EATON VANCE CALIFORNIA MUNICIPAL BOND FUND Form N-CSRS May 27, 2015

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED

MANAGEMENT INVESTMENT COMPANIES

Investment Company Act File Number: 811-21147

Eaton Vance California Municipal Bond Fund

(Exact Name of Registrant as Specified in Charter)

Two International Place, Boston, Massachusetts 02110 (Address of Principal Executive Offices)

Maureen A. Gemma

Two International Place, Boston, Massachusetts 02110

(Name and Address of Agent for Services)

(617) 482-8260

(Registrant s Telephone Number)

September 30

Date of Fiscal Year End

March 31, 2015

Date of Reporting Period

Item 1. Reports to Stockholders

Municipal Bond Funds

Semiannual Report

March 31, 2015

Municipal (EIM) California (EVM)

New York (ENX)

Commodity Futures Trading Commission Registration. Effective December 31, 2012, the Commodity Futures Trading Commission (CFTC) adopted certain regulatory changes that subject registered investment companies and advisers to regulation by the CFTC if a fund invests more than a prescribed level of its assets in certain CFTC-regulated instruments (including futures, certain options and swap agreements) or markets itself as providing investment exposure to such instruments. Each Fund has claimed an exclusion from the definition of the term commodity pool operator under the Commodity Exchange Act. Accordingly, neither the Funds nor the adviser with respect to the operation of the Funds is subject to CFTC regulation. Because of its management of other strategies, each Fund s adviser is registered with the CFTC as a commodity pool operator and a commodity trading advisor.

Fund shares are not insured by the FDIC and are not deposits or other obligations of, or guaranteed by, any depository institution. Shares are subject to investment risks, including possible loss of principal invested.

Semiannual Report March 31, 2015

Eaton Vance

Municipal Bond Funds

Table of Contents

Performance and Fund Profile

Municipal Bond Fund California Municipal Bond Fund New York Municipal Bond Fund	2 3 4
Endnotes and Additional Disclosures	5
Financial Statements	6
Officers and Trustees	33
Important Notices	34

Municipal Bond Fund

March 31, 2015

Performance^{1,2}

Portfolio Manager Cynthia J. Clemson

% Average Annual Total Returns	Inception Date	Six Months	One Year	Five Years	Ten Years
Fund at NAV	08/30/2002	4.56%	15.97%	9.76%	6.40%
Fund at Market Price		6.22	15.42	6.75	6.20
Barclays Long (22+) Year Municipal Bond Index		3.98%	10.76%	6.89%	5.41%
% Premium/Discount to NAV ³					
					8.76%
Distributions ⁴					
Total Distributions per share for the period					\$ 0.383
Distribution Rate at NAV					5.41%
Taxable-Equivalent Distribution Rate at NAV					9.56%
Distribution Rate at Market Price					5.93%
Taxable-Equivalent Distribution Rate at Market Price					10.48%

% Total Leverage⁵

Residual Interest Bond (RIB) Financing	38.39%
Fund Profile	

Credit Quality (% of total investments)^{6,7}

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See Endnotes and Additional Disclosures in this report.

Past performance is no guarantee of future results. Returns are historical and are calculated by determining the percentage change in net asset value (NAV) or market price (as applicable) with all distributions reinvested and includes management fees and other expenses. Fund performance at market price will differ from its results at NAV due to factors such as changing perceptions about the Fund, market conditions, fluctuations in supply and demand for Fund shares, or changes in Fund distributions. Investment return and principal value will fluctuate so that shares, when sold, may be worth more or less than their original cost. Performance less than one year is cumulative. Performance is for the stated time period only; due to market volatility, current Fund performance may be lower or higher than the quoted return. For performance as of the most recent month-end, please refer to eatonvance.com.

California Municipal Bond Fund

March 31, 2015

Performance^{1,2}

Portfolio Manager Craig R. Brandon, CFA

% Average Annual Total Returns	Inception Date	Six Months	One Year	Five Years	Ter	1 Years
Fund at NAV	08/30/2002	3.29%	12.94%	8.34%		5.35%
Fund at Market Price		8.96	17.18	6.28		5.26
Barclays Long (22+) Year Municipal Bond Index		3.98%	10.76%	6.89%		5.41%
% Premium/Discount to NAV ³						
						7.18%
Distributions ⁴						
Total Distributions per share for the period					\$	0.342
Distribution Rate at NAV						5.28%
Taxable-Equivalent Distribution Rate at NAV						10.76%
Distribution Rate at Market Price						5.69%
Taxable-Equivalent Distribution Rate at Market Price						11.60%
% Total Leverage ⁵						10.0=01

RIB Financing Fund Profile

Credit Quality (% of total investments)^{6,7}

40.07%

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New York Municipal Bond Fund

March 31, 2015

Performance^{1,2}

Portfolio Manager Craig R. Brandon, CFA

% Average Annual Total Returns	Inception Date	Six Months	One Year	Five Years	Ter	Years
Fund at NAV	08/30/2002	3.44%	12.71%	7.56%		5.50%
Fund at Market Price		6.18	12.27	4.44		5.34
Barclays Long (22+) Year Municipal Bond Index		3.98%	10.76%	6.89%		5.41%
% Premium/Discount to NAV ³						0.049
						9.86%
Distributions ⁴						
Total Distributions per share for the period					\$	0.359
Distribution Rate at NAV						5.08%
Taxable-Equivalent Distribution Rate at NAV						9.84%
Distribution Rate at Market Price						5.64%
Taxable-Equivalent Distribution Rate at Market Price						10.93%
% Total Leverage ⁵						

