancements in support of the entire line allocated to the reinsurer, or only that portion of the reinsurer's allocated line that exceeds the amount of that would otherwise be permissible under these Guidelines.

The CEA requires that all its reinsurance contracts grant the CEA the right (but not the obligation) to reduce or terminate a reinsurer's participation share, before contract expiration, if the reinsurer's financial strength weakens, causing the reinsurer's existing participation allocation to exceed what the Guidelines would permit.

Expatriate Companies

The CEA will not contract for reinsurance capacity with a reinsurer that is as an "expatriate company" as defined immediately below, unless the CEA is not reasonably able to secure the desired or necessary reinsurance capacity, on terms and conditions, including price, acceptable to the CEA, without contracting with that expatriate company. As used in these Guidelines, an expatriate company is a U.S. corporation that relocates, whether physically or solely on paper, to an offshore tax-haven location for the sole or primary purpose of reducing its US tax burden. If under the above criteria the CEA contracts with an expatriate reinsurer, CEA staff will inform the CEA Governing Board.

EFFICIENCY

Because a competitive market environment benefits the CEA when it negotiates terms for traditional reinsurance, the CEA should:

1. Work to place cost-effective alternatives to traditional reinsurance;

2. Provide reinsurers detailed underwriting information through its intermediaries.

Appropriate use of secondary capital market transactions can supplement traditional reinsurance capacity. Certain negative attributes of some secondary capital market products (instability, inflexibility, and lack of claim-paying track record) may be overcome by achieving the desirable attributes of lower cost, encouragement of competition among reinsurers, and diversification of sources of claim-paying capacity.

Flexibility

In the sole judgment and discretion of the CEA, acting with the advice of staff and experts, the CEA may waive or modify any allocation guideline if to do so would bring substantial benefit to the CEA without compromising the basic goals of financial strength, stability, and efficiency.

Alternative Risk Transfer

The Guidelines in this section apply to all alternative risk transfer transactions in which the CEA is a party (referred to as "Alternative Transactions"), including reinsurance funded by the proceeds of a catastrophe bond issued by a special purpose reinsurer and other transactions funded by insurance-linked securities (referred to collectively as "ILS Transactions"), collateralized reinsurance with institutional investors, such as hedge funds and pension plans, and similar transactions.

The CEA, at its sole discretion, may enable the development of and utilize Alternative Transactions, that may bring greater efficiency and stability to the CEA's claim-paying structure or diversify the CEA's sources of claim-paying capacity, in order to, among other things:

- Attract capacity at more efficient terms;
- Attract capacity that is comparable with the pricing of traditional reinsurance markets; or
- Enable the development of alternative markets or alternative financial products, which may bring, without limitation, greater efficiency and stability to the CEA's claim-paying structure or diversify the CEA's sources of claim-paying capacity.

Establishment of Advisory Subgroup

The CEA will establish a Alternative Risk Transfer Advisory Subgroup (referred to as the "ART Subgroup"), which will have primary responsibility for overseeing and approving the structural and pricing terms of, and any publicity in connection with, each Alternative Transaction. The ART Subgroup will be composed of the CEO, the CFO and the General Counsel, together with any other CEA staff or officers deemed appropriate by the ART Subgroup to oversee CEA involvement in any Alternative Transactions. The ART Subgroup will operate through the unanimous consensus of the CEO, the CFO and the General Counsel. Formal meetings of the ART Subgroup and approval of matters before the ART Subgroup through formal voting procedures will not be required.

Before approving any Alternative Transaction, the ART Subgroup should consider whether the proposed Alternative Transaction:

- Is economically reasonable for the CEA in light of market conditions;
- Furthers the CEA's claim-paying capacity without subjecting it to unreasonable exposure to market, legal or regulatory risk; and
- Poses an undue risk of harm to the CEA's stature or reputation.

In connection with these considerations, the ART Subgroup may consult independent third party advisors such as the CEA's reinsurance intermediaries and independent financial advisor to analyze and discuss with the ART Subgroup the benefits, risks and opportunities of any proposed Alternative Transaction. CEA staff should appropriately document discussions and decisions related to these topics.

FLEXIBILITY

As the CEA participates in various Alternative Transactions and gains experience regarding the benefits and risks involved with Alternative Transaction structures, the ART Subgroup shall reevaluate these Guidelines to ensure that risks are mitigated and that potential benefits are not unduly limited by applications of the Guidelines and the procedures mandated by the Guidelines.

PRICING

The final pricing of any Alternative Transaction must be approved by the CFO in consultation with the CEO and any other appropriate professionals at the CEA appointed by the ART Subgroup to advise on pricing matters. The CFO should solicit the views of reasonably selected market professionals to assist the CEA in determining whether an Alternative Transaction is competitive from a pricing standpoint, taking into account the relative benefits of the transaction with other forms of risk transfer.

NEGOTIATION OF TERMS

It is recommended that the CEA's internal and external counsel (if any) either draft or review the terms of any reinsurance agreement entered into by the CEA in connection with an Alternative Transaction to ensure that the terms are consistent with appropriate market standards and create effective risk transfer from the CEA's perspective. Annex A of these Guidelines describes certain preferred terms for ILS Transactions.

OPERATING GUIDELINES

In connection with its procurement of reinsurance funded by the proceeds of a catastrophe bond or other insurance-linked securities issued by a special purpose reinsurer (referred to as an ILS Transaction), it is recommended that the CEA and its staff comply with the preferred guidelines attached as Annex B and any other operating guidelines provided by the CEA's internal and external counsel in connection with ILS Transactions. The operating guidelines attached as Annex B may be amended at any time with the prior approval of the ART Subgroup, and should be reviewed periodically for changes to applicable law.

ANNEX A

PREFERRED TERMS FOR ILS TRANSACTIONS

The following is a non-exhaustive description of preferred terms for any ILS Transaction through which the CEA obtains reinsurance coverage. In describing these preferred terms, it is expressly understood that the ILS market continually evolves and different reinsurance structures may be desirable to the CEA depending on pricing, the CEA's needs and other factors. In the sole judgment and discretion of the CEA, acting with the advice of staff and experts, the CEA may deviate from these preferred terms if to do so would bring substantial benefit to the CEA without compromising the basic goals of financial strength, stability, and efficiency.

1. The reinsurance agreement will indemnify the CEA on an excess of loss aggregate annual basis for a period of not less than three years.

2. The aggregate limit of the reinsurance agreement will be fully collateralized to the aggregate limit of the agreement. The proceeds from the sale of the bonds must be deposited into a collateral account established in a U.S.-based bank with a long-term credit rating of at least "A-" from Standard & Poor's or "A-" from A.M. Best, using a form of collateral account control agreement approved

by the CEA. The collateral control agreement must require that collateral in the account be solely held in the form of specified types of permitted assets, consisting of one or more of the following:

a. Cash, in United States Dollars;

b. Interests in money market mutual funds rated in the highest rating category by Moody's or Standard & Poor's and registered under the Investment Company Act of 1940 that invest solely in direct obligations of the U.S. Treasury and have a per share value of $1.00 or more;

c. Direct obligations of the U.S. Treasury, excluding Treasury "separate trading of registered interest and principal securities" zero coupon bonds (Treasury STRIPS) or Treasury Inflation Protected Securities (TIPS); or

d. Other assets that the CEA may, at its sole option, permit upon a determination, in the sole judgment and discretion of the ART Subgroup, acting with the advice of staff and experts, as needed, that the assets provide levels of safety, security, and liquidity comparable to the categories of assets specified in subparagraphs (a) through (c) immediately above.

3. The CEA will be obligated under the reinsurance agreement to make periodic reinsurance premium payments to the reinsurer on a quarterly basis.

4. Only if required by the rating agency retained by the reinsurer to rate the security, the CEA will deposit into an escrow account for the benefit of the reinsurer one quarter of annual reinsurance premium payments.

5. The reinsurance agreement will have separate retentions for each annual risk period. The dollar amount of the retention will be reset and recalculated for the second and third annual periods pursuant to procedures agreed to by and between the CEA and the reinsurer.

6. The reinsurance contract will provide for one or more optional extension periods allowing the CEA, in its sole discretion and at its election, to extend the term of the reinsurance contract beyond its scheduled termination date for the limited purpose of submitting loss payment requests and receiving loss payments. The aggregate time of all such optional extension periods will be at least 18 months.

7. The CEA will pay negotiated fees and expenses upon successful completion of a risk-transfer transaction by the reinsurer. If the risk-transaction is not successfully completed by the reinsurer, the CEA will not be obligated to pay or reimburse any person or entity (including, without limitation, the reinsurer, the underwriter, or any service providers engaged by the reinsurer or underwriter) for any expenses and fees associated with the transaction.

ANNEX B

PREFERRED ILS OPERATING GUIDELINES

The following preferred operating guidelines relate specifically to the procurement of reinsurance funded by the proceeds of a catastrophe bond or other insurance-linked securities issued by a special purpose reinsurer (referred to as an ILS Transaction).

Publicity

Any interviews or public presentations (including conferences and seminars) by an officer, director or employee of the CEA in connection with its participation as a cedent in an ILS Transaction should be approved by the ART Subgroup. In making any public statements, the CEA should be careful not to condition the market for specific securities offerings that are underway or are contemplated in the future. For example, the CEA should not mention the specific size of a contemplated offering or the at-risk layer, the anticipated launch date, the underwriters, the anticipated pricing parameters or the expected loss of the transaction. In addition, to the extent practicable, the CEA should seek to require any reporter with whom an interview has been granted to submit a draft of the article for review as a condition of access to CEA officers and employees.

Offering Materials

All CEA information provided by the CEA to any party involved in an ILS Transaction and that may reasonably foreseeably be used in connection with the reinsurer's preparation of offering materials should be subject to the review and approval of appropriate personnel appointed by the ART Subgroup in order to determine, at the time the information was provided, whether the information (i) is accurate in all material respects and (ii) does not omit to state a material fact necessary in order to make the statements contained therein, in the light of the circumstances under which they were made, not misleading.

If the CEA determines to participate in a roadshow or other investor presentation, as approved by the ART Subgroup, it is recommended that the CEA's participation be scripted in advance (including in high-level PowerPoint slides), with the script subject to review by the appropriate legal staff at the CEA. Material non-public information about the CEA should be held confidential and not disclosed unless and until the CEA determines to publicly disclose that information.

Prior to the closing of an ILS Transaction, it is recommended that the CEA confirm that transaction counsel for the reinsurer has delivered a customary 10b-5 negative assurance letter to the underwriters.

Subject Business

Internal procedures should be put in place to ensure that the underlying subject business data and policies provided to the reinsurer, which in turn may be provided to a third party risk modeling firm, is accurate and constitutes the complete set of business that the CEA intends to be covered by the reinsurance agreement.

Statements Regarding Offering Materials

Statements implying that the CEA has or had ultimate authority over any ILS Transaction or undermining the reinsurer's independence or ultimate authority should be avoided. For instance, the CEA should be careful to describe the CEA's role in an insurance-linked securities transaction from the perspective of an insurance company purchasing reinsurance and not as the "sponsor" of the transaction or the "issuer" of the insurance-linked securities. In other words, the CEA purchases reinsurance that is transformed and funded through a capital markets offering by an independent special purpose insurer, but it does not have control or authority over the reinsurer or the offering.

Indemnification

The CEA may agree to indemnify the reinsurer for claims relating to inaccuracies in CEA policy data used in the ILS Transaction. However, the CEA will not agree to provide any other indemnification for the transfer of the risk from the reinsurer into the capital markets, except through the procurement of an insurance policy where the risk of indemnification is not borne by the CEA.

Underwriters

While ultimate selection may be within the discretion of the reinsurer, the underwriters assisting the reinsurer in the effort of transferring the risk into the capital markets should be acceptable to the CEA from a reputation and experience perspective, including that:

- The lead underwriter has been in business for at least five years and has a satisfactory reputation in connection with insurance-linked securities offerings and the broader capital markets;
- The underwriters are appropriately licensed as broker-dealers to perform the functions required of them under the purchase agreement with the reinsurer; and
- The underwriters have appropriate experience in transferring insurance risk to the capital markets.

Periodic Training

The ART Subgroup should ensure that all CEA staff involved in ILS Transactions periodically receive appropriate training regarding the legal and regulatory framework applicable to ILS Transactions.

California Earthquake Authority

GUIDELINES FOR SECURING RISK TRANSFER: Traditional Reinsurance and Alternative Risk Transfer

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INTRODUCTION

The CEA's *Guidelines for Sources of Claim-Paying Capacity: Providers and Products* were first issued in 1999 (referred to as the "Original Guidelines") and have been modified and updated periodically. The Original Guidelines included recommendations of the best reinsurance- related business practices for the CEA in connection with accessing the reinsurance market, with a primary focus on traditional reinsurance. They described how the CEA evaluates reinsurers and reinsurance products and also provide minimum standards that reinsurance providers should meet to qualify as suitable for the CEA. These *Guidelines for Securing Risk Transfer: Traditional Reinsurance and Alternative Risk Transfer* (referred to as the "Guidelines"), which incorporate and build upon the Original Guidelines, seek to establish a more comprehensive approach by recommending best business practices for accessing the traditional reinsurance market as well as alternative risk transfer markets, such as the alternative risk transfer products funded by the sale of catastrophe bonds, collateralized reinsurance issued by institutional investors (such as hedge funds and pension plans) that are not traditional reinsurers, and other similar markets. By adopting these Guidelines, the CEA's Governing Board recognizes the evolution of alternative risk transfer since the Original Guidelines were first issued in 1999 and reaffirms its commitment to stable and efficient risk transfer, whether in the traditional or alternative markets.

These Guidelines may be updated periodically by the CEA's Governing Board in its discretion, including to respond to changing conditions in the reinsurance and broader financial markets, as well as legal and regulatory developments.

GOALS

These Guidelines seek to accomplish four principal goals, presented in order of priority, while mitigating the CEA's potential legal liability and ensuring regulatory compliance:

1. *Financial Strength:* To minimize the risk to the CEA that a provider might fail to pay claims under a reinsurance contract because of the provider's financial condition.

2. *Stability:* To encourage the CEA to secure claim-paying capacity from providers and use products that, together, can endure all market conditions.

3. *Efficiency:* To enable the CEA to select the most efficient claim-paying capacity, including at rates on line that are competitive with other sources of claim-paying capacity.

4. *Flexibility:* To provide for reasonable flexibility by allowing for alternative products and stable sources of claim-paying capacity that are more cost-effective.

GENERAL STRATEGY

The CEA recognizes that it must be in a position to access the entire global risk transfer market to meet its capacity needs, including through the purchase of traditional reinsurance and the use of alternative risk transfer structures. In order to most effectively accomplish the four principal goals outlined above, the CFO, in consultation with the CEO, the General Counsel, other appropriate staff or officers at the CEA, and the Governing Board, must prepare and submit to the Governing Board for its approval, on at least an annual basis, a comprehensive risk transfer strategy that sets forth the basic risk transfer goals and benchmarks for the ensuing year, including potential capacity constraints and anticipated exposures to be transferred to the risk transfer markets.

TRADITIONAL REINSURANCE

The Guidelines in this section apply to all providers of traditional reinsurance and all traditional reinsurance contracts to which the CEA is a party.

STABILITY OF RISK TRANSFER PROGRAM

Unlike a private insurance company, the CEA cannot go without claim-paying capacity if reinsurance market capacity diminishes or demand for reinsurance capacity exceeds supply— recoveries from sources of external capacity are a direct source of the CEA's financial ability to pay its policyholders' claims. If risk capital (reinsurance capacity) becomes unavailable, the CEA's claim-paying capacity will shrink and it could be materially and adversely affected. To provide uninterrupted availability of earthquake coverage for California's residential property insurance policyholders, the CEA must endeavor to buy from providers that can endure all market conditions.

To most effectively accomplish this goal, the CEA will consistently consider the following steps:

1. Enter into multi-year agreements when cost-effective and advantageous under the existing economic environment.

2. Take steps to ensure that future markets are available to which CEA risk can be transferred.

3. To the extent feasible, transact directly with entities that are the primary bearers of the ultimate risk (the "primary risk bearers").

4. Distinguish clearly between primary and secondary market capacity.

The CEA distinguishes primary market capacity from secondary marked capacity as follows:

- Primary market capacity offers direct contact between the CEA and the ultimate risk bearer and is therefore generally more stable than secondary capacity. Direct contact will generally permit a more thorough and effective exchange of knowledge between the CEA and the ultimate risk bearer—this direct collaboration can mature into a long-term relationship that enhances uninterrupted access to risk capital, which is crucial to the CEA's mission.

- Secondary market capacity means the entity executing the transaction with the CEA is not the ultimate risk bearer—instead, it may be a fronting entity that is a conduit of risk and premium to a retrocessionnaire or bondholder (in secondary markets). In such a case, while the contract counterparty is directly liable to the CEA under the terms of the reinsurance contract for the payment of claims, it is the secondary market that has accepted the ultimate risk of CEA loss.

Because of certain general advantages of primary market capacity, the CEA prohibits any *specific retrocession* of CEA risk without the advance written permission of the CEA. In those cases where the CEA has approved the retrocession of CEA risk, such risk should be applied against the maximum permitted line of the direct reinsurer and each retrocessionaire, as described in the next section of these Guidelines.

The CEA has relied on reinsurance intermediaries and independent financial consultants to help CEA evaluate the economic environment at the time of securing reinsurer participations, and to consider reinsurers that might occasionally (with CEA permission) use retrocessional reinsurance to manage risk.

5. The CEA cannot depend entirely on a few entities or markets to provide all its claim-paying capacity. An inordinately large allocation to one reinsurer could disadvantage the CEA. The CEA at its sole discretion may moderate this guideline in response to compelling and appropriate circumstances.

FINANCIAL STRENGTH OF REINSURER

The reinsurer's financial strength and its ability to fulfill its promise of claim-paying obligations are the primary considerations in determining whether a reinsurer qualifies to do business with the CEA. Depending on the severity of the CEA's losses, a reinsurer's failure to make timely payment to the CEA could be the equivalent of a failed promise to a CEA policyholder, because reinsurance recoveries are a primary source of the CEA's ability to pay claims. Accordingly, in obtaining claim-paying capacity from traditional reinsurance sources, the CEA should apply the following criteria at inception of the reinsurance contact, but also should maintain the flexibility to take appropriate action, including by means of the credit enhancements described below, if these criteria are no longer satisfied.

In the sole judgment and discretion of the CEA, acting with the advice of staff and experts, the CEA may waive or modify any allocation guideline if to do so would bring substantial benefit to the CEA without compromising the basic goals of financial strength, stability, and efficiency.

General Criteria

To qualify as a CEA reinsurer, a reinsurer must meet both of the following standards (all amounts in US dollars):

- Policyholders' surplus (PHS) of at least $150 million; and
- An A.M. Best financial strength rating of at least A-, or a Standard & Poor's (S&P) financial strength rating of at least A-, or a Moody's financial strength rating of at least A3.

