Eaton Vance National Municipal Opportunities Trust Form N-CSR May 24, 2013

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: 811-22269

Eaton Vance National Municipal Opportunities Trust

(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)

March 31

Date of Fiscal Year End

March 31, 2013

Date of Reporting Period

Item 1. Reports to Stockholders

National Municipal

Opportunities Trust (EOT)

Annual Report

March 31, 2013

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. The Fund has claimed an exclusion from the definition of the term commodity pool operator under the Commodity Exchange Act and is not subject to the CFTC regulation. Because of its management of other strategies, the Fund s adviser is registered with the CFTC as a commodity pool operator.

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.

Annual Report March 31, 2013

Eaton Vance

National Municipal Opportunities Trust

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National Municipal Opportunities Trust

March 31, 2013

Management s Discussion of Fund Performance

Economic and Market Conditions

Two intertwined forces dominated fixed-income markets during the one-year period ended March 31, 2013: a low interest-rate environment that drove investors to search for yield and investors increased appetite for risk. Highly accommodative monetary policies instituted by central banks around the world pushed interest rates to historic lows. The U.S. Federal Reserve (the Fed) acted several times during the period to maintain downward pressure on rates. In the spring of 2012, the Fed extended Operation Twist, the central bank s swapping of its short-term holdings for long-term Treasury bonds. In September 2012, the Fed began purchasing approximately \$40 billion of agency mortgage-backed securities (MBS) monthly. And in December 2012, it replaced Operation Twist, which was expiring, with outright purchases of approximately \$45 billion more of Treasuries each month for a combined monthly total of about \$85 billion in quantitative easing. This downward pressure on yields drove investors to look elsewhere for income. The result was that many investors increased their allocation to higher-yielding bonds, which pushed up prices for those securities.

At the same time, improving economic conditions made fixed-income investors seem more comfortable with riskier asset classes. In the United States, unemployment began to decline, and the battered housing market appeared to be finally turning around. Overseas, actions by the European Central Bank calmed many investors fears that Europe s debt crisis would lead to a fracturing of the eurozone. Just weeks before period-end, however, a bank crisis in Cyprus reminded investors that Europe s economic woes are not over.

Against this backdrop, municipal bonds rallied during the one-year period ended March 31, 2013, led by the long end of the yield curve and lower credit-quality6 bonds. The Barclays Capital Municipal Bond Index2, a measure of the broad U.S. municipal bond market, returned 5.25% for the period. During the same time frame, the Fund s benchmark, the Barclays Capital Long (22+) Municipal Bond Index (the Index) an unmanaged index of municipal bonds traded in the United States with maturities of 22 years or more rose 7.50%.

As yields on high-quality bonds fell, investors moved out on the yield curve, buying longer-maturity municipal bonds to potentially take advantage of higher yields at the long end of the yield curve. In their quest for income, investors also favored lower-quality, higher-yielding issues. As a result, longer-duration7, lower-credit-quality bonds were the best performers in the municipal space during the period.

Fund Performance

For the fiscal year ending March 31, 2013, Eaton Vance National Municipal Opportunities Trust (the Fund) shares at net asset value (NAV) had a total return of 10.03%, outperforming the 7.50% return of the Index.

The Fund s overall strategy is to provide current income exempt from federal income tax. The Fund partially hedges against the greater potential risk of volatility at the long end of the yield curve, using Treasury futures to provide a degree of downside protection. While the Fund $\,$ s investments are primarily investment grade (rated BBB and higher), the Fund may invest up to 30% of its assets in obligations below investment grade. And while the Index includes only bonds with maturities of 22 years or more, the Fund may hold securities with shorter maturities.

For the 12-month period, the Fund s outperformance versus the Index was driven in part by an overweighting and security selection in zero-coupon bonds, which performed strongly as rates declined. An overweighting and security selection in hospital and industrial development revenue bonds aided performance versus the Index as well, as those sectors benefited from investors preference for lower-quality, higher-yielding securities during the period.

