Pioneer Floating Rate Trust Form N-Q April 29, 2009

OMB APPROVAL

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM N-Q

CERTIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEMENT INVESTMENT COMPANIES

Investment Company Act file number 811-21654

Pioneer Floating Rate Trust (Exact name of registrant as specified in charter)

60 State Street, Boston, MA 02109 (Address of principal executive offices) (ZIP code)

Dorothy E. Bourassa, Pioneer Investment Management, Inc., 60 State Street, Boston, MA 02109 (Name and address of agent for service)

Registrant's telephone number, including area code: (617) 742-7825

Date of fiscal year end: November 30

Date of reporting period: February 28, 2009

Form N-Q is to be used by management investment companies, other than small business investment companies registered on Form N-5 (239.24 and 274.5 of this chapter), to file reports with the Commission, not later than 60 days after close of the first and third fiscal quarters, pursuant to Rule 30b1-5under the Investment Company Act of 1940 (17 CFR 270.30b-5). The Commission may use the information provided on Form N-Q in its regulatory, disclosure review, inspection, and policymaking roles.

A registrant is required to disclose the information specified by Form N-Q, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-Q unless the Form displays a currently valid Office of Management and Budget ("OMB") control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to Secretary, Securities and Exchange Commission, 450 Fifth Street, NW, Washington, DC 20549-0609. The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. ss. 3507.

ITEM 1. Schedule of Investments.

Pioneer Floating Rate Trust SCHEDULE OF INVESTMENTS 2/28/09 (unaudited)

Principal Amount USD (\$)			Value	(\$)
		COLLATERALIZED LOAN OBLIGATIONS - 0.4% Banks - 0.3%		
1,000,000	(a) (b)	Diversified Banks - 0.1% Primus, Ltd., 2007-2A D, 3.494%, 7/15/21 (144A Rampart, Ltd., 2006-1A, 4.693%, 4/18/21 (144A) Stanfield McLaren, Ltd., 2007-1A B2L, 5.756%,	88 99	3,000 3,990 9,700 5,690
1,000,000	(a) (b)	Thrifts & Mortgage Finance - 0.2% Gulf Stream Sextant, Ltd., 2007-1A D, 4.271%, Landmark CDO, Ltd., 2007-9A E, 4.594%, 4/15/21 Stone Tower, Ltd., 2007-6A C, 1.709%, 4/17/21	102 100	5,720 1,100 1,000
		Total Banks		,510
1,000,000	(a) (b)	Diversified Financials - 0.1% Other Diversified Financial Services - 0.0% ACA, Ltd. 2007-1A D, 3.444%, 6/15/22 (144A)	90	,000
1,000,000	(a) (b)	Investment Banking & Brokerage - 0.1% Goldman Sachs Asset Management, Plc, 2007-1A D Total Diversified Financials TOTAL COLLATERALIZED LOAN OBLIGATIONS (Cost \$6,135,700)	200	,000 ,000 ,510
		SENIOR SECURED FLOATING RATE LOAN INTERESTS - Energy - 6.0%	151.1%	; *
2,200,000 1,750,000 2,000,000 613,181 1,250,000	(a) (a)	Oil & Gas Drilling - 1.9% Big West Oil LLC, Delayed Advance Term Loan, 4 Big West Oil LLC, Initial Advance Term Loan, 4 III Exploration II, L.P., Second Lien Term Loa Monitor U.S. Finco, Inc., Second Lien Term Loa TARH E&P Holdings, L.P., First Lien Term Loan,	892 900 291	,500 ,000 ,261 ,000
582,918 1,877,453 3,939,364	(a) (d)	Oil & Gas Equipment & Services - 1.8% Coffeyville Resources LLC, Funded LC Loan, 3.1 Coffeyville Resources LLC, Tranche D Term Loan Value Creation, Inc., Term Loan, 12.5%, 2/15/1	429 1,384	9,902 ,622
4,995,000 1,977,942	(a)	Oil & Gas Exploration & Production - 2.3% Crusader Energy Group, Inc., Second Lien Term Venoco, Inc., Second Lien Term Loan, 5.25%, 5/	3,621 929	,375
		Total Energy	4,551 11,969	
1,000,000 14,862,406		Materials - 8.0% Diversified Chemicals - 5.2% Panda Hereford Ethanol, L.P., Tranche A Term L Solutia, Inc., Term Loan, 8.5%, 2/28/14	650 9 , 716	,000 5,298
572 , 599		Paper Packaging - 0.3% Solo Cup Co., Term Loan B-1, 3.9125% - 5.75%,	10,366	,065
012,000		5010 dap co., rerm boan b 1, 5.71236 5.75%,	721	, 000