The CEA should use the following criteria to allocate lines of reinsurance to reinsurers:

1. The rating agencies A.M. Best, S&P, and Moody's assign ratings to reinsurers that signify a reinsurer's financial strength. Each rating agency analyzes key financial ratios to measure leverage, liquidity, asset quality, and other balance-sheet and income-statement indicators of financial strength. They also assess management qualifications and take into account a reinsurer's exposure to natural disasters. It is therefore appropriate that the rating A.M. Best, S&P, or Moody's assigns a reinsurer should influence the size of that reinsurer's participation in CEA reinsurance contracts.

2. "Economic mass" — a company's policyholders' surplus ("PHS") — is an indicator of financial staying power and should directly influence the CEA participation allocation. No reinsurer should be allocated combined participating shares in CEA reinsurance contracts for a given contract period that would generate total liabilities (not including exposures to reinstated limits, if any) greater than 10% of that reinsurer's PHS.

Lloyd's Syndicates

The financial statements of syndicates at Lloyd's do not state a policyholders' surplus; therefore, unlike with non-Lloyd's reinsurers, policyholders' surplus cannot be used as an allocation criterion for Lloyd's. The CEA must instead use a "policyholders' surplus equivalent" in lieu of using policyholders' surplus. The CEA will use one or more of the following, as specified in this paragraph, as policyholders' surplus equivalents:

- The syndicate's premium receipts plus its reserves. This is commonly referred to as "Syndicate Level Assets."
- Any additional capital dedicated by a syndicate's member(s) for the syndicate's liabilities by a deposit of funds into any of three trust funds in which members' assets may be held—the Lloyd's deposit fund, the special reserve fund, or the personal reserve fund—each of which is available to meet cash calls made on the member with respect to syndicate needs. This is commonly referred to as "Members' Funds at Lloyd's."
- The syndicate's volume of business measured in gross written premiums net of acquisition costs underwritten by a syndicate's business plan accepted by Lloyd's (Lloyd's requires syndicates to have a stated amount of capital to support the amount of gross written premiums in the business plan). This is commonly referred to as the syndicate's "stamp capacity."

For purposes of determining a syndicate's maximum line allocation, the CEA will calculate the policyholders' surplus equivalent as follows:

- If the syndicate has disclosed to the CEA both its Syndicate Level Assets and its dedicated Members' Funds at Lloyd's, the combination of Syndicate Level Assets and dedicated Members' Funds at Lloyd's will be used as the policyholders' surplus equivalent.
- If the syndicate has disclosed to the CEA its Syndicate Level Assets but not its dedicated Members' Funds at Lloyd's, the Syndicate Level Assets will be used as the policyholders' surplus equivalent.
- If the syndicate has not disclosed to the CEA its Syndicate Level Assets, the syndicate's stamp capacity will be used as the policyholders' surplus equivalent.

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3. To properly scale a reinsurer's CEA participation level to its rating and PHS, the following guidelines will be used when allocating lines of reinsurance contracts:

Table 1

(For reinsurers with PHS between $ 150 & $300 million)

Maximum Line (% of PHS)	A.M. Best Rating*	Standard & Poor's Rating*	Moody's Rating*
0% - 1 .5%	A-	A-	A3
1.51% - 3.0%	A	A+	A1 to A2
3.01% - 6.0%	A+ or A++	AA- to AAA	Aa3 - Aaa

Table 2

(For reinsurers with PHS greater than $300 million)

Maximum Line (% of PHS)	A.M. Best Rating*	Standard & Poor's Rating*	Moody's Rating*
0% — 3.0%	A-	A-	A3
3.01% — 5.5%	A	A to A+	A1 to A2
5.6% — 8.0%	A+	AA- to AA	Aa3 - Aa2
8.01%— 10.0%	A++	AA+ to AAA	Aa1 to Aaa

*For a company that is rated by two or more of the rating agencies mentioned above, the lowest of the ratings will apply in apply these guidelines.

The maximum line allocation is calculated as follows: The sum of all the reinsurer's authorized lines on all CEA reinsurance contracts that are or will be effective for the same period is compared to the maximum permitted line from Table 1 or Table 2. The reinsurer's authorized lines that will be compared to the maximum permitted line will be the aggregate of all lines of CEA risk assumed by reinsurer for that period, regardless of whether any such lines are assumed as primary market capacity, as a fronting entity, as a retrocessionaire, or in any combination of these.

4. The CEA buys reinsurance from the global reinsurance community. Many of the CEA's reinsurers are not domiciled in the United States, and many of those reinsurers provide financial reports based on currencies other than U.S. dollars. Exchange rates fluctuate daily, and an exchange rate moving downward in relation to the U.S. dollar means diminished financial security for the CEA. To manage this risk, the CEA will employ the following procedure:

a. In assigning reinsurance-contract participations, the CEA will calculate a non-U.S.-domiciled reinsurer's PHS based on its domicile's exchange rate against the U.S. dollar not more than 30 days before the date of binding that reinsurer's participation in a reinsurance contract. This is called the "Base Exchange Rate."

b. If during the term of a reinsurance contract a reinsurer domicile's exchange rate falls below the Base Exchange Rate, the CEA will reevaluate compliance with the Guidelines for any reinsurer based in that domicile.

Credit Enhancement

The CEA, at its sole discretion, may accept certain credit-enhancement tools in support of reinsurance-line allocations for reinsurers, including reinsurers participating in Alternative Transactions, that do not meet the above financial strength criteria and would therefore ordinarily fall outside the Guidelines. This guideline, which permits the CEA certain flexibility in waiving or modifying allocation guidelines, is not intended to reserve or grant, and does not reserve or grant, any rights whatsoever to any person or entity other than the CEA and its Governing Board. Credit enhancement may include, without limitation, any of the following:

1. ***Collateralization.*** The CEA may allow Reinsurers to provide the CEA with collateral, in a form acceptable to the CEA, to support an allocation of reinsurance limit outside the Guidelines. All such Collateral must be posted in a collateral account established in a U.S.- based bank with a long-term credit rating of at least "A-" from Standard & Poor's or "A-" from A.M. Best, using a form of collateral account control agreement approved by the CEA. The collateral account control agreement must require that collateral in the account be solely held in the form of specified types of permitted assets, consisting of one or more of the following:

a. Cash, in United States Dollars;

b. Interests in money market mutual funds rated in the highest rating category by Moody's or Standard & Poor's and registered under the Investment Company Act of 1940 that invest solely in direct obligations of the U.S. Treasury and have a per share value of $1.00 or more;

c. Direct obligations of the U.S. Treasury, excluding Treasury "separate trading of registered interest and principal securities" zero coupon bonds (Treasury STRIPS) or Treasury Inflation Protected Securities (TIPS); or

d. Other assets that the CEA may, at its option, permit upon a determination, in the sole judgment and discretion of the ART Subgroup (as that subgroup is described in the Alternative Risk Transfer section of these Guidelines), acting with the advice of staff and experts, as needed, that the assets provide levels of safety, security, and liquidity comparable to the categories of assets specified in subparagraphs (a) through (c) immediately above.

2. ***Letters of Credit.*** The CEA may allow reinsurers to provide one or more letters of credit, in a form acceptable to the CEA, to support an allocation of reinsurance limit outside the Guidelines. All letters of credit must meet appropriate format and security standards, which may include, without limitation, the following criteria:

a. The letter of credit is issued by a U.S.-based bank with a long-term credit rating of at least "A-" from Standard & Poor's or "A-" from A.M. Best.

b. The letter of credit is a clean, irrevocable, unconditional direct pay letter of credit payable to the CEA and in form and substance satisfactory to the CEA.

c. The letter of credit is issued for a term expiring no earlier than the termination date of the reinsurance contract for which the reinsurer is securing its line by the letter of credit, and includes an evergreen provision that automatically extends the term for at least one additional year beyond the expiration date unless the issuer of the letter of credit gives written notice of non-renewal to the CEA by certified mail not less than 60 days prior to the expiration date, and in the event of such a non-renewal or other expiration of the letter of credit, the subscribing reinsurer agrees to obtain replacement letters of credit to the extent necessary to comply with its collateralization requirements.

3. ***Parental Guarantees.*** A reinsurer that has exceptionally strong capitalization, or a company that is affiliated with a strongly capitalized parent that is willing to provide, and does provide, a written parental guarantee, may be acceptable even if it fails to meet the criteria in the above allocation guidelines. In deciding whether to accept a parental guarantee as a credit enhancement, the CEA will consider the following:

a. A subsidiary of a quality parent typically enjoys superior liquidity and access to capital.

b. A strong parent would likely not abandon a failed subsidiary and would fulfill the subsidiary's obligations because of the damage that abandonment would inflict on the parent's reputation. Parent companies that are not insurers, however, should be carefully examined for appropriate risk appetite and other desirable, relevant attributes.

The CEA, in its discretion, may require a reinsurer to provide credit enhancements in support of the entire line allocated to the reinsurer, or only that portion of the reinsurer's allocated line that exceeds the amount of that would otherwise be permissible under these Guidelines.

~~*Lloyd's Syndicates*~~

~~The financial statements of syndicates at Lloyd's do not state a policyholders' surplus; therefore, unlike with non-Lloyd's reinsurers, policyholders' surplus cannot be used as an allocation criterion for Lloyd's. The CEA must instead use a "policyholders' surplus equivalent" in lieu of using policyholders' surplus. The CEA will use one or more of the following, as specified in this paragraph, as policyholders' surplus equivalents:~~

- ~~The syndicate's premium receipts plus its reserves. This is commonly referred to as "Syndicate Level Assets."~~
- ~~Any additional capital dedicated by a syndicate's member(s) for the syndicate's liabilities by a deposit of funds into any of three trust funds in which members' assets may be held – the Lloyd's deposit fund, the special reserve fund, or the personal reserve fund – each of which is available to meet cash calls made on the member with respect to syndicate needs. This is commonly referred to as "Members' Funds at Lloyd's."~~
- ~~The syndicate's volume of business measured in gross written premiums net of acquisition costs underwritten by a syndicate's business plan accepted by Lloyd's (Lloyd's requires syndicates to have a stated amount of capital to support the amount of gross written premiums in the business plan). This is commonly referred to as the syndicate's "stamp capacity."~~

~~For purposes of determining a syndicate's maximum line allocation, the CEA will calculate the policyholders' surplus equivalent as follows:~~

- ~~If the syndicate has disclosed to the CEA both its Syndicate Level Assets and its dedicated Members' Funds at Lloyd's, the combination of Syndicate Level Assets and dedicated Members' Funds at Lloyd's will be used as the policyholders' surplus equivalent.~~
- ~~If the syndicate has disclosed to the CEA its Syndicate Level Assets but not its dedicated Members' Funds at Lloyd's, the Syndicate Level Assets will be used as the policyholders' surplus equivalent.~~
- ~~If the syndicate has not disclosed to the CEA its Syndicate Level Assets, the syndicate's stamp capacity will be used as the policyholders' surplus equivalent.~~

~~The exchange rate for Syndicate Level Assets, dedicated Members' Funds at Lloyd's, and stamp capacity will be the market exchange rate, Pounds Sterling to U.S. Dollar, in effect on the date CEA commences marketing the reinsurance program.~~

~~If a syndicate has a financial strength rating from either A.M. Best, S&P, or Moody's, Table 1 or Table 2, above, will be used to calculate the syndicate's maximum line allocation, based on the syndicate's appropriate policyholders' surplus equivalent, converted to reflect the market exchange rate, and its rating. If a syndicate does not have a financial strength rating from A.M. Best, S&P, or Moody's , that syndicate's appropriate policyholders' surplus equivalent, converted to reflect the market exchange rate, will be calculated using Table 3, below.~~

~~Table 3~~

~~Lloyd's of London: Non-Rated Syndicates Policyholders' Surplus Equivalent (Syndicate Level Assets, Members' Funds at Lloyd's, or Stamp Capacity) Conversion to Maximum Line Allocation~~

~~Policyholders' Surplus Equivalent (millions)~~	~~Maximum Line (% of Policyholders' Surplus Equivalent)~~
~~< $150~~	~~2%~~
~~> $150~~	~~3%~~

The CEA requires that all its reinsurance contracts grant the CEA the right (but not the obligation) to reduce or terminate a reinsurer's participation share, before contract expiration, if the reinsurer's financial strength weakens, causing the reinsurer's existing participation allocation to exceed what the Guidelines would permit.

Expatriate Companies

The CEA will not contract for reinsurance capacity with a reinsurer that ~~meets the criteria as~~ is an "expatriate company~~.~~," as defined immediately below, unless the CEA is ~~otherwise~~ not reasonably ~~unable~~ able to secure the desired or necessary reinsurance capacity, on terms and conditions, including price, acceptable to the CEA, without contracting with that expatriate company. As used in these Guidelines, an expatriate company is a U.S. corporation that relocates, whether physically or~~on~~ solely on paper, to an offshore tax-haven location for the sole or primary purpose of reducing its US tax burden. If under the above criteria the CEA contracts with an expatriate reinsurer, CEA staff will inform the CEA Governing Board. ~~If the CEA is unable to secure the desired or necessary reinsurance capacity without contracting with an expatriate company, the CEA staff will present to the CEA Governing Board the reasons that the CEA should contract with the expatriate company and ask for the Governing Board's approval to execute the contract.~~

EFFICIENCY

Because a competitive market environment benefits the CEA when it negotiates terms for traditional reinsurance, the CEA should:

1. Work to place cost-effective alternatives to traditional reinsurance;
2. Provide reinsurers detailed underwriting information through its intermediaries.

Appropriate use of secondary capital market transactions can supplement traditional reinsurance capacity. Certain negative attributes of some secondary capital market products (instability, inflexibility, and lack of claim-paying track record) may be overcome by achieving the desirable attributes of lower cost, encouragement of competition among reinsurers, and diversification of sources of claim-paying capacity.

FLEXIBILITY

In the sole judgment and discretion of the CEA, acting with the advice of staff and experts, the CEA may waive or modify any allocation guideline if to do so would bring substantial benefit to the CEA without compromising the basic goals of financial strength, stability, and efficiency.

ALTERNATIVE RISK TRANSFER

The Guidelines in this section apply to all alternative risk transfer transactions in which the CEA is a party (referred to as "Alternative Transactions"), including reinsurance funded by the proceeds of a catastrophe bond issued by a special purpose reinsurer and other transactions funded by insurance-linked securities (referred to collectively as "ILS Transactions"), collateralized reinsurance with institutional investors, such as hedge funds and pension plans, and similar transactions.

The CEA, at its sole discretion, may enable the development of and utilize Alternative Transactions, that may bring greater efficiency and stability to the CEA's claim-paying structure or diversify the CEA's sources of claim-paying capacity, in order to, among other things:

- Attract capacity at more efficient terms;
- Attract capacity that is comparable with the pricing of traditional reinsurance markets; or
- Enable the development of alternative markets or alternative financial products, which may bring, without limitation, greater efficiency and stability to the CEA's claim-paying structure or diversify the CEA's sources of claim-paying capacity.

ESTABLISHMENT OF ADVISORY SUBGROUP

The CEA will establish a Alternative Risk Transfer Advisory Subgroup (referred to as the "ART Subgroup"), which will have primary responsibility for overseeing and approving the structural and pricing terms of, and any publicity in connection with, each Alternative Transaction. The ART Subgroup will be composed of the CEO, the CFO and the General Counsel, together with any other CEA staff or officers deemed appropriate by the ART Subgroup to oversee CEA involvement in any Alternative Transactions. The ART Subgroup will operate through the unanimous consensus of the CEO, the CFO and the General Counsel. Formal meetings of the ART Subgroup and approval of matters before the ART Subgroup through formal voting procedures will not be required.

Before approving any Alternative Transaction, the ART Subgroup should consider whether the proposed Alternative Transaction:

- Is economically reasonable for the CEA in light of market conditions;
- Furthers the CEA's claim-paying capacity without subjecting it to unreasonable exposure to market, legal or regulatory risk; and
- Poses an undue risk of harm to the CEA's stature or reputation.

In connection with these considerations, the ART Subgroup may consult independent third party advisors such as the CEA's reinsurance intermediaries and independent financial advisor to analyze and discuss with the ART Subgroup the benefits, risks and opportunities of any proposed Alternative Transaction. CEA staff should appropriately document discussions and decisions related to these topics.

FLEXIBILITY

As the CEA participates in various Alternative Transactions and gains experience regarding the benefits and risks involved with Alternative Transaction structures, the ART Subgroup shall reevaluate these Guidelines to ensure that risks are mitigated and that potential benefits are not unduly limited by applications of the Guidelines and the procedures mandated by the Guidelines.

PRICING

The final pricing of any Alternative Transaction must be approved by the CFO in consultation with the CEO and any other appropriate professionals at the CEA appointed by the ART Subgroup to advise on pricing matters. The CFO should solicit the views of reasonably selected market professionals to assist the CEA in determining whether an Alternative Transaction is competitive from a pricing standpoint, taking into account the relative benefits of the transaction with other forms of risk transfer.

NEGOTIATION OF TERMS

It is recommended that the CEA's internal and external counsel (if any) either draft or review the terms of any reinsurance agreement entered into by the CEA in connection with an Alternative Transaction to ensure that the terms are consistent with appropriate market standards and create effective risk transfer from the CEA's perspective. Annex A of these Guidelines describes certain preferred terms for ILS Transactions.

OPERATING GUIDELINES

In connection with its procurement of reinsurance funded by the proceeds of a catastrophe bond or other insurance-linked securities issued by a special purpose reinsurer (referred to as an ILS Transaction), it is recommended that the CEA and its staff comply with the preferred guidelines attached as Annex B and any other operating guidelines provided by the CEA's internal and external counsel in connection with ILS Transactions. The operating guidelines attached as Annex B may be amended at any time with the prior approval of the ART Subgroup, and should be reviewed periodically for changes to applicable law.

ANNEX A

PREFERRED TERMS FOR ILS TRANSACTIONS

The following is a non-exhaustive description of preferred terms for any ILS Transaction through which the CEA obtains reinsurance coverage. In describing these preferred terms, it is expressly understood that the ILS market continually evolves and different reinsurance structures may be desirable to the CEA depending on pricing, the CEA's needs and other factors. In the sole judgment and discretion of the CEA, acting with the advice of staff and experts, the CEA may deviate from these preferred terms if to do so would bring substantial benefit to the CEA without compromising the basic goals of financial strength, stability, and efficiency.

1. The reinsurance agreement will indemnify the CEA on an excess of loss aggregate annual basis for a period of not less than three years.

2. The aggregate limit of the reinsurance agreement will be fully collateralized to the aggregate limit of the agreement. The proceeds from the sale of the bonds must be deposited into a collateral account established in a U.S.-based bank with a long-term credit rating of at least "A-" from Standard & Poor's or "A-" from A.M. Best, using a form of collateral account control agreement approved by the CEA. The collateral control agreement must require that collateral in the account be solely held in the form of specified types of permitted assets, consisting of one or more of the following:

a. Cash, in United States Dollars;

b. Interests in money market mutual funds rated in the highest rating category by Moody's or Standard & Poor's and registered under the Investment Company Act of 1940 that invest solely in direct obligations of the U.S. Treasury and have a per share value of $1.00 or more;

c. Direct obligations of the U.S. Treasury, excluding Treasury "separate trading of registered interest and principal securities" zero coupon bonds (Treasury STRIPS) or Treasury Inflation Protected Securities (TIPS); or

d. Other assets that the CEA may, at its sole option, permit upon a determination, in the sole judgment and discretion of the ART Subgroup, acting with the advice of staff and experts, as needed, that the assets provide levels of safety, security, and liquidity comparable to the categories of assets specified in subparagraphs (a) through (c) immediately above.

