

EATON VANCE SENIOR FLOATING RATE TRUST
Form N-CSR
December 29, 2010

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- 21411

Eaton Vance Senior Floating-Rate 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)

October 31

Date of Fiscal Year End

October 31, 2010

Date of Reporting Period

Item 1. Reports to Stockholders

IMPORTANT NOTICES

Privacy. The Eaton Vance organization is committed to ensuring your financial privacy. Each of the financial institutions identified below has in effect the following policy (Privacy Policy) with respect to nonpublic personal information about its customers:

Only such information received from you, through application forms or otherwise, and information about your Eaton Vance fund transactions will be collected. This may include information such as name, address, social security number, tax status, account balances and transactions.

None of such information about you (or former customers) will be disclosed to anyone, except as permitted by law (which includes disclosure to employees necessary to service your account). In the normal course of servicing a customer's account, Eaton Vance may share information with unaffiliated third parties that perform various required services such as transfer agents, custodians and broker/dealers.

Policies and procedures (including physical, electronic and procedural safeguards) are in place that are designed to protect the confidentiality of such information.

We reserve the right to change our Privacy Policy at any time upon proper notification to you. Customers may want to review our Privacy Policy periodically for changes by accessing the link on our homepage:
www.eatonvance.com.

Our pledge of privacy applies to the following entities within the Eaton Vance organization: the Eaton Vance Family of Funds, Eaton Vance Management, Eaton Vance Investment Counsel, Boston Management and Research, and Eaton Vance Distributors, Inc. Our Privacy Policy applies only to those Eaton Vance customers who are individuals and who have a direct relationship with us. If a customer's account (i.e., fund shares) is held in the name of a third-party financial adviser/broker-dealer, it is likely that only such adviser's privacy policies apply to the customer. This notice supersedes all previously issued privacy disclosures. For more information about Eaton Vance's Privacy Policy, please call 1-800-262-1122.

Delivery of Shareholder Documents. The Securities and Exchange Commission (the SEC) permits funds to deliver only one copy of shareholder documents, including prospectuses, proxy statements and shareholder reports, to fund investors with multiple accounts at the same residential or post office box address. This practice is often called householding and it helps eliminate duplicate mailings to shareholders.

Eaton Vance, or your financial adviser, may household the mailing of your documents indefinitely unless you instruct Eaton Vance, or your financial adviser, otherwise. If you would prefer that your Eaton Vance documents not be househanded, please contact Eaton Vance at 1-800-262-1122, or contact your financial adviser. Your instructions that householding not apply to delivery of your Eaton Vance documents will be effective within 30 days of receipt by Eaton Vance or your financial adviser.

Portfolio Holdings. Each Eaton Vance Fund and its underlying Portfolio(s) (if applicable) will file a schedule of portfolio holdings on Form N-Q with the SEC for the first and third quarters of each fiscal year. The Form N-Q will be available on the Eaton Vance website at www.eatonvance.com, by calling Eaton Vance at 1-800-262-1122 or in the EDGAR database on the SEC's website at www.sec.gov. Form N-Q may also be reviewed and copied at the SEC's public reference room in Washington, D.C. (call 1-800-732-0330 for information on the operation of the public reference room).

Proxy Voting. From time to time, funds are required to vote proxies related to the securities held by the funds. The Eaton Vance Funds or their underlying Portfolios (if applicable) vote proxies according to a set of policies and procedures approved by the Funds' and Portfolios' Boards. You may obtain a description of these policies and procedures and information on how the Funds or Portfolios voted proxies relating to portfolio securities during the most recent 12 month period ended June 30, without charge, upon request, by calling 1-800-262-1122. This description is also available on the SEC's website at www.sec.gov.

Additional Notice to Shareholders. The Fund may redeem or purchase its outstanding auction preferred shares (APS) in order to maintain compliance with regulatory requirements, borrowing or rating agency requirements or for other purposes as it deems appropriate or necessary. The Fund may also purchase shares of its common stock in the open market when they trade at a discount to net asset value or at other times if the Fund determines such purchases are advisable. There can be no assurance that the Fund will take such action or that such purchases would reduce the discount.

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

MANAGEMENT'S DISCUSSION OF FUND PERFORMANCE

Scott H. Page, CFA

Co-Portfolio Manager

Peter M. Campo, CFA

Co-Portfolio Manager

Craig P. Russ

Co-Portfolio Manager

Economic and Market Conditions

The bank loan market continued to recover from its 2008 lows for most of the 12-month period ending October 31, 2010. In spite of a small negative return during the April-June quarter, the market, as measured by the S&P/LSTA Leveraged Loan Index¹ (the Index), produced double-digit performance for the year. The market's recovery was driven by stronger demand and greater liquidity in the marketplace, along with improved corporate fundamentals.

The market's healthier tone is attributed to receding fears over deflation and a possible double-dip recession in the U.S. As a result, investors in search of yield have somewhat returned to taking on incremental credit risk, evidenced by improved inflows into high yield bond and bank loan mutual funds. These greater inflows have led to more robust demand in the secondary market, as well as increased refinancing activity, bond for loan take outs, and a general improvement in the overall tone of the market, all contributing to the lift in prices.

Bank loan issuer fundamentals, which have been improving for the past several quarters, continued this trend into the latter months of the fiscal year. Corporate operating earnings growth was up 12.1% in the second calendar quarter of 2010 for public filers in the Index the fourth consecutive quarter of such increases. Ratings downgrades and new defaults have also diminished to more modest levels, providing additional evidence of fundamental improvements. Our expectation is for continued moderate declines in default rates as older defaults fall off of the rolling 12-month figures and are replaced by fewer new defaults.

Management Discussion

The Trust is a closed-end fund and trades on the New York Stock Exchange (NYSE) under the symbol EFR. The Trust's investment objective is to provide a high level of current income. As a secondary objective, it may also seek preservation of capital to the extent consistent with its primary goal of high current income. Under normal market conditions, the Trust invests at least 80% of its total assets in senior, secured floating-rate loans (senior loans). In managing the Trust, the investment adviser seeks to invest in a portfolio of senior loans that it believes will be less volatile over time than the general loan market. The Trust may also invest in second lien loans and high-yield bonds, and, as discussed below, employs leverage to acquire additional income-producing securities, which may increase risk.

As of October 31, 2010, the Trust's investments included senior loans to 371 borrowers spanning 37 industries, with an average loan representing 0.24% of total investments, and no industry constituting more

Total Return Performance 10/31/09 10/31/10

NYSE Symbol	EFR
At Net Asset Value (NAV) ²	17.93%
At Market Price ²	29.96%
S&P/LSTA Leveraged Loan Index ¹	11.91%
Premium/(Discount) to NAV (10/31/10)	4.41%
Total Distributions per common share	\$1.108
Distribution Rate ³	At NAV 7.05%
	6.75%

At Market
Price

See page 3 for more performance information.

- ¹ It is not possible to invest directly in an Index. The Index's total return does not reflect commissions or expenses that would have been incurred if an investor individually purchased or sold the securities represented in the Index. Unlike the Trust, the Index's total return does not reflect the effect of leverage.
- ² Performance results reflect the effects of leverage.
- ³ The Distribution Rate is based on the Trust's last regular distribution per share in the period (annualized) divided by the Trust's NAV or market price at the end of the period. The Trust's distributions may be comprised of ordinary income, net realized capital gains and return of capital. Absent an expense waiver by the investment adviser, the returns would be lower.

Past performance is no guarantee of future results. Returns are historical and are calculated by determining the percentage change in net asset value or market price (as applicable) with all distributions reinvested. The Trust's performance at market price will differ from its results at NAV. Although market price performance generally reflects investment results over time, during shorter periods, returns at market price can also be affected by factors such as changing perceptions about the Trust, market conditions, fluctuations in supply and demand for the Trust's shares, or changes in Trust distributions. Investment return and principal value will fluctuate so that shares, when sold, may be worth more or less than their original cost. Performance is for the stated time period only; due to market volatility, the Trust's current 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.

Trust 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.

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

MANAGEMENT'S DISCUSSION OF FUND PERFORMANCE

than 11.5% of total investments. Health care, business equipment and services, and cable and satellite television were among the top industry weightings.

Management's use of leverage was a significant factor in the Trust's outperformance of the Index, as its loans acquired with borrowings were bolstered by generally strong conditions in the credit markets during the year. As of October 31, 2010, the Trust employed leverage of 35.8% of total assets 16.7% auction preferred shares (APS) and 19.1% borrowings. Use of leverage creates an opportunity for added return, but at the same time creates special risks (including the likelihood of greater volatility of net asset value and market price of common shares).

The Trust continued to maintain smaller allocations to large, lower-quality loans notably, some significant issues that came to market in 2007 than did the market, an underweighting that we believe may lead to better long-term performance. During the period, however, this underweighting detracted from performance. The price of these issues rallied more than the overall market as investors sought higher discount opportunities. The Trust's lower allocation to B-rated loans, which rallied the most after the May/ June volatility, slightly detracted from relative performance during the summer months, as did an underweight to CCC-rated loans earlier in the year. In addition, the Trust's investments in European loans contributed positively to its performance during the period.

We believe the credit fundamentals of the Trust's holdings may continue to exhibit improvements consistent with a stabilizing U.S. economy. Loan defaults in the Trust range between 1% and 2% of total assets, and we believe that they will likely stabilize around current levels over the next few quarters, an opinion shared by many in the market, including the major rating agencies.

We continue to believe that the Trust is well positioned for the current market environment. The Trust invests broadly across the floating-rate loan market, providing shareholders with diversified exposure to the asset class. The cornerstones of the Trust's investment approach have always been and continue to be bottom-up credit research and dedication to diversification. This approach helps the Trust seek lower volatility relative to the overall loan market, while helping to contain risk in difficult credit environments.

- ¹ APS percentage represents the liquidation value of the Trust's APS outstanding at 10/31/10 as a percentage of the Trust's net assets applicable to common shares plus APS and borrowings outstanding. In the event of a rise in long-term interest rates, the value of the Trust's investment portfolio could decline, which would reduce the asset coverage for its APS and borrowings.

The views expressed throughout this report are those of the portfolio managers and are current only through the end of the period of the report as stated on the cover. These views are subject to change at any time based upon market or other conditions, and the investment adviser disclaims any responsibility to update such views. These views may not be relied on as investment advice and, because investment decisions for a fund are based on many factors, may not be relied on as an indication of trading intent on behalf of any Eaton Vance fund. Portfolio information provided in the report may not be representative of the Trust's current or future investments and may change due to active management.

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

FUND PERFORMANCE

Trust Performance¹

NYSE Symbol	EFR
Average Annual Total Returns (by market price, NYSE)	
One Year	29.96%
Five Years	6.83
Life of Trust (11/28/03)	5.03
Average Annual Total Returns (at net asset value)	
One Year	17.93%
Five Years	4.12
Life of Trust (11/28/03)	4.38

¹ Performance results reflect the effects of leverage resulting from the Trust's issuance of APS. Absent an expense waiver by the investment adviser, the returns would be lower.

Portfolio Composition

Top 10 Holdings²

By total investments

Community Health Systems, Inc.	1.3%
UPC Broadband Holding B.V.	1.2%
Georgia-Pacific Corp.	1.2%
SunGard Data Systems, Inc.	1.1%
HCA, Inc.	1.1%
Aramark Corp.	1.1%
Charter Communications Operating, LLC	1.1%
Rite Aid Corp.	1.1%
Nielsen Finance, LLC	1.0%
INEOS Group	0.9%

² Top 10 Holdings represented 11.1% of the Trust's total investments as of 10/31/10.

Top Five Industries³

By total investments

Health Care	11.5%
Business Equipment and Services	7.6
Cable and Satellite Television	7.2
Leisure Goods/Activities/Movies	5.2
Chemicals and Plastics	4.5

³ Industries are shown as a percentage of the Trust's total investments as of 10/31/10.

Credit Quality Ratings for

Total Loan Investments⁴

By total loan investments

Baa	2.3%
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Ba	49.5
B	34.3
Ca	0.2
Caa	3.3
Defaulted	0.4
Non-Rated ⁵	10.0

⁴ Credit Quality ratings are those provided by Moody's Investor Services, Inc., a nationally recognized bond rating service. Reflects the Trust's total loan investments as of 10/31/10. Credit ratings are based largely on the rating agency's investment analysis at the time of rating and the rating assigned to any particular security is not necessarily a reflection of the issuer's current financial condition. The rating assigned to a security by a rating agency 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.

⁵ Certain loans in which the Trust invests are not rated by a rating agency. In management's opinion, such securities are comparable to securities rated by a rating agency in the categories listed above.

Past performance is no guarantee of future results. Returns are historical and are calculated by determining the percentage change in net asset value or market price (as applicable) with all distributions reinvested. The Trust's performance at market price will differ from its results at NAV. Although market price performance generally reflects investment results over time, during shorter periods, returns at market price can also be affected by factors such as changing perceptions about the Trust, market conditions, fluctuations in supply and demand for the Trust's shares, or changes in Trust distributions. Investment return and principal value will fluctuate so that shares, when sold, may be worth more or less than their original cost. Performance is for the stated time period only; due to market volatility, the Trust's current 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.

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS

Senior Floating-Rate Interests 140.7%**Principal****Amount*****(000 s omitted)****Borrower/Tranche Description****Value**

Aerospace and Defense 3.2%

Aveos Fleet Performance, Inc.

31	Revolving Loan, 8.18%, Maturing March 12, 2013 ⁽²⁾	\$ 30,932
47	Term Loan, 11.25%, Maturing March 12, 2013	46,516
125	Term Loan - Second Lien, 10.75%, Maturing March 12, 2015 ⁽³⁾	117,052

Booz Allen Hamilton, Inc.

496	Term Loan, 6.00%, Maturing July 31, 2015	498,855
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DAE Aviation Holdings, Inc.

403	Term Loan, 4.04%, Maturing July 31, 2014	388,174
416	Term Loan, 4.04%, Maturing July 31, 2014	400,871

Delos Aircraft, Inc.

625	Term Loan, 7.00%, Maturing March 17, 2016	640,625
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Doncasters (Dunde HoldCo 4 Ltd.)

394	Term Loan, 4.26%, Maturing July 13, 2015	354,798
394	Term Loan, 4.76%, Maturing July 13, 2015	354,798

GBP

500	Term Loan - Second Lien, 6.57%, Maturing January 13, 2016	621,913
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DynCorp International, LLC

900	Term Loan, 6.25%, Maturing July 5, 2016	906,604
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Evergreen International Aviation

910	Term Loan, 10.50%, Maturing October 31, 2011 ⁽³⁾	898,699
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Hawker Beechcraft Acquisition

4,287		3,601,570
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	Term Loan, 2.26%, Maturing March 26, 2014	
256	Term Loan, 2.29%, Maturing March 26, 2014	215,319
IAP Worldwide Services, Inc.		
829	Term Loan, 8.25%, Maturing December 30, 2012 ⁽³⁾	814,692
International Lease Finance Co.		
850	Term Loan, 6.75%, Maturing March 17, 2015	872,237
Spirit Aerosystems, Inc.		
1,565	Term Loan, 3.54%, Maturing September 30, 2016	1,563,242
TransDigm, Inc.		
1,625	Term Loan, 2.27%, Maturing June 23, 2013	1,609,156
Triumph Group, Inc.		
574	Term Loan, 4.50%, Maturing June 16, 2016	578,223
Wesco Aircraft Hardware Corp.		
1,014	Term Loan, 2.51%, Maturing September 30, 2013	1,007,165
Wyle Laboratories, Inc.		
873	Term Loan, 7.75%, Maturing March 25, 2016	876,084
		\$ 16,397,525

Air Transport 0.1%

Delta Air Lines, Inc.

742	Term Loan, 2.28%, Maturing April 30, 2012	\$ 729,913
		\$ 729,913

Automotive 5.8%

Adesa, Inc.

2,071	Term Loan, 3.01%, Maturing October 18, 2013	\$ 2,024,594
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Allison Transmission, Inc.

3,822	Term Loan, 3.03%, Maturing August 7, 2014	3,675,565
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Autotrader.com, Inc.

1,100	Term Loan, 6.00%, Maturing June 14, 2016	1,104,813
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Dayco Products, LLC

414	Term Loan, 10.50%, Maturing May 13, 2014	413,263
65	Term Loan, 12.50%, Maturing November 13, 2014 ⁽³⁾	63,904

Federal-Mogul Corp.

2,457	Term Loan, 2.20%, Maturing December 29, 2014	2,187,333
3,088	Term Loan, 2.20%, Maturing December 28, 2015	2,748,708

Ford Motor Co.

3,893	Term Loan, 3.04%, Maturing December 16, 2013	3,859,894
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Goodyear Tire & Rubber Co.

5,400	Term Loan - Second Lien, 2.21%, Maturing April 30, 2014	5,208,748
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HHI Holdings, LLC

975	Term Loan, 9.75%, Maturing March 30, 2015	989,625
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Keystone Automotive Operations, Inc.

1,310	Term Loan, 3.79%, Maturing January 12, 2012	1,113,362
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LKQ Corp. U.S.

885	Term Loan, 2.51%, Maturing October 12, 2013	882,805
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Metaldyne Co., LLC

925	Term Loan, 7.75%, Maturing October 28, 2016	933,094
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TriMas Corp.

284	Term Loan, 6.00%, Maturing August 2, 2011	284,817
2,747	Term Loan, 6.00%, Maturing December 15, 2015	2,754,314

United Components, Inc.

1,025	Term Loan, 6.25%, Maturing March 23, 2017	1,035,763
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\$ 29,280,602

Building and Development 2.0%

Beacon Sales Acquisition, Inc.

1,104	Term Loan, 2.28%, Maturing September 30, 2013	\$ 1,051,972
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Brickman Group Holdings, Inc.

1,175 Term Loan, 7.25%, Maturing
October 14, 2016

1,188,954

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT'D

Principal Amount* (000's omitted)	Borrower/Tranche Description	Value
Building and Development (continued)		
Forestar USA Real Estate Group, Inc.		
244	Revolving Loan, 1.18%, Maturing December 1, 2010 ⁽²⁾	\$ 229,723
2,240	Term Loan, 6.50%, Maturing December 1, 2010	2,195,317
Metroflag BP, LLC		
500	Term Loan - Second Lien, 0.00%, Maturing January 6, 2009 ⁽⁴⁾⁽⁵⁾	0
NCI Building Systems, Inc.		
257	Term Loan, 8.00%, Maturing April 18, 2014	247,876
November 2005 Land Investors, LLC		
305	Term Loan, 0.00%, Maturing March 31, 2011 ⁽⁶⁾	64,017
Panolam Industries Holdings, Inc.		
1,689	Term Loan, 8.25%, Maturing December 31, 2013	1,559,377
RE/MAX International, Inc.		
1,891	Term Loan, 5.50%, Maturing April 15, 2016	1,896,408
Realogy Corp.		
160	Term Loan, 3.26%, Maturing October 10, 2013	145,952
668	Term Loan, 3.26%, Maturing October 10, 2013	608,884
South Edge, LLC		
1,588	Term Loan, 0.00%, Maturing October 31, 2009 ⁽⁴⁾	754,063
WCI Communities, Inc.		
251	Term Loan, 11.00%, Maturing September 3, 2014	249,896
		\$ 10,192,439

Business Equipment and Services 11.5%

Activant Solutions, Inc.

1,077 Term Loan, 2.31%, Maturing May 2,
2013 \$ 1,040,750

Advantage Sales & Marketing, Inc.

2,189 Term Loan, 5.00%, Maturing May 5,
2016 2,188,453

Affinion Group, Inc.

3,706 Term Loan, 5.00%, Maturing
October 10, 2016 3,664,678

Allied Barton Security Services

971 Term Loan, 7.75%, Maturing
February 18, 2015 975,895

Dealer Computer Services, Inc.

1,672 Term Loan, 5.25%, Maturing April 21,
2017 1,674,032

Education Management, LLC

4,581 Term Loan, 2.06%, Maturing June 3,
2013 4,267,238

Fifth Third Processing Solution

925 Term Loan, Maturing November 1,
2016⁽⁷⁾ 915,750

First American Corp.

923 Term Loan, 4.75%, Maturing April 12,
2016 929,031

Infogroup, Inc.

723 Term Loan, 6.25%, Maturing July 1,
2016 728,009

iPayment, Inc.

2,252 Term Loan, 2.28%, Maturing May 10,
2013 2,133,590

Kronos, Inc.

1,012 Term Loan, 2.04%, Maturing June 11,
2014 991,819

Language Line, Inc.

2,010 Term Loan, 5.50%, Maturing
November 4, 2015 1,993,483

Mitchell International, Inc.

1,000 Term Loan - Second Lien, 5.56%,
Maturing March 30, 2015 876,250

NE Customer Service

1,699 Term Loan, 6.00%, Maturing March 23,
2016 1,688,842

Protection One Alarm Monitor, Inc.

1,746 Term Loan, 6.00%, Maturing May 16,
2016 1,749,989

Quantum Corp.