The Funds use of leverage5 was also a contributor to performance versus the Index for the period. In managing the Fund, management employs leverage to seek to enhance the Funds tax-exempt income. The use of leverage has the effect of achieving additional exposure to the municipal market. Leverage magnifies the Funds exposure to its underlying investments in both up and down markets. During this period of strong performance by municipal bonds, leverage was a key positive contributor to the Funds relative outperformance versus its unleveraged Index.

In contrast, relative performance versus the Index was hurt by security selection in AAA-rated bonds and by an underweighting in bonds with maturities of 22 years and longer, compared with the Index.

The Fund s hedging strategy detracted from performance versus the Index as well. Hedging interest-rate volatility through the use of Treasury futures, a risk management strategy, is intended to moderate performance versus the Index and volatility on both the upside and the downside. So in a period when municipal and Treasury bonds saw strong performance versus the Index, the Fund s hedge also mitigated a portion of the Fund s positive performance versus the Index.

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. 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 www.eatonvance.com.

National Municipal Opportunities Trust

March 31, 2013

Performance^{2,3}

Portfolio Managers Cynthia J. Clemson and Thomas M. Metzold, CFA

			Since
% Average Annual Total Returns	Inception Date	One Year	Inception
Fund at NAV	05/29/2009	10.03%	10.89%
Fund at Market Price		7.06	10.31
Barclays Capital Long (22+) Municipal Bond Index	05/29/2009	7.50%	9.27%

% Premium/Discount to NAV

	1.98%
Distributions ⁴	
Total Distributions per share for the period	\$ 1.075
Distribution Rate at NAV	4.71%
Taxable-Equivalent Distribution Rate at NAV	8.32%
Distribution Rate at Market Price	4.81%
Taxable-Equivalent Distribution Rate at Market Price	8.50%

% Total Leverage⁵

Residual Interest Bond (RIB) 12.78%

Fund Profile

The above chart includes the ratings of securities held by special purpose vehicles established in connection with the RIB financing.⁵ Absent such securities, credit quality (% of total investments) is as follows:⁶

AAA	4.4%	BB	3.3%
AA	24.9	В	5.7
A	31.2	Not Rated	3.3
BBB	27.2		

See Endnotes and Additional Disclosures in this report.

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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 www.eatonvance.com.

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Endnotes and Additional Disclosures

- The views expressed in this report are those of the portfolio manager(s) and are current only through the date stated at the top of this page. These views are subject to change at any time based upon market or other conditions, and Eaton Vance and the Fund(s) disclaim any responsibility to update such views. These views may not be relied upon as investment advice and, because investment decisions are based on many factors, may not be relied upon as an indication of trading intent on behalf of any Eaton Vance fund. This commentary may contain statements that are not historical facts, referred to as forward looking statements. The Fund s actual future results may differ significantly from those stated in any forward looking statement, depending on factors such as changes in securities or financial markets or general economic conditions, the volume of sales and purchases of Fund shares, the continuation of investment advisory, administrative and service contracts, and other risks discussed from time to time in the Fund s filings with the Securities and Exchange Commission.
- ² Barclays Capital Municipal Bond Index is an unmanaged index of municipal bonds traded in the U.S. Barclays Capital Long (22+) 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.
- ³ Performance results reflect the effects of leverage.
- 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 composed of ordinary income, tax- exempt income, net realized capital gains and return of capital. 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. Subsequent distributions declared, but not reflected in Fund Performance, reflect a reduction of the monthly distribution.
- 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. 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 Standard and Poor s or Fitch (Baa or higher by Moody s) are considered to be investment grade quality. Credit ratings are based largely on the rating 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. If securities are rated differently by the rating agencies, the higher rating is applied. Holdings designated as Not Rated are not rated by the national rating agencies stated above.
- 7 Duration is a measure of the expected change in price of a bond in percentage terms given a one percent change in interest rates, all else being constant. Securities with lower durations tend to be less sensitive to interest-rate changes.

Fund profile subject to change due to active management.