3. The CEA will be obligated under the reinsurance agreement to make periodic reinsurance premium payments to the reinsurer on a quarterly basis.

4. Only if required by the rating agency retained by the reinsurer to rate the security, the CEA will deposit into an escrow account for the benefit of the reinsurer one quarter of annual reinsurance premium payments.

5. The reinsurance agreement will have separate retentions for each annual risk period. The dollar amount of the retention will be reset and recalculated for the second and third annual periods pursuant to procedures agreed to by and between the CEA and the reinsurer.

6. The reinsurance contract will provide for one or more optional extension periods allowing the CEA, in its sole discretion and at its election, to extend the term of the reinsurance contract beyond its scheduled termination date for the limited purpose of submitting loss payment requests and receiving loss payments. The aggregate time of all such optional extension periods will be at least 18 months.

7. The CEA will pay negotiated fees and expenses upon successful completion of a risk-transfer transaction by the reinsurer. If the risk-transaction is not successfully completed by the reinsurer, the CEA will not be obligated to pay or reimburse any person or entity (including, without limitation, the reinsurer, the underwriter, or any service providers engaged by the reinsurer or underwriter) for any expenses and fees associated with the transaction.

ANNEX B

PREFERRED ILS OPERATING GUIDELINES

The following preferred operating guidelines relate specifically to the procurement of reinsurance funded by the proceeds of a catastrophe bond or other insurance-linked securities issued by a special purpose reinsurer (referred to as an ILS Transaction).

Publicity

Any interviews or public presentations (including conferences and seminars) by an officer, director or employee of the CEA in connection with its participation as a cedent in an ILS Transaction should be approved by the ART Subgroup. In making any public statements, the CEA should be careful not to condition the market for specific securities offerings that are underway or are contemplated in the future. For example, the CEA should not mention the specific size of a contemplated offering or the at-risk layer, the anticipated launch date, the underwriters, the anticipated pricing parameters or the expected loss of the transaction. In addition, to the extent practicable, the CEA should seek to require any reporter with whom an interview has been granted to submit a draft of the article for review as a condition of access to CEA officers and employees.

Offering Materials

All CEA information provided by the CEA to any party involved in an ILS Transaction and that may reasonably foreseeably be used in connection with the reinsurer's preparation of offering materials should be subject to the review and approval of appropriate personnel appointed by the ART Subgroup in order to determine, at the time the information was provided, whether the information (i) is accurate in all material respects and (ii) does not omit to state a material fact necessary in order to make the statements contained therein, in the light of the circumstances under which they were made, not misleading.

If the CEA determines to participate in a roadshow or other investor presentation, as approved by the ART Subgroup, it is recommended that the CEA's participation be scripted in advance (including in high-level PowerPoint slides), with the script subject to review by the appropriate legal staff at the CEA. Material non-public information about the CEA should be held confidential and not disclosed unless and until the CEA determines to publicly disclose that information.

Prior to the closing of an ILS Transaction, it is recommended that the CEA confirm that transaction counsel for the reinsurer has delivered a customary 10b-5 negative assurance letter to the underwriters.

Subject Business

Internal procedures should be put in place to ensure that the underlying subject business data and policies provided to the reinsurer, which in turn may be provided to a third party risk modeling firm, is accurate and constitutes the complete set of business that the CEA intends to be covered by the reinsurance agreement.

Statements Regarding Offering Materials

Statements implying that the CEA has or had ultimate authority over any ILS Transaction or undermining the reinsurer's independence or ultimate authority should be avoided. For instance, the CEA should be careful to describe the CEA's role in an insurance-linked securities transaction from the perspective of an insurance company purchasing reinsurance and not as the "sponsor" of the transaction or the "issuer" of the insurance-linked securities. In other words, the CEA purchases reinsurance that is transformed and funded through a capital markets offering by an independent special purpose insurer, but it does not have control or authority over the reinsurer or the offering.

Indemnification

The CEA may agree to indemnify the reinsurer for claims relating to inaccuracies in CEA policy data used in the ILS Transaction. However, the CEA will not agree to provide any other indemnification for the transfer of the risk from the reinsurer into the capital markets, except through the procurement of an insurance policy where the risk of indemnification is not borne by the CEA.

Underwriters

While ultimate selection may be within the discretion of the reinsurer, the underwriters assisting the reinsurer in the effort of transferring the risk into the capital markets should be acceptable to the CEA from a reputation and experience perspective, including that:

- The lead underwriter has been in business for at least five years and has a satisfactory reputation in connection with insurance-linked securities offerings and the broader capital markets;
- The underwriters are appropriately licensed as broker-dealers to perform the functions required of them under the purchase agreement with the reinsurer; and
- The underwriters have appropriate experience in transferring insurance risk to the capital markets.

Periodic Training

The ART Subgroup should ensure that all CEA staff involved in ILS Transactions periodically receive appropriate training regarding the legal and regulatory framework applicable to ILS Transactions.

Governing Board Memorandum

March 15, 2017

Agenda Item 8:	Proposed 2018 Advertising Budget
Recommended Action:	Approve proposed funding to implement 2018 CEA advertising program

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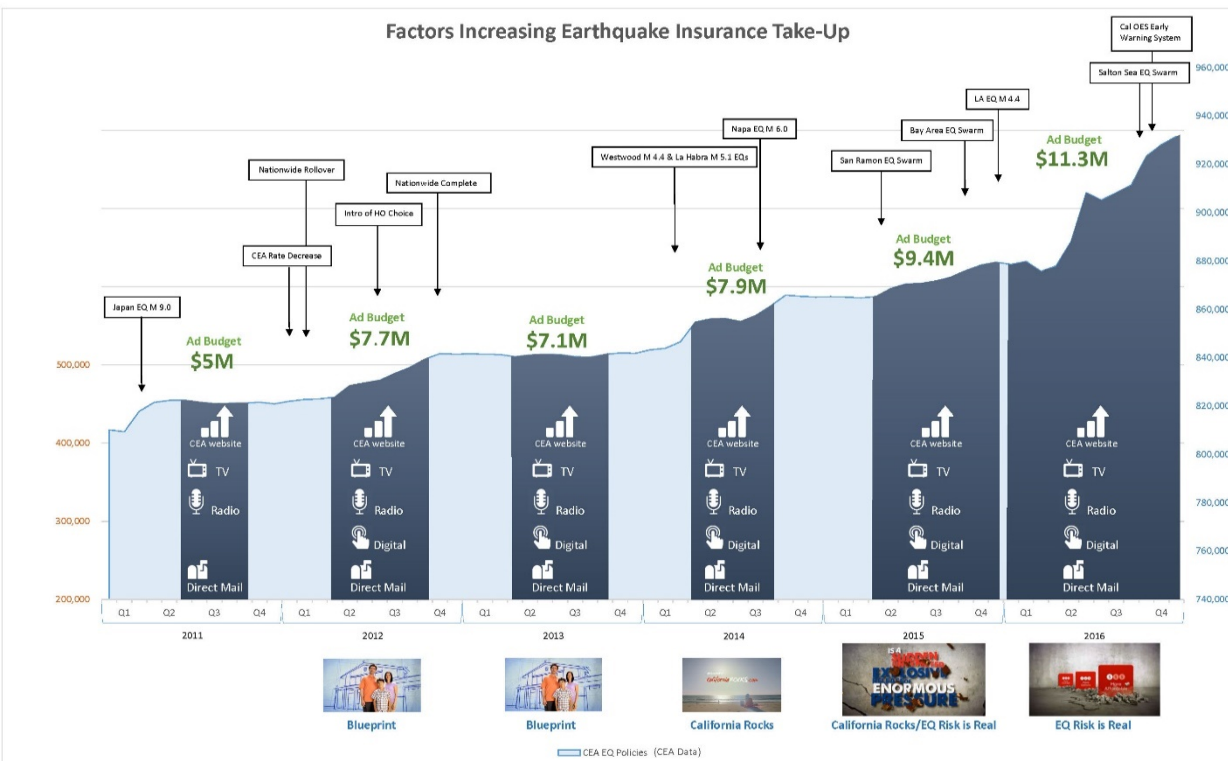
The goal for CEA strategic-communication programming, which features advertising, is to increase the number of CEA earthquake insurance policies sold. CEA facilitated record results for policy sales in 2016, increasing total policies-in-force by more than 52,000—seven times greater than average annual increases in organic growth for the past 10 years.



<u>Background</u>:

While CEA awaits completion of a new-policyholder study to identify reasons for this significant gain in new CEA policy sales, staff expects to learn the confluence of many factors may have contributed to this significant sales boost.

Marketing mix considerations

- Product: More coverage choices and deductible options
- Price: Many territory rates are more affordable
- Promotion: More awareness for CEA following six years of year-round advertising through three different campaigns (Blueprint, California Rocks, and Risk is Real)
- Place: First-time distribution by (or for) CEA participating insurers (PIs) of the legally required Mandatory Marketing Document (MMD) to more than nine million home insureds, plus three PIs offering a home-insurance discount, and one PI offering a condo-insurance discount, with a CEA policy purchase.

After adding more than 52,000 policies-in-force in 2016, CEA is updating previous market-segmentation research to define what CEA policyholders look like—specifically, updating policyholder "personas" and correlating these personas with media consumption preferences and applicable regional refinements.

Completion of a new-policyholder study, and updated market-segmentation research, will inform CEA's approach to future advertising-campaign development, enabling CEA for the first time to focus on "aligning messaging with mindsets" in related media channels.

As a result, CEA will follow a new path that will begin with the creation and testing of several policyholder-testimonial concepts to place in digital channels that align with individual preferences. Real-time, online analytics will allow CEA to promptly evaluate and refine respective advertising effectiveness. Following completion of that new process, CEA will produce television ads to further increase general awareness across all related personas.

Analysis:

Digital, email and direct mail are the most influential advertising channels for prompting interest in CEA policies. By comparison, mass-awareness channels (such as television and radio) work well to help close educational gaps across clusters of CEA's market segments.

Digital advertising

The Internet—through digital advertising—delivers a primary research channel for insurance shoppers, even when they purchase through an agent or by phone.

Digital advertising also is economically efficient, offers a direct link to CEA's website for prospects seeking more information, and enables CEA to refine messaging and production values in real time, which support why staff proposes to increase spending for digital advertising.

Direct mail

New to CEA in 2016 were emails sent to preferred market segments that in turn triggered direct-mail follow-up, which proved highly effective and produced about 15,000 new CEA policies. Availability of additional direct mail—custom-fulfilled in an agent's name through CEA's Marketing Value Program (MVP)—enables CEA to work directly through agents to reach priority CEA prospects. Though this format is popular with many agents, CEA will again limit quantities available for distribution, thus driving more certainty for budgeting, and enabling staff to transfer some dollars away from direct mail to further support digital advertising.

While not a component of this advertising proposal, daily direct-mail distribution of the MMDs will complement two flights of MVP direct-mail.

Beginning in 2017, CEA also will kick-off biannual mailings of promotional packages to agents to promote training registration and MVP participation.

Television and radio advertising

Though television and radio still play a critical role in CEA plans, staff is proposing minor reductions in television and radio advertising for 2018.

Limited bursts of television advertising, which offer the most efficient platform for delivering general top-of-mind awareness for CEA, again will complement seasonal *Get Prepared, California!* and *Great California ShakeOut* promotions.

Longer bursts of radio advertising, which offer the most efficient platform for delivering frequency of messaging, will extend general awareness and seasonal promotional support through varying formats that appeal to different segments of residents.

Online streaming through digital advertising platforms offered by related broadcast stations generally will offset CEA's traditional television and radio advertising budget.

Conclusion:

Californians shop for home insurance policies every day. As a result, insurance advertising is one of the top five advertised categories. Advertising-industry reports show *monthly* national advertising by insurance companies is approaching $400 million.

An individual P&C insurance company will spend up to 6.5 percent of its annual premium for advertising, although P&C-industry average spending for advertising is about 2.4 percent of premium revenue.

The advertising budget CEA staff proposes for 2018, which will continue to promote policy sales and retention while enabling CEA's first-time focus on aligning messaging with mindsets in related media channels, will remain flat at 1.8 percent-of-premium.

Digital	$ 4,800,000
Direct Mail	$ 2,510,000
Radio	$ 2,200,000
Television	$ 2,575,000
Trade	$ 155,000

TOTAL Budget $12,240,000

It is important to note that CEA's Board-approved 2017 advertising budget also was for 1.8 percent of premium. In addition, CEA's proposed advertising budget for 2018 aligns with CEA's rating plan, which was approved by the Governing Board in December 2014 and approved by the Insurance Commissioner in March 2015.

Recommendation:

Approve proposed budget of up to $12,240,000 to implement CEA's 2018 advertising programs.

Governing Board Memorandum

March 15, 2017

Agenda Item 9: New Contract to Support CEA-Website Design Projects

Recommended Action: Augment CEA 2017 (non-statutory) budget by a sum not to exceed $360,000, to fund User Experience and User Interface website-design work; approve related contracting process

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Background:

In December 2016, the Governing Board approved the CEA Project Portfolio, which included (non-statutory) funding for external-resource augmentation for the new "Homeowners End-to-End" website tool ($300,000) and redesign of the existing EarthquakeAuthority.com ("EQA") website ($150,000). External resources for these projects included business analysts and a content manager to assist the CEA Communications team in functional website design and content development.

In addition to the functional website design and content development already funded through the CEA Project Portfolio, CEA staff wishes to hire a website-design firm to provide User Experience (UX) and User Interface (UI) designs for not only the new "Homeowners End-to-End" and EQA websites, but other CEA websites and web applications, as well.

CEA posted RFQ/P #01-17 for a User Experience (UX) and User Interface (UI) Design Firm on February 6, 2017 and received seven proposals by the deadline of February 21, 2017.

After reviewing and scoring the proposals, CEA is ready to award an opportunity to negotiate a contract to redesign and develop templates for CEA websites and web applications.

Analysis:

The following CEA websites and web applications will be included in the UX/UI design work to be provided by the selected contractor:

1. EQA website

    - The EQA website consists of approximately 115 pages, built using CEA's commercial website-development and content-management tool with customized, responsive templates. The current website design is three years old and contains functional elements (e.g., left-hand navigation) that are not mobile-friendly. The proposal is to redesign the site's graphic look-and-feel, content, and functionality, to better support CEA's online-marketing efforts and provide a better consumer experience.

2. (New) Agent Sales Application

    - This new application will provide insurance agents who sell the CEA earthquake insurance policy with a sales tool that illustrates a potential customer's personal earthquake risk and lays out CEA policy-coverage and premium options. The initial phase would be the development and design of a mobile-focused, responsive website.

3. CEA Premium Calculator: Usability Improvements

    - The EQA website provides a premium calculator that allows consumers and insurance agents to estimate premiums for CEA policies. Based on 2016 end-user testing feedback, certain parts of the user interface would undergo redesign.

4. Homeowners End-to-End Website Tool

    - CEA's Mitigation Department wishes to build an interactive website tool that recommends and explains actions that homeowners can take to reduce risks of earthquake shake-damage. Using an interactive approach, the website would first prompt homeowners to enter information about their house, then provide onscreen tips and guide the homeowner to mitigation opportunities, recommending resources that could assist.

5. GetPreparedCalifornia.org: Site Migration

    - The GetPreparedCalifornia.org site is a small CEA-supported website currently hosted outside of CEA. The proposal is to migrate this site to internal hosting and use the same CEA commercial website-development and content-management tool used for other CEA websites.

CEA staff estimates that costs of the proposed contract would not exceed $360,000 and provide for the following services:

1. EQA

    - After consulting with CEA staff, Contractor would provide draft and final graphic designs for a new EQA home page and secondary page.

    - Contractor would provide up to 10 additional user interfaces for other custom site pages, as identified through consulting with CEA staff.

    - Contractor would develop final-design templates for use with CEA's commercial website-development and content-management tool and work with CEA staff to implement those designs on CEA's existing platform.

2. Agent Sales Application

    - After consulting with CEA staff, Contractor would provide draft and final graphic and user-interface designs for up to 15 pages of a CEA Agent Sales Application, and up to 15 custom templates of final designs.

3. CEA Premium Calculator: Usability Improvements

   - Working with CEA staff, Contractor would design and develop both draft and final user-interface wireframes to improve the usability of the CEA premium calculator, specifically the “Save” and “Compare & Send” functionalities.

4. Homeowners End-to-End Website Tool

   - After consulting with CEA staff, Contractor would provide draft and final graphic designs for entry and interior pages.

   - Contractor would provide draft and final user interface wireframes for the website tool’s functionality.

   - Contractor would develop templates for final graphic designs and work with CEA to implement the designs on CEA’s existing platform.

5. GetPreparedCalifornia.org site migration

   - After consulting with CEA staff, Contractor would provide draft and final graphic designs for this site’s home page and secondary page.

   - Contractor would develop templates for final graphic designs and work with CEA to implement the designs on CEA’s existing platform.

Recommendation:

Approve augmenting CEA’s 2017 (non-statutory) budget by an anticipated expenditure amount not to exceed $360,000, to fund User Experience and User Interface website design work by a competitively procured website-design firm; authorize contract negotiations and execution by CEO Glenn Pomeroy.

Governing Board Memorandum

March 15, 2017

Agenda Item 10:	Update: CEA Insurance & Technology Department
Recommended Action:	No action required – information only

Background:

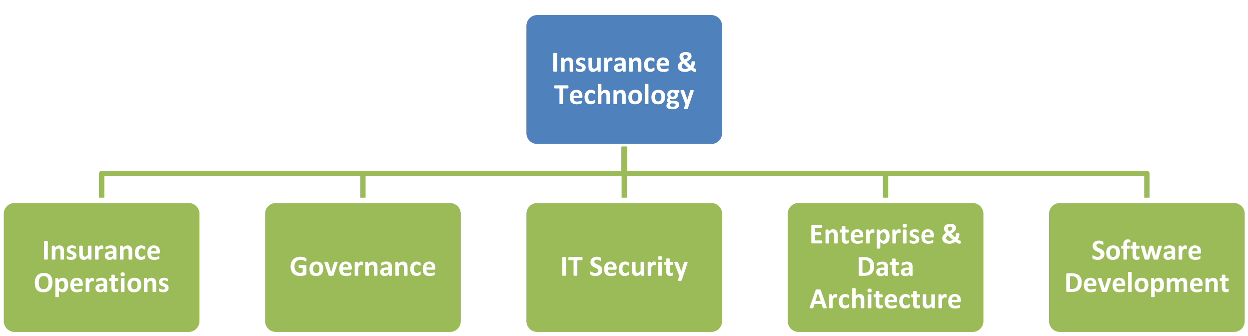
Chief Insurance & Technology Officer Todd Coombes update the Governing Board and provide metrics related to CEA insurance services and technology-related activities.