	175	Term Loan, 3.77%, Maturing July 14, 2014	166,233
Quintiles Transnational Corp.			
	984	Term Loan, 2.29%, Maturing March 29, 2013	974,652
	1,700	Term Loan - Second Lien, 4.29%, Maturing March 31, 2014	1,687,250
Sabre, Inc.			
	6,002	Term Loan, 2.27%, Maturing September 30, 2014	5,713,623
Safenet, Inc.			
	1,985	Term Loan, 2.76%, Maturing April 12, 2014	1,906,471
Serena Software, Inc.			
	474	Term Loan, 2.29%, Maturing March 10, 2013	462,150
Sitel (Client Logic)			
	1,567	Term Loan, 5.79%, Maturing January 30, 2014	1,435,490
Solera Holdings, LLC			
EUR	729	Term Loan, 2.69%, Maturing May 16, 2014	1,001,782
SunGard Data Systems, Inc.			
	2,215	Term Loan, 2.01%, Maturing February 28, 2014	2,158,390
	6,791	Term Loan, 4.03%, Maturing February 26, 2016	6,722,210
Trans Union, LLC			
	1,920	Term Loan, 6.75%, Maturing June 15, 2017	1,956,792
Travelport, LLC			
	437	Term Loan, 4.79%, Maturing August 21, 2015	432,180
	3,178	Term Loan, 4.96%, Maturing August 21, 2015	3,142,827
EUR	1,054	Term Loan, 5.33%, Maturing August 21, 2015	1,445,754
West Corp.			
	283	Term Loan, 2.63%, Maturing October 24, 2013	277,687
	694	Term Loan, 4.51%, Maturing July 15, 2016	692,697
	1,971	Term Loan, 4.51%, Maturing July 15, 2016	1,963,883
			\$ 57,957,880

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT'D

Principal Amount* (000's omitted)	Borrower/Tranche Description	Value
Cable and Satellite Television 10.9%		
Atlantic Broadband Finance, LLC		
95	Term Loan, 2.54%, Maturing September 1, 2011	\$ 94,205
2,546	Term Loan, 6.75%, Maturing May 31, 2013	2,560,802
Bragg Communications, Inc.		
2,086	Term Loan, 2.80%, Maturing August 31, 2014	2,046,397
Bresnan Broadband Holdings, LLC		
493	Term Loan, 2.26%, Maturing June 30, 2013	490,422
Casema NV		
EUR 1,000	Term Loan - Second Lien, 5.60%, Maturing March 14, 2016	1,388,321
Cequel Communications, LLC		
2,157	Term Loan, 2.26%, Maturing November 5, 2013	2,131,782
Charter Communications Operating, LLC		
8,683	Term Loan, 2.26%, Maturing March 6, 2014	8,534,097
CSC Holdings, Inc.		
2,893	Term Loan, 2.01%, Maturing March 29, 2016	2,841,684
CW Media Holdings, Inc.		
545	Term Loan, 3.26%, Maturing February 16, 2015	544,467
Foxco Acquisition Sub., LLC		
563	Term Loan, 7.50%, Maturing July 14, 2015	558,527
Insight Midwest Holdings, LLC		
3,304	Term Loan, 2.02%, Maturing April 7, 2014	3,197,655
MCC Iowa, LLC		
5,674	Term Loan, 2.00%, Maturing January 31, 2015	5,433,210

Mediacom Broadband, LLC

1,471	Term Loan, 4.50%, Maturing October 23, 2017	1,459,052
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Mediacom Illinois, LLC

3,655	Term Loan, 2.00%, Maturing January 31, 2015	3,469,971
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990	Term Loan, 5.50%, Maturing March 31, 2017	983,194
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Mediacom, LLC

823	Term Loan, 4.50%, Maturing October 23, 2017	810,593
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ProSiebenSat.1 Media AG

EUR 93	Term Loan, 2.39%, Maturing July 2, 2014	117,837
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EUR 904	Term Loan, 2.39%, Maturing July 2, 2014	1,151,077
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EUR 410	Term Loan, 3.52%, Maturing March 6, 2015	458,466
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EUR 2,187	Term Loan, 2.77%, Maturing June 26, 2015	2,803,922
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EUR 97	Term Loan, 2.77%, Maturing July 3, 2015	124,613
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EUR 410	Term Loan, 3.77%, Maturing March 4, 2016	458,467
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EUR 378	Term Loan, 8.14%, Maturing March 6, 2017 ⁽³⁾	377,332
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EUR 520	Term Loan - Second Lien, 4.89%, Maturing September 2, 2016	543,786
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UPC Broadband Holding B.V.

1,686	Term Loan, 4.25%, Maturing December 30, 2016	1,650,015
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EUR 2,353	Term Loan, 4.37%, Maturing December 31, 2016	3,104,310
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1,264	Term Loan, 4.25%, Maturing December 29, 2017	1,232,163
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EUR 2,697	Term Loan, 4.62%, Maturing December 31, 2017	3,565,772
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Virgin Media Investment Holding

GBP 1,000	Term Loan, 4.78%, Maturing December 31, 2015	1,597,510
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YPSO Holding SA

EUR 252	Term Loan, 4.59%, Maturing June 16, 2014 ⁽³⁾	283,473
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EUR 211	Term Loan, 4.60%, Maturing June 16, 2014 ⁽³⁾	237,618
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EUR 547	Term Loan, 4.60%, Maturing June 16, 2014 ⁽³⁾	615,721
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\$ 54,866,461

Chemicals and Plastics 7.0%

Arizona Chemical, Inc.

500	Term Loan - Second Lien, 5.80%, Maturing February 28, 2014	\$ 499,375
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Brenntag Holding GmbH and Co. KG

1,493	Term Loan, 4.02%, Maturing January 20, 2014	1,504,500
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220	Term Loan, 4.03%, Maturing January 20, 2014	221,765
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1,000	Term Loan - Second Lien, 6.45%, Maturing July 17, 2015	1,007,500
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Celanese Holdings, LLC

1,481	Term Loan, 3.29%, Maturing October 31, 2016	1,489,626
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Hexion Specialty Chemicals, Inc.

484	Term Loan, 4.06%, Maturing May 5, 2015	470,447
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768	Term Loan, 4.06%, Maturing May 5, 2015	751,049
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1,726	Term Loan, 4.06%, Maturing May 5, 2015	1,687,254
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Huntsman International, LLC

2,136	Term Loan, 1.78%, Maturing April 21, 2014	2,088,430
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855	Term Loan, 2.52%, Maturing June 30, 2016	839,083
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INEOS Group

2,766	Term Loan, 7.50%, Maturing December 16, 2013	2,832,668
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2,672	Term Loan, 8.00%, Maturing December 16, 2014	2,736,340
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EUR 1,250	Term Loan, 9.00%, Maturing December 16, 2015	1,748,014
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ISP Chemco, Inc.

1,541	Term Loan, 1.81%, Maturing June 4, 2014	1,507,469
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Kraton Polymers, LLC

1,871	Term Loan, 2.31%, Maturing May 13, 2013	1,833,372
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Lyondell Chemical Co.

673	Term Loan, 5.50%, Maturing April 8, 2016	679,836
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MacDermid, Inc.

496	Term Loan, 2.26%, Maturing April 12, 2014	474,065
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EUR 687	Term Loan, 3.05%, Maturing April 11, 2014	892,029
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Millenium Inorganic Chemicals

1,309	Term Loan, 2.54%, Maturing May 15, 2014	1,257,648
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Momentive Performance Material

1,660	Term Loan, 2.56%, Maturing December 4, 2013	1,621,342
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Nalco Co.

1,400	Term Loan, 4.50%, Maturing October 5, 2017	1,417,938
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See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT'D

Principal Amount* (000's omitted)	Borrower/Tranche Description	Value
Chemicals and Plastics (continued)		
Rockwood Specialties Group, Inc.		
2,675	Term Loan, 6.00%, Maturing May 15, 2014	\$ 2,681,635
Schoeller Arca Systems Holding		
EUR 145	Term Loan, 5.24%, Maturing November 16, 2015	136,780
EUR 412	Term Loan, 5.24%, Maturing November 16, 2015	389,984
EUR 443	Term Loan, 5.24%, Maturing November 16, 2015	419,661
Solutia, Inc.		
2,551	Term Loan, 4.75%, Maturing March 17, 2017	2,572,943
Styron S.A.R.L.		
1,555	Term Loan, 7.50%, Maturing June 17, 2016	1,583,989
		\$ 35,344,742
Clothing / Textiles 0.4%		
Hanesbrands, Inc.		
1,036	Term Loan, 5.25%, Maturing December 10, 2015	\$ 1,049,924
Phillips Van Heusen Corp.		
1,041	Term Loan, 4.75%, Maturing May 6, 2016	1,051,590
		\$ 2,101,514

Conglomerates 3.6%

Gentek

600	Term Loan, 6.75%, Maturing October 6, 2015	\$ 606,750
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Goodman Global Holdings, Inc.

1,800	Term Loan, Maturing October 28, 2016 ⁽⁷⁾	1,826,775
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Jarden Corp.

1,657	Term Loan, 3.54%, Maturing January 26, 2015	1,660,352
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Manitowoc Company, Inc. (The)

1,366	Term Loan, 8.00%, Maturing November 6, 2014	1,371,616
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Polymer Group, Inc.

1,909	Term Loan, 7.00%, Maturing November 24, 2014	1,911,807
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RBS Global, Inc.

776	Term Loan, 2.56%, Maturing July 19, 2013	750,222
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3,785	Term Loan, 2.81%, Maturing July 19, 2013	3,685,484
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RGIS Holdings, LLC

2,547	Term Loan, 2.78%, Maturing April 30, 2014	2,355,988
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127	Term Loan, 2.79%, Maturing April 30, 2014	117,799
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Service Master Co.

136	Term Loan, 2.76%, Maturing July 24, 2014	129,201
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1,364	Term Loan, 2.76%, Maturing July 24, 2014	1,297,394
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US Investigations Services, Inc.

987	Term Loan, 3.29%, Maturing February 21, 2015	924,308
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823	Term Loan, 7.75%, Maturing February 21, 2015	827,052
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Vertrue, Inc.

804	Term Loan, 3.29%, Maturing August 16, 2014	723,993
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\$ 18,188,741

Containers and Glass Products 4.0%

Berry Plastics Corp.

1,969	Term Loan, 2.38%, Maturing April 3, 2015	\$ 1,859,705
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BWAY Corp.

798	Term Loan, 5.52%, Maturing June 16, 2017	801,491
75	Term Loan, 5.56%, Maturing June 16, 2017	75,140

Crown Americas, Inc.

258	Term Loan, 2.01%, Maturing November 15, 2012	256,368
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Graham Packaging Holdings Co.

1,685	Term Loan, 6.75%, Maturing April 5, 2014	1,702,453
2,250	Term Loan, 6.00%, Maturing September 23, 2016	2,276,017

Graphic Packaging International, Inc.

3,915	Term Loan, 2.29%, Maturing May 16, 2014	3,848,592
418	Term Loan, 3.04%, Maturing May 16, 2014	415,388

JSG Acquisitions

1,189	Term Loan, 3.91%, Maturing December 31, 2014	1,181,469
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Reynolds Group Holdings, Inc.

1,200	Term Loan, 2.38%, Maturing May 5, 2016 ⁽²⁾	1,210,660
894	Term Loan, 6.25%, Maturing May 5, 2016	901,080
1,950	Term Loan, 6.75%, Maturing May 5, 2016	1,969,285

Smurfit Kappa Acquisitions

1,189	Term Loan, 3.66%, Maturing December 31, 2014	1,181,469
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Smurfit-Stone Container Corp.

2,419	Term Loan, 6.75%, Maturing February 22, 2016	2,445,546
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\$ 20,124,663

Cosmetics / Toiletries 1.3%

Alliance Boots Holdings, Ltd.

GBP	775	Term Loan, 3.56%, Maturing July 5, 2015	\$ 1,123,694
EUR	1,000		1,297,419

	Term Loan, 3.80%, Maturing July 5, 2015	
American Safety Razor Co.		
1	Term Loan, 8.75%, Maturing July 31, 2013 ⁽³⁾	742
900	Term Loan - Second Lien, 0.00%, Maturing January 30, 2014 ⁽⁶⁾	177,750
Bausch & Lomb, Inc.		
292	Term Loan, 3.51%, Maturing April 24, 2015	285,227
1,204	Term Loan, 3.53%, Maturing April 24, 2015	1,176,183
KIK Custom Products, Inc.		
975	Term Loan - Second Lien, 5.29%, Maturing November 30, 2014	663,000

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT'D

Principal Amount* (000's omitted)	Borrower/Tranche Description	Value
Cosmetics / Toiletries (continued)		
Prestige Brands, Inc.		
1,719	Term Loan, 4.75%, Maturing March 24, 2016	\$ 1,732,799
		\$ 6,456,814
Drugs 0.9%		
Graceway Pharmaceuticals, LLC		
1,250	Term Loan, 5.05%, Maturing May 3, 2012	\$ 764,360
292	Term Loan, 10.01%, Maturing November 3, 2013 ⁽³⁾	7,292
1,500	Term Loan - Second Lien, 0.00%, Maturing May 3, 2013 ⁽⁶⁾	193,125
Pharmaceutical Holdings Corp.		
125	Term Loan, 4.54%, Maturing January 30, 2012	123,450
Valeant Pharmaceuticals		
775	Term Loan, 4.55%, Maturing September 27, 2016 ⁽²⁾	783,671
Warner Chilcott Corp.		
695	Term Loan, 6.00%, Maturing October 30, 2014	694,773
335	Term Loan, 6.25%, Maturing April 30, 2015	337,195
558	Term Loan, 6.25%, Maturing April 30, 2015	561,491
245	Term Loan, Maturing February 22, 2016 ⁽⁷⁾	246,827
755		761,437

Term Loan, Maturing February 22,
2016⁽⁷⁾

\$ 4,473,621

Ecological Services and Equipment 2.0%

Cory Environmental Holdings

GBP 500 Term Loan - Second Lien, 4.99%,
Maturing September 30, 2014 \$ 620,911

Environmental Systems Products Holdings, Inc.

893 Term Loan - Second Lien, 13.50%,
Maturing September 12, 2014 780,908

Kemble Water Structure, Ltd.

GBP 4,250 Term Loan - Second Lien, 5.03%,
Maturing October 13, 2013 6,537,592

Sensus Metering Systems, Inc.

2,048 Term Loan, 7.00%, Maturing June 3,
2013 2,060,789

\$ 10,000,200

Electronics / Electrical 4.6%

Aspect Software, Inc.

1,567 Term Loan, 6.25%, Maturing April 19,
2016 \$ 1,565,820

Christie/Aix, Inc.

706 Term Loan, 5.25%, Maturing April 29,
2016 702,717

FCI International S.A.S.

156 Term Loan, 3.66%, Maturing
November 1, 2013 150,658

162 Term Loan, 3.66%, Maturing
November 1, 2013 156,492

156 Term Loan, 3.66%, Maturing
October 31, 2014 150,658

162 Term Loan, 3.66%, Maturing
October 31, 2014 156,492

Freescale Semiconductor, Inc.

2,784 Term Loan, 4.51%, Maturing
December 1, 2016 2,626,403

Infor Enterprise Solutions Holdings

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500	Term Loan, 5.76%, Maturing March 2, 2014	322,500
1,491	Term Loan, 6.01%, Maturing July 28, 2015	1,380,682
2,857	Term Loan, 6.01%, Maturing July 28, 2015	2,658,807
183	Term Loan - Second Lien, 6.51%, Maturing March 2, 2014	122,375
317	Term Loan - Second Lien, 6.51%, Maturing March 2, 2014	215,333
Network Solutions, LLC		
492	Term Loan, 2.52%, Maturing March 7, 2014	465,875
Open Solutions, Inc.		
2,027	Term Loan, 2.42%, Maturing January 23, 2014	1,724,865
Sensata Technologies Finance Co.		
2,700	Term Loan, 2.04%, Maturing April 26, 2013	2,636,934
Shield Finance Co. S.A.R.L.		
868	Term Loan, 7.75%, Maturing June 15, 2016	868,437
Spansion, LLC		
995	Term Loan, 7.50%, Maturing January 8, 2015	1,005,779
Spectrum Brands, Inc.		
3,250	Term Loan, 8.00%, Maturing June 16, 2016	3,320,080
VeriFone, Inc.		
2,013	Term Loan, 3.01%, Maturing October 31, 2013	2,003,308
Vertafore, Inc.		
998	Term Loan, 6.75%, Maturing July 29, 2016	1,002,737
		\$ 23,236,952

Equipment Leasing 0.2%

Hertz Corp.

1,065	Term Loan, 2.01%, Maturing December 21, 2012	\$ 1,056,985
15	Term Loan, 2.09%, Maturing December 21, 2012	14,699
		\$ 1,071,684

Farming / Agriculture 0.7%

CF Industries, Inc.

1,752	Term Loan, 4.50%, Maturing April 6, 2015	\$ 1,768,102
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WM. Bolthouse Farms, Inc.

1,716	Term Loan, 5.50%, Maturing February 11, 2016	1,718,950
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\$ 3,487,052

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT D

Principal Amount* (000 s omitted)	Borrower/Tranche Description	Value
Financial Intermediaries	4.8%	
Citico III, Ltd.		
2,654	Term Loan, 4.75%, Maturing May 30, 2014	\$ 2,554,189
Fidelity National Information Services, Inc.		
2,450	Term Loan, 5.25%, Maturing July 18, 2016	2,480,179
First Data Corp.		
951	Term Loan, 3.01%, Maturing September 24, 2014	856,485
1,906	Term Loan, 3.01%, Maturing September 24, 2014	1,717,136
Grosvenor Capital Management		
1,353	Term Loan, 4.31%, Maturing December 5, 2016	1,336,311
Interactive Data Corp.		
1,471	Term Loan, 6.75%, Maturing January 27, 2017	1,498,127
Jupiter Asset Management Group		
GBP 302	Term Loan, 4.71%, Maturing March 17, 2015	463,591
LPL Holdings, Inc.		
952	Term Loan, 2.04%, Maturing June 28, 2013	947,960
2,998	Term Loan, 4.25%, Maturing June 25, 2015	2,988,277
2,164	Term Loan, 5.25%, Maturing June 28, 2017	2,160,067
MSCI, Inc.		
3,267	Term Loan, 4.75%, Maturing June 1, 2016	3,290,804
Nuveen Investments, Inc.		
3,580	Term Loan, 3.29%, Maturing November 13, 2014	3,362,494
Oxford Acquisition III, Ltd.		
374		343,287

Term Loan, 2.04%, Maturing May 12,
2014

RJO Holdings Corp. (RJ O Brien)

459 Term Loan, 5.26%, Maturing July 12,
2014⁽³⁾ 305,392

\$ 24,304,299

Food Products 3.5%

Acosta, Inc.

2,970 Term Loan, 2.51%, Maturing July 28,
2013 \$ 2,914,361

American Seafoods Group, LLC

698 Term Loan, 5.50%, Maturing May 7,
2015 698,900

Dole Food Company, Inc.

1,686 Term Loan, 5.04%, Maturing March 2,
2017 1,698,631

679 Term Loan, 5.06%, Maturing March 2,
2017 683,898

Michael Foods Holdings, Inc.

723 Term Loan, 6.25%, Maturing June 29,
2016 734,035

Pierre Foods, Inc.

1,250 Term Loan, 7.00%, Maturing
September 30, 2016 1,239,063

Pinnacle Foods Finance, LLC

6,568 Term Loan, 2.76%, Maturing April 2,
2014 6,407,871

Provimi Group SA

205 Term Loan, 2.51%, Maturing June 28,
2015 194,677

252 Term Loan, 2.51%, Maturing June 28,
2015 239,573

EUR 265 Term Loan, 3.10%, Maturing June 28,
2015 350,454

EUR 428 Term Loan, 3.10%, Maturing June 28,
2015 565,461

EUR 457 Term Loan, 3.10%, Maturing June 28,
2015 603,965

EUR 590 Term Loan, 3.10%, Maturing June 28,
2015 778,843

148 Term Loan - Second Lien, 4.51%,
Maturing December 28, 2016 128,720

EUR 24 Term Loan - Second Lien, 5.10%,
Maturing December 28, 2016 29,225

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EUR	331	Term Loan - Second Lien, 5.10%, Maturing December 28, 2016	400,264
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\$ 17,667,941

Food Service 5.1%

AFC Enterprises, Inc.

255	Term Loan, 7.00%, Maturing May 11, 2013	\$ 255,655
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Aramark Corp.

169	Term Loan, 2.28%, Maturing January 27, 2014	164,688
GBP 963	Term Loan, 2.86%, Maturing January 27, 2014	1,476,717
2,094	Term Loan, 2.16%, Maturing January 27, 2014	2,041,665
304	Term Loan, 3.36%, Maturing July 26, 2016	302,220
4,621	Term Loan, 3.54%, Maturing July 26, 2016	4,595,459

Buffets, Inc.

1,241	Term Loan, 12.00%, Maturing April 21, 2015 ⁽³⁾	1,165,170
117	Term Loan, 7.39%, Maturing April 22, 2015 ⁽³⁾	90,434

Burger King Corp.

4,825	Term Loan, 6.25%, Maturing October 19, 2016	4,875,059
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CBRL Group, Inc.

906	Term Loan, 1.96%, Maturing April 29, 2013	897,793
579	Term Loan, 2.96%, Maturing April 27, 2016	574,143

Denny's, Inc.

750	Term Loan, 6.50%, Maturing September 20, 2016	752,344
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DineEquity, Inc.

1,950	Term Loan, 6.00%, Maturing October 19, 2017	1,972,751
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NPC International, Inc.

308	Term Loan, 2.03%, Maturing May 3, 2013	297,018
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OSI Restaurant Partners, LLC

264	Term Loan, 3.90%, Maturing June 14, 2013	248,671
2,864		2,697,743

		Term Loan, 2.63%, Maturing June 14, 2014	
QCE Finance, LLC			
	1,123	Term Loan, 5.06%, Maturing May 5, 2013	972,281
Sagittarius Restaurants, LLC			
	594	Term Loan, 7.50%, Maturing May 18, 2015	594,746
Selecta			
EUR	741	Term Loan - Second Lien, 5.04%, Maturing December 28, 2015	750,537

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT'D

Principal Amount* (000's omitted)	Borrower/Tranche Description	Value
Food Service (continued)		
Wendy's/Arby's Restaurants, LLC		
873	Term Loan, 5.00%, Maturing May 24, 2017	\$ 878,722
		\$ 25,603,816
Food / Drug Retailers 4.4%		
General Nutrition Centers, Inc.		
6,285	Term Loan, 2.53%, Maturing September 16, 2013	\$ 6,143,318
NBTY, Inc.		
2,100	Term Loan, 6.25%, Maturing October 2, 2017	2,130,179
Pantry, Inc. (The)		
221	Term Loan, 2.01%, Maturing May 15, 2014	212,123
767	Term Loan, 2.01%, Maturing May 15, 2014	736,720
Rite Aid Corp.		
8,217	Term Loan, 2.01%, Maturing June 4, 2014	7,417,485
1,054	Term Loan, 6.00%, Maturing June 4, 2014	1,046,257
Roundy's Supermarkets, Inc.		
3,297	Term Loan, 7.00%, Maturing November 3, 2013	3,311,128
1,000	Term Loan - Second Lien, 10.00%, Maturing April 18, 2016	1,021,875

\$ 22,019,085

Forest Products 1.8%

Georgia-Pacific Corp.