% Total Leverage RIB Financing Fund Profile

Credit Quality (% of total investments)^{6,7}

39.21%

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Municipal Bond Funds

March 31, 2015

Endnotes and Additional Disclosures

- ¹ Barclays Long (22+) Year Municipal Bond Index is an unmanaged index of municipal bonds traded in the U.S. with maturities of 22 years or more. Unless otherwise stated, index returns do not reflect the effect of any applicable sales charges, commissions, expenses, taxes or leverage, as applicable. It is not possible to invest directly in an index.
- ² Performance results reflect the effects of leverage. Performance since inception for an index, if presented, is the performance since the Fund s or oldest share class inception, as applicable.
- ³ The shares of the Fund often trade at a discount or premium from their net asset value. The discount or premium of the Fund may vary over time and may be higher or lower than what is quoted in this report. For up-to-date premium/discount information, please refer to http://eatonvance.com/closedend.
- ⁴ The Distribution Rate is based on the Fund s last regular distribution per share in the period (annualized) divided by the Fund s NAV or market price at the end of the period. The Fund s distributions may be comprised of amounts characterized for federal income tax purposes as tax-exempt income, qualified and non-qualified ordinary dividends, capital gains and nondividend distributions, also known as return of capital. The Fund will determine the federal income tax character of distributions paid to a shareholder after the end of the calendar year. This is reported on the IRS form 1099-DIV and provided to the shareholder shortly after each year-end. For information about the tax character of distributions made in prior calendar years, please refer to Performance-Tax Character of Distributions on the Fund s long-term return potential. As portfolio and market conditions change, the rate of distributions paid by the Fund could change. Taxable-equivalent performance is based on the highest combined federal and state income tax rates, where applicable. Lower tax rates would result in lower tax-equivalent performance. Actual tax rates will vary depending on your income, exemptions and deductions. Rates do not include local taxes.
- ⁵ Fund employs RIB financing. The leverage created by RIB investments provides an opportunity for increased income but, at the same time, creates special risks (including the likelihood of greater price volatility). The cost of leverage rises and falls with changes in short-term interest rates. See Floating Rate Notes Issued in Conjunction with Securities Held in the notes to the financial statements for more information about RIB financing. RIB leverage represents the amount of Floating Rate Notes outstanding at period end as a percentage of Fund net assets plus Floating Rate Notes.
- ⁶ Ratings are based on Moody s, S&P or Fitch, as applicable. If securities are rated differently by the ratings agencies, the higher rating is applied. Ratings, which are subject to change, apply to the creditworthiness of the issuers of the underlying securities and not to the Fund or its shares. Credit ratings measure the quality of a bond based on the issuer s creditworthiness, with ratings ranging from AAA, being the highest, to D, being the lowest based on S&P s measures. Ratings of BBB or higher by S&P or Fitch (Baa or higher by Moody s) are considered to be investment-grade quality. Credit ratings are based largely on the ratings agency s analysis at the time of rating. The rating assigned to any particular security is not necessarily a reflection of the issuer s current financial condition and does not necessarily reflect its assessment of the volatility of a security s market value or of the liquidity of an investment in the security. Holdings designated as Not Rated are not rated by the national ratings agencies stated above.

⁷ The chart includes the municipal bonds held by a trust that issues residual interest bonds, consistent with the Portfolio of Investments.

Fund profile subject to change due to active management.

Municipal Bond Fund

March 31, 2015

Portfolio of Investments (Unaudited)

Tax-Exempt Investments 160.0%

Security	(000	Principal Amount s omitted)	Value
Education 15.1%			
California Educational Facilities Authority, (University of Southern California), 5.25%, 10/1/38 ⁽¹⁾	\$	9,750	\$ 11,025,105
Connecticut Health and Educational Facilities Authority, (Wesleyan University), 5.00%, 7/1/39(1)		14,700	16,855,608
Houston Higher Education Finance Corp., TX, (St. John s School), 5.25%, 9/1/33		3,985	4,439,728
Houston Higher Education Finance Corp., TX, (William Marsh Rice University), 5.00%, 5/15/35 ⁽¹⁾		15,000	17,192,400
Massachusetts Health and Educational Facilities Authority, (Boston College), 5.50%, 6/1/27		5,810	7,582,341
Massachusetts Health and Educational Facilities Authority, (Boston College), 5.50%, 6/1/30		8,325	10,869,536
Massachusetts Health and Educational Facilities Authority, (Harvard University), 5.00%, 10/1/38 ⁽¹⁾		2,000	2,206,980
Massachusetts Health and Educational Facilities Authority, (Harvard University), 5.50%, 11/15/36		8,790	10,171,964
New York Dormitory Authority, (Rockefeller University), 5.00%, 7/1/40 ⁽¹⁾		15,300	17,358,003
North Carolina Capital Facilities Finance Agency, (Duke University), 5.00%, 10/1/38 ⁽¹⁾		13,500	15,245,145
University of California, 5.25%, 5/15/39		3,730	4,262,010
University of California, Prerefunded to 5/15/19, 5.25%, 5/15/39		720	842,234
University of Colorado, (University Enterprise Revenue), 5.25%, 6/1/36 ⁽¹⁾		10,000	11,476,000
University of Massachusetts Building Authority, 5.00%, 11/1/39 ⁽¹⁾		14,175	16,187,992

\$ 145,715,046

Electric Utilities 4.3%