In previous Governing Board meetings, separate agenda items for an IT Project Portfolio Update and a Centralized Policy Processing (CPP) Update were presented to apprise the Board of progress in those areas. In an effort to be more efficient, going forward, these previous agenda items will be included as a part of this combined update as needed, and any supporting scorecards will be included in the Fact Sheet section of the periodic Governing Board meeting documentation.

CEA Insurance & Technology Organization:

On February 1, 2017, the CEA Information Technology and Insurance Operations departments were combined to form the CEA Insurance & Technology Department. In addition, the Agent Training and Call Center functions were moved from the Communications department to Insurance & Technology, and the Enterprise Project Management Office (EPMO) was moved to Internal Operations.

The resulting CEA Insurance & Technology Department is structured organizationally and functionally as follows:



Insurance Operations Team:

The new Insurance Operations team within the Insurance & Technology Department is particularly noteworthy since it consists of CEA staff brought together from several different organizational areas to create new synergies, alignment, and opportunities for additional collaboration and cross-training as they relate to CEA's insurance-related functions. The functional areas of the Insurance Operations team include:

- CEA Insurance Policy Management
- Claims
- Participating Insurer Support
- Centralized Policy Processing (CPP)
- Insurance Analytics
- Agent Training
- Insurance Call Center
- Insurance App Support

While the functions of the Insurance Operations team are diverse, there is strong emphasis on working collaboratively with CEA's participating insurers (PIs) to support policy growth, policyholder service, and CEA policy education. To those ends, the Insurance Operations team will work regularly with PIs to establish goals and objectives in these areas and will continue to monitor results and provide appropriate feedback and support.

Aggregate CEA insurance-policy book-of-business metrics are included in the Fact Sheet section of the Governing Board documentation.

<u>Centralized Policy Processing Update:</u>

CPP continues to gain momentum:

- 3 PIs in production using the Insuresoft Diamond Policy Administration and Claim System
- 3 or 4 PIs scheduled for Diamond implementations in 2017
- 5 PIs interested in 2018 Diamond implementations.

A CPP workshop was conducted recently in Chicago and well-attended by PIs considering moving to Diamond. CEA is also providing a monthly CPP newsletter to keep PIs informed about CPP-related topics.

Later in 2017, one PI will pilot a new, accelerated implementation approach, which is designed to provide more of a "self-service" model for transition to the Diamond system. In addition to developing the accelerated-implementation approach, Insuresoft is also working on other new platform features this year, including operational dashboards and portals.

Governing Board Memorandum

March 15, 2017

Agenda Item 11:	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

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:

CALIFORNIA EARTHQUAKE AUTHORITY™

THE STRENGTH TO REBUILD®

March 15, 2017

RAYMOND JAMES

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Section 1:

Economic Overview

- Domestic economic sluggishness, European and Asian financial crises, and uncertainty surrounding the direction of the post-election U.S. economy and Federal Reserve actions have combined to create a volatile financial market environment, which continues to dampen global growth

U.S. ECONOMIC OVERVIEW

- **There are currently 7.6 million people unemployed, or 4.8%, in the United States**
- **There are currently over 158 million civilians employed in the United States, which is 62.9% of the civilian population of 252 million, which is marginally above the lowest rate over the last 40 years of 62.4% in September 2015 – a reflection of demographic change, skill mismatch, and structural deficiency**
- **The U-5 unemployment rate, which includes persons marginally attached to the labor force is 5.8% and the U-6 unemployment rate, which includes those employed part time due to economic reasons, is 9.4%**
  - The U-6 rate provides a broad picture of the underutilization of labor in the country by capturing discouraged workers, underemployed workers. The difference between U-6 unemployment rate and the U-3 unemployment rate reflects permanent demographic and structural changes in our economy and also uberization of our economy.
- **We think the Fed will increase rates two times in 2017 effectively keeping the rates low from a historical perspective, which are already priced in the markets**
- **Interest rates have increased significantly after the election** – they have increased by 60-73] basis points for 3-10 year Treasuries
- **The economy could expand by 2.5% in 2017 and 2018, as a fiscal stimulus kicks into gear, up from about 1.5% over the past 12 months. Inflation is expected at around 2.3% in 2017 and 2018. If correct, it would be the first stretch of sustained inflation above 2% since before the recession of 2007 to 2009**
- **The S&P 500 and DJIA increased by 10% and 13%, respectively, for 2016**

GLOBAL ECONOMIC OVERVIEW

- **The trend of shrinking negative yields on sovereign debt overseas is marginally shrinking but is still very large - the total amount of outstanding negative-yielding sovereign debt was down to $9.1 trillion as of the end of 2016**

- **The 10-year Japanese bond is near zero (currently 0.08%).** Yields on the short end of the curve have also increased in Japan, but remain negative as the Bank of Japan recently announced their plan to buy unlimited amounts of one- to five-year sovereign debt issues to help control the yield curve

- **The increased cost of using currency hedges is one sign that foreign investors continue to clamor for exposure to U.S. fixed-income markets as Treasury, corporate, and municipal securities offer relatively significantly higher yields**

- **The rates have marginally increased since November 1, 2016:**
  - **Germany 10-year – increase of 19 basis points**
  - **Japan 10-year – increase of 13 basis points**
  - **Canada 10-year – increase of 47 basis points**

- **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**

GROWTH IS EXPECTED TO REMAIN SLUGGISH

Structural Issues

- Demographics
- Global Crisis
- Less Globalization / Nationalism
- Populism
- High Debt

Continuing Issues

- Less Business Investment
- Less Infrastructure Investment
- Skill Decay
- Healthcare Spending
- Financial Engineering
- Low Productivity

New Issues

- High Policy Uncertainty
- Brexit
- Frexit
- European Global Uncertainty
- Strong Dollar
- Elections in Europe

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**

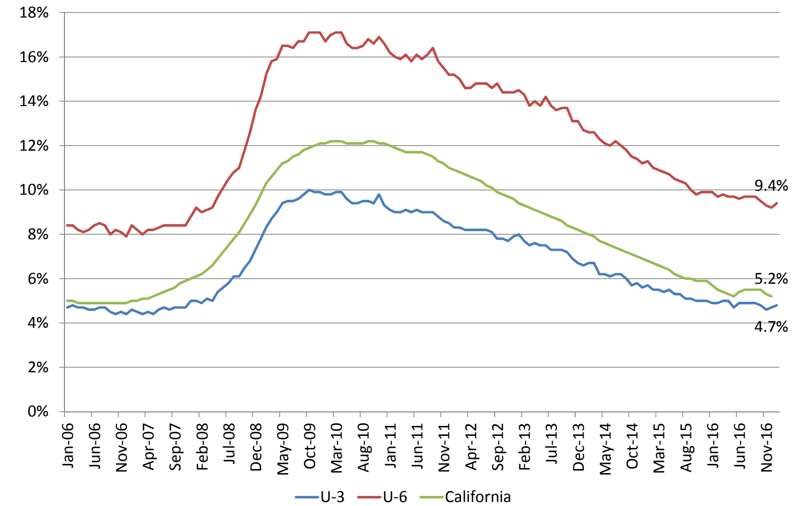
- There are few alternative measures of labor utilization. There is the official unemployment rate (U-3) and three broader measures (U-4, U-5 and U-6), which incorporate individuals who are not captured in the official measure:
  - U-3 is the official unemployment rate (i.e., the unemployed, as a percent of the civilian labor force)
  - U-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
Current	**4.8%**	**9.4%**	**4.6%**
Min	4.4%	7.9%	3.4%
Max	10.0%	17.1%	7.4%
Date of Min.	2006-07	Dec-06	Apr-06
Date of Max.	Oct-09	2009-10	Sep-11

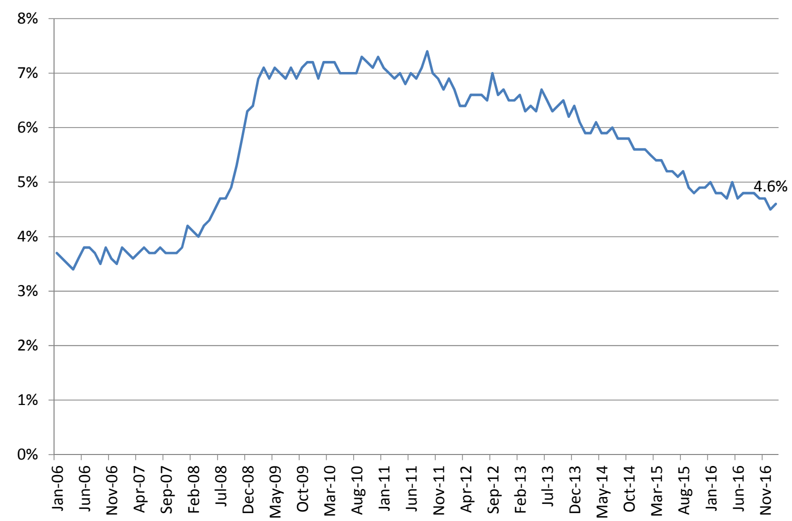
Source: Bureau of Labor Statistics

1% change = 1.58 million people

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



Difference Between U-3 and U-6 Unemployment Rates



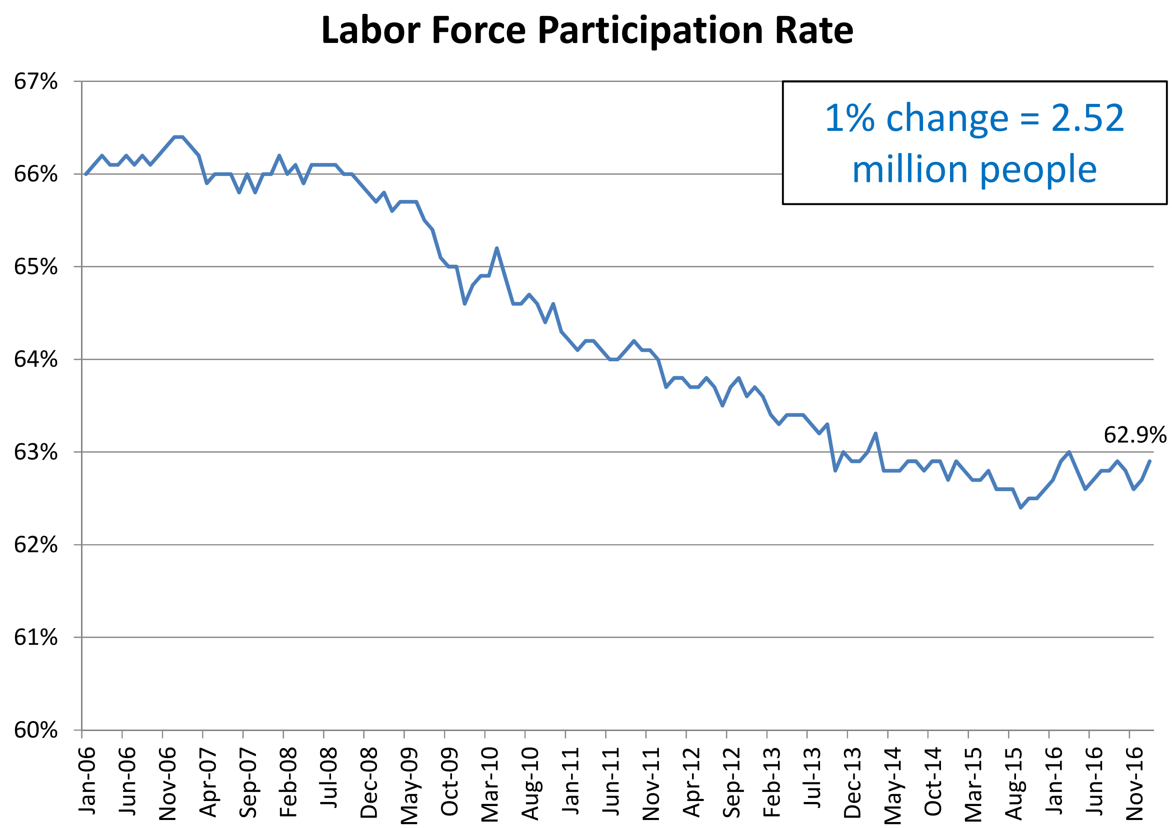
LABOR FORCE PARTICIPATION IS LAGGING

- **The labor force participation rate stands at 62.9%, which is marginally above the lowest rate over the last 40 years of 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 primarily due to demographic changes 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 economy

- **The decline in the labor participation rate explains structural unemployment**

- **There are over 15 million people unemployed in the United States**



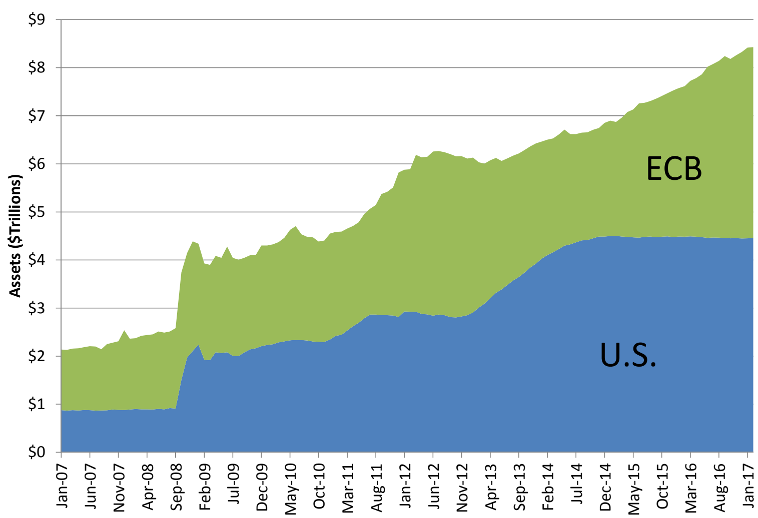
Source: Bureau of Labor Statistics

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 $4.5 trillion
- The ECB's balance sheet has more than increased by 3.1x to approximately $4 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:
  - The five largest central banks' assets total over $19 trillion, or ~25% of global GDP
    - China - $5.0 trillion, U.S.- $4.4 trillion, Japan - $4.2 trillion, European Central Bank - $4.0 trillion, and Germany - $1.5 trillion
  - $9.1 trillion of global debt yielding 0% or less
  - -0.92% 1-week Swiss bond, the lowest-yielding government debt in the world
- The balance sheets of the U.S. Federal Reserve ($4.4 trillion) and the European Central Bank ($4.0 trillion) total $8.4 trillion or 39% of the U.S. and Eurozone GDP

U.S. Federal Reserve and European Central Bank Assets



International Economic Statistics - 2016			
Country	**Gross Domestic Product (USD in Billions)**	**Central Bank Balance Sheet (USD in Billions)**	**Central Bank Balance Sheet to GDP**
United States	**18,562**	**4,415**	**24%**
Norway	376	929	247%
Japan	4,730	4,209	89%
China	11,392	5,060	44%
Euro Area	11,991	4,014	33%
Denmark	303	71	23%
United Kingdom	2,650	507	19%
Sweden	517	91	18%
Canada	1,532	79	5%

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GLOBAL GROWTH

- Since the global financial crisis, growth has consistently fallen short of expectations, especially in the developed world

- Despite quantitative easing measures, global growth is still stagnant with inflation expectations for the U.S. and Europe now falling below financial crisis 2008 levels
  - Globally, economic output is 9% lower than if it had merely returned to its pre-crisis trend, and for the advanced economies the average shortfall is closer to 13%
  - The U.S. has averaged growth of 2.1% over the past seven years, which is the slowest economic expansion since WWII
- Nominal growth since the crisis has been subpar across the developed world, but weakest in the Eurozone and Japan
  - Eurozone nominal GDP in the third quarter of 2016 was 11% higher than at the start of 2008. Over the preceding eight years, the cash value of the Eurozone economy had grown by 40%
- In 2008, the global GDP was \$63.3 trillion and was \$75.2 trillion as of the end of 2016, which represents an average annual growth rate of 2.34%
- The other major source of uncertainty for Europe will be the UK, which has promised to start the formal Article 50 process for leaving the EU by the spring of 2017
  - The UK is expected to grow around 1% in 2017, as higher inflation squeezes consumers' real incomes

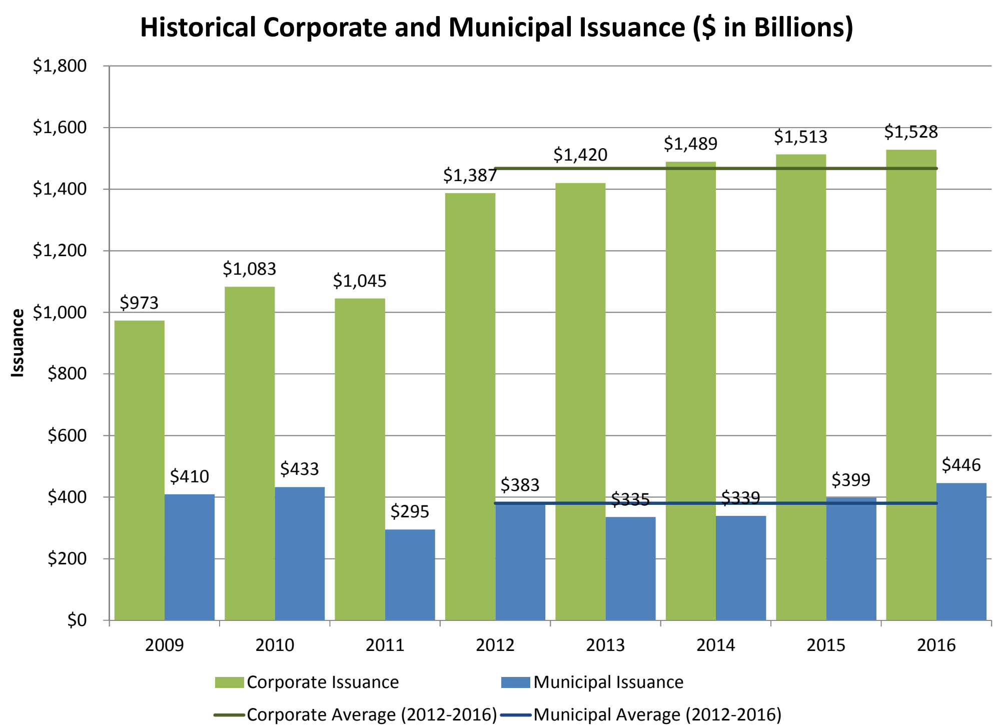
Section 2:

Financial Market Overview

BOND MARKETS

- **In 2016, corporate issuance was over $1.5 trillion – the seventh straight year that corporate issuance has surpassed $1 trillion**
- **Municipal issuance was up by 12% in 2016 versus 2015 with $446 billion issued, and is significantly above the average issuance of $380 billion over the past five years**