1,769	Term Loan, 2.29%, Maturing December 20, 2012	\$ 1,769,089
5,914	Term Loan, 2.29%, Maturing December 21, 2012	5,914,911
1,550	Term Loan, 3.54%, Maturing December 23, 2014	1,555,842
		\$ 9,239,842

Health Care 17.7%

1-800-Contacts, Inc.

941	Term Loan, 7.70%, Maturing March 4, 2015	\$ 935,804
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Alliance Healthcare Services

1,216	Term Loan, 5.50%, Maturing June 1, 2016	1,207,834
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American Medical Systems

39	Term Loan, 2.56%, Maturing July 20, 2012	37,890
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Ardent Medical Services, Inc.

1,144	Term Loan, 6.50%, Maturing September 15, 2015	1,137,098
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Aveta Holdings LLC

602	Term Loan, 8.00%, Maturing April 14, 2015	588,403
602	Term Loan, 8.00%, Maturing April 14, 2015	588,403

Biomet, Inc.

3,735	Term Loan, 3.28%, Maturing March 25, 2015	3,687,369
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EUR	1,188	Term Loan, 3.81%, Maturing March 25, 2015	1,611,428
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Bright Horizons Family Solutions, Inc.

929	Term Loan, 7.50%, Maturing May 28, 2015	933,268
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Cardinal Health 409, Inc.

2,161	Term Loan, 2.51%, Maturing April 10, 2014	2,030,860
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Carestream Health, Inc.

2,461	Term Loan, 2.26%, Maturing April 30, 2013	2,411,015
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Carl Zeiss Vision Holding GmbH

1,170	Term Loan, 1.83%, Maturing October 24, 2014	1,020,825
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130	Term Loan, 4.00%, Maturing September 30, 2019	94,738
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CDRL MS, Inc.

1,000	Term Loan, 6.75%, Maturing September 29, 2016	1,008,125
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Community Health Systems, Inc.

524	Term Loan, 2.55%, Maturing July 25, 2014	514,625
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10,187	Term Loan, 2.55%, Maturing July 25, 2014	10,009,092
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Concentra, Inc.

634	Term Loan - Second Lien, 5.79%, Maturing June 25, 2015	607,075
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ConMed Corp.

450	Term Loan, 1.76%, Maturing April 12, 2013	423,366
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ConvaTec Cidron Healthcare

EUR 745	Term Loan, 4.87%, Maturing July 30, 2016	1,005,731
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CRC Health Corp.

473	Term Loan, 2.54%, Maturing February 6, 2013	451,350
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475	Term Loan, 2.54%, Maturing February 6, 2013	453,618
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Dako EQT Project Delphi

500	Term Loan - Second Lien, 4.04%, Maturing December 12, 2016	361,250
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DaVita, Inc.

3,000	Term Loan, 4.50%, Maturing October 20, 2016	3,028,437
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DJO Finance, LLC

642	Term Loan, 3.26%, Maturing May 20, 2014	625,789
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Fresenius Medical Care Holdings

486	Term Loan, 1.66%, Maturing March 31, 2013	481,075
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Grifols SA

2,150	Term Loan, Maturing October 15, 2016 ⁽⁷⁾	2,175,531
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Hanger Orthopedic Group, Inc.

694	Term Loan, 2.26%, Maturing May 28, 2013	691,806
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Harvard Drug Group, LLC

118	Term Loan, 6.50%, Maturing April 8, 2016	111,670
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	857	Term Loan, 6.50%, Maturing April 8, 2016	812,143
HCA, Inc.			
	2,572	Term Loan, 2.54%, Maturing November 18, 2013	2,520,148
	6,168	Term Loan, 3.54%, Maturing March 31, 2017	6,062,285
Health Management Association, Inc.			
	7,059	Term Loan, 2.04%, Maturing February 28, 2014	6,906,572

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT D

Principal Amount* (000 s omitted)	Borrower/Tranche Description	Value
Health Care (continued)		
Iasis Healthcare, LLC		
78	Term Loan, 2.25%, Maturing March 14, 2014	\$ 75,824
286	Term Loan, 2.26%, Maturing March 14, 2014	277,942
825	Term Loan, 2.26%, Maturing March 14, 2014	803,043
Ikaria Acquisition, Inc.		
1,000	Term Loan, 7.00%, Maturing May 16, 2016	959,583
IM U.S. Holdings, LLC		
972	Term Loan, 2.27%, Maturing June 26, 2014	940,152
625	Term Loan - Second Lien, 4.51%, Maturing June 26, 2015	606,836
IMS Health, Inc.		
1,287	Term Loan, 5.25%, Maturing February 26, 2016	1,301,660
inVentiv Health, Inc.		
798	Term Loan, 6.50%, Maturing August 4, 2016	803,611
Lifepoint Hospitals, Inc.		
2,022	Term Loan, 3.07%, Maturing April 15, 2015	2,023,811
MPT Operating Partnership, L.P.		
1,097	Term Loan, 5.00%, Maturing May 17, 2016	1,097,250
MultiPlan, Inc.		
2,626	Term Loan, 6.50%, Maturing August 26, 2017	2,639,898
Mylan, Inc.		
2,960	Term Loan, 3.56%, Maturing October 2, 2014	2,969,185
National Mentor Holdings, Inc.		
62		57,211

		Term Loan, 2.15%, Maturing June 29, 2013	
	994	Term Loan, 2.29%, Maturing June 29, 2013	923,427
National Renal Institutes, Inc.			
	696	Term Loan, 9.00%, Maturing March 31, 2013	698,294
Nyco Holdings			
EUR	472	Term Loan, 4.60%, Maturing December 29, 2014	617,774
EUR	471	Term Loan, 5.35%, Maturing December 29, 2015	617,623
Physiotherapy Associates, Inc.			
	650	Term Loan, 7.50%, Maturing June 27, 2013	591,503
Prime Healthcare Services, Inc.			
	2,313	Term Loan, 7.25%, Maturing April 22, 2015	2,220,840
RadNet Management, Inc.			
	1,095	Term Loan, 5.75%, Maturing April 1, 2016	1,081,503
ReAble Therapeutics Finance, LLC			
	2,480	Term Loan, 2.26%, Maturing November 16, 2013	2,432,248
RehabCare Group, Inc.			
	771	Term Loan, 6.00%, Maturing November 24, 2015	774,682
Select Medical Holdings Corp.			
	2,353	Term Loan, 4.09%, Maturing August 22, 2014	2,347,378
Skillsoft Corp.			
	998	Term Loan, 6.50%, Maturing May 26, 2017	1,007,891
Sunrise Medical Holdings, Inc.			
EUR	291	Term Loan, 8.00%, Maturing May 13, 2014	374,808
TZ Merger Sub., Inc. (TriZetto)			
	723	Term Loan, 6.75%, Maturing August 4, 2015	723,353
Universal Health Services, Inc.			
	2,300	Term Loan, Maturing July 28, 2016 ⁽⁷⁾	2,326,277
Vanguard Health Holding Co., LLC			
	1,592	Term Loan, 5.00%, Maturing January 29, 2016	1,595,824
VWR Funding, Inc.			
	2,228	Term Loan, 2.76%, Maturing June 30, 2014	2,147,532

\$ 89,571,586

Home Furnishings 1.0%

Hunter Fan Co.

365	Term Loan, 2.76%, Maturing April 16, 2014	\$ 320,971
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Interline Brands, Inc.

936	Term Loan, 2.01%, Maturing June 23, 2013	898,119
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255	Term Loan, 2.01%, Maturing June 23, 2013	244,487
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National Bedding Co., LLC

1,453	Term Loan, 2.38%, Maturing February 28, 2013	1,404,417
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2,050	Term Loan - Second Lien, 5.38%, Maturing February 28, 2014	1,952,625
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\$ 4,820,619

Industrial Equipment 4.3%

Brand Energy and Infrastructure Services, Inc.

2,688	Term Loan, 2.56%, Maturing February 7, 2014	\$ 2,543,312
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737	Term Loan, 3.56%, Maturing February 7, 2014	702,383
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Bucyrus International, Inc.

1,294	Term Loan, 4.50%, Maturing February 19, 2016	1,309,133
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Butterfly Wendel US, Inc.

280	Term Loan, 3.91%, Maturing June 23, 2014	253,578
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280	Term Loan, 4.16%, Maturing June 22, 2015	253,496
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EPD Holdings, (Goodyear Engineering Products)

238	Term Loan, 2.76%, Maturing July 31, 2014	207,385
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1,664	Term Loan, 2.76%, Maturing July 31, 2014	1,447,965
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775	Term Loan - Second Lien, 6.01%, Maturing July 13, 2015	611,766
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Generac Acquisition Corp.

1,401	Term Loan, 2.79%, Maturing November 11, 2013	1,325,616
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Gleason Corp.

	707	Term Loan, 2.07%, Maturing June 30, 2013	696,209
Jason, Inc.	69	Term Loan, 8.25%, Maturing September 21, 2014	67,910
	177	Term Loan, 8.25%, Maturing September 21, 2014	173,412
John Maneely Co.	4,143	Term Loan, 3.54%, Maturing December 9, 2013	4,056,818

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT'D

Principal Amount* (000's omitted)	Borrower/Tranche Description	Value
Industrial Equipment (continued)		
KION Group GmbH		
1,014	Term Loan, 4.01%, Maturing December 23, 2014 ⁽³⁾	\$ 817,570
1,014	Term Loan, 4.26%, Maturing December 23, 2015 ⁽³⁾	817,570
Pinafore, LLC		
2,150	Term Loan, 6.75%, Maturing September 29, 2016	2,178,051
Polypore, Inc.		
3,825	Term Loan, 2.26%, Maturing July 3, 2014	3,745,721
Sequa Corp.		
794	Term Loan, 3.54%, Maturing December 3, 2014	753,247
		\$ 21,961,142

Insurance 3.7%

Alliant Holdings I, Inc.		
2,446	Term Loan, 3.29%, Maturing August 21, 2014	\$ 2,378,770
AmWINS Group, Inc.		
956	Term Loan, 2.80%, Maturing June 8, 2013	892,533
500	Term Loan - Second Lien, 5.80%, Maturing June 8, 2014	427,500
Applied Systems, Inc.		
2,106	Term Loan, 2.76%, Maturing September 26, 2013	1,992,075
CCC Information Services Group, Inc.		
1,547	Term Loan, 2.51%, Maturing February 10, 2013	1,510,452

Conseco, Inc.		
3,627	Term Loan, 7.50%, Maturing October 10, 2013	3,582,482
Crawford & Company		
1,155	Term Loan, 5.25%, Maturing October 30, 2013	1,135,346
Crump Group, Inc.		
650	Term Loan, 3.26%, Maturing August 1, 2014	612,091
HUB International Holdings, Inc.		
492	Term Loan, 2.79%, Maturing June 13, 2014	471,921
2,189	Term Loan, 2.79%, Maturing June 13, 2014	2,099,977
569	Term Loan, 6.75%, Maturing June 13, 2014	564,981
U.S.I. Holdings Corp.		
3,007	Term Loan, 2.76%, Maturing May 5, 2014	2,821,147
		\$ 18,489,275

Leisure Goods / Activities / Movies 8.0%

24 Hour Fitness Worldwide, Inc.		
998	Term Loan, 6.75%, Maturing April 22, 2016	\$ 954,795
AMC Entertainment, Inc.		
3,747	Term Loan, 1.76%, Maturing January 28, 2013	3,697,542
AMF Bowling Worldwide, Inc.		
1,000	Term Loan - Second Lien, 6.51%, Maturing December 8, 2013	820,000
Bombardier Recreational Products		
1,823	Term Loan, 3.39%, Maturing June 28, 2013	1,638,228
Carmike Cinemas, Inc.		
2,426	Term Loan, 5.50%, Maturing January 27, 2016	2,439,623
Cedar Fair, L.P.		
1,995	Term Loan, 5.50%, Maturing December 15, 2016	2,023,850
CFV I, LLC/Hicks Sports Group		
86	Term Loan, 11.77%, Maturing December 1, 2010 ⁽²⁾⁽³⁾	89,685
Cinemark, Inc.		
3,469	Term Loan, 3.55%, Maturing April 29, 2016	3,482,327
Dave & Buster s, Inc.		
995	Term Loan, 6.00%, Maturing June 1, 2016	995,000
Deluxe Entertainment Services		
59	Term Loan, 6.25%, Maturing May 11, 2013	56,195

974	Term Loan, 6.25%, Maturing May 11, 2013	927,212
Fender Musical Instruments Corp.		
570	Term Loan, 2.54%, Maturing June 9, 2014	493,046
289	Term Loan, 2.55%, Maturing June 9, 2014	250,323
Formula One (Alpha D2, Ltd.)		
2,000	Term Loan - Second Lien, 3.80%, Maturing June 30, 2014	1,764,250
Metro-Goldwyn-Mayer Holdings, Inc.		
2,786	Term Loan, 0.00%, Maturing April 9, 2012 ⁽⁶⁾	1,304,840
National CineMedia, LLC		
2,750	Term Loan, 2.05%, Maturing February 13, 2015	2,672,656
Regal Cinemas Corp.		
5,061	Term Loan, 3.79%, Maturing November 21, 2016	5,082,508
Revolution Studios Distribution Co., LLC		
971	Term Loan, 4.01%, Maturing December 21, 2014	767,074
800	Term Loan - Second Lien, 7.26%, Maturing June 21, 2015 ⁽⁵⁾	376,000
Six Flags Theme Parks, Inc.		
2,516	Term Loan, 6.00%, Maturing June 30, 2016	2,529,722
SW Acquisition Co., Inc.		
1,861	Term Loan, 5.75%, Maturing June 1, 2016	1,876,930
Universal City Development Partners, Ltd.		
2,599	Term Loan, 5.50%, Maturing November 6, 2014	2,623,633
Zuffa, LLC		
3,943	Term Loan, 2.31%, Maturing June 22, 2015	3,761,371
		\$ 40,626,810

Lodging and Casinos 2.5%

Ameristar Casinos, Inc.

1,048	Term Loan, 3.54%, Maturing November 10, 2012	\$ 1,047,532
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See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT D

Principal Amount* (000 s omitted)	Borrower/Tranche Description	Value
Lodging and Casinos (continued)		
Gateway Casinos & Entertainment		
412	Term Loan, 10.50%, Maturing September 16, 2014	\$ 413,217
Harrah s Operating Co.		
1,223	Term Loan, 3.29%, Maturing January 28, 2015	1,082,448
2,978	Term Loan, 9.50%, Maturing October 31, 2016	3,104,458
Isle of Capri Casinos, Inc.		
300	Term Loan, 5.00%, Maturing November 25, 2013	294,010
341	Term Loan, 5.00%, Maturing November 25, 2013	334,284
852	Term Loan, 5.00%, Maturing November 25, 2013	835,710
Las Vegas Sands, LLC		
555	Term Loan, 3.03%, Maturing November 23, 2016	519,450
2,196	Term Loan, 3.03%, Maturing November 23, 2016	2,057,937
LodgeNet Entertainment Corp.		
1,540	Term Loan, 2.29%, Maturing April 4, 2014	1,465,434
Penn National Gaming, Inc.		
354	Term Loan, 2.03%, Maturing October 3, 2012	351,851
Tropicana Entertainment, Inc.		
184	Term Loan, 15.00%, Maturing December 29, 2012	203,158
VML US Finance, LLC		
994	Term Loan, 4.78%, Maturing May 27, 2013	994,238
		\$ 12,703,727

Nonferrous Metals / Minerals 1.5%

Euramax International, Inc.

307	Term Loan, 10.00%, Maturing June 29, 2013	\$ 289,771
291	Term Loan, 14.00%, Maturing June 29, 2013 ⁽³⁾	274,560

Fairmount Minerals, Ltd.

1,025	Term Loan, 6.25%, Maturing August 5, 2016	1,038,240
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Noranda Aluminum Acquisition

1,279	Term Loan, 2.05%, Maturing May 18, 2014	1,246,916
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Novelis, Inc.

612	Term Loan, 2.26%, Maturing July 6, 2014	602,461
1,347	Term Loan, 2.26%, Maturing July 7, 2014	1,325,506

Oxbow Carbon and Mineral Holdings

2,912	Term Loan, 2.29%, Maturing May 8, 2014	2,822,425
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\$ 7,599,879

Oil and Gas 3.4%

Big West Oil, LLC

1,270	Term Loan, 12.00%, Maturing July 23, 2015	\$ 1,293,160
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CITGO Petroleum Corp.

568	Term Loan, 8.00%, Maturing June 24, 2015	579,098
2,569	Term Loan, 9.00%, Maturing June 15, 2017	2,644,014

Crestwood Holdings, LLC

475	Term Loan, 10.75%, Maturing September 30, 2016	481,531
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Dresser, Inc.

1,420	Term Loan, 2.61%, Maturing May 4, 2014	1,415,597
1,000	Term Loan - Second Lien, 6.11%, Maturing May 4, 2015	1,000,000

Dynegy Holdings, Inc.

332	Term Loan, 4.01%, Maturing April 2, 2013	328,827
5,161	Term Loan, 4.01%, Maturing April 2, 2013	5,105,769

Enterprise GP Holdings, L.P.

1,103	Term Loan, 2.51%, Maturing November 10, 2014	1,100,433
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Hercules Offshore, Inc.

3	Term Loan, 6.00%, Maturing July 11, 2013	2,439
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Precision Drilling Corp.

851		845,516
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Term Loan, 4.26%, Maturing December 23,
2013

SemGroup Corp.

832 Term Loan, 3.78%, Maturing
November 30, 2012 838,187

Sheridan Production Partners I, LLC

108 Term Loan, 7.50%, Maturing April 20,
2017 107,776
176 Term Loan, 7.50%, Maturing April 20,
2017 176,450
1,329 Term Loan, 7.50%, Maturing April 20,
2017 1,331,611

\$ 17,250,408

Publishing 5.8%

American Media Operations, Inc.

2,174 Term Loan, 10.00%, Maturing January 30,
2013⁽³⁾ \$ 2,149,145

Aster Zweite Beteiligungs GmbH

1,775 Term Loan, 2.71%, Maturing
September 27, 2013 1,658,516

GateHouse Media Operating, Inc.

870 Term Loan, 2.26%, Maturing August 28,
2014 321,430
2,074 Term Loan, 2.26%, Maturing August 28,
2014 766,302
674 Term Loan, 2.51%, Maturing August 28,
2014 248,888

Getty Images, Inc.

3,314 Term Loan, 6.25%, Maturing July 2, 2015 3,322,721

Lamar Media Corp.

985 Term Loan, 4.25%, Maturing December 30,
2016 992,228

Laureate Education, Inc.

345 Term Loan, 3.54%, Maturing August 17,
2014 323,735
2,302 Term Loan, 3.54%, Maturing August 17,
2014 2,162,528
1,485 Term Loan, 7.00%, Maturing August 31,
2014 1,474,976

MediaNews Group, Inc.

144 Term Loan, 8.50%, Maturing March 19,
2014 136,790

Merrill Communications, LLC

1,225 1,185,487

Term Loan, 8.50%, Maturing December 24,
2012⁽³⁾

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT'D

Principal Amount* (000's omitted)	Borrower/Tranche Description	Value
Publishing (continued)		
Nelson Education, Ltd.		
473	Term Loan, 2.79%, Maturing July 5, 2014	\$ 423,155
Nielsen Finance, LLC		
5,734	Term Loan, 2.26%, Maturing August 9, 2013	5,620,509
1,982	Term Loan, 4.01%, Maturing May 2, 2016	1,964,072
SGS International, Inc.		
483	Term Loan, 3.76%, Maturing December 30, 2011	480,777
Source Interlink Companies, Inc.		
905	Term Loan, 10.75%, Maturing June 18, 2013	863,808
555	Term Loan, 15.00%, Maturing March 18, 2014 ⁽³⁾	349,423
Trader Media Corp.		
GBP 1,287	Term Loan, 2.57%, Maturing March 23, 2015	1,985,227
Xsys, Inc.		
1,509	Term Loan, 2.71%, Maturing September 27, 2013	1,410,423
1,699	Term Loan, 2.71%, Maturing September 27, 2014	1,587,965
		\$ 29,428,105

Radio and Television 2.6%

Block Communications, Inc.

810		\$ 769,144
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	Term Loan, 2.29%, Maturing December 22, 2011	
CMP KC, LLC		
956	Term Loan, 0.00%, Maturing May 3, 2011 ⁽⁵⁾⁽⁶⁾	274,426
CMP Susquehanna Corp.		
1,552	Term Loan, 2.31%, Maturing May 5, 2013	1,392,114
Gray Television, Inc.		
665	Term Loan, 3.76%, Maturing December 31, 2014	646,381
HIT Entertainment, Inc.		
746	Term Loan, 5.68%, Maturing June 1, 2012	727,056
Live Nation Worldwide, Inc.		
2,289	Term Loan, 4.50%, Maturing November 7, 2016	2,282,779
Mission Broadcasting, Inc.		
525	Term Loan, 5.00%, Maturing September 30, 2016	525,184
Nexstar Broadcasting, Inc.		
821	Term Loan, 5.01%, Maturing September 30, 2016	821,441
Raycom TV Broadcasting, LLC		
871	Term Loan, 1.81%, Maturing June 25, 2014	809,681
Univision Communications, Inc.		
1,853	Term Loan, 2.51%, Maturing September 29, 2014	1,754,771
1,853	Term Loan, 4.51%, Maturing March 31, 2017	1,740,654
Weather Channel		
1,141	Term Loan, 5.00%, Maturing September 14, 2015	1,147,830
		\$ 12,891,461

Rail Industries 0.4%

Kansas City Southern Railway Co.

1,939	Term Loan, 2.05%, Maturing April 26, 2013	\$ 1,896,523
		\$ 1,896,523

Retailers (Except Food and Drug) 3.4%

American Achievement Corp.

104	Term Loan, 6.26%, Maturing March 25, 2011	\$ 103,295
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Amscan Holdings, Inc.

455	Term Loan, 2.54%, Maturing May 25, 2013	439,514
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Educate, Inc.

498	Term Loan - Second Lien, 8.51%, Maturing June 16, 2014	485,076
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FTD, Inc.

1,108	Term Loan, 6.75%, Maturing August 26, 2014	1,112,290
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Harbor Freight Tools USA, Inc.

873	Term Loan, 5.02%, Maturing February 24, 2016	873,354
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Michaels Stores, Inc.

1,000	Term Loan, 2.63%, Maturing October 31, 2013	971,625
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Neiman Marcus Group, Inc.