4,322,406		Diversified Metals & Mining - 1.9% Murray Energy Corp., First Lien Tranche B Term	3,846,941
1,410,065		Steel - 0.4% Essar Steel Algoma, Inc., Term Loan, 2.92%, 6/	854 , 852
756,135 170,175	(a) (a)	Paper Products - 0.2% Newark Group, Inc., Credit-Link LC Loan, 10.75 Newark Group, Inc., Term Loan, 10.75%, 3/9/13	378,068 85,087
		Total Materials	463,155 16,052,311
492,321 948,185 902,779	(d)	Capital Goods - 3.6% Aerospace & Defense - 0.7% Aeroflex, Inc., Tranche B-2 Term Loan, 4.25% - Hunter Defense Technologies, Inc., Term Loan, IAP Worldwide Services, Inc., First Lien Term	329,240 630,543 495,024 1,454,807
5,504,459 1,691,178 1,497,421		Building Products - 1.7% Atrium Companies, Inc., Closing Date Term Loan Custom Building Products, Inc., First Lien Ter Rexair LLC, First Lien Term Loan, 5.709%, 6/30	
3,000,000		Construction & Farm Machinery & Heavy Trucks - Manitowoc Company, Inc., Term Loan B, 6.5%, 8/ Total Capital Goods	
980,000 8,312,500 968,816 968,816	(a) EURO EURO	Commercial & Professional Services - 4.1% Diversified Commercial & Professional Services Aramark Canada, Ltd., Canadian Term Loan, 3.33 Cydcor, Inc., First Lien Tranche B Term Loan, Mediannuaire Holding, Term Loan B-2, 3.909%, 1 Mediannuaire Holding, Term Loan C, 4.409%, 10/ Total Commercial & Professional Services	815,850 6,650,000 393,742
990,000 477,576 2,905,638 3,700,000		Transportation - 3.9% Airlines - 2.6% Delta Airlines, Inc., Credit-Linked Deposit Lo Delta Airlines, Inc., Second Lien Term Loan, 3 Northwest Airlines, Inc., Term Loan, 2.45%, 12 US Airways Group, Inc., Term Loan, 2.979%, 3/2 Trucking - 0.6%	763,125 243,713 2,525,000 1,728,596 5,260,434
1,611,960 535,308 2,204,218 1,026,362	(a) (d)		172,480 243,565 220,422 518,313 1,154,780
2,143,308		Airport Services - 0.7% AWAS Capital, Inc., First Lien Term Loan, 3.25 Total Transportation	1,390,471 7,805,685
9,075,710 924,290 3,930,000	(a) (a)	Automobiles & Components - 3.2% Auto Parts & Equipment - 1.6% Delphi Corp., Initial Tranche C Term Loan, 8.5 Delphi Corp., Subsequent Tranche C Term Loan, Key Safety Systems, Inc., First Lien Term Loan Automobile Manufacturers - 1.6%	157,129 1,611,300 3,311,300
9,818,782		Ford Motor Co., Term Loan, 5.0%, 12/15/13	3,199,283