	Corporate Issuance		Municipal Issuance			
Year	Par ($B)	% Change from Prior Yr	New Money ($B)	Refunding ($B)	Total Par ($B)	% Change from Prior Yr
2009	$973	38%	$261	$149	$410	5%
2010	$1,083	11%	$279	$154	$433	6%
2011	$1,045	-4%	$150	$145	$295	-32%
2012	$1,387	33%	$149	$234	$383	30%
2013	$1,420	2%	$162	$174	$335	-12%
2014	$1,489	5%	$145	$194	$339	1%
2015	$1,513	2%	$151	$247	$399	18%
2016	$1,528	1%	$174	$272	$446	12%



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Source: SIFMA

BOND MARKETS – CONTINUED

- Most of the debt today has been used for “financial engineering”, in the form of mergers and acquisitions and stock buybacks and other methods that boost corporate profits
- In the current low interest rate environment, refundings represent more than half of municipal bond issuance

- Corporate issuance reached an all-time high in 2017 as issuers took advantage of low interest rates and strong investor demand to finance acquisitions and stock buybacks as well as refinancing old debt
  - The largest corporate transaction in 2016 was Anheuser-Busch InBev's $46 billion issuance to finance its purchase of SAB Miller in January 2016
  - Dell Inc. sold $20 billion of bonds to back its takeover of EMC Corp. in the second-biggest corporate offering of 2016
  - Apple’s $17 billion bond issuance was its first debt offering in more than 15 years to help finance a $100 billion return to shareholders
- In the municipal market, refundings have comprised 61-62% of total issuance in 2015 and 2016, whereas in 2009 and 2010, refundings only represented 36% of total issuance
- The largest municipal bond issuances in 2016 were:
  - $2.95 billion State of California GO combined new money and refunding in March
  - $2.74 billion New Jersey Transportation Trust Fund Authority new money in November
  - $2.65 billion State of California GO refunding in September
  - $2.41 billion New York Transportation Development Corporation new money in June
  - $1.65 billion Empire State Development Corporation refunding in March

Source: SIFMA and Thomson Reuters

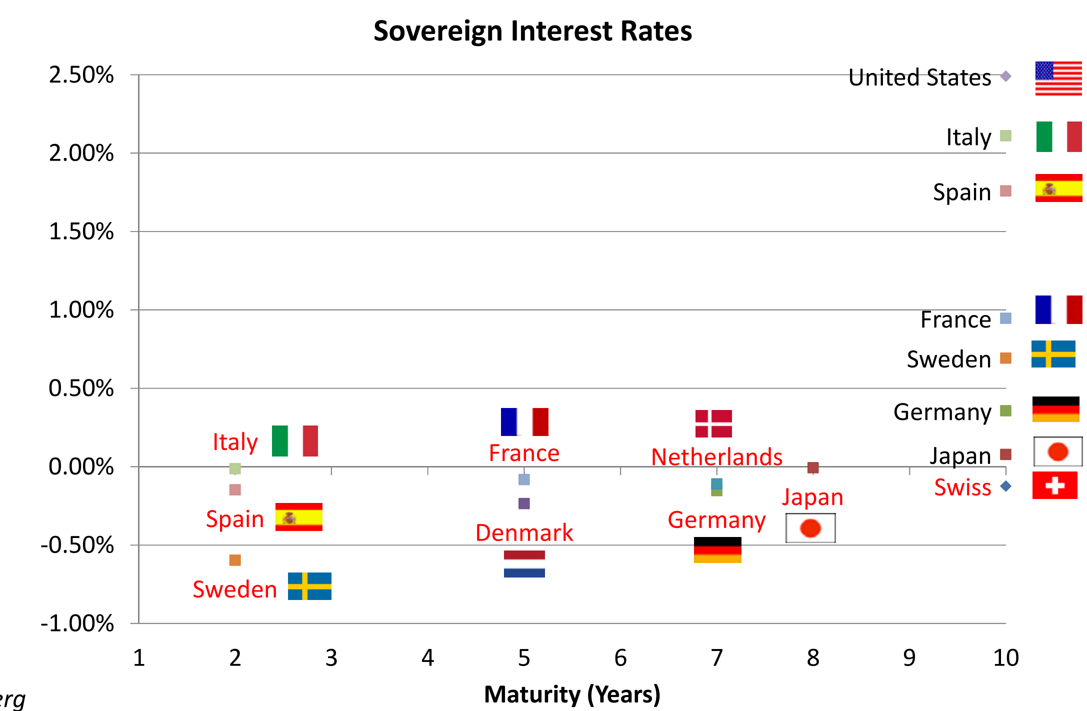
GLOBAL INTEREST RATES

- **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**

- The amount of global sovereign debt with negative yields is decreasing, but is still approximately $9.1 trillion as of the end of 2016
- Numerous countries have negative yields in the maturity ranges from 5-years to 10-years

Sovereign Interest Rates

Country	Negative Rates Maximum Maturity	Maximum Maturity Negative Rate	10-Year Rate
Switzerland	10-Yrs	-0.12%	-0.12%
Japan	8-Yrs	-0.01%	0.08%
Germany	7-Yrs	-0.15%	0.36%
Denmark	5-Yrs	-0.24%	0.35%
Netherlands	7-Yrs	-0.11%	0.44%
Sweden	2-Yrs	-0.60%	0.69%
France	5-Yrs	-0.08%	0.95%
Spain	2-Yrs	-0.15%	1.76%
Italy	2-Yrs	-0.01%	2.11%



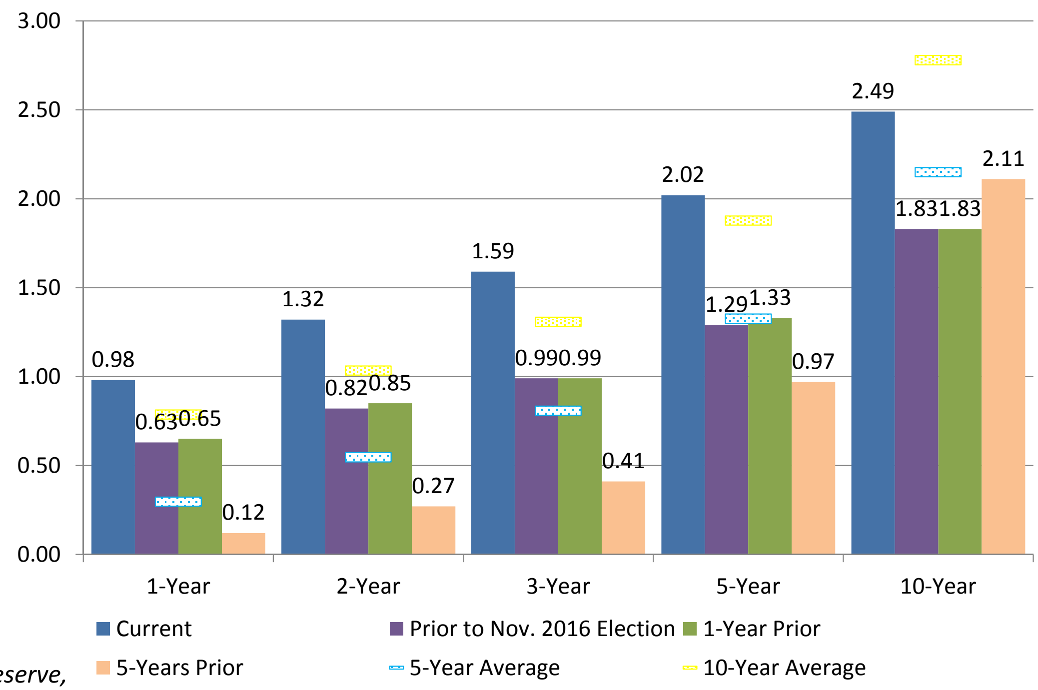
Source: Bloomberg

U.S. INTEREST RATES

- **The 10-year Treasury is currently 10% lower than its 10-year average**
- **The 1, 2, 3, 5, and 10-year are above 5-year averages**

U.S. Treasury Rates					
	1-Year	2-Year	3-Year	5-Year	10-Year
Current	**0.98**	**1.32**	**1.59**	**2.02**	**2.49**
Prior to Nov. 2016 Election	0.63	0.82	0.99	1.29	1.83
1-Year Prior	0.65	0.85	0.99	1.33	1.83
5-Years Prior	0.12	0.27	0.41	0.97	2.11
5-Year Average	0.30	0.55	0.81	1.32	2.15
10-Year Average	0.79	1.03	1.31	1.88	2.78
Current as % Above / Below 5-Yr Average	231%	142%	97%	52%	16%
Current as % Above / Below 10-Yr Average	25%	28%	22%	8%	-10%

Current and Historical Treasury Curves (%)

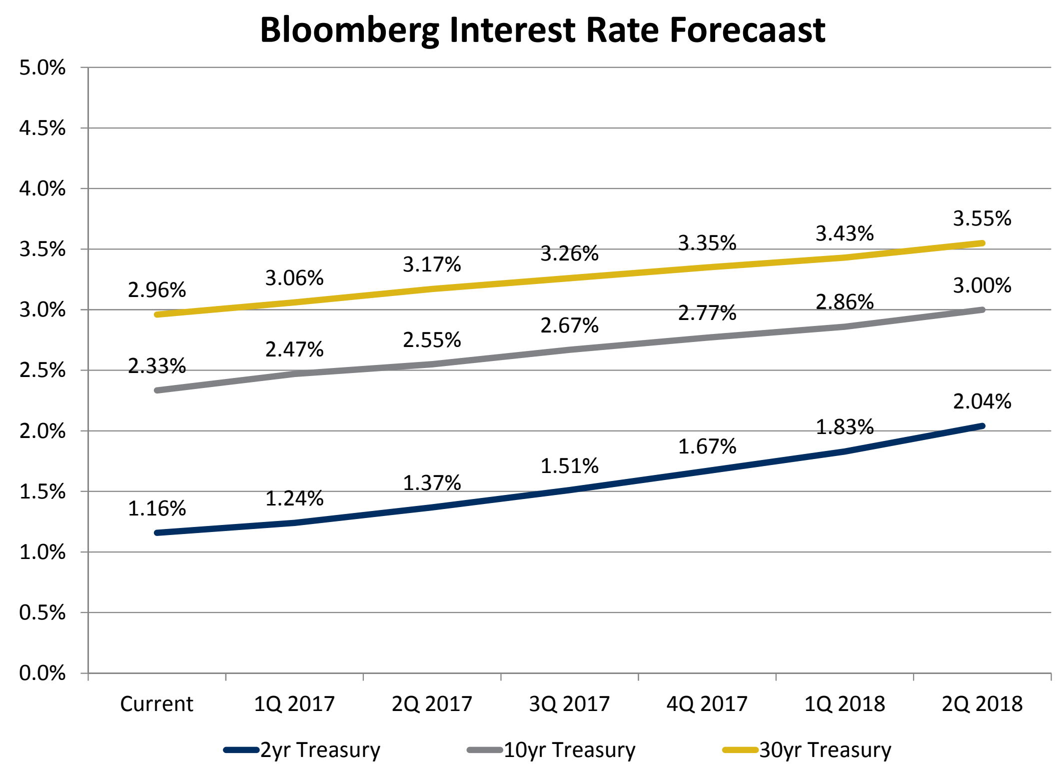


RAYMOND JAMES *Source: Federal Reserve,*

BLOOMBERG INTEREST RATE FORECAST

Bloomberg Interest Rate Forecast (as of February 27, 2017)								
Treasury	Current	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Forecasted Increase from Current to Q2 2018
2-Year	1.16%	1.24%	1.37%	1.51%	1.67%	1.83%	2.04%	0.88%
10-Year	2.33%	2.47%	2.55%	2.67%	2.77%	2.86%	3.00%	0.67%
30-Year	2.96%	3.06%	3.17%	3.26%	3.35%	3.43%	3.55%	0.59%

- **Interest rate are forecast to increase by the end of 2017 by 0.51% for the 2-year, 0.44% for the 10-year, and 0.39% for the 30-year**



Source: Bloomberg

Section 3:

CEA Investment Portfolio

CEA INVESTMENT POLICIES AND PORTFOLIO OVERVIEW

- **CEA's investment portfolio totals $6.2 billion with an effective duration of 2.34 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
Purpose	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
Treasuries / Agencies Composition	Up to 100% Treasuries / Max. 50% Agencies	100% Treasuries	Up to 100% Treasuries / Max. 50% Agencies	Up to 100% Treasuries / Max. 50% Agencies
Maximum Final Maturity	181 days	5 years	5 years	91 days

CEA Investment Portfolio Statistics - February 28, 2017

Fund	Market Value ($000's)	Composition (% of Mkt. Value)	12-Month Total Return	12-Month Income Return	Effective Duration (Years)
Liquidity	$627,350	10%	0.40%	0.00%	0.14
Primary	$4,859,931	79%	0.10%	1.51%	2.61
Claims-Paying	$676,064	11%	0.16%	1.65%	2.55
Mitigation	$20,243	0%	0.30%	0.00%	0.09
Total	**$6,183,588**	**100%**	**0.14%**	**1.37%**	**2.34**
Primary and Liquidity Combined	**$5,487,281**	**89%**	**0.13%**	**1.34%**	**2.33**
Primary, Liquidity, and Claims-Paying Combined	**$6,163,345**	**100%**	**0.13%**	**1.37%**	**2.35**

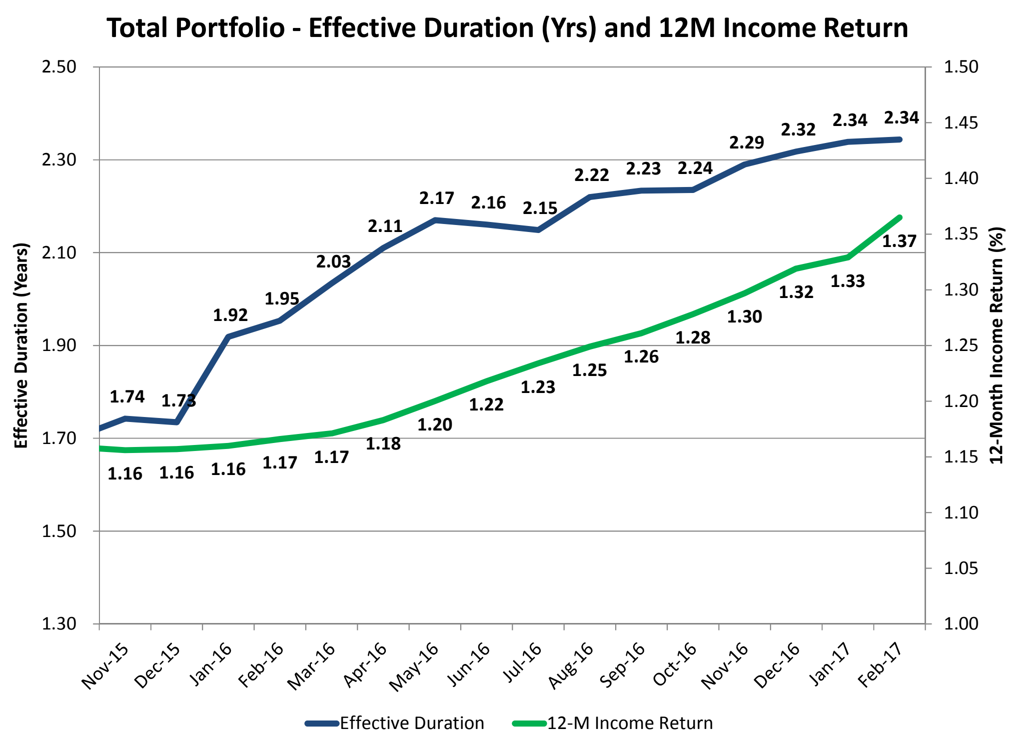
CEA Investment Portfolio Statistics - November 30, 2015

Fund	Market Value ($000's)	Composition (% of Mkt. Value)	12-Month Total Return	12-Month Income Return	Effective Duration (Years)
Liquidity	$942,721	16%	0.09%	0.01%	0.17
Primary	$4,226,334	72%	0.52%	1.37%	2.03
Claims-Paying	$668,913	11%	0.56%	1.44%	2.20
Mitigation	$20,547	0%	0.09%	0.56%	0.11
Total	**$5,858,514**	**100%**	**0.45%**	**1.16%**	**1.74**
Primary and Liquidity Combined	**$5,169,055**	**88%**	**0.44%**	**1.12%**	**1.69**
Primary, Liquidity, and Claims-Paying Combined	**$5,837,968**	**100%**	**0.46%**	**1.16%**	**1.75**

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 allows CEA to maximize its investment return and funding for mitigation and to take advantage of market conditions
- As of February 28, 2017, the CEA's overall portfolio duration is 2.34 years
  - Primary Fund – 2.61 years
  - Liquidity Fund – 0.14 years
  - Mitigation Fund – 0.09 years
  - Claims-Paying Fund – 2.55 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 2.34 years and has a 12-month income return of 1.37%**



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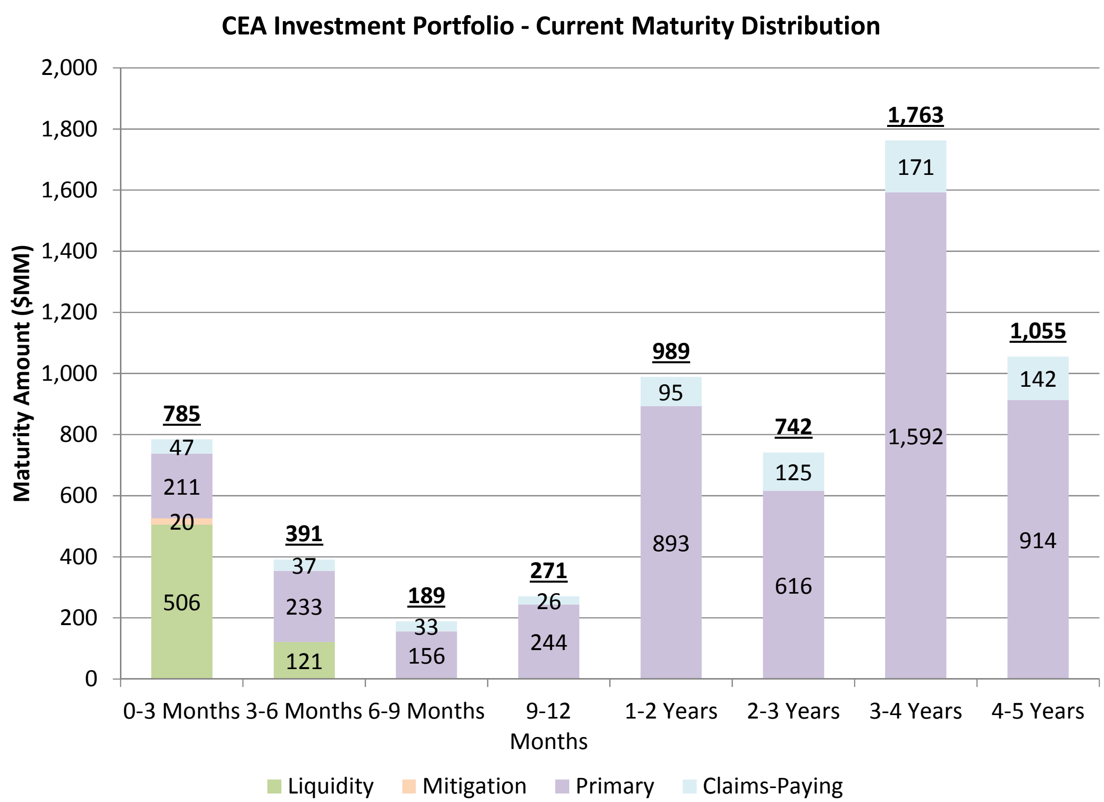
CEA MATURITY DISTRIBUTION – MARCH 1, 2017