3,346	Term Loan, 2.29%, Maturing April 5, 2013	3,269,906
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Orbitz Worldwide, Inc.

1,108	Term Loan, 3.28%, Maturing July 25, 2014	1,078,891
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Oriental Trading Co., Inc.

1,125	Term Loan - Second Lien, 0.00%, Maturing January 31, 2014 ⁽⁶⁾	37,969
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Pilot Travel Centers, LLC

1,057	Term Loan, 5.25%, Maturing June 30, 2016	1,072,679
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Rover Acquisition Corp.

2,166	Term Loan, 2.53%, Maturing October 25, 2013	2,124,632
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Savers, Inc.

1,194	Term Loan, 5.75%, Maturing March 11, 2016	1,198,478
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Visant Corp.

1,100	Term Loan, 7.00%, Maturing December 22, 2016	1,110,771
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Vivarte

EUR 500	Term Loan, Maturing March 9, 2015 ⁽⁷⁾	588,819
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EUR 500	Term Loan, Maturing March 8, 2016 ⁽⁷⁾	588,818
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Yankee Candle Company, Inc. (The)

2,421	Term Loan, 2.26%, Maturing February 6, 2014	2,350,172
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\$ 17,406,289

Steel 0.3%

Niagara Corp.

1,385	Term Loan, 10.50%, Maturing June 29, 2014 ⁽³⁾⁽⁵⁾	\$ 1,308,290
		\$ 1,308,290

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT'D

Principal Amount* (000's omitted)	Borrower/Tranche Description	Value
Surface Transport	0.3%	
CEVA Group PLC U.S.		
857	Term Loan, 3.26%, Maturing November 4, 2013	\$ 770,110
Swift Transportation Co., Inc.		
789	Term Loan, 8.25%, Maturing May 9, 2014	777,241
		\$ 1,547,351
Telecommunications	4.5%	
Alaska Communications Systems Holdings, Inc.		
1,825	Term Loan, 6.25%, Maturing October 15, 2016	\$ 1,836,786
Asurion Corp.		
1,375	Term Loan, Maturing March 31, 2015 ⁽⁷⁾	1,352,227
3,861	Term Loan, 3.28%, Maturing July 3, 2014	3,612,931
CommScope, Inc.		
1,103	Term Loan, 2.79%, Maturing December 26, 2014	1,103,206
Intelsat Corp.		
2,415	Term Loan, 2.79%, Maturing January 3, 2014	2,358,150
2,415	Term Loan, 2.79%, Maturing January 3, 2014	2,358,150
2,416	Term Loan, 2.79%, Maturing January 3, 2014	2,358,878
Intelsat Subsidiary Holding Co.		
936	Term Loan, 2.79%, Maturing July 3, 2013	913,478

Macquarie UK Broadcast Ventures, Ltd.

GBP	755	Term Loan, 2.57%, Maturing December 1, 2014	1,020,302
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NTelos, Inc.

	1,485	Term Loan, 5.75%, Maturing August 7, 2015	1,494,286
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Telesat Canada, Inc.

	79	Term Loan, 3.26%, Maturing October 31, 2014	77,431
	916	Term Loan, 3.26%, Maturing October 31, 2014	901,467

TowerCo Finance, LLC

	422	Term Loan, 6.00%, Maturing November 24, 2014	426,734
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Windstream Corp.

	2,990	Term Loan, 3.04%, Maturing December 17, 2015	3,000,591
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\$ 22,814,617

Utilities 3.5%

AEI Finance Holding, LLC

	270	Revolving Loan, 3.29%, Maturing March 30, 2012	\$ 262,038
	1,769	Term Loan, 3.29%, Maturing March 30, 2014	1,718,770

Astoria Generating Co.

	1,000	Term Loan - Second Lien, 4.04%, Maturing August 23, 2013	988,333
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BRSP, LLC

	972	Term Loan, 7.50%, Maturing June 4, 2014	976,643
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Calpine Corp.

	2,775	Term Loan, 3.17%, Maturing March 29, 2014	2,766,010
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New Development Holdings, Inc.

	998	Term Loan, 7.00%, Maturing July 3, 2017	1,018,386
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NRG Energy, Inc.

	332	Term Loan, 1.78%, Maturing February 1, 2013	325,021
	1	Term Loan, 3.64%, Maturing February 1, 2013	767
	1,249	Term Loan, 3.54%, Maturing August 31, 2015	1,250,061
	2,045		2,033,379

Term Loan, 3.54%, Maturing August 31,
2015

Pike Electric, Inc.

110 Term Loan, 2.06%, Maturing July 2,
2012 104,538

256 Term Loan, 2.06%, Maturing
December 10, 2012 242,882

TXU Texas Competitive Electric Holdings Co., LLC

990 Term Loan, 3.76%, Maturing
October 10, 2014 778,722

1,318 Term Loan, 3.76%, Maturing
October 10, 2014 1,037,810

3,774 Term Loan, 3.92%, Maturing
October 10, 2014 2,969,129

Vulcan Energy Corp.

1,084 Term Loan, 5.50%, Maturing
September 29, 2015 1,093,882

\$ 17,566,371

Total Senior Floating-Rate Interests
(identified cost \$720,940,483)

\$ 710,628,239

Corporate Bonds & Notes 10.6%

Principal

Amount*

(000 s omitted)

Security

Value

Aerospace and Defense 0.2%

International Lease Finance Corp., Sr. Notes

350 6.50%, 9/1/14⁽⁸⁾ \$ 379,750

350 6.75%, 9/1/16⁽⁸⁾ 383,250

350 7.125%, 9/1/18⁽⁸⁾ 386,750

\$ 1,149,750

Air Transport 0.0%

Continental Airlines

154	7.033%, 6/15/11	\$	157,415
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		\$	157,415
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Automotive 0.2%

Allison Transmission, Inc.

665	11.25%, 11/1/15 ⁽³⁾⁽⁸⁾	\$	724,019
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American Axle & Manufacturing Holdings, Inc., Sr. Notes

115	9.25%, 1/15/17 ⁽⁸⁾		130,956
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See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT'D

Principal Amount* (000 \$ omitted)	Security	Value
Automotive (continued)		
Commercial Vehicle Group, Inc., Sr. Notes		
100	8.00%, 7/1/13	\$ 91,500
		\$ 946,475
Broadcast Radio and Television 0.5%		
Clear Channel Communications, Inc., Sr. Notes		
1,000	6.25%, 3/15/11	\$ 1,002,500
Entravision Communications, Sr. Notes		
1,000	8.75%, 8/1/17 ⁽⁸⁾	1,076,250
XM Satellite Radio Holdings, Inc.		
485	13.00%, 8/1/13 ⁽⁸⁾	580,787
		\$ 2,659,537
Building and Development 0.5%		
Grohe Holding GmbH, Variable Rate		
EUR 2,000	3.86%, 1/15/14 ⁽¹⁰⁾	\$ 2,651,379
		\$ 2,651,379

Business Equipment and Services 0.5%

Brocade Communications Systems, Inc., Sr. Notes

30	6.625%, 1/15/18 ⁽⁸⁾	\$	32,100
30	6.875%, 1/15/20 ⁽⁸⁾		32,400

Education Management, LLC, Sr. Notes

390	8.75%, 6/1/14		393,900
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MediMedia USA, Inc., Sr. Sub. Notes

170	11.375%, 11/15/14 ⁽⁸⁾		147,050
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RSC Equipment Rental, Inc., Sr. Notes

750	10.00%, 7/15/17 ⁽⁸⁾		841,875
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SunGard Data Systems, Inc., Sr. Notes

500	10.625%, 5/15/15 ⁽⁸⁾		561,250
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Ticketmaster Entertainment, Inc.

185	10.75%, 8/1/16		205,812
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West Corp.

240	9.50%, 10/15/14		252,600
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\$ 2,466,987

Cable and Satellite Television 0.5%

Virgin Media Finance PLC, Sr. Notes

2,500	6.50%, 1/15/18	\$	2,693,750
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\$ 2,693,750

Chemicals and Plastics 0.1%

CH Carbon, LLC

185	11.125%, 11/15/15 ⁽⁸⁾	\$	197,488
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Reichhold Industries, Inc., Sr. Notes

295	9.00%, 8/15/14 ⁽⁸⁾		265,500
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Wellman Holdings, Inc., Sr. Sub. Notes

473	5.00%, 1/29/19 ⁽³⁾⁽⁵⁾		0
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\$ 462,988

Conglomerates 0.0%

RBS Global & Rexnord Corp.

155 11.75%, 8/1/16 \$ 167,400

\$ 167,400

Containers and Glass Products 0.4%

Berry Plastics Corp., Sr. Notes, Variable Rate

2,000 5.039%, 2/15/15 \$ 1,930,000

Intertape Polymer US, Inc., Sr. Sub. Notes

310 8.50%, 8/1/14 261,950

\$ 2,191,950

Cosmetics / Toiletries 0.3%

Revlon Consumer Products Corp.

1,415 9.75%, 11/15/15 \$ 1,482,212

\$ 1,482,212

Ecological Services and Equipment 0.1%

Environmental Systems Product Holdings, Inc., Jr. Notes

437 18.00%, 3/31/15⁽⁵⁾ \$ 371,309

\$ 371,309

Electronics / Electrical 0.2%

NXP BV/NXP Funding, LLC, Variable Rate

775 3.039%, 10/15/13 \$ 739,156

\$ 739,156

Equipment Leasing 0.0%

Hertz Corp.

5 8.875%, 1/1/14

\$ 5,163

\$ **5,163**

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT'D

Principal Amount* (000's omitted)	Security	Value
Financial Intermediaries 0.8%		
First Data Corp., Sr. Notes		
875	8.875%, 8/15/20 ⁽⁸⁾	\$ 924,219
Ford Motor Credit Co.		
2,250	12.00%, 5/15/15	2,886,637
175	8.00%, 12/15/16	205,183
		\$ 4,016,039
Food Products 0.2%		
Smithfield Foods, Inc., Sr. Notes		
1,000	10.00%, 7/15/14 ⁽⁸⁾	\$ 1,157,500
		\$ 1,157,500
Food Service 0.3%		
NPC International, Inc., Sr. Sub. Notes		
245	9.50%, 5/1/14	\$ 254,800
U.S. Foodservice, Inc., Sr. Notes		
940	10.25%, 6/30/15 ⁽⁸⁾	982,300
		\$ 1,237,100

Food / Drug Retailers 0.1%

General Nutrition Center, Sr. Notes, Variable Rate

215 5.75%, 3/15/14⁽³⁾ \$ 214,194

General Nutrition Center, Sr. Sub. Notes

385 10.75%, 3/15/15 394,625

\$ 608,819

Forest Products 0.0%

Verso Paper Holdings, LLC/Verso Paper, Inc.

225 11.375%, 8/1/16 \$ 217,688

\$ 217,688

Health Care 0.3%

Accellent, Inc., Sr. Notes

135 8.375%, 2/1/17⁽⁸⁾ \$ 143,100

DJO Finance, LLC/DJO Finance Corp.

205 10.875%, 11/15/14 225,756

HCA, Inc.

115 9.25%, 11/15/16 124,775

National Mentor Holdings, Inc.

290 11.25%, 7/1/14 299,425

Res-Care, Inc., Sr. Notes

110 7.75%, 10/15/13 111,925

US Oncology, Inc.

515 10.75%, 8/15/14 536,244

\$ 1,441,225

Industrial Equipment 0.4%

CEVA Group PLC, Sr. Notes

165 11.50%, 4/1/18⁽⁸⁾ \$ 176,550

Chart Industries, Inc., Sr. Sub. Notes

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195	9.125%, 10/15/15	199,387
ESCO Corp., Sr. Notes		
645	8.625%, 12/15/13 ⁽⁸⁾	667,575
Terex Corp., Sr. Notes		
1,000	10.875%, 6/1/16	1,145,000
		\$ 2,188,512

Insurance 0.0%

Alliant Holdings I, Inc.		
100	11.00%, 5/1/15 ⁽⁸⁾	\$ 105,625
		\$ 105,625

Leisure Goods / Activities / Movies 0.2%

AMC Entertainment, Inc., Sr. Notes		
110	8.75%, 6/1/19	\$ 118,387
HRP Myrtle Beach Operations, LLC/HRP Myrtle Beach Capital Corp.		
195	12.50%, 4/1/13 ⁽⁵⁾⁽⁶⁾⁽⁸⁾	0
HRP Myrtle Beach Operations, LLC/HRP Myrtle Beach Capital Corp., Variable Rate		
360	0.00%, 4/1/12 ⁽⁵⁾⁽⁶⁾⁽⁸⁾	0
Marquee Holdings, Inc., Sr. Disc. Notes		
500	12.00%, 8/15/14	416,250
Royal Caribbean Cruises, Sr. Notes		
95	7.00%, 6/15/13	103,313
35	6.875%, 12/1/13	37,800
25	7.25%, 6/15/16	27,375
50	7.25%, 3/15/18	54,625
		\$ 757,750

Lodging and Casinos 0.9%

Buffalo Thunder Development Authority		
480	9.375%, 12/15/14 ⁽⁶⁾⁽⁸⁾	\$ 127,200
CCM Merger, Inc.		

85	8.00%, 8/1/13 ⁽⁸⁾	79,900
Chukchansi EDA, Sr. Notes, Variable Rate		
280	4.123%, 11/15/12 ⁽⁸⁾	179,200

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT D

Principal Amount* (000 s omitted)	Security	Value
Lodging and Casinos (continued)		
Fontainebleau Las Vegas Casino, LLC		
485	10.25%, 6/15/15 ⁽⁶⁾⁽⁸⁾	\$ 3,817
Harrah s Operating Co., Inc., Sr. Notes		
1,500	11.25%, 6/1/17	1,665,000
Inn of the Mountain Gods Resort & Casino, Sr. Notes		
500	12.00%, 11/15/10 ⁽⁶⁾	205,000
Majestic HoldCo, LLC		
140	12.00%, 10/15/11 ⁽⁶⁾⁽⁸⁾	2,520
Mohegan Tribal Gaming Authority, Sr. Sub. Notes		
140	8.00%, 4/1/12	122,675
215	7.125%, 8/15/14	148,350
230	6.875%, 2/15/15	159,275
Peninsula Gaming, LLC		
1,000	10.75%, 8/15/17	1,070,000
San Pasqual Casino		
110	8.00%, 9/15/13 ⁽⁸⁾	107,250
Seminole Hard Rock Entertainment, Variable Rate		
175	2.792%, 3/15/14 ⁽⁸⁾	156,188
Tunica-Biloxi Gaming Authority, Sr. Notes		
310	9.00%, 11/15/15 ⁽⁸⁾	283,262
Waterford Gaming, LLC, Sr. Notes		
243	8.625%, 9/15/14 ⁽⁵⁾⁽⁸⁾	156,711
		\$ 4,466,348

Nonferrous Metals / Minerals 0.3%

FMG Finance PTY, Ltd.		
675	10.625%, 9/1/16 ⁽⁸⁾	\$ 999,000
Teck Resources, Ltd., Sr. Notes		
335	10.75%, 5/15/19	428,599

\$ 1,427,599

Oil and Gas 0.8%

Cloud Peak Energy Resources, LLC / Cloud Peak Energy Finance Corp.		
1,000	8.25%, 12/15/17 ⁽⁸⁾	\$ 1,092,500
335	8.50%, 12/15/19 ⁽⁸⁾	370,175
Compton Petroleum Finance Corp.		
145	10.00%, 9/15/17	124,738
Denbury Resources, Inc., Sr. Sub. Notes		
50	7.50%, 12/15/15	52,125
El Paso Corp., Sr. Notes		
225	9.625%, 5/15/12	243,575
Forbes Energy Services, Sr. Notes		
290	11.00%, 2/15/15	277,675
McJunkin Red Man Corp., Sr. Notes		
1,000	9.50%, 12/15/16 ⁽⁸⁾	925,000
OPTI Canada, Inc., Sr. Notes		
95	7.875%, 12/15/14	71,725
175	8.25%, 12/15/14	133,437
Petroleum Development Corp., Sr. Notes		
115	12.00%, 2/15/18	129,375
Petroplus Finance, Ltd.		
145	7.00%, 5/1/17 ⁽⁸⁾	133,400
Quicksilver Resources, Inc., Sr. Notes		
125	11.75%, 1/1/16	145,000
SESI, LLC, Sr. Notes		
60	6.875%, 6/1/14	60,900
		\$ 3,759,625

Publishing 0.2%

Laureate Education, Inc.		
1,000	10.00%, 8/15/15 ⁽⁸⁾	\$ 1,030,000
Nielsen Finance, LLC		
55	10.00%, 8/1/14	57,956
70	12.50%, 8/1/16 (0.00% until 8/1/11)	71,663
		\$ 1,159,619

Rail Industries 0.3%

American Railcar Industry, Sr. Notes

175	7.50%, 3/1/14	\$	178,063
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Kansas City Southern Mexico, Sr. Notes

280	7.625%, 12/1/13		291,900
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100	7.375%, 6/1/14		105,000
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190	8.00%, 6/1/15		206,150
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500	8.00%, 2/1/18 ⁽⁸⁾		548,164
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\$ 1,329,277

Retailers (Except Food and Drug) 0.6%

Amscan Holdings, Inc., Sr. Sub. Notes

400	8.75%, 5/1/14	\$	411,000
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Neiman Marcus Group, Inc.

739	9.00%, 10/15/15		776,370
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Sally Holdings, LLC, Sr. Notes

665	9.25%, 11/15/14		702,406
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20	10.50%, 11/15/16		22,050
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Toys R Us

1,000	10.75%, 7/15/17		1,147,500
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\$ 3,059,326

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT D

Principal Amount* (000 s omitted)	Security	Value
Steel	0.0%	
RathGibson, Inc., Sr. Notes		
445	11.25%, 2/15/14 ⁽⁶⁾	\$ 4,539
		\$ 4,539
Surface Transport	0.0%	
Teekay Corp., Sr. Notes		
50	8.50%, 1/15/20	\$ 55,813
		\$ 55,813
Telecommunications	0.7%	
Avaya, Inc., Sr. Notes		
1,000	9.75%, 11/1/15	\$ 1,011,250
Clearwire Communications, LLC/Clearwire Finance, Inc., Sr. Notes		
500	12.00%, 12/1/15 ⁽⁸⁾	557,500
Intelsat Bermuda, Ltd.		
900	11.25%, 6/15/16	984,375
NII Capital Corp.		
335	10.00%, 8/15/16	381,481
Telesat Canada/Telesat, LLC, Sr. Notes		
590	11.00%, 11/1/15	665,225
		\$ 3,599,831

Utilities 1.0%

Calpine Corp., Sr. Notes4,725 7.50%, 2/15/21⁽⁸⁾ \$ 4,860,844**NGC Corp.**

390 7.625%, 10/15/26 235,950

Reliant Energy, Inc., Sr. Notes

20 7.625%, 6/15/14 20,250

\$ 5,117,044

Total Corporate Bonds & Notes

(identified cost \$54,054,148)

\$ 53,854,750**Asset-Backed Securities 1.2%****Principal****Amount****(000 s omitted)****Security****Value**

\$ 463	Alzette European CLO SA, Series 2004-1A, Class E2, 6.792%, 12/15/20 ⁽¹¹⁾	\$ 301,687
589	Avalon Capital Ltd. 3, Series 1A, Class D, 2.279%, 2/24/19 ⁽⁸⁾⁽¹¹⁾	378,453
753	Babson Ltd., Series 2005-1A, Class C1, 2.239%, 4/15/19 ⁽⁸⁾⁽¹¹⁾	453,585
1,007	Bryant Park CDO Ltd., Series 2005-1A, Class C, 2.339%, 1/15/19 ⁽⁸⁾⁽¹¹⁾	513,245
1,000	Carlyle High Yield Partners, Series 2004-6A, Class C, 2.854%, 8/11/16 ⁽⁸⁾⁽¹¹⁾	706,057
985	Centurion CDO 8 Ltd., Series 2005-8A, Class D, 5.793%, 3/8/17 ⁽¹¹⁾	637,926
750	Centurion CDO 9 Ltd., Series 2005-9A, Class D1, 5.039%, 7/17/19 ⁽¹¹⁾	438,589
789	Comstock Funding Ltd., Series 2006-1A, Class D, 4.549%, 5/30/20 ⁽⁸⁾⁽¹¹⁾	429,840
1,500	Dryden Leveraged Loan, Series 2004-6A, Class C1, 3.025%, 7/30/16 ⁽⁸⁾⁽¹¹⁾	1,050,660
1,000	First CLO Ltd., Series 2004-1A1, Class C, 2.793%, 7/27/16 ⁽⁸⁾⁽¹¹⁾	728,923

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1,000	Schiller Park CLO Ltd., Series 2007-1A, Class D, 2.747%, 4/25/21 ⁽⁸⁾⁽¹¹⁾	602,236
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Total Asset-Backed Securities (identified cost \$9,615,732)	\$ 6,241,201
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Common Stocks 1.5%

Shares	Security	Value
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Aerospace and Defense 0.0%

12,734	ACTS Aero Technical Support & Service, Inc. ⁽¹²⁾⁽¹³⁾	\$ 210,109
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\$ 210,109

Air Transport 0.0%

1,535	Delta Air Lines, Inc. ⁽¹²⁾	\$ 21,321
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\$ 21,321

Automotive 0.2%

18,702	Dayco Products, LLC ⁽¹²⁾⁽¹³⁾	\$ 827,563
44,747	Hayes Lemmerz International, Inc. ⁽⁵⁾⁽¹²⁾⁽¹³⁾	400,486

\$ 1,228,049

Building and Development 0.1%

253	Panolam Holdings Co. ⁽⁵⁾⁽¹²⁾⁽¹⁴⁾	\$	201,163
508	United Subcontractors, Inc. ⁽⁵⁾⁽¹²⁾⁽¹³⁾		44,631
		\$	245,794

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT'D

Shares	Security	Value
Chemicals and Plastics 0.0%		
438	Wellman Holdings, Inc. ⁽⁵⁾⁽¹²⁾⁽¹³⁾	\$ 0
		\$ 0
Diversified Manufacturing 0.0%		
323,008	MEGA Brands, Inc. ⁽¹²⁾	\$ 183,084
		\$ 183,084
Ecological Services and Equipment 0.0%		
6,211	Environmental Systems Products Holdings, Inc. ⁽⁵⁾⁽¹²⁾⁽¹⁴⁾	\$ 54,905
		\$ 54,905
Food Service 0.0%		
23,029	Buffets, Inc. ⁽¹²⁾	\$ 97,873
		\$ 97,873