National Municipal Opportunities Trust

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Portfolio of Investments

Tax-Exempt Investments 112.9%

Security	Principal Amount s omitted)	Value
Cogeneration 0.4% Pennsylvania Economic Development Financing Authority, (Colver), (AMT), 5.125%, 12/1/15	\$ 1,250	\$ 1,271,863 \$ 1,271,863
Education 10.1% Maine Health and Higher Educational Facilities Authority, (Bowdoin College), 5.00%, 7/1/39 ⁽¹⁾ New Hampshire Health and Education Facilities Authority, (Dartmouth College), 5.25%, 6/1/39 ⁽¹⁾⁽²⁾ New York Dormitory Authority, (Brooklyn Law School), 5.75%, 7/1/33 New York Dormitory Authority, (The New School), 5.75%, 7/1/50 Oregon Facilities Authority, (Lewis & Clark College), 5.625%, 10/1/36 University of Virginia, 5.00%, 6/1/40	\$ 10,440 12,000 1,500 3,000 1,090 2,650	\$ 11,708,251 13,970,280 1,710,270 3,413,730 1,264,825 3,032,475
Electric Utilities 12.4% Apache County, AZ, Industrial Development Authority, (Tucson Electric Power Co.), 4.50%, 3/1/30 Chula Vista, CA, (San Diego Gas and Electric), 5.875%, 1/1/34 Chula Vista, CA, (San Diego Gas and Electric), 5.875%, 2/15/34 Hawaii Department of Budget and Finance, (Hawaiian Electric Co.), 6.50%, 7/1/39 Indiana Financing Authority, (Duke Energy Indiana, Inc.), 6.00%, 8/1/39 Matagorda County, TX, Navigation District No. 1, (Central Power and Light Co.), 6.30%, 11/1/29 Pima County, AZ, Industrial Development Authority, (Tucson Electric Power Co.), 4.00%, 9/1/29 Pima County, AZ, Industrial Development Authority, (Tucson Electric Power Co.), 5.25%, 10/1/40 Salt River Project Agricultural Improvement and Power District, AZ, 5.00%, 1/1/38(1)(2)	\$ 340 3,650 2,815 4,540 8,000 6,000 715 2,500 9,000	\$ 352,386 4,368,904 3,369,442 5,308,985 9,233,920 7,036,800 717,310 2,728,050 10,169,190 \$ 43,284,987
General Obligations 4.9% Birmingham, MI, Public Schools, 4.00%, 5/1/29 California, 6.00%, 4/1/38 Texas, (Texas Transportation Commission), 5.00%, 4/1/42 ⁽¹⁾⁽²⁾ Security	3,500 5,750 3,500 Principal Amount s omitted)	\$ 3,766,385 6,878,667 3,999,975 Value

General Obligations (continued)

Will County, IL, Community Unit School District No. 365-U, (Valley View), 5.75%, 11/1/32