CEA Investment Portfolio - March 2017 - Maturity Distribution ($MM)									
Fund	Market Value	0-3 Months	3-6 Months	6-9 Months	9-12 Months	1-2 Years	2-3 Years	3-4 Years	4-5 Years
Claims-Paying	676	47	37	33	26	95	125	171	142
Liquidity	627	506	121						
Mitigation	20	20							
Primary	4,860	211	233	156	244	893	616	1,592	914
Total	**6,184**	**785**	**391**	**189**	**271**	**989**	**742**	**1,763**	**1,055**
% of Total		**13%**	**6%**	**3%**	**4%**	**16%**	**12%**	**29%**	**17%**

- **As of March 1, 2017, the CEA has a total duration of 2.34 years**



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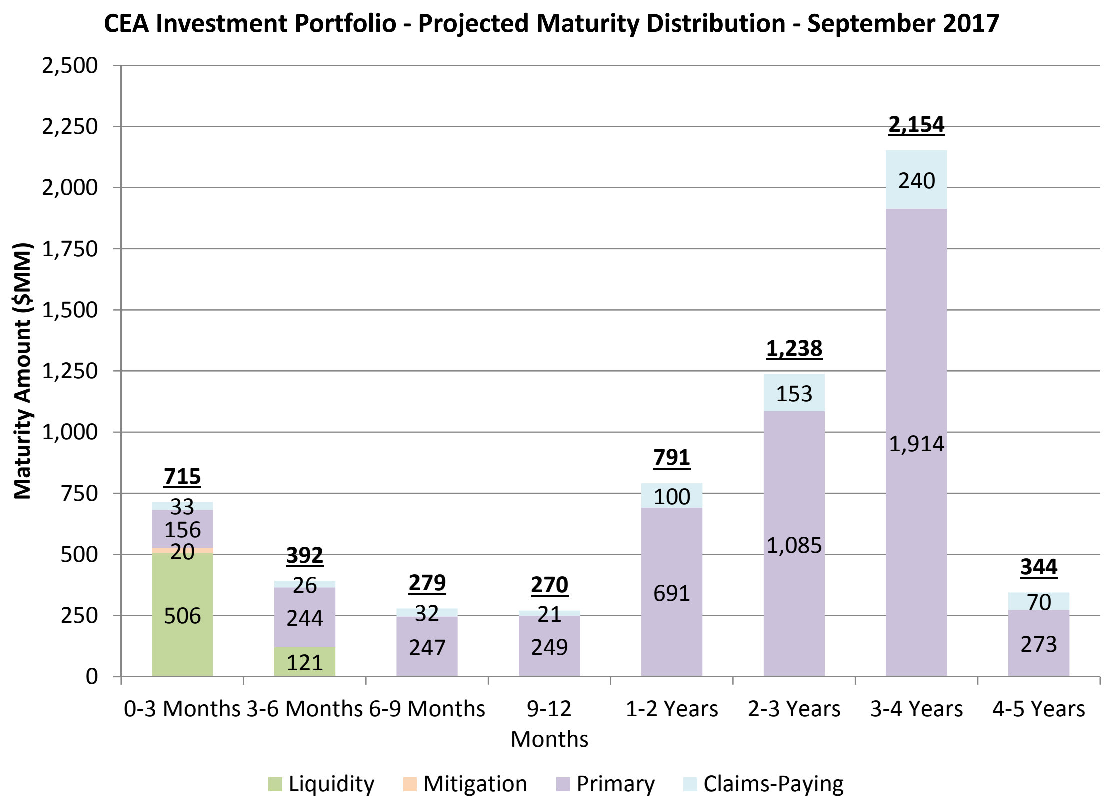
CEA PROJECTED MATURITY DISTRIBUTION – SEPTEMBER 2017

- The projected maturity distribution is based on that the Claims-Paying and Primary Funds will be reinvested with an average maturity of 4 years
- As of September 2017, the CEA may potentially have a total duration of 2.25 years compared to the current duration of 2.34 years

CEA Investment Portfolio - September 2017 - Maturity Distribution ($MM)									
Fund	Market Value	0-3 Months	3-6 Months	6-9 Months	9-12 Months	1-2 Years	2-3 Years	3-4 Years	4-5 Years
Claims-Paying	676	33	26	32	21	100	153	240	70
Liquidity	627	506	121						
Mitigation	20	20							
Primary	4,860	156	244	247	249	691	1,085	1,914	273
Total	**6,184**	**715**	**392**	**279**	**270**	**791**	**1,238**	**2,154**	**344**
% of Total		12%	6%	5%	4%	13%	20%	35%	6%

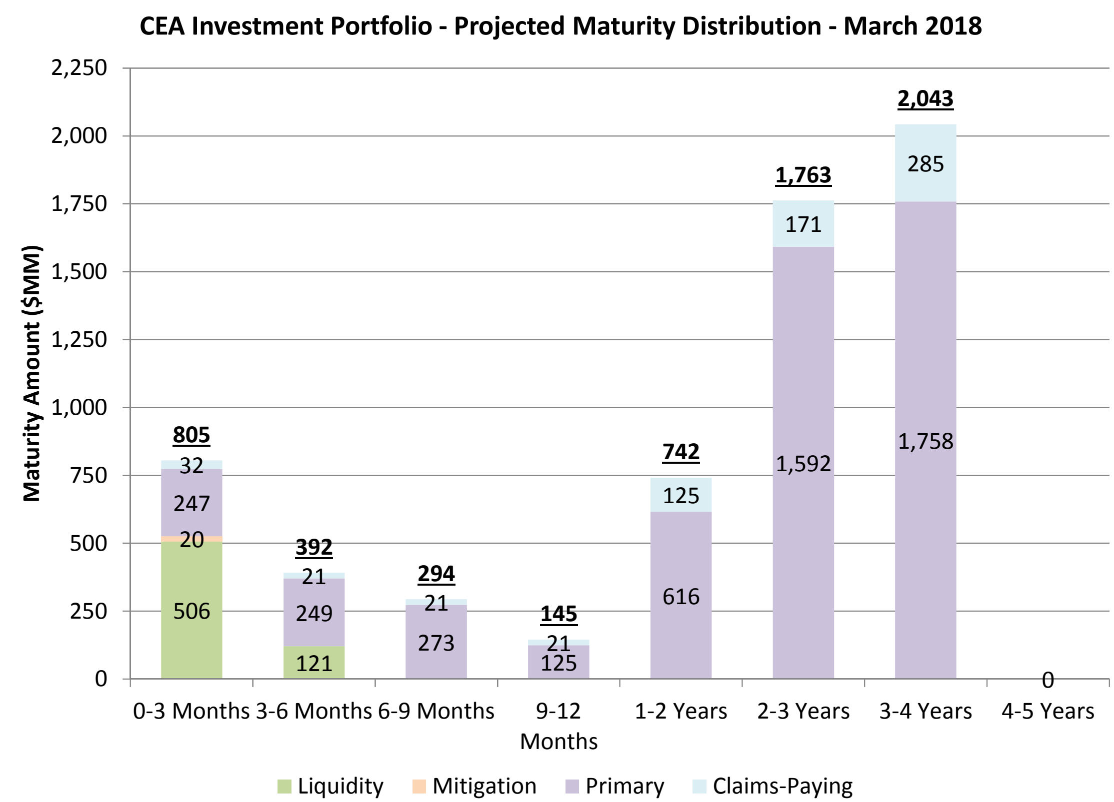


CEA PROJECTED MATURITY DISTRIBUTION – MARCH 2018

- **The projected maturity distribution is based on that the Claims-Paying and Primary Funds will be reinvested with an average maturity of 4 years**
- **As of March 2018, the CEA may potentially have a total duration of 2.11 years compared to the current duration of 2.34 years**

CEA Investment Portfolio - March 2018 - Maturity Distribution ($MM)

Fund	Market Value	0-3 Months	3-6 Months	6-9 Months	9-12 Months	1-2 Years	2-3 Years	3-4 Years	4-5 Years
Claims-Paying	**676**	32	21	21	21	125	171	285	0
Liquidity	**627**	506	121						
Mitigation	**20**	20							
Primary	**4,860**	247	249	273	125	616	1,592	1,758	0
Total	**6,184**	**805**	**392**	**294**	**145**	**742**	**1,763**	**2,043**	**0**
% of Total		**13%**	**6%**	**5%**	**2%**	**12%**	**29%**	**33%**	**0%**



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- **The CEA's revised investment policy overall duration target of 3.00 years will generate additional investment income without taking on any additional risk**

INVESTMENT PORTFOLIO SUMMARY

- In December 2015, the CEA revised its investment portfolio maximum duration to 3.00 years from 1.75 years
- The timing of the CEA's change to the investment policy duration target took advantage of the Federal Reserve rate increase that month in December 2015 and generated additional investment income by taking advantage of the increase in interest rates with a longer duration portfolio
- In 2016, the CEA's income return was 1.33%, which generated over $81 million in income or over $17 million, or 25%, more than the $64 million of income earned in 2015
- Based on the maturity structure of the investment portfolio and projected reinvestments in the Primary Fund and Claims-Paying Fund maturities at an average maturity of 4 years:
    - As of September 2017 the total portfolio duration is projected be approximately 2.25 years with the Primary Fund duration at approximately 2.48 years and the Claims-Paying Fund duration at approximately 2.55 years
    - As of March 2018, the total portfolio duration is projected to be approximately 2.11 years with the Primary Fund duration at approximately 2.33 years and the Claims-Paying Fund duration at approximately 2.42 years
- With the projected duration change and expected interest rate increases by the Federal Reserve in 2017, we expect the CEA's annual investment income to increase further by approximately $20-$25] million in 2017

Section 4:

Risk Transfer Market

- **Negative trends in the reinsurance marketplace include: a benign loss environment, persistently low interest rates, and stiff competition**
- **With the risk transfer capital markets' capacity growing, traditional reinsurers continue to face a loss of market share to new competitors from the growing number of ILS managers and their funds, and pension funds**
- **The alternative capital trend is continuing where capital from outside of the reinsurance industry is increasingly interested in accessing the markets' returns as an investment asset class**

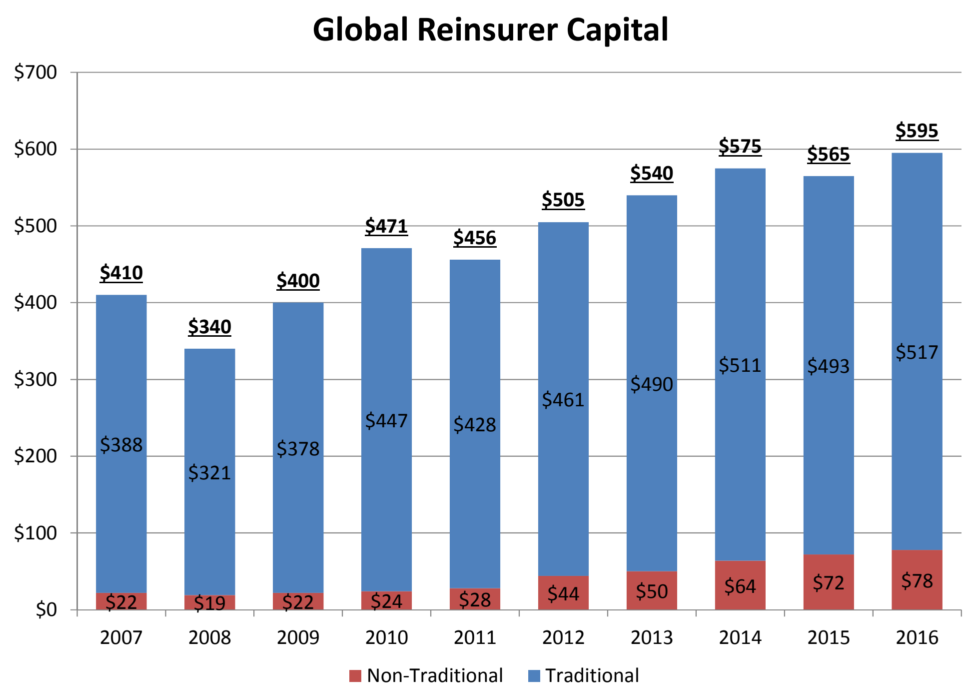
REINSURANCE MARKET OVERVIEW

- Healthy retained earnings, aided by below average catastrophe losses, unrealized investment gains and a continued influx of non-traditional capital have all contributed to the growth in insurer and reinsurer capital – **reinsurance capital is at $595 billion, of which approximately $78 billion is non-traditional capital**
  - Traditional capital grew from $493 billion to $517 through the first 9 months of 2016
  - Non-traditional capital grew from $72 billion to $78 through the first 9 months of 2016

Global Reinsurer Capital

	Traditional		Non-Traditional		Total	
Year	Amount ($B)	YoY% Change	Amount ($B)	YoY% Change	Amount ($B)	YoY% Change
2007	$388	5%	$22	29%	$410	6%
2008	$321	-17%	$19	-14%	$340	-17%
2009	$378	18%	$22	16%	$400	18%
2010	$447	18%	$24	9%	$471	18%
2011	$428	-4%	$28	17%	$456	-3%
2012	$461	8%	$44	57%	$505	11%
2013	$490	6%	$50	14%	$540	7%
2014	$511	4%	$64	28%	$575	6%
2015	$493	-4%	$72	13%	$565	-2%
2016	$517	5%	$78	8%	$595	5%
10-Year CAGR		**3%**		**13%**		**4%**

Source: Aon Benfield



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REINSURANCE PRICING CONDITIONS

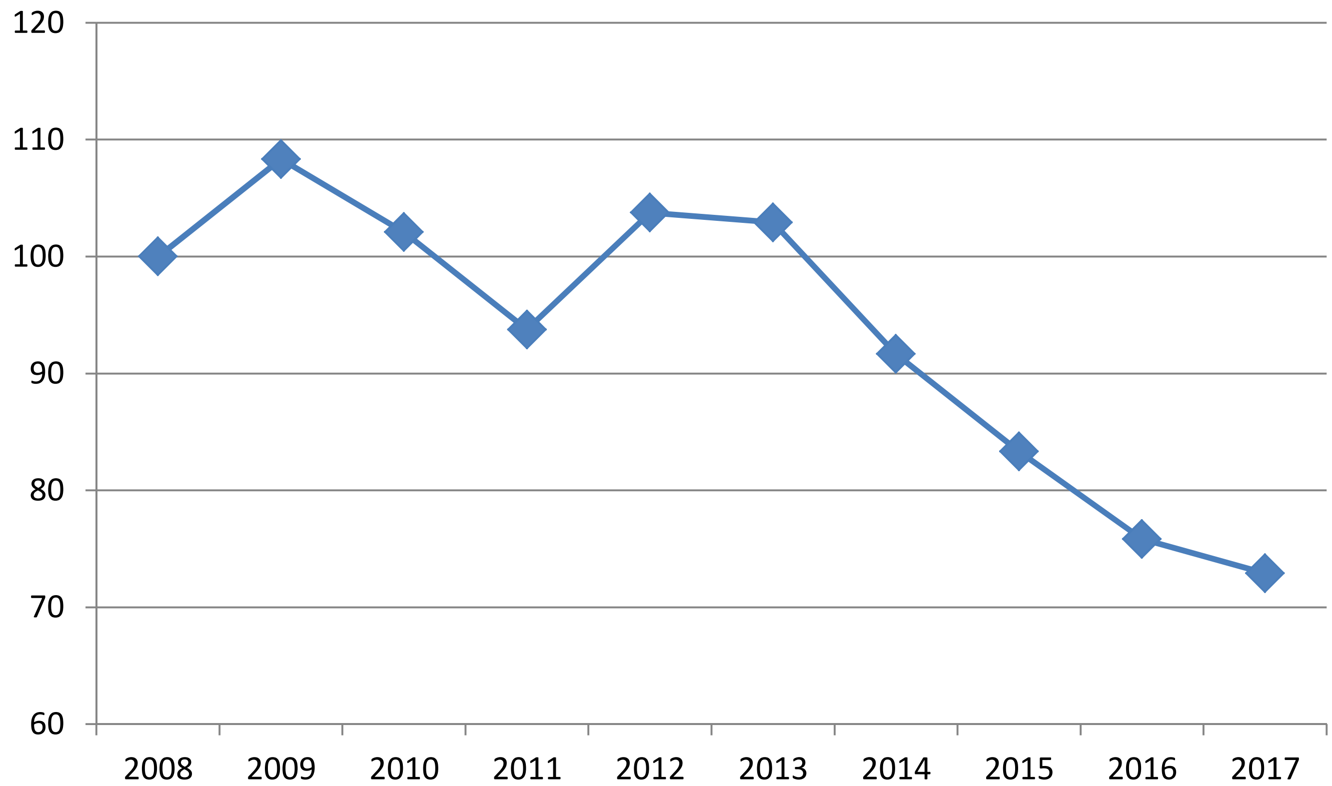
- Following several years of compound price reductions, risk adjusted rate reductions continue for catastrophe reinsurance but have slowed from prior years

- Reinsurance demand is projected to remain strong and pricing conditions continue to be soft as reinsurers are competing with alternative capital and collateralized reinsurance

- **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 5% in the U.S. market for 2017**