Lodging and Casinos 0.1%

71	Greektown Superholdings, Inc. ⁽¹²⁾	\$	5,538
35,670	Tropicana Entertainment, Inc. ⁽¹²⁾⁽¹³⁾		510,527
		\$	516,065

Nonferrous Metals / Minerals 0.1%

701	Euramax International, Inc. ⁽¹²⁾⁽¹³⁾	\$	220,878
		\$	220,878

Oil and Gas 0.0%

1,397	SemGroup Corp. ⁽¹²⁾	\$	32,550
		\$	32,550

Publishing 0.8%

482	Dex One Corp. ⁽¹²⁾	\$	3,379
3,990	Ion Media Networks, Inc. ⁽¹²⁾⁽¹³⁾		1,665,825
10,718	MediaNews Group, Inc. ⁽¹²⁾⁽¹³⁾		192,922
2,002	Philadelphia Newspaper, LLC ⁽⁵⁾⁽¹²⁾⁽¹³⁾		135,035
87,921	Reader's Digest Association, Inc. (The) ⁽¹²⁾⁽¹³⁾		1,833,153
2,290	Source Interlink Companies, Inc. ⁽⁵⁾⁽¹²⁾⁽¹³⁾		52,487
9,554	SuperMedia, Inc. ⁽¹²⁾		62,865
		\$	3,945,666

Steel 0.2%

23,138	KNIA Holdings, Inc. ⁽⁵⁾⁽¹²⁾⁽¹³⁾	\$	297,324
19,800	RathGibson Acquisition Co., LLC ⁽⁵⁾⁽¹²⁾⁽¹⁴⁾		464,112
		\$	761,436

Total Common Stocks (identified cost \$5,613,103)	\$	7,517,730
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Preferred Stocks 0.1%

Shares	Security		Value
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Ecological Services and Equipment 0.1%

2,845	Environmental Systems Products Holdings, Inc., Series A ⁽⁵⁾⁽¹²⁾⁽¹⁴⁾	\$	328,797
		\$	328,797

Total Preferred Stocks (identified cost \$49,788)	\$	328,797
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Warrants 0.0%

Shares	Security		Value
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Oil and Gas 0.0%

1,470	SemGroup Corp., Expires 11/30/14 ⁽¹²⁾	\$	9,004
		\$	9,004

Publishing 0.0%

1,450	Reader s Digest Association, Inc. (The), Expires 2/15/17 ⁽⁵⁾⁽¹²⁾⁽¹³⁾	\$	0
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\$	0
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Total Warrants (identified cost \$15)	\$	9,004
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See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

PORTFOLIO OF INVESTMENTS CONT D

Miscellaneous 0.0%

Shares	Security	Value
Air Transport 0.0%		
1,000,000	Delta Air Lines, Inc., Escrow Certificate ⁽¹²⁾	\$ 31,260
		\$ 31,260
Total Miscellaneous (identified cost \$0)		\$ 31,260

Short-Term Investments 3.1%

Interest/ Principal Amount (000 s omitted)	Description	Value
\$ 11,729	Eaton Vance Cash Reserves Fund, LLC, 0.22% ⁽¹⁵⁾⁽¹⁶⁾	\$ 11,728,652
4,082	State Street Bank and Trust Euro Time Deposit, 0.01%, 11/1/10	4,081,938
Total Short-Term Investments (identified cost \$15,810,590)		\$ 15,810,590
Total Investments 157.2% (identified cost \$806,083,859)		\$ 794,421,571

Less Unfunded Loan Commitments	(0.3)%	\$ (1,583,950)
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Net Investments	156.9%	
(identified cost \$804,499,909)		\$ 792,837,621

Other Assets, Less Liabilities	(30.9)%	\$ (156,324,099)
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Auction Preferred Shares Plus Cumulative Unpaid Dividends	(26.0)%	\$ (131,316,151)
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Net Assets Applicable to Common Shares	100.0%	\$ 505,197,371
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The percentage shown for each investment category in the Portfolio of Investments is based on net assets applicable to common shares.

EUR - Euro

GBP - British Pound Sterling

* In U.S. dollars unless otherwise indicated.

- (1) Senior floating-rate interests (Senior Loans) often require prepayments from excess cash flows or permit the borrowers to repay at their election. The degree to which borrowers repay, whether as a contractual requirement or at their election, cannot be predicted with accuracy. As a result, the actual remaining maturity may be substantially less than the stated maturities

shown. However, Senior Loans will have an expected average life of approximately two to four years. The stated interest rate represents the weighted average interest rate of all contracts within the senior loan facility and includes commitment fees on unfunded loan commitments, if any. Senior Loans typically have rates of interest which are redetermined either daily, monthly, quarterly or semi-annually by reference to a base lending rate, plus a premium. These base lending rates are primarily the London Interbank Offered Rate (LIBOR) and secondarily, the prime rate offered by one or more major United States banks (the Prime Rate) and the certificate of deposit (CD) rate or other base lending rates used by commercial lenders.

- (2) Unfunded or partially unfunded loan commitments. See Note 1G for description.

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- (3) Represents a payment-in-kind security which may pay all or a portion of interest/dividends in additional par/shares.
- (4) Defaulted matured security. Interest rate has been adjusted to reflect non-accrual status.
- (5) Security valued at fair value using methods determined in good faith by or at the direction of the Trustees.
- (6) Currently the issuer is in default with respect to interest payments. Interest rate has been adjusted to reflect non-accrual status.
- (7) This Senior Loan will settle after October 31, 2010, at which time the interest rate will be determined.
- (8) Security exempt from registration pursuant to Rule 144A under the Securities Act of 1933. These securities may be sold in certain transactions (normally to qualified institutional buyers) and remain exempt from registration. At October 31, 2010, the aggregate value of these securities is \$26,371,924 or 5.2% of the Trust's net assets applicable to common shares.
- (9) Amount is less than 0.05%.
- (10) Security exempt from registration under Regulation S of the Securities Act of 1933, which exempts from registration securities offered and sold outside the United States. Security may not be offered or sold in the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act of 1933.
- (11) Variable rate security. The stated interest rate represents the rate in effect at October 31, 2010.
- (12) Non-income producing security.
- (13) Security was acquired in connection with a restructuring of a Senior Loan and may be subject to restrictions on resale.
- (14) Restricted security (see Note 8).
- (15) Affiliated investment company available to Eaton Vance portfolios and funds which invests in high quality, U.S. dollar denominated money market instruments. The rate shown is the annualized seven-day yield as of October 31, 2010.
- (16) Net income allocated from the investment in Eaton Vance Cash Reserves Fund, LLC and Cash Management Portfolio, an affiliated investment company, for the year ended October 31, 2010 was \$20,984 and \$0, respectively.

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

FINANCIAL STATEMENTS

Statement of Assets and Liabilities

As of October 31, 2010

Assets

Unaffiliated investments, at value (identified cost, \$792,771,257)	\$ 781,108,969
Affiliated investment, at value (identified cost, \$11,728,652)	11,728,652
Foreign currency, at value (identified cost, \$1,237,607)	1,239,434
Interest and dividends receivable	4,019,737
Interest receivable from affiliated investment	2,860
Receivable for investments sold	6,174,963
Receivable for open forward foreign currency exchange contracts	13,498
Receivable from the transfer agent	95,902
Prepaid expenses	97,453
Other assets	8,603
Total assets	\$ 804,490,071

Liabilities

Notes payable	\$ 150,000,000
Payable for investments purchased	16,597,426
Payable for open forward foreign currency exchange contracts	529,328
Payable to affiliates:	
Investment adviser fee	431,075
Trustees' fees	2,315
Accrued expenses	416,405
Total liabilities	\$ 167,976,549

\$ 131,316,151

Auction preferred shares (5,252 shares outstanding) at liquidation value plus cumulative unpaid dividends

Net assets applicable to common shares **\$ 505,197,371**

Sources of Net Assets

Common shares, \$0.01 par value, unlimited number of shares authorized, 33,715,864 shares issued and outstanding	\$ 337,159
Additional paid-in capital	636,662,246
Accumulated net realized loss	(123,533,710)
Accumulated undistributed net investment income	3,963,096
Net unrealized depreciation	(12,231,420)

Net assets applicable to common shares **\$ 505,197,371**

Net Asset Value Per Common Share

(\$505,197,371 ÷ 33,715,864 common shares issued and outstanding)	\$ 14.98
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Statement of Operations

**For the Year Ended
October 31, 2010**

Investment Income

Interest	\$ 42,791,528
Dividends	1,135
Interest income allocated from affiliated investments	30,898
Expenses allocated from affiliated investments	(9,914)

Total investment income **\$ 42,813,647**

Expenses

Investment adviser fee	\$ 5,741,333
Trustees' fees and expenses	27,149
Custodian fee	287,069
Transfer and dividend disbursing agent fees	17,590
Legal and accounting services	203,088
Printing and postage	103,905
Interest expense and fees	2,376,873
Preferred shares service fee	199,914
Miscellaneous	141,588

Total expenses **\$ 9,098,509**

Deduct

Reduction of investment adviser fee	\$ 793,832
Reduction of custodian fee	30

Total expense reductions **\$ 793,862**

Net expenses **\$ 8,304,647**

Net investment income **\$ 34,509,000**

Realized and Unrealized Gain (Loss)

Net realized gain (loss)	
Investment transactions	\$ (18,676,548)
Investment transactions allocated from affiliated investments	(6,418)
Foreign currency and forward foreign currency exchange contract transactions	2,904,348

Net realized loss **\$ (15,778,618)**

Change in unrealized appreciation (depreciation)	
Investments	\$ 62,752,722
Foreign currency and forward foreign currency exchange contracts	(548,811)

Net change in unrealized appreciation (depreciation)	\$ 62,203,911
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Net realized and unrealized gain	\$ 46,425,293
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Distributions to preferred shareholders

From net investment income	\$ (384,607)
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Net increase in net assets from operations	\$ 80,549,686
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See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

FINANCIAL STATEMENTS CONT D

Statements of Changes in Net Assets

Increase (Decrease) in Net Assets	Year Ended October 31, 2010	Year Ended October 31, 2009
From operations		
Net investment income	\$ 34,509,000	\$ 32,886,072
Net realized loss from investment, foreign currency and forward foreign currency exchange contract transactions and extinguishment of debt	(15,778,618)	(51,904,952)
Net change in unrealized appreciation (depreciation) from investments, swap contracts, foreign currency and forward foreign currency exchange contracts	62,203,911	166,984,060
Distributions to preferred shareholders		
From net investment income	(384,607)	(947,100)
Net increase in net assets from operations	\$ 80,549,686	\$ 147,018,080
Distributions to common shareholders		
From net investment income	\$ (37,305,680)	\$ (29,016,435)
Total distributions to common shareholders	\$ (37,305,680)	\$ (29,016,435)
Capital share transactions		
Reinvestment of distributions to common shareholders	\$ 1,253,537	\$ 240,983
	\$ 1,253,537	\$ 240,983

**Net increase in net assets from
capital share transactions**

Net increase in net assets	\$	44,497,543	\$	118,242,628
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**Net Assets Applicable to
Common Shares**

At beginning of year	\$	460,699,828	\$	342,457,200
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At end of year	\$	505,197,371	\$	460,699,828
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**Accumulated undistributed
net investment income
included in net assets
applicable to common shares**

At end of year	\$	3,963,096	\$	4,480,562
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Statement of Cash Flows

Cash Flows From Operating Activities	Year Ended October 31, 2010
Net increase in net assets from operations	\$ 80,549,686
Distributions to preferred shareholders	384,607
Net increase in net assets from operations excluding distributions to preferred shareholders	\$ 80,934,293
Adjustments to reconcile net increase in net assets from operations to net cash provided by operating activities:	
Investments purchased	(269,709,505)
Investments sold and principal repayments	281,572,648
Decrease in short-term investments, net	4,640,550
Net amortization/accretion of premium (discount)	(7,826,900)
Amortization of structuring fee on notes payable	226,969
Increase in interest and dividends receivable	(413,891)

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Increase in interest receivable from affiliated investment	(2,860)
Increase in receivable for investments sold	(1,842,783)
Decrease in receivable for open forward foreign currency exchange contracts	114,971
Increase in receivable from the transfer agent	(95,902)
Decrease in prepaid expenses	13,718
Increase in other assets	(3,471)
Decrease in payable for investments purchased	(7,752,060)
Increase in payable for open forward foreign currency exchange contracts	447,908
Increase in payable to affiliate for investment adviser fee	86,843
Increase in payable to affiliate for Trustees' fees	592
Decrease in accrued expenses	28,732
Decrease in unfunded loan commitments	(444,490)
Net change in unrealized (appreciation) depreciation of investments	(62,752,722)
Net realized (gain) loss on investments	18,676,548

Net cash provided by operating activities	\$	35,899,188
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Cash Flows From Financing Activities

Distributions paid to common shareholders, net of reinvestments	\$	(36,052,143)
Cash distributions to preferred shareholders		(381,478)
Payment of structuring fee on notes payable		(225,000)

Net cash used in financing activities	\$	(36,658,621)
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Net decrease in cash*	\$	(759,433)
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Cash at beginning of year⁽¹⁾	\$	1,998,867
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Cash at end of year⁽¹⁾	\$	1,239,434
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Supplemental disclosure of cash flow
information:

Reinvestment of dividends and distributions	\$	1,253,537
Cash paid for interest and fees on borrowings		2,360,027

⁽¹⁾ Balance includes foreign currency, at value.

* Includes net change in unrealized appreciation (depreciation) on foreign currency of \$8,987.

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

FINANCIAL STATEMENTS CONT D

Financial Highlights

Selected data for a common share outstanding during the periods stated

	Year Ended October 31,				
	2010	2009	2008	2007	2006
Net asset value Beginning of year (Common shares)	\$ 13.700	\$ 10.190	\$ 17.800	\$ 18.690	\$ 18.740
Income (Loss) From Operations					
Net investment income ⁽¹⁾	\$ 1.025	\$ 0.978	\$ 1.665	\$ 2.177	\$ 2.053
Net realized and unrealized gain (loss)	1.374	3.423	(7.647)	(0.861)	(0.026)
Distributions to preferred shareholders					
From net investment income ⁽¹⁾	(0.011)	(0.028)	(0.367)	(0.634)	(0.558)
Total income (loss) from operations	\$ 2.388	\$ 4.373	\$ (6.349)	\$ 0.682	\$ 1.469
Less Distributions to Common Shareholders					
From net investment income	\$ (1.108)	\$ (0.863)	\$ (1.142)	\$ (1.542)	\$ (1.519)
Tax return of capital			(0.119)	(0.030)	
Total distributions to common shareholders	\$ (1.108)	\$ (0.863)	\$ (1.261)	\$ (1.572)	\$ (1.519)

Net asset value	End of year					
(Common shares)		\$ 14.980	\$ 13.700	\$ 10.190	\$ 17.800	\$ 18.690

Market value	End of year					
(Common shares)		\$ 15.640	\$ 12.980	\$ 9.480	\$ 16.200	\$ 18.240

Total Investment Return on						
Net Asset Value⁽²⁾		17.93%	46.90%	(37.33)%	3.93%	8.47%

Total Investment Return on						
Market Value⁽²⁾		29.96%	49.61%	(35.90)%	(3.13)%	15.27%

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

FINANCIAL STATEMENTS CONT D

Financial Highlights

Selected data for a common share outstanding during the periods stated

	Year Ended October 31,				
	2010	2009	2008	2007	2006
Ratios/Supplemental Data					
Net assets applicable to common shares, end of year (000 s omitted)	\$ 505,197	\$ 460,700	\$ 342,457	\$ 598,214	\$ 625,925
Ratios (as a percentage of average daily net assets applicable to common shares):(3)					
Expenses excluding interest and fees(4)	1.22%	1.21%	1.18%	1.18%	1.17%
Interest and fee expense(5)	0.49%	1.15%	0.99%		
Total expenses	1.71%	2.36%	2.17%	1.18%	1.17%
Net investment income	7.11%	9.21%	10.66%	11.79%	10.95%
Portfolio Turnover	36%	42%	21%	58%	51%

The ratios reported above are based on net assets applicable solely to common shares. The ratios based on net assets, including amounts related to preferred shares and borrowings, are as follows:

Ratios (as a percentage of average daily net assets applicable to common shares plus preferred shares and borrowings):(3)					
Expenses excluding interest and fees(4)	0.77%	0.74%	0.68%	0.72%	0.72%
Interest and fee expense(5)	0.31%	0.70%	0.57%		
Total expenses	1.08%	1.44%	1.25%	0.72%	0.72%
Net investment income	4.50%	5.63%	6.12%	7.21%	6.73%

Senior Securities:

Total notes payable outstanding (in 000 s)	\$ 150,000	\$ 150,000	\$ 154,200	\$	\$
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Asset coverage per \$1,000 of notes payable ⁽⁶⁾	\$ 5,243	\$ 4,947	\$ 4,074	\$	\$
Total preferred shares outstanding	5,252	5,252	5,252	15,760	15,760
Asset coverage per preferred share	\$ 69,900 ⁽⁷⁾	\$ 65,945 ⁽⁷⁾	\$ 55,060 ⁽⁷⁾	\$ 63,001 ⁽⁸⁾	\$ 64,753 ⁽⁸⁾
Involuntary liquidation preference per preferred share ⁽⁹⁾	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Approximate market value per preferred share ⁽⁹⁾	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000

- (1) Computed using average shares outstanding.
- (2) Returns are historical and are calculated by determining the percentage change in net asset value or market value with all distributions reinvested.
- (3) Ratios do not reflect the effect of dividend payments to preferred shareholders.
- (4) Excludes the effect of custody fee credits, if any, of less than 0.005%.
- (5) Interest and fee expense relates to the notes payable incurred to partially redeem the Trust's APS (see Note 10).
- (6) Calculated by subtracting the Trust's total liabilities (not including the notes payable and preferred shares) from the Trust's total assets, and dividing the result by the notes payable balance in thousands.
- (7) Calculated by subtracting the Trust's total liabilities (not including the notes payables and preferred shares) from the Trust's total assets, dividing the result by the sum of the value of the notes payables and liquidation value of preferred shares, and multiplying the result by the liquidation value of one preferred share. Such amount equates to 280%, 264% and 220% at October 31, 2010, October 31, 2009 and October 31, 2008, respectively.
- (8) Calculated by subtracting the Trust's total liabilities (not including the preferred shares) from the Trust's total assets, and dividing the result by the number of preferred shares outstanding.
- (9) Plus accumulated and unpaid dividends.

See notes to financial statements

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

NOTES TO FINANCIAL STATEMENTS

1 Significant Accounting Policies

Eaton Vance Senior Floating-Rate Trust (the Trust) is a Massachusetts business trust registered under the Investment Company Act of 1940, as amended (the 1940 Act), as a diversified, closed-end management investment company. The Trust's primary investment objective is to provide a high level of current income. The Trust may, as a secondary objective, also seek preservation of capital to the extent consistent with its primary objective.

The following is a summary of significant accounting policies of the Trust. The policies are in conformity with accounting principles generally accepted in the United States of America.

A Investment Valuation Interests in senior floating-rate loans (Senior Loans) for which reliable market quotations are readily available are valued generally at the average mean of bid and ask quotations obtained from a third party pricing service. Other Senior Loans are valued at fair value by the investment adviser under procedures approved by the Trustees. In fair valuing a Senior Loan, the investment adviser utilizes one or more of the valuation techniques described in (i) through (iii) below to assess the likelihood that the borrower will make a full repayment of the loan underlying such Senior Loan relative to yields on other Senior Loans issued by companies of comparable credit quality. If the investment adviser believes that there is a reasonable likelihood of full repayment, the investment adviser will determine fair value using a matrix pricing approach that considers the yield on the Senior Loan. If the investment adviser believes there is not a reasonable likelihood of full repayment, the investment adviser will determine fair value using analyses that include, but are not limited to: (i) a comparison of the value of the borrower's outstanding equity and debt to that of comparable public companies; (ii) a discounted cash flow analysis; or (iii) when the investment adviser believes it is likely that a borrower will be liquidated or sold, an analysis of the terms of such liquidation or sale. In certain cases, the investment adviser will use a combination of analytical methods to determine fair value, such as when only a portion of a borrower's assets are likely to be sold. In conducting its assessment and analyses for purposes of determining fair value of a Senior Loan, the investment adviser will use its discretion and judgment in considering and appraising relevant factors. Fair value determinations are made by the portfolio managers of the Trust based on information available to such managers. The portfolio managers of other funds managed by the investment adviser that invest in Senior Loans may not possess the same information about a Senior Loan borrower as the portfolio managers of the Trust. At times, the fair value of a Senior Loan determined by the portfolio managers of other funds managed by the investment adviser that invest in Senior Loans may vary from the fair value of the same Senior Loan determined by the portfolio managers of the Trust. The fair value of each Senior Loan is periodically reviewed and approved by the investment adviser's Valuation Committee and by the Trustees based upon procedures approved by the Trustees. Junior Loans are valued in the same manner as Senior Loans.

Debt obligations (including short-term obligations with a remaining maturity of more than sixty days) are generally valued on the basis of valuations provided by third party pricing services, as derived from such services' pricing models. Inputs to the models may include, but are not limited to, reported trades, executable bid and asked prices, broker/dealer quotations, prices or yields of securities with similar characteristics, benchmark curves or information pertaining to the issuer, as well as industry and economic events. The pricing services may use a matrix approach, which considers information regarding securities with similar characteristics to determine the valuation for a security. Short-term debt securities purchased with a remaining maturity of sixty days or less are generally valued at amortized cost, which approximates market value.