	Total Automobiles & Components	6,510,583
2 260 260 (2) (2)	Consumer Durables & Apparel - 2.9% Homebuilding - 2.9% Ginn LA Conduit Lender, Inc., First Lien Tranch	oo A Crodit
Linked	GINN LA CONQUIT Lender, INC., FIRST LIEN TRANCI	le A Credit-
5,077,235 (c)	Deposit Loan, 8.5%, 6/8/11 Ginn LA Conduit Lender, Inc., First Lien Tranc MetroFlag BP LLC, Second Lien Term Loan, 12.0% Pivotal Promontory LLC, First Lien Term Loan, Rhodes Companies LLC, First Lien Term Loan, 4. WAICCS Las Vegas 3 LLC, First Lien Term Loan, WAICCS Las Vegas 3 LLC, Second Lien Term Loan, Total Consumer Durables & Apparel	269,516 577,535 525,000 1,189,333 617,076 750,000 1,800,000 5,728,460
	Consumer Services - 4.2%	
5,000,000 (a) 1,333,333	Casinos & Gaming - 2.3% Fontainebleau Florida Hotel LLC, Tranche C Ter Fontainebleau Las Vegas LLC, Initial Term Loan	
4,568,331 a	Hotels, Resorts & Cruise Lines - 0.8% Yellowstone Mountain Club LLC, First Lien Term	1 576 074
1,300,331 a	Terrowscone nouncain eras also, tribe aren term	1,370,071
587,649 (a)(c)	Leisure Facilities - 1.1% Lake at Las Vegas Joint Venture, Revolving Cred Deposit Account Loan, 14.35%, 6/20/12	dit-Linked 42,850
1,765,105 (a)	Lake at Las Vegas Joint Venture, Term Loan, 9.	
5,298,787 (c) (d)	Lake at Las Vegas Joint Venture, Term Loan, 14	386,372 2,194,327
	Total Consumer Services	8,384,568
7,814,398	Media - 25.6% Advertising - 1.8% Metro-Goldwyn-Mayer, Inc., Tranche B Term Loan	3,566,718
11,115,966 4,900,000	Broadcasting - 8.4% SMG H5 Pty, Ltd., Facility Term Loan A, 6.267% Univision Communications, Inc., Initial Term L WideOpenWest Finance LLC, First Lien Term Loan Young Broadcasting, Inc., Term Loan, 4.0% - 4.	5,080,919
19,591,675(a)(d) 1,428,203(a) 11,302,444 6,793,678	Cable & Satellite - 13.6% Broadstripe LLC, First Lien Term Loan, 9.25%, Broadstripe LLC, Revolver Credit Loan, 8.87% - Cequel Communications LLC, Term Loan, 2.445% - Knology, Inc., Term Loan, 2.663%, 6/30/12	
2,428,571 1,669,643 (a) 1,391,566 (a)	Movies & Entertainment - 1.5% Alpha Topco, Ltd., Facility Term Loan B-1, 2.8 Alpha Topco, Ltd., Facility Term Loan B-2, 2.8 Wallace Theater Corp., First Lien Term Loan, 6	870 , 680
3,500,000	Publishing - 0.3% Penton Media Holdings, Inc., Second Lien Term Total Media	520,625 51,356,300
15,507,541(a)(c)	Retailing - 9.1% Distributors - 1.6% Home Interiors & Gifts, Inc., Initial Term Loa	3,295,352