Global Property Catastrophe ROL Index - 2008 to 2017



Source: Guy Carpenter

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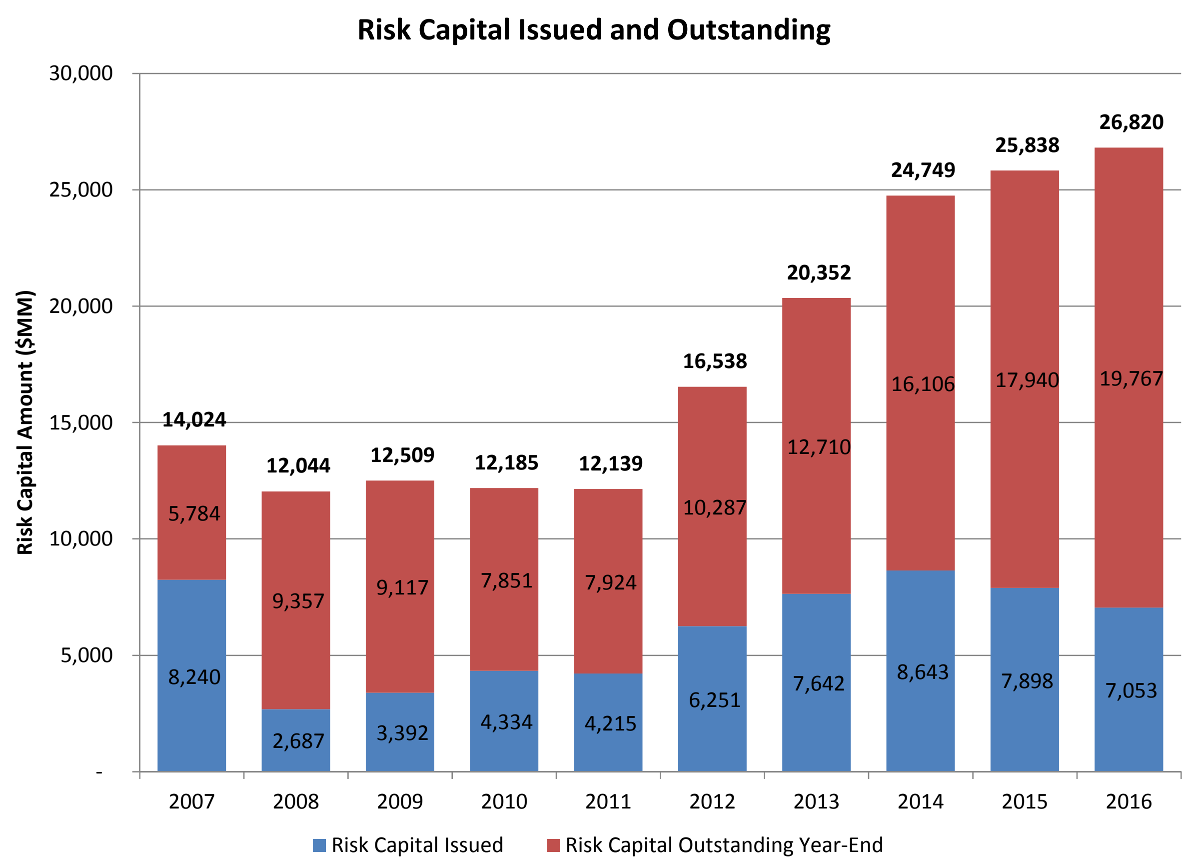
CATASTROPHE BOND MARKET OVERVIEW

- The catastrophe bond market has grown dramatically in recent years and the increased market demand has also driven pricing down
- During 2016 the outstanding catastrophe bond market grew marginally, ending the year at over $26.8 billion, the highest level ever recorded
- 2017 is projected to have a more dramatic increase in issuance compared to 2016

- **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**



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CONCLUSION

- Global economic sluggishness, European and Asian financial crises, uncertainty regarding the post-election U.S. economy 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 $8.4 trillion or 39% 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 and $9.1 trillion of negative yielding sovereign debt, the U.S. is a relatively safer alternative and is attractive from a yield standpoint relative to other countries
- The CEA's revised investment policy overall duration target of 3.00 years generates additional investment income without taking on any additional credit risk
- The current economic and market conditions are very conducive for CEA to meet its potential obligations

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.

Governing Board Memorandum

March 15, 2017

Agenda Item 12:	Overview of the California Capital Access Program
Recommended Action:	No action required—information only

Renée Webster-Hawkins, Executive Director of the California Pollution Control Financing Authority, will provide the Board an overview of that financing authority's "California Capital Access Program."

Governing Board Memorandum

March 15, 2017

Agenda Item 13:	CEA-supported mitigation-related projects and activities: • California Residential Mitigation Program incentive program (CRMP Earthquake Brace + Bolt) • CEA's financial-incentive and mitigation program (CEA Brace + Bolt) • Ongoing mitigation-related research projects.
Recommended Actions:	No action required—information only

Background:

The CEA Mitigation Department manages multiple projects, focusing on expanding mitigation resources to homeowners and technical professionals, as well as developing and collecting data to broaden mitigation efforts.

1. Guidelines Development

ATC 110, the earthquake-guidelines-development project, will create additional statewide retrofit standards that can be used to reduce earthquake damage in single-family dwellings.

In addition to creating a uniform seismic-retrofit-design methodology for homeowners, contractors, and engineers, the new guidelines will help the CEA and others (1) establish and expand 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 FEMA's Mike Mahoney are jointly managing the project

2. FEMA P-50 and P-50-1

The CEA was a contributing funder to developing FEMA P-50. But while the tool has been available for use by inspectors, it has (so far) not been widely distributed or used.

CEA is taking the initiative to bring the FEMA P-50 evaluation tool—and related training—to California home inspectors, for three reasons:

A. To help homeowners interested in retrofits learn associated risks and vulnerabilities.
B. To provide home-buyers information at time of sale regarding potential seismic risks in light of structure vulnerabilities.

C. To provide additional inspection resources in support of CEA's Hazard Reduction Discount program.

CEA is now working with the California Real Estate Inspection Association (CREIA) and Applied Technology Council (ATC) to develop a training program that would support CREIA's implementation of a Seismic Inspector certification by the end of 2017.

3. <u>Mobile Application – QuakeGrade™</u>

CEA is applying finishing touches to a mobile-device app, based on FEMA P50, for use by home inspectors. Anticipated announcement and rollout of the application is planned for May 7, 2017 at the CREIA annual conference.

QuakeGrade™ collects data that is input by a home inspector, calculates a vulnerability score, and generates a report describing the inspected house's seismic vulnerabilities. The app will also suggest options to retrofit the structure and otherwise mitigate the vulnerabilities to improve the vulnerability score.

The app could also include creation and use of the CEA Hazard Reduction Discount form.

This project is funded and governed through the CEA-IT Project Portfolio.

4. <u>South Napa Earthquake After-Event Study</u>

On August 24, 2014, at 3:20 a.m., a magnitude 6.0 earthquake struck in the American Canyon area, just south of Napa—it was the largest earthquake to hit California since the 1994 Northridge event. According to *The Press Democrat* (Santa Rosa), the quake killed one person and injured 200, including a young man gravely injured by falling bricks from his home's fireplace.

CEA embarked on a research project to compile data on how single-family dwellings performed during that earthquake—no data previously existed that would identify seismically retrofitted and non-retrofitted dwelling performance in Napa.

CEA collaborated with Dr. Sharyl Rabinovici, a research consultant, in developing the project plan. The consultant developed the survey tool, managed data collection, provided descriptive analysis, and conducted confidential one-on-one interviews with selected homeowners in order to understand the impacts of damage and other event factors on those households.

The study was completed in two phases.

- Phase I included a 2015 online survey completed by 633 respondents.
- Phase II involved interviews with 39 homeowners, coupled with inspections of their houses.

Over half of the houses had been identified by respondents as having been seismically retrofitted before the August 2014 earthquake. California Real Estate Inspection Association (CREIA)-affiliated home inspectors who completed training in FEMA P-50 *Simplified Seismic Assessment Form for Detached, Single-Family, Wood-Frame Dwellings* conducted the inspections in March 2016.

The South Napa Earthquake study revealed no significant new information regarding earthquake-related behaviors and beliefs, but it did reinforce the need for clear and consistent access to information about earthquake mitigation and insurance.

The study also identified significant interest among homeowners for affordable, reliable seismic assessments that can inform their decision-making—this affirms the value of CEA's current efforts to make FEMA P-50 methods known, accessible, and available to the public.

The final research report was released and presented on February 1, 2017 at the CEA Research Forum in Sacramento.

Additionally, in 2017 CEA will develop an "After-Event Study" template, to quickly perform similar studies after future earthquakes, having identified the clear benefits to be realized from tracking outcomes and evaluating effectiveness.

5. CRMP Earthquake Brace + Bolt Program:

<u>Background</u>:

Homeowners in the CRMP's *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 the California Governor's Office of Emergency Services.

The initial CRMP EBB pilot program ran in 2013 and 2014 in four ZIP Codes; eight retrofits were completed.

In 2015, CRMP EBB was available in 28 ZIP Codes, in seven cities: Oakland, San Francisco, San Leandro, Los Angeles, Pasadena, Santa Monica, and Napa; 526 retrofits were completed.

For the 2016 CRMP EBB program, funds provided by CEA from its Loss Mitigation Fund allowed for 600 retrofits. In addition, the 2015–2016 state budget included 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 CRMP EBB.

Additional information and analysis:

EBB is now closing-out its 2016 program, which is expected to wrap up by May. As of February 24, 2017, the following 2016 retrofits have been completed or are in progress:

- Completed 1,371
- Permits received 259

CRMP EBB is on track to reach its 2016 goal of 1,600 retrofits and may possibly exceed it.

2016 Napa Earthquake Brace + Bolt (CRMP):

CRMP's Napa Earthquake Brace + Bolt program (Napa EBB) launched in February 2017.

Napa EBB is funded by the FEMA Hazard Mitigation Grant Program (HMGP) and by a partial CRMP EBB-funding match provided with CEA support. Napa EBB will provide retrofit grants for 100 houses.

As of February 24, 2017, in progress were:

- Completed retrofits 63
- Permits received 10
- Extensions (considering) 3

With 39 homeowners on the waiting list, CRMP is hoping that its Napa program will reach its goal of 100 retrofits.

2017 CRMP EBB Expansion:

The 2016–2017 state budget included an appropriation of $3,000,000 to the California Department of Insurance for CRMP's EBB program, with direction that those funds be granted to CEA, which would contribute them to the CRMP EBB program. With the infusion of state-sourced funds, the goal for 2017 CRMP EBB is 2,000 retrofits.

Homeowner registration for the 2017 CRMP EBB program was open from January 25 through February 27 (2017), in 33 cities and more than 140 ZIP Codes. As of February 24, registration was nearing 5,300.

Future Funding Opportunities:

CRMP continues to look beyond present funding sources, which include the CEA Loss Mitigation Fund, to find additional EBB funding: more funding means more incentive payments for more homeowners. The number of houses statewide that need retrofits far exceeds funding now available or identified.

6. CEA Brace + Bolt Program:

Background:

CEA's pilot program, *CEA Brace + Bolt* ("CEA BB"), will provide each selected CEA policyholder up to $3,000 toward a retrofit, as a grant to encourage strengthening their older houses, which are located in CEA-identified high-seismic-activity areas. Once the brace-and-bolt retrofit is complete and verified, each participating policyholder will qualify for CEA's new 20 percent Hazard Reduction Discount on their earthquake premium.

This initiative has a sound financial basis: Retrofitting sufficient numbers of older houses located in higher-seismic risk areas of California can reduce the CEA's need for, and therefore its cost of, risk-transfer, on a long-term basis.

Operating within CEA Governing Board-approved program rules, the CEA BB program offers benefits to eligible CEA policyholders who:

- own a pre-1940 house in one of the 10 selected ZIP Codes whose characteristics qualify for a code-compliant brace-and-bolt retrofit; and
- have insured their house with CEA for at least three years.

The 10 ZIP Codes, five each in Northern and Southern California, are:

Northern California	**Southern California**
94501	90027
94602	90048
94611	91030
94705	91104
94707	91108

Additional information and analysis:

The CEA Brace + Bolt (CEA BB) pilot program launched with the delivery of letters of invitation mailed in October 2016 to approximately 3,200 CEA policyholders.

Outbound phone calls are now underway to ensure policyholders are aware of the opportunity and to answer questions about next steps.

As of February 24, approximately 90 policyholders have accepted the invitation and confirmed their house eligibility on the program website (CEABraceBolt.com), and CEA has received two building permits.

CEA is analyzing participation data and considering additional measures to increase policyholder participation.

Recommendation:

No action required—information only.

Governing Board Memorandum

March 15, 2017

Agenda Item 14:	CEA Research Program: Projects
Recommended Actions:	No action required—information only

Background:

With Governing Board support and approval, CEA is launching a new Research Program in 2017. The program includes three tiers of funding for multiple disciplines of research, all relevant to CEA's mission to provide affordable, accessible earthquake insurance for those who own or rent residences in California.

Grant Program (Three Tiers)

Tier 1: Individual graduate/post-graduate student grants will be funded annually, with a primary focus of research. But grants will also advance development of human resources and higher education. Those supported graduates/post-graduates who later move to research institutions, whether domestically or abroad, have the potential to increase California's and CEA's links to advanced research related to earthquake-associated behaviors and earthquake damage and insured loss.

Tier 2: The primary focus of the biennial research-grants program is research. But Tier 2 grants will also advance development of institutional knowledge and expertise that will serve policymakers and the insurance industry, including CEA.

The Tier 2 grant will be geared toward early-career professionals, who have six years or less in their chosen career. Whether they continue at or move to research institutions domestically or abroad, or move into the private sector, this pool of experts will have the potential to increase California's and CEA's links to advanced research related to earthquake-associated behaviors and earthquake damage and insured loss.

Tier 3: Special Research Projects will continue, based on CEA's competitive RFQ/RFP/RFB/RFI approach (including use of, when indicated and appropriate under accepted guidelines, formal sole-source requirements) and existing selection processes now in effect.

Expected Grant Program Rollout Date:

CEA Research and Legal staff have been collaborating on draft policies and procedures for the program. Anticipated rollout of the program is end of 2017.

CEA Research Forum

The three-tiered CEA Grant Program will be amplified and extended by the new *CEA Research Forum*, which includes academic and professional earthquake communities.

The first forum was held February 1 and 2, 2017, at the Sacramento Convention Center.

Over 80 participants—representing insurance, engineering, seismology, social science, finance, and public policy subject areas—attended the forum.

- Day one featured presentations providing an overview of CEA's various departments and their respective functions, CEA's use of past research efforts and results, and reports on current research projects.
- On day two, CEA encouraged attendees to collaborate in identifying potential research topics and projects that would wish CEA to pursue. The notes from those discussions are being reviewed and compiled.

'Cripple Wall Performance Effects': Research Project

With the execution of a detailed, negotiated contract, the Cripple Wall Performance Effects research project launched with an initial meeting by CEA and Pacific Earthquake Engineering Research (PEER) Center staff on December 13, 2016.

Project timeline and logistics were discussed. PEER told CEA that its subcontracts are being finalized.

The parties presently plan to hold a full-team kickoff meeting later this month.

Recommendation:

No action required—information only.

Governing Board Memorandum

March 15, 2017

Agenda Item 15: Planning for the next CEA Rate and Form Filing

Recommended Action: No action required—information only

Background:

Throughout the history of CEA, policy forms and premium rates have changed periodically to reflect approved new policy features, make adjustments that permit CEA rates to remain actuarially sound (as required by law), or recognize accepted changes in the "best available" earthquake science (also as required by law).

The most recent rate and form filing was made on January 1, 2016, and introduced additional policy deductibles and new coverage options, providing CEA policyholders with more choices for their earthquake-insurance needs.

The rate- and form-filing process can be lengthy and requires significant work by CEA staff, participating insurers, California Department of Insurance personnel, and others. Bearing that in mind, CEA strives to make stakeholders aware of its intent to pursue a rate and form filing with as much notice as possible, to permit appropriate planning, review, and approvals, and then a successful implementation.

Need for Rate and Form Filing:

Newly available science, now accepted by the United States Geological Survey (USGS), is the primary driver for the next CEA policy rate and form filing. By law, CEA premium rates must be established based on the best available scientific information for assessing the risk of earthquake frequency, severity, and loss.

The new science, as embodied in expected updates from CEA's contracted earthquake-loss modelers, will help determine new CEA policy rates and may also support the development and use of one or more additional rating factors for CEA policies.

CEA may propose changes to policy forms to provide additional policy features and options.

Timing:

CEA intends to implement the next CEA rate and form filing effective on January 1, 2019. The timing of this notification and the intended implementation date are based on the following factors:

- CEA requires 9–12 months to prepare a filing, seek Governing Board approval, and file the request and its accompanying documentation with the California Department of Insurance. The planned completion date for this part of the process is within the timeframe of December 2017 to March 2018.

- The California Department of Insurance reasonably takes four to six months to review and approve a CEA rate and form filing. The expected completion date for this part of the process is within the timeframe of April 2018 to June 2018.
- CEA, and its participating insurers, software vendors, and other stakeholders, require sufficient time to prioritize and plan, with that requirement typically ranging from nine to 12 months from notification. The planned initiation date for this part of the process is within the timeframe of December 2017 to March 2018.
- CEA, and its participating insurers, software vendors, and other stakeholders, require sufficient time to implement system and related changes, with that requirement typically ranging from three to six months from the date specifications are available. The planned initiation date for this part of the process is within the timeframe of March 2018 to September 2018.
- Final testing and certification of system and other changes requires an estimated two months. The planned initiation date for this part of the process is within the timeframe of August 2018 to September 2018.
- The production release of system changes for renewal business is expected to occur in October 2018.
- The production release of system changes for new business is expected to occur in December 2018.

IMPORTANT NOTES:

- The timeframes for the steps described above are estimates based on CEA's present knowledge.
- The timing of CEA's intended rate and form filing is subject to change and receiving appropriate approvals.
- CEA is providing this notification to permit stakeholders to begin to plan and then appropriately prepare for a January 1, 2019, implementation date.

Governing Board Memorandum

March 15, 2017

Agenda Item 16:	CEA Enterprise Risk Management Program: Update on progress in developing the CEA enterprise risk management program
Recommended Action:	No action required—information only

The CEA Enterprise & Strategic Risk Advisor and members of the CEA Enterprise Risk Management (ERM) Committee are continuing their work to development of an enterprise-wise risk-management program. As a brief reminder, the Enterprise & Strategic Risk Advisor began work on August 1, 2016, and has been supported by the CEA Enterprise Project Management Office (EPMO) in setting up the ERM program plan and by pro-bono advisory services offered by one of the CEA's reinsurance intermediaries. The CEA Chief Executive Officer has also tasked five members of the Executive Team to serve on an ERM Committee, with the Enterprise & Strategic Risk Advisor chairing the ERM Committee in a non-voting capacity.

Since the December Board meeting, program work has continued to focus on developing risk-control summaries for each of the priority risks identified by the CEA Executive Team. The CEA Executive Team and ERM Committee identified the potential occurrence of a major earthquake as an overarching risk consideration, and risk controls for all priority risks are considering both steady-state (normal day-to-day operations) and post-earthquake scenarios. Each of the risk-control summaries looks at the risk drivers; current measures and assessments available; risk checkpoints and limits; protocols for risk monitoring and reporting; appropriate responses when risk checkpoints and limits may be exceeded; additional risk controls and mitigation activities; and interdependencies among the priority risks. All of this information will then be integrated into an enterprise-wide, risk-management program.

The ERM Committee continues to meet on a monthly basis to review work on the risk-control summaries and to agree upon next steps in the ERM program development efforts.

<u>Recommendations</u>: None—information only.