Equity securities (including common shares of closed-end investment companies) listed on a U.S. securities exchange generally are valued at the last sale or closing price on the day of valuation or, if no sales took place on such date, at

the mean between the closing bid and asked prices therefore on the exchange where such securities are principally traded. Equity securities listed on the NASDAQ Global or Global Select Market generally are valued at the NASDAQ official closing price. Unlisted or listed securities for which closing sales prices or closing quotations are not available are valued at the mean between the latest available bid and asked prices or, in the case of preferred equity securities that are not listed or traded in the over-the-counter market, by a third party pricing service that will use various techniques that consider factors including, but not limited to, prices or yields of securities with similar characteristics, benchmark yields, broker/dealer quotes, quotes of underlying common stock, issuer spreads, as well as industry and economic events. Forward foreign currency exchange contracts are generally valued at the mean of the average bid and average asked prices that are reported by currency dealers to a third party pricing service at the valuation time. Such third party pricing service valuations are supplied for specific settlement periods and the Trust's forward foreign currency exchange contracts are valued at an interpolated rate between the closest preceding and subsequent settlement period reported by the third party pricing service. Credit default swaps are normally valued using valuations provided by a third party pricing service. The pricing services employ electronic data processing techniques to determine the present value based on credit spread quotations obtained from broker/dealers and expected default recovery rates determined by the pricing service using proprietary

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

NOTES TO FINANCIAL STATEMENTS CONT D

models. Foreign securities and currencies are valued in U.S. dollars, based on foreign currency exchange rate quotations supplied by a third party pricing service. The pricing service uses a proprietary model to determine the exchange rate. Inputs to the model include reported trades and implied bid/ask spreads. Investments for which valuations or market quotations are not readily available or are deemed unreliable are valued at fair value using methods determined in good faith by or at the direction of the Trustees of the Trust in a manner that most fairly reflects the security's value, or the amount that the Trust might reasonably expect to receive for the security upon its current sale in the ordinary course. Each such determination is based on a consideration of all relevant factors, which are likely to vary from one pricing context to another. These factors may include, but are not limited to, the type of security, the existence of any contractual restrictions on the security's disposition, the price and extent of public trading in similar securities of the issuer or of comparable companies or entities, quotations or relevant information obtained from broker-dealers or other market participants, information obtained from the issuer, analysts, and/or the appropriate stock exchange (for exchange-traded securities), an analysis of the company's or entity's financial condition, and an evaluation of the forces that influence the issuer and the market(s) in which the security is purchased and sold.

The Trust may invest in Eaton Vance Cash Reserves Fund, LLC (Cash Reserves Fund), an affiliated investment company managed by Eaton Vance Management (EVM). Cash Reserves Fund generally values its investment securities utilizing the amortized cost valuation technique in accordance with Rule 2a-7 under the 1940 Act. This technique involves initially valuing a portfolio security at its cost and thereafter assuming a constant amortization to maturity of any discount or premium. If amortized cost is determined not to approximate fair value, Cash Reserves Fund may value its investment securities in the same manner as debt obligations described above.

B Investment Transactions Investment transactions for financial statement purposes are accounted for on a trade date basis. Realized gains and losses on investments sold are determined on the basis of identified cost.

C Income Interest income is recorded on the basis of interest accrued, adjusted for amortization of premium or accretion of discount. Fees associated with loan amendments are recognized immediately. Dividend income is recorded on the ex-dividend date for dividends received in cash and/or securities.

D Federal Taxes The Trust's policy is to comply with the provisions of the Internal Revenue Code applicable to regulated investment companies and to distribute to shareholders each year substantially all of its net investment income, and all or substantially all of its net realized capital gains. Accordingly, no provision for federal income or excise tax is necessary.

At October 31, 2010, the Trust, for federal income tax purposes, had a capital loss carryforward of \$123,035,721 which will reduce its taxable income arising from future net realized gains on investment transactions, if any, to the extent permitted by the Internal Revenue Code, and thus will reduce the amount of distributions to shareholders, which would otherwise be necessary to relieve the Trust of any liability for federal income or excise tax. Such capital loss carryforward will expire on October 31, 2012 (\$5,860,075), October 31, 2013 (\$4,807,956), October 31, 2014 (\$1,142,602), October 31, 2015 (\$2,782,217), October 31, 2016 (\$63,478,422), October 31, 2017 (\$33,311,438) and October 31, 2018 (\$11,653,011).

As of October 31, 2010, the Trust had no uncertain tax positions that would require financial statement recognition, de-recognition, or disclosure. Each of the Trust's federal tax returns filed in the 3-year period ended October 31, 2010 remains subject to examination by the Internal Revenue Service.

E Expense Reduction State Street Bank and Trust Company (SSBT) serves as custodian of the Trust. Pursuant to the custodian agreement, SSBT receives a fee reduced by credits, which are determined based on the average daily cash balance the Trust maintains with SSBT. All credit balances, if any, used to reduce the Trust's custodian fees are reported as a reduction of expenses in the Statement of Operations.

F Foreign Currency Translation Investment valuations, other assets, and liabilities initially expressed in foreign currencies are translated each business day into U.S. dollars based upon current exchange rates. Purchases and sales of foreign investment securities and income and expenses denominated in foreign currencies are translated into U.S. dollars based upon currency exchange rates in effect on the respective dates of such transactions. Recognized gains or losses on investment transactions attributable to changes in foreign currency exchange rates are recorded for financial statement purposes as net realized gains and losses on investments. That portion of unrealized gains and losses on investments that results from fluctuations in foreign currency exchange rates is not separately disclosed.

G Unfunded Loan Commitments The Trust may enter into certain credit agreements all or a portion of which may be unfunded. The Trust is obligated to fund these commitments at the borrower's discretion. The

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

NOTES TO FINANCIAL STATEMENTS CONT D

commitments are disclosed in the accompanying Portfolio of Investments. At October 31, 2010, the Trust had sufficient cash and/or securities to cover these commitments.

H Use of Estimates The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of income and expense during the reporting period. Actual results could differ from those estimates.

I Indemnifications Under the Trust's organizational documents, its officers and Trustees may be indemnified against certain liabilities and expenses arising out of the performance of their duties to the Trust. Under Massachusetts law, if certain conditions prevail, shareholders of a Massachusetts business trust (such as the Trust) could be deemed to have personal liability for the obligations of the Trust. However, the Trust's Declaration of Trust contains an express disclaimer of liability on the part of Fund shareholders and the By-laws provide that the Trust shall assume the defense on behalf of any Fund shareholders. Moreover, the By-laws also provide for indemnification out of Fund property of any shareholder held personally liable solely by reason of being or having been a shareholder for all loss or expense arising from such liability. Additionally, in the normal course of business, the Trust enters into agreements with service providers that may contain indemnification clauses. The Trust's maximum exposure under these arrangements is unknown as this would involve future claims that may be made against the Trust that have not yet occurred.

J Forward Foreign Currency Exchange Contracts The Trust may enter into forward foreign currency exchange contracts for the purchase or sale of a specific foreign currency at a fixed price on a future date. The Trust enters into forward contracts for hedging purposes as well as non-hedging purposes. The forward foreign currency exchange contracts are adjusted by the daily exchange rate of the underlying currency and any gains or losses are recorded as unrealized until such time as the contracts have been closed or offset by another contract with the same broker for the same settlement date and currency. Risks may arise upon entering these contracts from the potential inability of counterparties to meet the terms of their contracts and from movements in the value of a foreign currency relative to the U.S. dollar.

K Credit Default Swaps When the Trust is the buyer of a credit default swap contract, the Trust is entitled to receive the par (or other agreed-upon) value of a referenced debt obligation (or basket of debt obligations) from the counterparty to the contract if a credit event by a third party, such as a U.S. or foreign corporate issuer or sovereign issuer, on the debt obligation occurs. In return, the Trust pays the counterparty a periodic stream of payments over the term of the contract provided that no credit event has occurred. If no credit event occurs, the Trust would have spent the stream of payments and received no benefits from the contract. When the Trust is the seller of a credit default swap contract, it receives the stream of payments, but is obligated to pay to the buyer of the protection an amount up to the notional amount of the swap and in certain instances take delivery of securities of the reference entity upon the occurrence of a credit event, as defined under the terms of that particular swap agreement. Credit events are contract specific but may include bankruptcy, failure to pay, restructuring, obligation acceleration and repudiation/moratorium. If the Trust is a seller of protection and a credit event occurs, the maximum potential amount of future payments that the Trust could be required to make would be an amount equal to the notional amount of the agreement. This potential amount would be partially offset by any recovery value of the respective referenced obligation, or net amount received from the settlement of a buy protection credit default swap agreement entered into by the Trust for the same referenced obligation. As the seller, the Trust effectively adds leverage to its portfolio because, in addition to its total

net assets, the Trust is subject to investment exposure on the notional amount of the swap. The interest fee paid or received on the swap contract, which is based on a specified interest rate on a fixed notional amount, is accrued daily as a component of unrealized appreciation (depreciation) and is recorded as realized gain upon receipt or realized loss upon payment. The Trust also records an increase or decrease to unrealized appreciation (depreciation) in an amount equal to the daily valuation. Upfront payments or receipts, if any, are recorded as other assets or other liabilities, respectively, and amortized over the life of the swap contract as realized gains or losses. The Trust segregates assets in the form of cash or liquid securities in an amount equal to the notional amount of the credit default swaps of which it is the seller. The Trust segregates assets in the form of cash or liquid securities in an amount equal to any unrealized depreciation of the credit default swaps of which it is the buyer, marked to market on a daily basis. These transactions involve certain risks, including the risk that the seller may be unable to fulfill the transaction.

L Statement of Cash Flows The cash amount shown in the Statement of Cash Flows of the Trust is the amount included in the Trust's Statement of Assets and Liabilities and represents the cash on hand at its custodian and does not include any short-term investments.

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

NOTES TO FINANCIAL STATEMENTS CONT D

2 Auction Preferred Shares

The Trust issued Auction Preferred Shares (APS) on January 26, 2004 in a public offering. The underwriting discount and other offering costs incurred in connection with the offering were recorded as a reduction of the paid-in capital of the common shares. Dividends on the APS, which accrue daily, are cumulative at rates which are reset weekly for Series A and Series B, and approximately monthly for Series C and Series D by an auction, unless a special dividend period has been set. Series of APS are identical in all respects except for the reset dates of the dividend rates. If the APS auctions do not successfully clear, the dividend payment rate over the next period for the APS holders is set at a specified maximum applicable rate until such time as the APS auctions are successful. Auctions have not cleared since February 13, 2008 and the rate since that date has been the maximum applicable rate (see Note 3). The maximum applicable rate on the APS is 150% of the AA Financial Composite Commercial Paper Rate at the date of the auction.

The number of APS issued and outstanding as of October 31, 2010 is as follows:

Series	APS Issued and Outstanding
A	1,313
B	1,313
C	1,313
D	1,313

The APS are redeemable at the option of the Trust at a redemption price equal to \$25,000 per share, plus accumulated and unpaid dividends, on any dividend payment date. The APS are also subject to mandatory redemption at a redemption price equal to \$25,000 per share, plus accumulated and unpaid dividends, if the Trust is in default for an extended period on its asset maintenance requirements with respect to the APS. If the dividends on the APS remain unpaid in an amount equal to two full years' dividends, the holders of the APS as a class have the right to elect a majority of the Board of Trustees. In general, the holders of the APS and the common shares have equal voting rights of one vote per share, except that the holders of the APS, as a separate class, have the right to elect at least two members of the Board of Trustees. The APS have a liquidation preference of \$25,000 per share, plus accumulated and unpaid dividends. The Trust is required to maintain certain asset coverage with respect to the APS as defined in the Trust's By-Laws and the 1940 Act. The Trust pays an annual fee up to 0.15% of the liquidation value of the APS to broker-dealers as a service fee if the auctions are unsuccessful; otherwise, the annual fee is 0.25%.

3 Distributions to Shareholders

The Trust intends to make monthly distributions of net investment income to common shareholders, after payment of any dividends on any outstanding APS. In addition, at least annually, the Trust intends to distribute all or substantially all of its net realized capital gains (reduced by available capital loss carryforwards from prior years, if any). Distributions to common shareholders are recorded on the ex-dividend date. Distributions to preferred shareholders are recorded daily and are payable at the end of each dividend period. The dividend rates for the APS at October 31, 2010, and the amount of dividends accrued (including capital gains, if any) to APS shareholders, average APS dividend rates, and dividend rate ranges for the year then ended were as follows:

	APS Dividend Rates at October 31, 2010	Dividends Accrued to APS Shareholders	Average APS Dividend Rates	Dividend Rate Ranges
Series A	0.30%	\$ 96,489	0.29%	0.05% 0.47%
Series B	0.30%	\$ 96,489	0.29%	0.05% 0.47%
Series C	0.29%	\$ 96,554	0.29%	0.15% 0.39%
Series D	0.32%	\$ 95,075	0.29%	0.05% 0.41%

Beginning February 13, 2008 and consistent with the patterns in the broader market for auction-rate securities, the Trust's APS auctions were unsuccessful in clearing due to an imbalance of sell orders over bids to buy the APS. As a result, the dividend rates of the APS were reset to the maximum applicable rate. The table above reflects such maximum dividend rate for each series as of October 31, 2010.

The Trust distinguishes between distributions on a tax basis and a financial reporting basis. Accounting principles generally accepted in the United States of America require that only distributions in excess of tax basis earnings and profits be reported in the financial statements as a return of capital. Permanent differences between book and tax accounting relating to distributions are reclassified to paid-in capital. For tax purposes, distributions from short-term capital gains are considered to be from ordinary income.

The tax character of distributions declared for the years ended October 31, 2010 and October 31, 2009 was as follows:

	Year Ended October 31,	
	2010	2009
Distributions declared from:		
Ordinary income	\$ 37,690,287	\$ 29,963,535

During the year ended October 31, 2010, accumulated net realized loss was decreased by \$4,141,936, accumulated undistributed net investment income was increased by \$2,663,821, and paid-in capital was decreased by

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

NOTES TO FINANCIAL STATEMENTS CONT D

\$6,805,757 due to differences between book and tax accounting, primarily for premium amortization, defaulted bond interest, mixed straddles and foreign currency gain (loss). These reclassifications had no effect on the net assets or net asset value per share of the Trust.

As of October 31, 2010, the components of distributable earnings (accumulated losses) and unrealized appreciation (depreciation) on a tax basis were as follows:

Undistributed ordinary income	\$	4,205,335
Capital loss carryforward	\$	(123,035,721)
Net unrealized depreciation	\$	(12,971,648)

The differences between components of distributable earnings (accumulated losses) on a tax basis and the amounts reflected in the Statement of Assets and Liabilities are primarily due to wash sales, defaulted bond interest and premium amortization.

4 Investment Adviser Fee and Other Transactions with Affiliates

The investment adviser fee is earned by EVM as compensation for management and investment advisory services rendered to the Trust. The fee is computed at an annual rate of 0.75% of the Trust's average daily gross assets and is payable monthly. Gross assets as referred to herein represent net assets plus obligations attributable to investment leverage. Prior to its liquidation in February 2010, the portion of the adviser fee payable by Cash Management Portfolio, an affiliated investment company, on the Trust's investment of cash therein was credited against the Trust's investment adviser fee. The Trust currently invests its cash in Cash Reserves Fund. EVM does not currently receive a fee for advisory services provided to Cash Reserves Fund. For the year ended October 31, 2010, the Trust's investment adviser fee totaled \$5,748,463 of which \$7,130 was allocated from Cash Management Portfolio and \$5,741,333 was paid or accrued directly by the Trust. EVM also serves as administrator of the Trust, but receives no compensation.

In addition, EVM has contractually agreed to reimburse the Trust for fees and other expenses at an annual rate of 0.20% of the Trust's average daily gross assets during the first five full years of the Trust's operations, 0.15% of the Trust's average daily gross assets in year six, 0.10% in year seven and 0.05% in year eight. The Trust concluded its first six full years of operations on November 28, 2009. Pursuant to this agreement, EVM waived \$793,832 of its investment adviser fee for the year ended October 31, 2010.

Except for Trustees of the Trust who are not members of EVM's organization, officers and Trustees receive remuneration for their services to the Trust out of the investment adviser fee. Trustees of the Trust who are not affiliated with EVM may elect to defer receipt of all or a percentage of their annual fees in accordance with the terms of the Trustees Deferred Compensation Plan. For the year ended October 31, 2010, no significant amounts have been deferred. Certain officers and Trustees of the Trust are officers of EVM.

5 Purchases and Sales of Investments

Purchases and sales of investments, other than short-term obligations and including maturities and principal repayments on Senior Loans, aggregated \$269,709,505 and \$281,572,648, respectively, for the year ended

October 31, 2010.

6 Common Shares of Beneficial Interest

The Trust may issue common shares pursuant to its dividend reinvestment plan. Common shares issued pursuant to the Trust's dividend reinvestment plan for the year ended October 31, 2010 and October 31, 2009 were 85,909 and 29,134, respectively.

7 Federal Income Tax Basis of Investments

The cost and unrealized appreciation (depreciation) of investments of the Trust at October 31, 2010, as determined on a federal income tax basis, were as follows:

Aggregate cost	\$ 805,240,137
Gross unrealized appreciation	\$ 17,428,456
Gross unrealized depreciation	(29,830,972)
Net unrealized depreciation	\$ (12,402,516)

8 Restricted Securities

At October 31, 2010, the Trust owned the following securities (representing 0.2% of net assets applicable to common shares) which were restricted as to public resale and not registered under the Securities Act of 1933 (excluding Rule 144A securities). The Trust has various registration rights (exercisable under a variety of circumstances) with respect to these securities. The value of these securities is determined based on valuations provided by brokers when available, or if not available, they are valued at fair value using methods determined in good faith by or at the direction of the Trustees.

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

NOTES TO FINANCIAL STATEMENTS CONT D

Description	Date of Acquisition	Shares	Cost	Value
Common Stocks				
Environmental Systems Products Holdings, Inc.	10/25/07	6,211	\$ 0 ⁽¹⁾	\$ 54,905
Panolam Holdings Co.	12/30/09	253	139,024	201,163
RathGibson Acquisition Co., LLC	6/14/10	19,800	105,079	464,112
Total Common Stocks			\$ 244,103	\$ 720,180
Preferred Stocks				
Environmental Systems Products Holdings, Inc., Series A	10/25/07	2,845	\$ 49,788	\$ 328,797
Total Restricted Securities			\$ 293,891	\$ 1,048,977

(1) Less than \$0.50.

9 Financial Instruments

The Trust may trade in financial instruments with off-balance sheet risk in the normal course of its investing activities. These financial instruments may include forward foreign currency exchange contracts and may involve, to a varying degree, elements of risk in excess of the amounts recognized for financial statement purposes. The notional or contractual amounts of these instruments represent the investment the Trust has in particular classes of financial instruments and do not necessarily represent the amounts potentially subject to risk. The measurement of the risks associated with these instruments is meaningful only when all related and offsetting transactions are considered.

A summary of obligations under these financial instruments at October 31, 2010 is as follows:

Forward Foreign Currency Exchange Contracts

Sales

Settlement Date	Deliver	In Exchange For	Counterparty	Net Unrealized Depreciation
11/30/10	British Pound Sterling 9,632,028	United States Dollar 15,214,848	State Street Bank and Trust Company	\$ (215,895)
11/30/10	Euro 23,592,424	United States Dollar 32,514,606	State Street Bank and Trust Company	(310,541)
11/30/10	Euro 847,500	United States Dollar 1,176,271	State Street Bank and Trust Company	(2,892)
				\$ (529,328)

Purchases

Settlement Date	In Exchange For	Deliver	Counterparty	Net Unrealized Appreciation
11/30/10	British Pound Sterling 380,400	United States Dollar 600,884	State Street Bank and Trust Company	\$ 8,526
11/30/10	Euro 377,718	United States Dollar 520,564	State Street Bank and Trust Company	4,972
				\$ 13,498

At October 31, 2010, the Trust had sufficient cash and/or securities to cover commitments under these contracts.

The Trust is subject to foreign exchange risk in the normal course of pursuing its investment objective. Because the Trust holds foreign currency denominated investments, the value of these investments and related receivables and payables may change due to future changes in foreign currency exchange rates. To hedge against this risk, the Trust

enters into forward foreign currency exchange contracts. The Trust also enters into such contracts to hedge the currency risk of investments it anticipates purchasing.

The fair value of derivative instruments (not considered to be hedging instruments for accounting disclosure purposes) and whose primary underlying risk exposure is foreign exchange risk at October 31, 2010 was as follows:

	Fair Value	
	Asset Derivatives⁽¹⁾	Liability Derivatives⁽²⁾
Forward foreign currency exchange contracts	\$ 13,498	\$ (529,328)

(1) Statement of Assets and Liabilities location: Receivable for open forward foreign currency exchange contracts; Net unrealized appreciation.

(2) Statement of Assets and Liabilities location: Payable for open forward foreign currency exchange contracts; Net unrealized appreciation.

The effect of derivative instruments (not considered to be hedging instruments for accounting disclosure purposes) on the Statement of Operations and whose primary underlying risk exposure is foreign exchange risk for the year ended October 31, 2010 was as follows:

Derivative	Realized Gain (Loss) on Derivatives Recognized in Income⁽¹⁾	Change in Unrealized Appreciation (Depreciation) on Derivatives Recognized in Income⁽²⁾
Forward foreign currency exchange contracts	\$ 3,030,089	\$ (562,879)

(1) Statement of Operations location: Net realized gain (loss) Foreign currency and forward foreign currency exchange contract transactions.

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

NOTES TO FINANCIAL STATEMENTS CONT D

- (2) Statement of Operations location: Change in unrealized appreciation (depreciation) Foreign currency and forward foreign currency exchange contracts.

The average notional amount of forward foreign currency exchange contracts outstanding during the year ended October 31, 2010, which is indicative of the volume of this derivative type, was approximately \$47,919,000.

10 Credit Agreement

The Trust has entered into a Credit Agreement (the Agreement) with a bank to borrow up to a limit of \$150 million pursuant to a 364-day revolving line of credit. Borrowings under the Agreement are secured by the assets of the Trust. Interest is charged at a rate above the London Interbank Offered Rate (LIBOR) and is payable monthly. Under the terms of the Agreement, the Trust pays a commitment fee of 0.15% on the borrowing limit. In connection with the renewal of the Agreement on March 30, 2010, the Trust paid an up-front fee of \$225,000, which is being amortized to interest expense through March 29, 2011, the termination date of the Agreement. The unamortized balance at October 31, 2010 is approximately \$92,000 and is included in prepaid expenses on the Statement of Assets and Liabilities. Also included in interest expense is \$94,000 of amortization of previously paid up-front fees related to the period from November 1, 2009 through March 30, 2010 when the Agreement was renewed. The Trust is required to maintain certain net asset levels during the term of the Agreement. At October 31, 2010, the Trust had borrowings outstanding under the Agreement of \$150,000,000 at an interest rate of 1.26%. The carrying amount of the borrowings at October 31, 2010 approximated its fair value. For the year ended October 31, 2010, the average borrowings under the Agreement and the average interest rate were \$150,000,000 and 1.28%, respectively.