3,000,000 5,000,000	General Merchandise Stores - 3.4% Dollar General Corp., Tranche B-1 Term Loan, 3 Dollar General Corp., Tranche B-2 Term Loan, 3	
8,409,508 3,980,099	Specialty Stores - 4.1% Blockbuster, Inc., Tranche B Term Loan, 5.29% Toys R Us - Delaware, Inc., Tranche B Term Loa	5,907,679 2,260,127
	Total Retailing	8,167,806 18,223,954
4,925,000 1,964,998 9,500,000	Food, Beverage & Tobacco - 7.3% Packaged Foods & Meats - 7.3% Pinnacle Foods Finance LLC, Term Loan, 3.163%, Sturm Foods, Inc., Initial First Lien Term Loa Wm. Wrigley Jr. Co., Tranche B Term Loan, 6.5% Total Food, Beverage & Tobacco	1,164,261
3,967,778 201,369 (a)	Household & Personal Products - 1.6% Household Products - 1.4% Spectrum Brands, Inc., Dollar Term Loan B, 7.3 Spectrum Brands, Inc., LC Loan, 2.263%, 3/30/1	
987,469 (a)	Personal Products - 0.2% Appleseed's Intermediate Holdings, Inc., First Total Household & Personal Products	
714,286 4,210,714 9,800,000	Health Care Equipment & Services - 17.8% Health Care Equipment & Services - 6.2% Fenwal, Inc., First Lien Delayed Draw Term Loa Fenwal, Inc., Initial First Lien Term Loan, 3. Talecris Biotherapeutics Holdings Corp., First 3.96% - 4.74%, 12/6/13	2,852,759
1,299,789 2,954,198 1,000,000 (a)	Health Care Services - 1.9% Fresenius SE, Tranche B-1 Term Loan, 6.75%, 9/ LifeCare Holdings, Term Loan, 5.43%, 8/11/12 Medical Staffing Network, Inc., Second Lien Te	1,273,793 1,805,754
5,208,288 14,738,093 1,229,793	Health Care Facilities - 8.0% CCS Medical, Inc., First Lien Term Loan, 4.71% HCA, Inc., Tranche B-1 Term Loan, 3.709%, 11/1 Triumph Healthcare Second Holdings LLC, First I Term Loan, 3.47% - 4.174%, 7/28/13	2,604,144 12,482,339 Lien 980,760
1,926,120 286,134 515,601 1,578,500	Managed Health Care - 1.7% Aveta, Inc., MMM Original Term Loan, 5.98%, 8/ Aveta, Inc., NAMM New Term Loan, 5.98%, 8/22/1 Aveta, Inc., NAMM Original Term Loan, 5.98%, 8 Aveta, Inc., PHMC Acquisition Term Loan, 5.98%	227,477 409,902
700,211	Total Health Care Equipment & Services Pharmaceuticals & Biotechnology & Life Sciences Pharmaceuticals - 9.4% Fresenius SE, Tranche B-2 Term Loan, 6.75%, 9/	
2,000,000 (a) 19,174,002	Graceway Pharmaceuticals LLC, Mezzanine Loan, Mylan, Inc., U.S. Tranche B Term Loan, 3.75% -	500,000
3,990,000	Life Sciences Tools & Services - 2.0% Life Technologies Corp., Facility Term Loan B,	3,923,918

		Total Pharmaceuticals & Biotechnology & Life S	22,822,109
4,987,406		Diversified Financials - 2.0% Specialized Finance - 2.0% Charter Communications Operating LLC, New Term Total Diversified Financials	3,983,690 3,983,690
678,297 3,017,770		<pre>Insurance - 1.3% Insurance Brokers - 1.3% HUB International, Ltd., Delayed Draw Term Loa HUB International, Ltd., Initial Term Loan, 3. Total Insurance</pre>	488,373 2,172,794 2,661,167
5,000,000		Real Estate - 0.8% Diversified Real Estate Investment Trust - 0.8% Spirit Finance Corp., Term Loan, 4.17%, 8/1/13 Total Real Estate	
2,037,500		Software & Services - 10.8% Internet Software & Services - 0.9% Web Service Co., LLC, Term Loan, 7.0% - 8.0%,	1,731,875
4,581,395 348,837 (4,987,500 6,752,075	(a)	IT Consulting & Other Services - 6.1% Keane International, Inc., Closing Date Term L Keane International, Inc., Synthetic LC Loan, SunGard Data Systems, Inc., Incremental Term L SunGard Data Systems, Inc., New U.S. Term Loan	129,070 4,638,375
2,595,488 ((a)	Data Processing & Outsourced Services - 1.1% DTN, Inc., Tranche C Term Loan, 5.448% - 7.193	
3,327,536 938,462 ((a)	Application Software - 1.2% Serena Software, Inc., Term Loan, 3.104%, 3/10 Verint Systems, Inc., Term Loan, 3.71%, 5/25/1	1,863,420 570,115 2,433,535
2,463,443 (1,466,667 1,000,000	(a)	Systems Software - 1.5% Applied Systems, Inc., Term Loan, 3.684% - 3.9 Infor Enterprise Solutions Holdings, Inc., Seco Delayed Draw Term Loan, 7.709%, 3/2/14 Vangent, Inc., Term Loan, 4.16%, 2/14/13	1,884,534
		Total Software & Services	21,598,617
2,348,533 2,955,000 (4,501,353 2,533,333	(a)	Technology Hardware & Equipment - 3.9% Computer Hardware - 3.2% Infor Enterprise Solutions Holdings, Inc., Del Infor Enterprise Solutions Holdings, Inc., Dol Lien Term Loan, 4.21%, 7/28/12 Infor Enterprise Solutions Holdings, Inc., Ini Infor Enterprise Solutions Holdings, Inc., Seco Dollar Term Loan, 7.709%, 3/2/14	1,673,269 2,745,825 nd Lien Initial 525,667
996,924 996,924 ((a)	Electronic Manufacturing Services - 0.7% FCI USA, Inc., Facility Term Loan B-1, 4.145%, FCI USA, Inc., Facility Term Loan B-5-B, 4.145 Total Technology Hardware & Equipment	6,377,366 700,339 700,339 1,400,678 7,778,044
6,500,000		Telecommunication Services - 15.9% Alternative Carriers - 2.4% Level 3 Financing, Inc., Term Loan, 2.703% - 3	