Governing Board Memorandum

March 15, 2017

Agenda Item 17:	Update on data collection and reporting that support the Metrics Project
Recommended Action:	No action required—information only

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

California Earthquake Authority

Losses & Loss Adjustment Expenses (LAE) Paid - Cumulative to December 31, 2016

Event Code	Event Name	Date of Event	Magnitude	Location	# of Paid Claims	Losses Paid	LAE Paid	Total Paid Losses & LAE
98010	Chino	1/5/1998	4.3	3 mi. W of Chino	1	$1,385.72	$124.71	$1,510.43
98050	San Juan Bautista	8/12/1998	5.3	7 mi. SSE of San Juan Bautista	1	161,204.93	13,643.13	$174,848.06
98070	Redding	11/26/1998	5.2	3 mi. NNW of Redding	1	4,029.72	362.67	$4,392.39
	1998 Minor Quakes				2	4,199.20	377.93	$4,577.13
99050	Hector Mine	11/16/1999	7.0	28 mi. N of Joshua Tree (near Palm Springs)	25	137,361.81	12,362.47	$149,724.28
	1999 Minor Quakes				1	4,037.26	363.35	$4,400.61
00030	Napa	9/3/2000	5.2	17 mi. ESE of Santa Rosa; 6 mi. NNE of Sonoma; 3 mi. WSW of Yountville	15	278,130.07	25,031.71	$303,161.78
01010	Ferndale	1/13/2001	5.4	53 mi. WNW of Ferndale	1	34,764.54	3,128.79	$37,893.33
	2001 Minor Quakes				1	52,896.82	4,760.70	$57,657.52
01040	West Hollywood	9/9/2001	4.2	West Hollywood	10	67,044.15	6,033.94	$73,078.09
	2002 Minor Quakes				1	8,361.24	752.51	$9,113.75
03090	San Simeon	12/22/2003	6.4	7 mi. NE of San Simeon	86	2,692,628.02	242,339.74	$2,934,967.76
04120	Parkfield	9/28/2004	6.0	7 mi SSE of Parkfield	1	7,032.59	632.93	$7,665.52
07240	Chatsworth	8/9/2007	4.5	4 mi NNW of Chatsworth	1	7,813.88	703.24	$8,517.12
07250	Alum Rock	10/30/2007	5.6	5 mi NNE of Alum Rock	1	6,149.20	553.42	$6,702.62
08280	Chino Hills	7/29/2008	5.4	5.5 mi SE of Diamond Bar	8	145,967.19	13,089.08	$159,056.27
09320	Calexico	12/30/2009	5.9	22.7 mi SE of Calexico	1	275.88	24.83	$300.71
	2009 Minor Quakes				2	8,627.67	776.49	$9,404.16

California Earthquake Authority

Losses & Loss Adjustment Expenses (LAE) Paid - Cumulative to December 31, 2016 (continued)

Event Code	Event Name	Date of Event	Magnitude	Location	# of Paid Claims	Losses Paid	LAE Paid	Total Paid Losses & LAE
10330	Ferndale	1/9/2010	6.5	27 mi W of Ferndale	3	23,901.50	2,151.13	$26,052.63
10360	Baja California Mexico	4/4/2010	7.2	16 mi SW from Guadalupe Victoria, Mexico	17	81,066.58	7,296.00	$88,362.58
	2010 Minor Quakes				1	225,000.00	0.00	$225,000.00
12410	Brawley	8/26/2012	5.3	4 mi North of Brawley, CA	2	23,833.24	2,145.00	$25,978.24
	2012 Minor Quakes				3	146,471.18	13,182.41	$159,653.59
13430	Greenville	5/23/2013	5.7	7 mi WNW of Greenville, CA	1	1,500.00	135.00	$1,635.00
14460	Westwood	3/17/2014	4.4	6mi NNW of Westwood, CA	6	67,989.89	6,119.09	$74,108.98
14470	La Habra	3/28/2014	5.1	1mi S of La Habra, CA	84	458,354.56	41,251.91	$499,606.47
14480	American Canyon	8/24/2014	6.0	4mi NW of American Canyon, CA	195	3,408,422.00	306,757.98	$3,715,179.98
	2014 Minor Quakes				3	18,859.35	1,697.34	$20,556.69
	2015 Minor Quakes				2	5,877.69	529.00	$6,406.69
				Total	**474**	**$8,083,185.88**	**$706,326.50**	**$8,789,512.38**

Claims History Report Glossary

Event Code: A 5 digit code that the CEA assigns to all earthquakes expected to produce paid losses. This code is used to track statistics for a particular earthquake.

Event Name: This is generally the name given to the earthquake by the USGS (United States Geological Survey).

Date of Event: Date that the earthquake occurred.

Magnitude: Richter scale magnitude assigned by USGS.

Location: This is assigned by USGS and is usually a city close to the earthquake.

# of Paid Claims: A numeric count of the claims that received a payment for damage caused by a particular earthquake.

Losses Paid: Total dollar amount of all claims paid to the policyholders for a particular earthquake.

LAE Paid: "LAE" stands for Loss Adjustment Expense which is always 9% of paid losses. This is the amount paid to the Participating Insurers for handling the claim.

Total Paid Losses and ALE: The sum of Losses Paid and LAE Paid.

Minor Quakes: Losses paid for damage from minor earthquakes that were initially not expected to generate a claim and therefore were not issued a CEA event code.

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 1/23/2017 - Policies in Force on: 12/31/2016

TOTALS	Policies In Force	%Total	Exposure	%Total	Written Premium	% Total	Avg Written Premium
Homeowners	667,485	71.7 %	333,184,659,356	85.9 %	486,948,064	79.9 %	730
Homeowners Choice	62,389	6.7 %	36,799,687,476	9.5 %	59,802,410	9.8 %	959
All Homeowners Total	729,874	78.3 %	369,984,346,832	95.4 %	546,750,474	89.7 %	749
Manufactured Homes (Mobilehomes) - Homeowners	26,850	2.9 %	3,407,109,435	0.9 %	3,439,004	0.6 %	128
Manufactured Homes (Mobilehomes) - Homeowners Choice	1,737	0.2 %	303,636,221	0.1 %	356,435	0.1 %	205
All Manufactured Homes (Mobilehomes) - Homeowners Total	28,587	3.1 %	3,710,745,656	1.0 %	3,795,439	0.6 %	133
Condo	107,812	11.6 %	11,564,553,000	3.0 %	51,818,840	8.5 %	481
Renters	65,316	7.0 %	2,433,187,500	0.6 %	7,404,746	1.2 %	113
Grand Total	931,589	100.0 %	387,692,832,988	100.0 %	609,769,498	100.0 %	655

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 1/23/2017 - Policies in Force on: 12/31/2016

TOTALS	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Homeowners - by Cov A Ded							
25% Total	2,268	0.2 %	1,272,614,485	0.3 %	1,516,270	0.2 %	669
20% Total	1,910	0.2 %	1,070,928,202	0.3 %	1,595,860	0.3 %	836
15% Total	555,852	59.7 %	274,822,984,300	70.9 %	406,491,243	66.7 %	731
10% Total	90,091	9.7 %	46,834,298,404	12.1 %	64,780,198	10.6 %	719
5% Total	17,364	1.9 %	9,183,833,965	2.4 %	12,564,492	2.1 %	724
Homeowners Total	667,485	71.7 %	333,184,659,356	85.9 %	486,948,064	79.9 %	730
Homeowners Choice - by Cov A Ded							
25% Total	1,481	0.2 %	882,645,610	0.2 %	1,182,244	0.2 %	798
20% Total	1,003	0.1 %	607,965,753	0.2 %	1,024,025	0.2 %	1,021
15% Total	30,916	3.3 %	18,917,122,078	4.9 %	31,444,799	5.2 %	1,017
10% Total	20,757	2.2 %	11,962,835,701	3.1 %	18,739,655	3.1 %	903
5% Total	8,232	0.9 %	4,429,118,334	1.1 %	7,411,688	1.2 %	900
Homeowners Choice Total	62,389	6.7 %	36,799,687,476	9.5 %	59,802,410	9.8 %	959
All Homeowners Total	729,874	78.3 %	369,984,346,832	95.4 %	546,750,474	89.7 %	749

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 1/23/2017 - Policies in Force on: 12/31/2016

TOTALS	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Manufactured Homes (Mobilehomes) - Homeowners - by Cov A Ded							
25% Total	11	0.0 %	1,640,794	0.0 %	1,365	0.0 %	124
20% Total	8	0.0 %	1,392,227	0.0 %	1,210	0.0 %	151
15% Total	21,114	2.3 %	2,470,977,397	0.6 %	2,511,022	0.4 %	119
10% Total	4,855	0.5 %	791,316,093	0.2 %	767,215	0.1 %	158
5% Total	862	0.1 %	141,782,924	0.0 %	158,193	0.0 %	184
Manufactured Homes (Mobilehomes) - Homeowners Total	26,850	2.9 %	3,407,109,435	0.9 %	3,439,004	0.6 %	128
Manufactured Homes (Mobilehomes) - Homeowners Choice - by Cov A Ded							
25% Total	10	0.0 %	1,388,249	0.0 %	1,281	0.0 %	128
20% Total	2	0.0 %	382,875	0.0 %	267	0.0 %	133
15% Total	655	0.1 %	106,828,518	0.0 %	134,406	0.0 %	205
10% Total	671	0.1 %	122,190,858	0.0 %	139,635	0.0 %	208
5% Total	399	0.0 %	72,845,721	0.0 %	80,846	0.0 %	203
Manufactured Homes (Mobilehomes) - Homeowners Choice Total	1,737	0.2 %	303,636,221	0.1 %	356,435	0.1 %	205
All Manufactured Homes (Mobilehomes) - Homeowners Total	28,587	3.1 %	3,710,745,656	1.0 %	3,795,439	0.6 %	133

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 1/23/2017 - Policies in Force on: 12/31/2016

TOTALS	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Condo - by Cov A Ded							
25% Total	577	0.1 %	84,637,500	0.0 %	304,202	0.0 %	527
20% Total	404	0.0 %	61,541,500	0.0 %	248,422	0.0 %	615
15% Total	75,572	8.1 %	8,924,622,500	2.3 %	38,839,000	6.4 %	514
10% Total	3,056	0.3 %	503,886,500	0.1 %	1,816,177	0.3 %	594
5% Total	5,225	0.6 %	820,399,500	0.2 %	2,835,447	0.5 %	543
No Cov A	22,978	2.5 %	1,169,465,500	0.3 %	7,775,592	1.3 %	338
Condo Total	107,812	11.6 %	11,564,553,000	3.0 %	51,818,840	8.5 %	481

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 1/23/2017 - Policies in Force on: 12/31/2016

TOTALS	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Renters - by Cov C Ded							
25% Total	775	0.1 %	11,369,500	0.0 %	33,272	0.0 %	43
20% Total	281	0.0 %	7,790,500	0.0 %	16,396	0.0 %	58
15% Total	13,776	1.5 %	320,221,500	0.1 %	805,112	0.1 %	58
10% Total	2,794	0.3 %	142,131,000	0.0 %	346,892	0.1 %	124
5% Total	47,690	5.1 %	1,951,675,000	0.5 %	6,203,074	1.0 %	130
No Cov C	0	0.0 %	0	0.0 %	0	0.0 %	N/A
Renters Total	65,316	7.0 %	2,433,187,500	0.6 %	7,404,746	1.2 %	113
Grand Total	931,589	100.0 %	387,692,832,988	100.0 %	609,769,498	100.0 %	655

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 2/23/2017 - Policies in Force on: 01/31/2017

TOTALS	Policies In Force	%Total	Exposure	%Total	Written Premium	% Total	Avg Written Premium
Homeowners	669,872	71.5 %	335,032,068,023	85.7 %	489,357,494	79.7 %	731
Homeowners Choice	64,347	6.9 %	37,891,038,678	9.7 %	61,483,036	10.0 %	955
All Homeowners Total	734,219	78.3 %	372,923,106,701	95.4 %	550,840,530	89.7 %	750
Manufactured Homes (Mobilehomes) - Homeowners	26,660	2.8 %	3,398,797,180	0.9 %	3,426,827	0.6 %	129
Manufactured Homes (Mobilehomes) - Homeowners Choice	1,780	0.2 %	313,528,555	0.1 %	366,829	0.1 %	206
All Manufactured Homes (Mobilehomes) - Homeowners Total	28,440	3.0 %	3,712,325,735	0.9 %	3,793,656	0.6 %	133
Condo	108,191	11.5 %	11,673,977,000	3.0 %	52,159,964	8.5 %	482
Renters	66,342	7.1 %	2,465,848,000	0.6 %	7,521,754	1.2 %	113
Grand Total	937,192	100.0 %	390,775,257,436	100.0 %	614,315,903	100.0 %	655

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 2/23/2017 - Policies in Force on: 01/31/2017

TOTALS	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Homeowners - by Cov A Ded							
25% Total	2,492	0.3 %	1,392,220,083	0.4 %	1,675,321	0.3 %	672
20% Total	2,055	0.2 %	1,151,810,389	0.3 %	1,718,092	0.3 %	836
15% Total	555,480	59.3 %	275,128,613,339	70.4 %	406,858,173	66.2 %	732
10% Total	90,830	9.7 %	47,305,749,428	12.1 %	65,473,145	10.7 %	721
5% Total	19,015	2.0 %	10,053,674,784	2.6 %	13,632,764	2.2 %	717
Homeowners Total	669,872	71.5 %	335,032,068,023	85.7 %	489,357,494	79.7 %	731
Homeowners Choice - by Cov A Ded							
25% Total	1,601	0.2 %	957,760,665	0.2 %	1,265,105	0.2 %	790
20% Total	1,077	0.1 %	654,521,179	0.2 %	1,089,218	0.2 %	1,011
15% Total	31,526	3.4 %	19,282,887,764	4.9 %	32,030,410	5.2 %	1,016
10% Total	21,199	2.3 %	12,202,196,460	3.1 %	19,151,240	3.1 %	903
5% Total	8,944	1.0 %	4,793,672,610	1.2 %	7,947,064	1.3 %	889
Homeowners Choice Total	64,347	6.9 %	37,891,038,678	9.7 %	61,483,036	10.0 %	955
All Homeowners Total	734,219	78.3 %	372,923,106,701	95.4 %	550,840,530	89.7 %	750

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 2/23/2017 - Policies in Force on: 01/31/2017

TOTALS	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Manufactured Homes (Mobilehomes) - Homeowners - by Cov A Ded							
25% Total	13	0.0 %	1,875,588	0.0 %	1,845	0.0 %	142
20% Total	10	0.0 %	1,660,266	0.0 %	1,443	0.0 %	144
15% Total	20,860	2.2 %	2,448,317,989	0.6 %	2,485,655	0.4 %	119
10% Total	4,831	0.5 %	789,676,021	0.2 %	766,656	0.1 %	159
5% Total	946	0.1 %	157,267,316	0.0 %	171,228	0.0 %	181
Manufactured Homes (Mobilehomes) - Homeowners Total	26,660	2.8 %	3,398,797,180	0.9 %	3,426,827	0.6 %	129
Manufactured Homes (Mobilehomes) - Homeowners Choice - by Cov A Ded							
25% Total	10	0.0 %	1,388,249	0.0 %	1,281	0.0 %	128
20% Total	3	0.0 %	568,424	0.0 %	571	0.0 %	190
15% Total	655	0.1 %	107,570,157	0.0 %	135,730	0.0 %	207
10% Total	682	0.1 %	125,165,898	0.0 %	142,107	0.0 %	208
5% Total	430	0.0 %	78,835,827	0.0 %	87,140	0.0 %	203
Manufactured Homes (Mobilehomes) - Homeowners Choice Total	1,780	0.2 %	313,528,555	0.1 %	366,829	0.1 %	206
All Manufactured Homes (Mobilehomes) - Homeowners Total	28,440	3.0 %	3,712,325,735	0.9 %	3,793,656	0.6 %	133

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 2/23/2017 - Policies in Force on: 01/31/2017

TOTALS	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Condo - by Cov A Ded							
25% Total	622	0.1 %	93,261,000	0.0 %	334,228	0.1 %	537
20% Total	431	0.0 %	65,187,000	0.0 %	264,564	0.0 %	614
15% Total	75,283	8.0 %	8,913,120,000	2.3 %	38,798,583	6.3 %	515
10% Total	3,299	0.4 %	543,124,500	0.1 %	1,948,306	0.3 %	591
5% Total	5,665	0.6 %	893,282,500	0.2 %	3,059,998	0.5 %	540
No Cov A	22,891	2.4 %	1,166,002,000	0.3 %	7,754,285	1.3 %	339
Condo Total	108,191	11.5 %	11,673,977,000	3.0 %	52,159,964	8.5 %	482

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 2/23/2017 - Policies in Force on: 01/31/2017

TOTALS	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Renters - by Cov C Ded							
25% Total	855	0.1 %	12,996,500	0.0 %	36,829	0.0 %	43
20% Total	294	0.0 %	8,368,000	0.0 %	16,993	0.0 %	58
15% Total	13,421	1.4 %	288,648,500	0.1 %	755,326	0.1 %	56
10% Total	2,911	0.3 %	150,107,500	0.0 %	366,205	0.1 %	126
5% Total	48,861	5.2 %	2,005,727,500	0.5 %	6,346,400	1.0 %	130
No Cov C	0	0.0 %	0	0.0 %	0	0.0 %	N/A
Renters Total	66,342	7.1 %	2,465,848,000	0.6 %	7,521,754	1.2 %	113
Grand Total	937,192	100.0 %	390,775,257,436	100.0 %	614,315,903	100.0 %	655

2017 CEA Enterprise Project Portfolio

Schedule	Scope	External Resources	Project Cost	Overall Score	Portfolio #	Project Name	Status	Start Date	Project % Complete	Target End Date	End Date
!	✓	!	✓	!	2016-01	CEA Agent App	Active	01/04/16	10%	06/08/17	
✓	✓	✓	✓	✓	2016-02	Training and Registration Form	Active	01/04/16	30%	06/08/17	
✓	✓	✓	✓	✓	2016-03	Combine Agent Databases	Active	01/04/16	90%	06/08/17	
✓	✓	✓	✓	✓	2017-01	CPP Data Warehouse & Reporting	Active	01/03/17	9%	12/29/17	
!	✓	✓	✓	✓	2017-02	Written Premium Write Off	Active	02/01/17	5%	12/29/17	
✓	✓	✓	✓	✓	2017-03	Emerg Mgmt/Bus Continuity	Active	01/03/17	5%	12/29/17	
✓	✓	✓	✓	✓	2017-04	ECMS	Active	01/03/17	8%	12/29/17	
✓	✓	✓	✓	✓	2017-05	Procurement Tracking System	Active	02/01/17	0%	12/29/17	
!	✓	✓	✓	✓	2017-06	End to End Website	Active	02/01/17	0%	9/29/17	
✓	✓	✓	✓	✓	2017-07	CEAGrade (SVIMA P2)	Active	01/03/17	10%	9/1/17	
✓	✓	✓	✓	✓	2017-08	Self Service BI Reporting	Active	01/03/17	11%	12/29/17	
✓	✓	✓	✓	✓	2017-09	EQA Redesign	Active	01/03/17	1%	7/20/17	
✓	✓	✓	✓	✓	2017-10	ZIP Code Validation	Completed	12/01/16	100%	2/1/17	01/03/17
✓	✓	✓	✓	✓	2017-11	HRPac User Interfaces	Active	02/01/17	0%	12/29/17	
✓	✓	✓	✓	✓	2017-12	eDiscovery	Active	01/03/17	12%	12/29/17	