11 Risks Associated with Foreign Investments

Investing in securities issued by companies whose principal business activities are outside the United States may involve significant risks not present in domestic investments. For example, there is generally less publicly available information about foreign companies, particularly those not subject to the disclosure and reporting requirements of the U.S. securities laws. Certain foreign issuers are generally not bound by uniform accounting, auditing, and financial reporting requirements and standards of practice comparable to those applicable to domestic issuers. Investments in foreign securities also involve the risk of possible adverse changes in investment or exchange control regulations, expropriation or confiscatory taxation, limitation on the removal of funds or other assets of the Trust, political or financial instability or diplomatic and other developments which could affect such investments. Foreign securities markets, while growing in volume and sophistication, are generally not as developed as those in the United States, and securities of some foreign issuers (particularly those located in developing countries) may be less liquid and more volatile than securities of comparable U.S. companies. In general, there is less overall governmental supervision and regulation of foreign securities markets, broker-dealers and issuers than in the United States.

12 Credit Risk

The Trust invests primarily in below investment grade floating-rate loans and floating-rate debt obligations, which are considered speculative because of the credit risk of their issuers. Changes in economic conditions or other circumstances are more likely to reduce the capacity of issuers of these securities to make principal and interest payments. Such companies are more likely to default on their payments of interest and principal owed than issuers of investment grade bonds. An economic downturn generally leads to a higher non-payment rate, and a loan or other debt

obligation may lose significant value before a default occurs. Lower rated investments also may be subject to greater price volatility than higher rated investments. Moreover, the specific collateral used to secure a loan may decline in value or become illiquid, which would adversely affect the loan's value.

13 Fair Value Measurements

Under generally accepted accounting principles for fair value measurements, a three-tier hierarchy to prioritize the assumptions, referred to as inputs, is used in valuation techniques to measure fair value. The three-tier hierarchy of inputs is summarized in the three broad levels listed below.

Level 1 quoted prices in active markets for identical investments

Level 2 other significant observable inputs (including quoted prices for similar investments, interest rates, prepayment speeds, credit risk, etc.)

Level 3 significant unobservable inputs (including a fund's own assumptions in determining the fair value of investments)

The inputs or methodology used for valuing securities are not necessarily an indication of the risk associated with investing in those securities.

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

NOTES TO FINANCIAL STATEMENTS CONT D

At October 31, 2010, the inputs used in valuing the Trust's investments, which are carried at value, were as follows:

Asset Description	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Senior Floating-Rate Interests (Less Unfunded Loan Commitments)	\$	\$ 707,085,573	\$ 1,958,716	\$ 709,044,289
Corporate Bonds & Notes		53,326,730	528,020	53,854,750
Asset-Backed Securities		6,241,201		6,241,201
Common Stocks	303,199	5,564,388	1,650,143	7,517,730
Preferred Stocks			328,797	328,797
Warrants		9,004	0	9,004
Miscellaneous		31,260		31,260
Short-Term Investments		15,810,590		15,810,590
Total Investments	\$ 303,199	\$ 788,068,746	\$ 4,465,676	\$ 792,837,621
Forward Foreign Currency Exchange Contracts	\$	\$ 13,498	\$	\$ 13,498
Total	\$ 303,199	\$ 788,082,244	\$ 4,465,676	\$ 792,851,119
Liability Description				
Forward Foreign Currency Exchange Contracts	\$	\$ (529,328)	\$	\$ (529,328)

Total	\$	\$	(529,328)	\$	\$	(529,328)
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The following is a reconciliation of Level 3 assets for which significant unobservable inputs were used to determine fair value:

	Investments in Senior Floating- Rate Interests	Investments in Corporate Bonds & Notes	Investments in Common Stocks	Investments in Preferred Stocks	Investments in Warrants and Miscellaneous	Total
Balance as of October 31, 2009	\$ 796,749	\$ 463,437	\$ 301,213	\$ 227,600	\$ 0	\$ 1,788,999
Realized gains (losses)	(655,375)	939			1,840	(654,436)
Change in net unrealized appreciation (depreciation)*	160,261	(223,748)	710,008	101,197		747,718
Net purchases (sales)	(133,104)	54,994	638,922		(1,840)	560,812
Accrued discount (premium)	9,820	13,691				23,511
Net transfers to (from) Level 3**	1,780,365	218,707				1,999,072
Balance as of October 31, 2010	\$ 1,958,716	\$ 528,020	\$ 1,650,143	\$ 328,797	\$ 0	\$ 4,465,676
Change in net unrealized appreciation (depreciation) on investments still held as of October 31, 2010*	\$ 454,558	\$ (223,748)	\$ 710,008	\$ 101,197	\$	\$ 1,042,015

* Amount is included in the related amount on investments in the Statement of Operations.

** Transfers are reflected at the value of the securities at the beginning of the period.

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Trustees and Shareholders of Eaton Vance Senior Floating-Rate Trust:

We have audited the accompanying statement of assets and liabilities of Eaton Vance Senior Floating-Rate Trust (the Trust), including the portfolio of investments, as of October 31, 2010, and the related statements of operations and cash flows for the year then ended, the statements of changes in net assets for each of the two years in the period then ended, and the financial highlights for each of the five years in the period then ended. These financial statements and financial highlights are the responsibility of the Trust 's management. Our responsibility is to express an opinion on these financial statements and financial highlights based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements and financial highlights are free of material misstatement. The Trust is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Trust 's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. Our procedures included confirmation of securities and senior loans owned as of October 31, 2010, by correspondence with the custodian, brokers, and selling or agent banks; where replies were not received from brokers and selling or agent banks, we performed other auditing procedures. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements and financial highlights referred to above present fairly, in all material respects, the financial position of Eaton Vance Senior Floating-Rate Trust as of October 31, 2010, the results of its operations and its cash flows for the year then ended, the changes in its net assets for each of the two years in the period then ended, and the financial highlights for each of the five years in the period then ended, in conformity with accounting principles generally accepted in the United States of America.

DELOITTE & TOUCHE LLP
Boston, Massachusetts
December 20, 2010

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

FEDERAL TAX INFORMATION (Unaudited)

The Form 1099-DIV you receive in January 2011 will show the tax status of all distributions paid to your account in calendar year 2010. Shareholders are advised to consult their own tax adviser with respect to the tax consequences of their investment in the Trust.

Eaton Vance Senior Floating-Rate Trust as of October 31, 2010

ANNUAL MEETING OF SHAREHOLDERS (Unaudited)

The Trust held its Annual Meeting of Shareholders on August 27, 2010. The following action was taken by the shareholders:

Item 1: The election of Allen R. Freedman, Lynn A. Stout and Benjamin C. Esty as Class I Trustees of the Trust for a three-year term expiring in 2013. Mr. Esty was elected solely by APS shareholders.

Nominee for Trustee Elected by APS Shareholders	Number of Shares	
	For	Withheld
Benjamin C. Esty (APS)	3,178	219

Nominee for Trustee Elected by All Shareholders	Number of Shares	
	For	Withheld
Allen R. Freedman	25,272,990	782,523
Lynn A. Stout	25,303,079	752,434

Eaton Vance Senior Floating-Rate Trust

DIVIDEND REINVESTMENT PLAN

The Trust offers a dividend reinvestment plan (the Plan) pursuant to which shareholders may elect to have distributions automatically reinvested in common shares (the Shares) of the Trust. You may elect to participate in the Plan by completing the Dividend Reinvestment Plan Application Form. If you do not participate, you will receive all distributions in cash paid by check mailed directly to you by American Stock Transfer & Trust Company (AST) as dividend paying agent. On the distribution payment date, if the net asset value per Share is equal to or less than the market price per Share plus estimated brokerage commissions, then new Shares will be issued. The number of Shares shall be determined by the greater of the net asset value per Share or 95% of the market price. Otherwise, Shares generally will be purchased on the open market by the Plan Agent. Distributions subject to income tax (if any) are taxable whether or not shares are reinvested.

If your shares are in the name of a brokerage firm, bank, or other nominee, you can ask the firm or nominee to participate in the Plan on your behalf. If the nominee does not offer the Plan, you will need to request that your shares be re-registered in your name with the Trust's transfer agent, AST, or you will not be able to participate.

The Plan Agent's service fee for handling distributions will be paid by the Trust. Each participant will be charged their pro-rata share of brokerage commissions on all open-market purchases.

Plan participants may withdraw from the Plan at any time by writing to the Plan Agent at the address noted on the following page. If you withdraw, you will receive shares in your name for all Shares credited to your account under the Plan. If a participant elects by written notice to the Plan Agent to have the Plan Agent sell part or all of his or her Shares and remit the proceeds, the Plan Agent is authorized to deduct a \$5.00 fee plus brokerage commissions from the proceeds.

If you wish to participate in the Plan and your shares are held in your own name, you may complete the form on the following page and deliver it to the Plan Agent.

Any inquiries regarding the Plan can be directed to the Plan Agent, AST, at 1-866-439-6787.

Eaton Vance Senior Floating-Rate Trust

APPLICATION FOR PARTICIPATION IN DIVIDEND REINVESTMENT PLAN

This form is for shareholders who hold their common shares in their own names. If your common shares are held in the name of a brokerage firm, bank, or other nominee, you should contact your nominee to see if it will participate in the Plan on your behalf. If you wish to participate in the Plan, but your brokerage firm, bank, or nominee is unable to participate on your behalf, you should request that your common shares be re-registered in your own name which will enable your participation in the Plan.

The following authorization and appointment is given with the understanding that I may terminate it at any time by terminating my participation in the Plan as provided in the terms and conditions of the Plan.

Please print exact name on account:

Shareholder signature	Date
Shareholder signature	Date

Please sign exactly as your common shares are registered. All persons whose names appear on the share certificate must sign.

YOU SHOULD NOT RETURN THIS FORM IF YOU WISH TO RECEIVE YOUR DISTRIBUTIONS IN CASH. THIS IS NOT A PROXY.

This authorization form, when signed, should be mailed to the following address:

Eaton Vance Senior Floating-Rate Trust
c/o American Stock Transfer & Trust Company
P.O. Box 922
Wall Street Station
New York, NY 10269-0560

Number of Employees

The Trust is organized as a Massachusetts business trust and is registered under the Investment Company Act of 1940, as amended, as a closed-end management investment company and has no employees.

Number of Shareholders

As of October 31, 2010, our records indicate that there are 53 registered shareholders and approximately 24,409 shareholders owning the Trust shares in street name, such as through brokers, banks, and financial intermediaries.

If you are a street name shareholder and wish to receive Trust reports directly, which contain important information about the Trust, please write or call:

Eaton Vance Distributors, Inc.
Two International Place
Boston, MA 02110
1-800-262-1122

New York Stock Exchange symbol

The New York Stock Exchange symbol is EFR.

Eaton Vance Senior Floating-Rate Trust

BOARD OF TRUSTEES CONTRACT APPROVAL

Overview of the Contract Review Process

The Investment Company Act of 1940, as amended (the 1940 Act), provides, in substance, that each investment advisory agreement between a fund and its investment adviser will continue in effect from year to year only if its continuance is approved at least annually by the fund's board of trustees, including by a vote of a majority of the trustees who are not interested persons of the fund (Independent Trustees), cast in person at a meeting called for the purpose of considering such approval.

At a meeting of the Boards of Trustees (each a Board) of the Eaton Vance group of mutual funds (the Eaton Vance Funds) held on April 26, 2010, the Board, including a majority of the Independent Trustees, voted to approve continuation of existing advisory and sub-advisory agreements for the Eaton Vance Funds for an additional one-year period. In voting its approval, the Board relied upon the affirmative recommendation of the Contract Review Committee of the Board, which is a committee comprised exclusively of Independent Trustees. Prior to making its recommendation, the Contract Review Committee reviewed information furnished for a series of meetings of the Contract Review Committee held between February and April 2010. Such information included, among other things, the following:

Information about Fees, Performance and Expenses

An independent report comparing the advisory and related fees paid by each fund with fees paid by comparable funds;

An independent report comparing each fund's total expense ratio and its components to comparable funds;

An independent report comparing the investment performance of each fund (including yield where relevant) to the investment performance of comparable funds over various time periods;

Data regarding investment performance in comparison to relevant peer groups of similarly managed funds and appropriate indices;

For each fund, comparative information concerning the fees charged and the services provided by each adviser in managing other mutual funds and institutional accounts using investment strategies and techniques similar to those used in managing such fund;

Profitability analyses for each adviser with respect to each fund;

Information about Portfolio Management

Descriptions of the investment management services provided to each fund, including the investment strategies and processes employed, and any changes in portfolio management processes and personnel;

Information concerning the allocation of brokerage and the benefits received by each adviser as a result of brokerage allocation, including information concerning the acquisition of research through soft dollar benefits received in connection with the funds' brokerage, and the implementation of a soft dollar reimbursement program established with respect to the funds;

Data relating to portfolio turnover rates of each fund;

The procedures and processes used to determine the fair value of fund assets and actions taken to monitor and test the effectiveness of such procedures and processes;

Information about each Adviser

Reports detailing the financial results and condition of each adviser;

Descriptions of the qualifications, education and experience of the individual investment professionals whose responsibilities include portfolio management and investment research for the funds, and information relating to their compensation and responsibilities with respect to managing other mutual funds and investment accounts;

Copies of the Codes of Ethics of each adviser and its affiliates, together with information relating to compliance with and the administration of such codes;

Copies of or descriptions of each adviser's policies and procedures relating to proxy voting, the handling of corporate actions and class actions;

Information concerning the resources devoted to compliance efforts undertaken by each adviser and its affiliates on behalf of the funds (including descriptions of various compliance programs) and their record of compliance with investment policies and restrictions, including policies with respect to market-timing, late trading and selective portfolio disclosure, and with policies on personal securities transactions;

Descriptions of the business continuity and disaster recovery plans of each adviser and its affiliates;

A description of Eaton Vance Management's procedures for overseeing third party advisers and sub-advisers;

Other Relevant Information

Information concerning the nature, cost and character of the administrative and other non-investment management services provided by Eaton Vance Management and its affiliates;

Information concerning management of the relationship with the custodian, subcustodians and fund accountants by each adviser or the funds' administrator; and

The terms of each advisory agreement.

Eaton Vance Senior Floating-Rate Trust

BOARD OF TRUSTEES CONTRACT APPROVAL CONT D

In addition to the information identified above, the Contract Review Committee considered information provided from time to time by each adviser throughout the year at meetings of the Board and its committees. Over the course of the twelve-month period ended April 30, 2010, with respect to one or more Funds, the Board met ten times and the Contract Review Committee, the Audit Committee, the Governance Committee, the Portfolio Management Committee and the Compliance Reports and Regulatory Matters Committee, each of which is a Committee comprised solely of Independent Trustees, met nine, thirteen, three, eight and fifteen times, respectively. At such meetings, the Trustees received, among other things, presentations by the portfolio managers and other investment professionals of each adviser relating to the investment performance of each fund and the investment strategies used in pursuing the fund's investment objective, as well as trading policies and procedures and risk management techniques.

For funds that invest through one or more underlying portfolios, the Board considered similar information about the portfolio(s) when considering the approval of advisory agreements. In addition, in cases where the fund's investment adviser has engaged a sub-adviser, the Board considered similar information about the sub-adviser when considering the approval of any sub-advisory agreement.

The Contract Review Committee was assisted throughout the contract review process by Goodwin Procter LLP, legal counsel for the Independent Trustees. The members of the Contract Review Committee relied upon the advice of such counsel and their own business judgment in determining the material factors to be considered in evaluating each advisory and sub-advisory agreement and the weight to be given to each such factor. The conclusions reached with respect to each advisory and sub-advisory agreement were based on a comprehensive evaluation of all the information provided and not any single factor. Moreover, each member of the Contract Review Committee may have placed varying emphasis on particular factors in reaching conclusions with respect to each advisory and sub-advisory agreement.

Results of the Process

Based on its consideration of the foregoing, and such other information as it deemed relevant, including the factors and conclusions described below, the Contract Review Committee concluded that the continuance of the investment advisory agreement between Eaton Vance Senior Floating-Rate Trust (the Fund) and Eaton Vance Management (the Adviser), including its fee structure, is in the interests of shareholders and, therefore, the Contract Review Committee recommended to the Board approval of the agreement. The Board accepted the recommendation of the Contract Review Committee as well as the factors considered and conclusions reached by the Contract Review Committee with respect to the agreement. Accordingly, the Board, including a majority of the Independent Trustees, voted to approve continuation of the investment advisory agreement for the Fund.

Nature, Extent and Quality of Services

In considering whether to approve the investment advisory agreement of the Fund, the Board evaluated the nature, extent and quality of services provided to the Fund by the Adviser.

The Board considered the Adviser's management capabilities and investment process with respect to the types of investments held by the Fund, including the education, experience and number of its investment professionals and other personnel who provide portfolio management, investment research, and similar services to the Fund. In

particular, the Board evaluated the abilities and experience of such investment personnel in analyzing special considerations relevant to investing in senior secured floating rate loans. Specifically, the Board noted the experience of the Adviser's large group of bank loan investment professionals and other personnel who provide services to the Fund, including portfolio managers and analysts. The Board also took into account the resources dedicated to portfolio management and other services, including the compensation methods of the Adviser to recruit and retain investment personnel, and the time and attention devoted to the Fund by senior management.

The Board also reviewed the compliance programs of the Adviser and relevant affiliates thereof. Among other matters, the Board considered compliance and reporting matters relating to personal trading by investment personnel, selective disclosure of portfolio holdings, late trading, frequent trading, portfolio valuation, business continuity and the allocation of investment opportunities. The Board also evaluated the responses of the Adviser and its affiliates to requests in recent years from regulatory authorities such as the Securities and Exchange Commission and the Financial Industry Regulatory Authority.

The Board considered shareholder and other administrative services provided or managed by Eaton Vance Management and its affiliates, including transfer agency and accounting services. The Board evaluated the benefits to shareholders of investing in a fund that is a part of a large family of funds.

After consideration of the foregoing factors, among others, the Board concluded that the nature, extent and quality of services provided by the Adviser, taken as a whole, are appropriate and consistent with the terms of the investment advisory agreement.

Eaton Vance Senior Floating-Rate Trust

BOARD OF TRUSTEES CONTRACT APPROVAL CONT'D

Fund Performance

The Board compared the Fund's investment performance to a relevant universe of comparable funds identified by an independent data provider as well as a peer group of similarly managed funds and appropriate benchmark indices. The Board reviewed comparative performance data for the one-, three- and five-year periods ended September 30, 2009 for the Fund. The Board concluded that the performance of the Fund was satisfactory.

Management Fees and Expenses

The Board reviewed contractual investment advisory fee rates, payable by the Fund (referred to as "management fees"). As part of its review, the Board considered the management fees and the Fund's total expense ratio for the year ended September 30, 2009, as compared to a group of similarly managed funds selected by an independent data provider. The Board also considered factors that had an impact on Fund expense ratios, as identified by management in response to inquiries from the Contract Review Committee, as well as actions being taken to reduce expenses at the fund complex level. The Board considered the fact that the Adviser had waived fees and/or paid expenses for the Fund.

After reviewing the foregoing information, and in light of the nature, extent and quality of the services provided by the Adviser, the Board concluded that the management fees charged for advisory and related services are reasonable.

Profitability

The Board reviewed the level of profits realized by the Adviser and relevant affiliates thereof in providing investment advisory and administrative services to the Fund and to all Eaton Vance Funds as a group. The Board considered the level of profits realized with and without regard to revenue sharing or other payments by the Adviser and its affiliates to third parties in respect of distribution services. The Board also considered other direct or indirect benefits received by the Adviser and its affiliates in connection with its relationship with the Fund, including the benefits of research services that may be available to the Adviser as a result of securities transactions effected for the Fund and other investment advisory clients.

The Board concluded that, in light of the foregoing factors and the nature, extent and quality of the services rendered, the profits realized by the Adviser and its affiliates are reasonable.

Economies of Scale

In reviewing management fees and profitability, the Board also considered the extent to which the Adviser and its affiliates, on the one hand, and the Fund, on the other hand, can expect to realize benefits from economies of scale as the assets of the Fund increase. The Board acknowledged the difficulty in accurately measuring the benefits resulting from the economies of scale with respect to the management of any specific fund or group of funds. The Board also considered the fact that the Fund is not continuously offered and concluded that, in light of the level of the Adviser's profits with respect to the Fund, the implementation of breakpoints in the advisory fee schedule is not appropriate at this time. Based upon the foregoing, the Board concluded that the benefits from economies of scale are currently being shared equitably by the Adviser and its affiliates and the Fund.

Eaton Vance Senior Floating-Rate Trust

MANAGEMENT AND ORGANIZATION

Trust Management. The Trustees of Eaton Vance Senior Floating-Rate Trust (the Trust) are responsible for the overall management and supervision of the Trust's affairs. The Trustees and officers of the Trust are listed below. Except as indicated, each individual has held the office shown or other offices in the same company for the last five years. The Noninterested Trustees consist of those Trustees who are not interested persons of the Trust, as that term is defined under the 1940 Act. The business address of each Trustee and officer is Two International Place, Boston, Massachusetts 02110. As used below, EVC refers to Eaton Vance Corp., EV refers to Eaton Vance, Inc., EVM refers to Eaton Vance Management, BMR refers to Boston Management and Research, and EVD refers to Eaton Vance Distributors, Inc. EVC and EV are the corporate parent and trustee, respectively, of EVM and BMR. EVD is a wholly-owned subsidiary of EVC. Each officer affiliated with Eaton Vance may hold a position with other Eaton Vance affiliates that is comparable to his or her position with EVM listed below.