\$ 2,210 \$ 2,593,170

\$ 17,238,197

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Hospital 20.2%		
California Health Facilities Financing Authority, (Catholic Healthcare West), 6.00%, 7/1/34	\$ 980	\$ 1,165,955
California Health Facilities Financing Authority, (Catholic Healthcare West), 6.00%, 7/1/39	1,000	1,189,750
California Statewide Communities Development Authority, (Kaiser Permanente), 5.00%, 4/1/42	1,120	1,230,230
Harris County, TX, Cultural Education Facilities Finance Corp., (Texas Children s Hospital), 5.50%, 10/1/39)	12,300	14,449,548
Illinois Finance Authority, (Provena Healthcare), 7.75%, 8/15/34	3,000	3,848,910
Illinois Finance Authority, (Rush University Medical Center), 6.625%, 11/1/39	2,300	2,806,046
Johnson City, TN, Health & Educational Facilities Board, (Mountain States Health Alliance), 6.00%, 7/1/38	1,665	1,934,880
Kansas Development Finance Authority, (Adventist Health System), 5.75%, 11/15/38	5,915	6,951,899
Maricopa County, AZ, Industrial Development Authority, (Catholic Healthcare West), 6.00%, 7/1/39	3,400	3,864,610
Massachusetts Health and Educational Facilities Authority, (Jordan Hospital), 6.75%, 10/1/33	3,725	3,769,439
Massachusetts Health and Educational Facilities Authority, (Lowell General Hospital), 4.75%, 7/1/25	1,450	1,522,036
Michigan Hospital Finance Authority, (Henry Ford Health System), 5.25%, 11/15/46	4,070	4,293,769
New York Dormitory Authority, (NYU Hospital Center), 5.625%, 7/1/37	1,000	1,088,080
Onondaga Civic Development Corp., NY, (St. Joseph s Hospital Health Center), 5.00%, 7/1/42	1,195	1,229,715
Orange County, FL, Health Facilities Authority, (Orlando Health, Inc.), 5.00%, 10/1/42	1,660	1,810,097
South Lake County, FL, Hospital District, (South Lake Hospital), 6.25%, 4/1/39	1,365	1,555,322
St. Paul, MN, Housing and Redevelopment Authority, (HealthEast), 6.00%, 11/15/35	3,750	4,016,138
Sullivan County, TN, Health, Educational and Facilities Board, (Wellmont Health System), 5.25%, 9/1/36	3,150	3,353,081
Tyler, TX, Health Facilities Development Corp., (East Texas Medical Center), 5.375%, 11/1/37	4,500	4,818,420
Wisconsin Health and Educational Facilities Authority, (Wheaton Franciscan Healthcare System), 5.125%, 8/15/30	5,000	5,277,150

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\$ 70,175,075

See Notes to Financial Statements.

National Municipal Opportunities Trust

March 31, 2013

Portfolio of Investments continued

Security	Principal Amount s omitted)	Value
Housing 4.0% Maryland Community Development Administration, Department of Housing and Community Development, (AMT), 5.15%, 9/1/42 ⁽¹⁾ Virginia Housing Development Authority, 3.625%, 1/1/31 ⁽³⁾	\$ 11,205 2,200	\$ 11,671,688 2,205,280
		\$ 13,876,968
Industrial Development Revenue 12.6% Alabama Industrial Development Authority, (Pine City Fiber Co.), (AMT), 6.45%, 12/1/23 Brazos River Harbor Navigation District of Brazoria County, TX, (Dow Chemical Co.), (AMT), 5.95%, 5/15/33 California Pollution Control Financing Authority, (Waste Management, Inc.), (AMT), 5.125%, 11/1/23 Campbell County, WY, (Basin Electric Power Cooperative), 5.75%, 7/15/39 Clayton County, GA, Development Authority, (Delta Airlines, Inc.), 8.75%, 6/1/29 Gulf Coast, TX, Waste Disposal Authority, (International Paper Co.), (AMT), 6.10%, 8/1/24 Houston, TX, (Continental Airlines), (AMT), 6.75%, 7/1/29 Nevada Department of Business and Industry, (Republic Services, Inc.), (AMT), 5.625% to 6/1/18 (Put Date), 12/1/26 New Jersey Economic Development Authority, (Continental Airlines), (AMT), 5.125%, 9/15/23 New York Liberty Development Corp., (Goldman Sachs Group, Inc.), 5.25%, 10/1/35(4) Niagara Area Development Corp., NY, (Covanta Energy), 5.25%, 11/1/42 Owen County, KY, (Kentucky-American Water Co., Inc.), 6.25%, 6/1/39 Richland County, SC, (International Paper Co.), (AMT), 6.10%, 4/1/23 Sabine River Authority, LA, (International Paper Co.), 6.20%, 2/1/25 Selma, AL, Industrial Development Board, (International Paper Co.), 5.80%, 5/1/34	\$ 5,000 3,000 5,000 3,000 3,420 2,750 3,500 1,800 630 1,900 3,070 1,920 3,000 380 205 850	\$ 5,024,900 3,444,510 5,374,150 3,399,180 4,328,933 2,761,110 3,515,190 2,072,340 651,395 1,964,144 3,598,163 1,979,059 3,347,640 385,331 205,845 960,695

\$ 44,014,446

Insured Special Tax Revenue 2.6%

Hesperia, CA, Public Financing Authority, (Redevelopment and Housing Projects), (XLCA), 5.00%, 9/1/37