Name and Year of Birth	Position(s) with the Trust	Term of	Principal Occupation(s) During Past Five Years and Other Relevant Experience	Number of Portfolios in Fund Complex Overseen By Trustee ⁽¹⁾	Other Directorships Held During the Last Five Years ⁽²⁾
		Office and Length of Service			
Interested Trustee					
Thomas E. Faust Jr. 1958	Class II Trustee	Until 2011. 3 years. Trustee since 2007.	Chairman, Chief Executive Officer and President of EVC, Director and President of EV, Chief Executive Officer and President of EVM and BMR, and Director of EVD. Trustee and/or officer of 184 registered investment companies and 1 private investment company managed by EVM or BMR. Mr. Faust is an interested person because of his positions with EVM, BMR, EVD, EVC and EV, which are affiliates of the Trust.	184	Director of EVC.

Noninterested Trustees

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Benjamin C. Esty ^(A) 1963	Class I Trustee	Until 2013. 3 years. Trustee since 2005.	Roy and Elizabeth Simmons Professor of Business Administration and Finance Unit Head, Harvard University Graduate School of Business Administration.	184	None
Allen R. Freedman 1940	Class I Trustee	Until 2013. 3 years. Trustee since 2007.	Private Investor and Consultant. Former Chairman (2002-2004) and a Director (1983-2004) of Systems & Computer Technology Corp. (provider of software to higher education). Formerly, a Director of Loring Ward International (fund distributor) (2005-2007). Formerly, Chairman and a Director of Indus International, Inc. (provider of enterprise management software to the power generating industry) (2005-2007).	184	Director of Assurant, Inc. (insurance provider) and Stonemor Partners, L.P. (owner and operator of cemeteries).
William H. Park 1947	Class II Trustee	Until 2011. 3 years. Trustee since 2003.	Chief Financial Officer, Aveon Group L.P. (an investment management firm) (since 2010). Formerly, Vice Chairman, Commercial Industrial Finance Corp. (specialty finance company) (2006-2010). Formerly, President and Chief Executive Officer, Prizm Capital Management, LLC (investment management firm) (2002-2005). Formerly, Executive Vice President and Chief Financial Officer, United Asset Management Corporation (an institutional investment management firm) (1982-2001). Formerly, Senior Manager, Price Waterhouse (now PricewaterhouseCoopers) (an independent registered public accounting firm) (1972-1981).	184	None
Ronald A. Pearlman	Class III Trustee	Until 2012. 3 years.	Professor of Law, Georgetown University Law Center.	184	None

1940		Trustee since 2003.	Formerly, Deputy Assistant Secretary (Tax Policy) and Assistant Secretary (Tax Policy), U.S. Department of the Treasury (1983-1985). Formerly, Chief of Staff, Joint Committee on Taxation, U.S. Congress (1988-1990).		
Helen Frame Peters 1948	Class III Trustee	Until 2012. 3 years. Trustee since 2008.	Professor of Finance, Carroll School of Management, Boston College. Formerly, Dean, Carroll School of Management, Boston College (2000-2002). Formerly, Chief Investment Officer, Fixed Income, Scudder Kemper Investments (investment management firm) (1998-1999). Formerly, Chief Investment Officer, Equity and Fixed Income, Colonial Management Associates (investment management firm) (1991-1998).	184	Director of BJ's Wholesale Club, Inc. (wholesale club retailer). Formerly, Trustee of SPDR Index Shares Funds and SPDR Series Trust (exchange traded funds) (2000-2009). Formerly, Director of Federal Home Loan Bank of Boston (a bank for banks) (2007-2009).

Eaton Vance Senior Floating-Rate Trust

MANAGEMENT AND ORGANIZATION CONT D

Name and Year of Birth	Position(s) with the Trust	Term of Office and Length of Service	Principal Occupation(s) During Past Five Years and Other Relevant Experience	Number of Portfolios in Fund Complex Overseen By Trustee ⁽¹⁾	Other Directorships Held During the Last Five Years ⁽²⁾
Noninterested Trustees (continued)					
Lynn A. Stout 1957	Class I Trustee	Until 2013. 3 years. Trustee since 2003.	Paul Hastings Professor of Corporate and Securities Law (since 2006) and Professor of Law (2001-2006), University of California at Los Angeles School of Law. Professor Stout teaches classes in corporate law and securities regulation and is the author of numerous academic and professional papers on these areas.	184	None
Ralph F. Verni ^(A) 1943	Chairman of the Board and Class II Trustee	Until 2011. 3 years. Trustee since 2005; Chairman of the Board since 2007.	Consultant and private investor. Formerly, Chief Investment Officer (1982-1992), Chief Financial Officer (1988-1990) and Director (1982-1992), New England Life. Formerly, Chairperson, New England Mutual Funds (1982-1992). Formerly, President and Chief Executive Officer, State Street Management & Research (1992-2000). Formerly, Chairperson, State Street Research Mutual Funds (1992-2000). Formerly, Director, W.P. Carey, LLC (1998-2004) and First Pioneer	184	None

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Farm Credit Corp.
(2002-2006).

Principal Officers who are not Trustees

Name and Year of Birth	Position(s) with the Trust	Term of Office and Length of Service	Principal Occupation(s) During Past Five Years
Scott H. Page 1959	President	Since 2008	Vice President of EVM and BMR. Officer of 10 registered investment companies managed by EVM or BMR.
Peter M. Campo 1972	Vice President	Since 2008	Vice President of EVM and BMR. Officer of 1 registered investment company managed by EVM or BMR.
Craig P. Russ 1963	Vice President	Since 2003	Vice President of EVM and BMR. Officer of 5 registered investment companies managed by EVM or BMR.
Michael W. Weilheimer 1961	Vice President	Since 2003	Vice President of EVM and BMR. Officer of 26 registered investment companies managed by EVM or BMR.
Barbara E. Campbell 1957	Treasurer	Since 2003	Vice President of EVM and BMR. Officer of 184 registered investment companies managed by EVM or BMR.
Maureen A. Gemma 1960	Secretary and Chief Legal Officer	Secretary since 2007 and Chief Legal Officer since 2008	Vice President of EVM and BMR. Officer of 184 registered investment companies managed by EVM or BMR.
Paul M. O Neil 1953	Chief Compliance Officer	Since 2004	Vice President of EVM and BMR. Officer of 184 registered investment companies managed by EVM or BMR.

- (1) Includes both master and feeder funds in a master-feeder structure.
- (2) During their respective tenures, the Trustees also served as trustees of one or more of the following Eaton Vance funds (which operated in the years noted): Eaton Vance Credit Opportunities Fund (launched in 2005 and terminated in 2010); Eaton Vance Insured Florida Plus Municipal Bond Fund (launched in 2002 and terminated in 2009); and Eaton Vance National Municipal Income Fund (launched in 1998 and terminated in 2009).

(A) APS Trustee.

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**Investment Adviser and Administrator of
Eaton Vance Senior Floating-Rate Trust
Eaton Vance Management**

Two International Place
Boston, MA 02110

Custodian

State Street Bank and Trust Company

200 Clarendon Street
Boston, MA 02116

Transfer Agent

American Stock Transfer & Trust Company

59 Maiden Lane
Plaza Level
New York, NY 10038

Independent Registered Public Accounting Firm

Deloitte & Touche LLP

200 Berkeley Street
Boston, MA 02116-5022

Eaton Vance Senior Floating-Rate Trust

**Two International Place
Boston, MA 02110**

2025-12/10

CE-FLRTSRC

Item 2. Code of Ethics

The registrant has adopted a code of ethics applicable to its Principal Executive Officer, Principal Financial Officer and Principal Accounting Officer. The registrant undertakes to provide a copy of such code of ethics to any person upon request, without charge, by calling 1-800-262-1122.

Item 3. Audit Committee Financial Expert

The registrant's Board has designated William H. Park, an independent trustee, as its audit committee financial expert. Mr. Park is a certified public accountant who is the Chief Financial Officer of Aveon Group, L.P. (an investment management firm). Previously, he served as the Vice Chairman of Commercial Industrial Finance Corp. (specialty finance company), as President and Chief Executive Officer of Prizm Capital Management, LLC (investment management firm), as Executive Vice President and Chief Financial Officer of United Asset Management Corporation (an institutional investment management firm) and as a Senior Manager at Price Waterhouse (now PricewaterhouseCoopers) (an independent registered public accounting firm).

Item 4. Principal Accountant Fees and Services

(a)-(d)

The following table presents aggregate fees billed to the registrant for the registrant's fiscal years ended October 31, 2009 and October 31, 2010 by the registrant's principal accountant, Deloitte & Touche LLP ("D&T"), for professional services rendered for the audit of the registrant's annual financial statements and fees billed for other services rendered by D&T during such periods.

Fiscal Years Ended	10/31/09	10/31/10
Audit Fees	\$ 76,490	\$ 76,490
Audit-Related Fees ⁽¹⁾	\$ 5,330	\$ 5,330
Tax Fees ⁽²⁾	\$ 14,540	\$ 14,540
All Other Fees ⁽³⁾	\$ 2,500	\$ 1,400
Total	\$ 98,860	\$ 97,760

(1) Audit-related fees consist of the aggregate fees billed for assurance and related services that are reasonably related to the performance of the audit of the registrant's financial statements and are not reported under the category of audit fees and specifically include fees for the performance of certain agreed-upon procedures relating to the registrant's auction preferred shares.

(2) Tax fees consist of the aggregate fees billed for professional services rendered by the principal accountant relating to tax compliance, tax advice, and tax planning and specifically include fees for tax return preparation and other related tax compliance/planning matters

(3) All other fees consist of the aggregate fees billed for products and services provided by the registrant's principal accountant other than audit, audit-related, and tax services.

(e)(1) The registrant's audit committee has adopted policies and procedures relating to the pre-approval of services provided by the registrant's principal accountant (the "Pre-Approval Policies"). The Pre-Approval Policies establish a framework intended to assist the audit committee in the proper discharge of its pre-approval responsibilities. As a general matter, the Pre-Approval Policies (i) specify certain types of audit, audit-related, tax, and other services determined to be pre-approved by the audit committee; and (ii) delineate specific procedures governing the mechanics

of the pre-approval process, including the approval and monitoring of audit and non-audit service fees. Unless a service is specifically pre-approved under the Pre-Approval Policies, it must be separately pre-approved by the Audit Committee.

The Pre-Approval Policies and the types of audit and non-audit services pre-approved therein must be reviewed and ratified by the registrant's audit committee at least annually. The registrant's audit committee maintains full responsibility for the appointment, compensation, and oversight of the work of the registrant's principal accountant.

(e)(2) No services described in paragraphs (b)-(d) above were approved by the registrant's audit committee pursuant to the de minimis exception set forth in Rule 2-01 (c)(7)(i)(C) of Regulation S-X.

(f) Not applicable.

(g) The following table presents (i) the aggregate non-audit fees (i.e., fees for audit-related, tax, and other services) billed to the registrant by D&T for the registrant's fiscal years ended October 31, 2009 and October 31, 2010; and (ii) the aggregate non-audit fees (i.e., fees for audit-related, tax, and other services) billed to the Eaton Vance organization by D&T for the same time periods.

Fiscal Years Ended	10/31/09	10/31/10
Registrant	\$ 22,370	\$ 21,270
Eaton Vance⁽¹⁾	\$ 280,861	\$ 278,901

(1) Certain subsidiaries of Eaton Vance Corp. provide ongoing services to the registrant.

(h) The registrant's audit committee has considered whether the provision by the registrant's principal accountant of non-audit services to the registrant's investment adviser and any entity controlling, controlled by, or under common control with the adviser that provides ongoing services to the registrant that were not pre-approved pursuant to Rule 2-01(c)(7)(ii) of Regulation S-X is compatible with maintaining the principal accountant's independence.

Item 5. Audit Committee of Listed Registrants

The registrant has a separately-designated standing audit committee established in accordance with Section 3(a)(58)(A) of the Securities and Exchange Act of 1934, as amended. William H. Park (Chair), Lynn A. Stout and Ralph F. Verni are the members of the registrant's audit committee.

Item 6. Schedule of Investments

Please see schedule of investments contained in the Report to Stockholders included under Item 1 of this Form N-CSR.

Item 7. Disclosure of Proxy Voting Policies and Procedures for Closed-End Management Investment Companies

The Board of Trustees of the Trust has adopted a proxy voting policy and procedure (the "Fund Policy"), pursuant to which the Trustees have delegated proxy voting responsibility to the Fund's investment adviser and adopted the investment adviser's proxy voting policies and procedures (the "Policies") which are described below. The Trustees will review the Fund's proxy voting records from time to time and will annually consider approving the Policies for the upcoming year. In the event that a conflict of interest arises between the Fund's shareholders and the investment adviser, the administrator, or any of their affiliates or any affiliate of the Fund, the investment adviser will generally refrain from voting the proxies related to the companies giving rise to such conflict until it consults with the Board's Special Committee except as contemplated under the Fund Policy. The Board's Special Committee will instruct the investment adviser on the appropriate course of action.

The Policies are designed to promote accountability of a company's management to its shareholders and to align the interests of management with those shareholders. An independent proxy voting service (Agent), currently Institutional Shareholder Services, Inc., has been retained to assist in the voting of proxies through the provision of vote analysis, implementation and recordkeeping and disclosure services. The investment adviser will generally vote proxies through the Agent. The Agent is required to vote all proxies and/or refer them back to the investment adviser pursuant to the Policies. It is generally the policy of the investment adviser to vote in accordance with the recommendation of the Agent. The Agent shall refer to the investment adviser proxies relating to mergers and restructurings, and the disposition of assets, termination, liquidation and mergers contained in mutual fund proxies. The investment adviser will normally vote against anti-takeover measures and other proposals designed to limit the ability of shareholders to act on possible transactions, except in the case of closed-end management investment companies. The investment adviser generally supports management on social and environmental proposals. The investment adviser may abstain from voting from time to time where it determines that the costs associated with voting a proxy outweighs the benefits derived from exercising the right to vote or the economic effect on shareholders interests or the value of the portfolio holding is indeterminable or insignificant.

In addition, the investment adviser will monitor situations that may result in a conflict of interest between the Fund's shareholders and the investment adviser, the administrator, or any of their affiliates or any affiliate of the Fund by maintaining a list of significant existing and prospective corporate clients. The investment adviser's personnel responsible for reviewing and voting proxies on behalf of the Fund will report any proxy received or expected to be received from a company included on that list to the personnel of the investment adviser identified in the Policies. If such personnel expect to instruct the Agent to vote such proxies in a manner inconsistent with the guidelines of the Policies or the recommendation of the Agent, the personnel will consult with members of senior management of the investment adviser to determine if a material conflict of interests exists. If it is determined that a material conflict does exist, the investment adviser will seek instruction on how to vote from the Special Committee.

Information on how the Fund voted proxies relating to portfolio securities during the most recent 12 month period ended June 30 is available (1) without charge, upon request, by calling 1-800-262-1122, and (2) on the Securities and Exchange Commission's website at <http://www.sec.gov>.

Item 8. Portfolio Managers of Closed-End Management Investment Companies

Scott H. Page, Craig P. Russ, Peter M. Campo and other Eaton Vance Management (EVM) investment professionals comprise the investment team responsible for the overall and day-to-day management of the Trust's investments as well as allocations of the Trust's assets between common and preferred stocks. Messrs. Page, Russ and Campo are the portfolio managers responsible for the day-to-day management of the Trust's investments.

Mr. Page has been an Eaton Vance portfolio manager since 1996 and is a Vice President of EVM and Boston Management and Research, an Eaton Vance subsidiary (BMR). He is head of Eaton Vance's Bank Loan Investment Group. Mr. Russ has been an Eaton Vance portfolio manager since 2001 and is a Vice President of EVM and BMR. Mr. Campo joined Eaton Vance in 2003 and is a Vice President of EVM and BMR. This information is provided as of the date of filing of this report.

The following tables show, as of the Trust's most recent fiscal year end, the number of accounts each portfolio manager managed in each of the listed categories and the total assets (in millions of dollars) in the accounts managed within each category. The table also shows the number of accounts with respect to which the advisory fee is based on the performance of the account, if any, and the total assets (in millions of dollars) in those accounts.

	Number of All Accounts	Total Assets of All Accounts	Number of Accounts Paying a Performance Fee	Total Assets of Accounts Paying a Performance Fee
Scott H. Page				
Registered Investment Companies	12	\$ 13,990.5	0	\$ 0
Other Pooled Investment Vehicles	6	\$ 6,055.8	1	\$ 486.7
Other Accounts	2	\$ 1,497.9	0	\$ 0
Craig R. Russ				
Registered Investment Companies	8	\$ 11,691.0	0	\$ 0
Other Pooled Investment Vehicles	1	\$ 3,386.0	0	\$ 0
Other Accounts	1	\$ 1,016.4	0	\$ 0
Peter M. Campo				
Registered Investment Companies	1	\$ 786.4	0	\$ 0
Other Pooled Investment Vehicles	0	\$ 0	0	\$ 0
Other Accounts	0	\$ 0	0	\$ 0

The following table shows the dollar range of Trust shares beneficially owned by each portfolio manager as of the Trust's most recent fiscal year end.

Portfolio Manager	Dollar Range of Equity Securities Owned in the Trust
Scott H. Page	\$ 100,001 - \$500,000
Craig P. Russ	None
Peter M. Campo	None

Potential for Conflicts of Interest. It is possible that conflicts of interest may arise in connection with a portfolio manager's management of the Trust's investments on the one hand and investments of other accounts for which a portfolio manager is responsible on the other. For example, a portfolio manager may have conflicts of interest in allocating management time, resources and investment opportunities among the Trust and other accounts he or she advises. In addition, due to differences in the investment strategies or restrictions between the Trust and the other accounts, a portfolio manager may take action with respect to another account that differs from the action taken with respect to the Trust. In some cases, another account managed by a portfolio manager may compensate the investment adviser or sub-adviser based on the performance of the securities held by that account. The existence of such a performance based fee may create additional conflicts of interest for a portfolio manager in the allocation of management time, resources and investment opportunities. Whenever conflicts of interest arise, a portfolio manager will endeavor to exercise his or her discretion in a manner that he or she believes is equitable to all interested persons. EVM has adopted several policies and procedures designed to address these potential conflicts including: a code of ethics; and policies which govern the investment adviser's trading practices, including among other things the aggregation and allocation of trades among clients, brokerage allocation, cross trades and best execution.

Compensation Structure for EVM

Compensation of EVM's portfolio managers and other investment professionals has three primary components: (1) a base salary, (2) an annual cash bonus, and (3) annual stock-based compensation consisting of options to purchase shares of EVC's nonvoting common stock and/or restricted shares of EVC's nonvoting common stock. EVM's investment professionals also receive certain retirement, insurance and other benefits that are broadly available to EVM's employees. Compensation of EVM's investment professionals is reviewed primarily on an annual basis. Cash bonuses, stock-based compensation awards, and adjustments in base salary are typically paid or put into effect at or shortly after the October 31st fiscal year end of EVC.

Method to Determine Compensation. EVM compensates its portfolio managers based primarily on the scale and complexity of their portfolio responsibilities and the total return performance of managed funds and accounts versus appropriate peer groups or benchmarks. In addition to rankings within peer groups of funds on the basis of absolute performance, consideration may also be given to relative risk-adjusted performance. Risk-adjusted performance measures include, but are not limited to, the Sharpe Ratio. Performance is normally based on periods ending on the September 30th preceding fiscal year end. Fund performance is normally evaluated primarily versus peer groups of funds as determined by Lipper Inc. and/or Morningstar, Inc. When a fund's peer group as determined by Lipper or Morningstar is deemed by EVM's management not to provide a fair comparison, performance may instead be evaluated primarily against a custom peer group. In evaluating the performance of a fund and its manager, primary emphasis is normally placed on three-year performance, with secondary consideration of performance over longer and shorter periods. For funds that are tax-managed or otherwise have an objective of after-tax returns, performance is measured net of taxes. For other funds, performance is evaluated on a pre-tax basis. For funds with an investment objective other than total return (such as current income), consideration will also be given to the fund's success in achieving its objective. For managers responsible for multiple funds and accounts, investment performance is evaluated on an aggregate basis, based on averages or weighted averages among managed funds and accounts. Funds and accounts that have performance-based advisory fees are not accorded disproportionate weightings in measuring aggregate portfolio manager performance.

The compensation of portfolio managers with other job responsibilities (such as heading an investment group or providing analytical support to other portfolios) will include consideration of the scope of such responsibilities and the managers' performance in meeting them.

EVM seeks to compensate portfolio managers commensurate with their responsibilities and performance, and competitive with other firms within the investment management industry. EVM participates in investment-industry compensation surveys and utilizes survey data as a factor in determining salary, bonus and stock-based compensation levels for portfolio managers and other investment professionals. Salaries, bonuses and stock-based compensation are also influenced by the operating performance of EVM and its parent company. The overall annual cash bonus pool is based on a substantially fixed percentage of pre-bonus operating income. While the salaries of EVM's portfolio managers are comparatively fixed, cash bonuses and stock-based compensation may fluctuate significantly from year to year, based on changes in manager performance and other factors as described herein. For a high performing portfolio manager, cash bonuses and stock-based compensation may represent a substantial portion of total compensation.

Item 9. Purchases of Equity Securities by Closed-End Management Investment Company and Affiliated Purchasers

No such purchases this period.

Item 10. Submission of Matters to a Vote of Security Holders

No Material Changes.

Item 11. Controls and Procedures

(a) It is the conclusion of the registrant's principal executive officer and principal financial officer that the effectiveness of the registrant's current disclosure controls and procedures (such disclosure controls and procedures having been evaluated within 90 days of the date of this filing) provide reasonable assurance that the information required to be disclosed by the registrant has been recorded, processed, summarized and reported within the time period specified in the Commission's rules and forms and that the information required to be disclosed by the registrant has been accumulated and communicated to the registrant's principal executive officer and principal financial officer in order to allow timely decisions regarding required disclosure.

(b) There have been no changes in the registrant's internal controls over financial reporting during the second fiscal quarter of the period covered by this report that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

Item 12. Exhibits

(a)(1) Registrant's Code of Ethics Not applicable (please see Item 2).

(a)(2)(i) Treasurer's Section 302 certification.

(a)(2)(ii) President's Section 302 certification.

(b) Combined Section 906 certification.

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Eaton Vance Senior Floating-Rate Trust

By: /s/ Scott H. Page
Scott H. Page
President

Date: December 15, 2010

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ Barbara E. Campbell
Barbara E. Campbell
Treasurer

Date: December 15, 2010

By: /s/ Scott H. Page
Scott H. Page
President

Date: December 15, 2010