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Integrated Telecommunication Services - 5.8%
752,152 EURO Amsterdamse Beheer-EN Consultingmaatschappij B.V., Casema
                Facility Term Loan B-1, 4.053%, 9/15/14 878,115
          EURO Amsterdamse Beheer-EN Consultingmaatschappij B.V., Casema
390,705
                Facility Term Loan B-2, 4.053%, 9/15/14 456,137
          EURO Amsterdamse Beheer-EN Consultingmaatschappij B.V., Casema
1,142,857
                Facility Term Loan C, 4.553%, 9/14/15 1,335,368
857,143
          EURO Amsterdamse Beheer-EN Consultingmaatschappij B.V., Kabelcom
               Facility Term Loan B, 4.053%, 9/15/14 1,000,689
857,143 EURO Amsterdamse Beheer-EN Consultingmaatschappij B.V., Kabelcom
               Facility Term Loan C, 4.553%, 9/14/15 1,001,526
1,000,000
               Hargray Acquisition Co., Second Lien Term Loan 622,500
569,999 (a) Inovis International, Inc., Term Loan, 4.25%, 555,749
3,950,000 Integra Telecom Holdings, Inc., First Lien Ter 2,425,300
1,500,000 EURO Wind Telecomunicazione S.p.A., Facility Term L 1,678,666
1,500,000 EURO Wind Telecomunicazione S.p.A., Facility Term L 1,678,666
                                                              11,632,716
                Wireless Telecommunication Services - 7.7%
9,750,000
                Cricket Communications, Inc., Term Loan B, 6.5 9,085,781
                MetroPCS Wireless, Inc., Tranche B Term Loan, 6,417,225
7,355,947
                                                              15,503,006
                Total Telecommunication Services
                                                              31,982,863
                Utilities - 7.7%
                Electric Utilities - 6.9%
3,696,435
                ANP Funding I LLC, Tranche A Term Loan, 3.938% 3,460,787
2,989,274
              Bosque Power Co. LLC, Term Loan, 7.025%, 1/16/ 2,032,707
1,754,777 (a) Coleto Creek Power, L.P., First Lien Synthetic 1,248,817
3,596,520 Coleto Creek Power, L.P., First Lien Term Loan 2,559,525 4,875,000 Coleto Creek Power, L.P., Second Lien Term Loa 2,730,000
2,019,898 (c)(d) GBGH LLC, First Lien Advance Term Loan, 9.5%, 1,807,809
                                                              13,839,645
                Independent Power Producers & Energy Traders - 0.8%
2,000,000
                Calpine Corp., First Priority Term Loan, 4.335 1,462,142
                Mach Gen LLC, First Lien Synthetic LC Loan, 1.
275,941 (a)
                                                                213,854
                                                               1,675,996
                Total Utilities
                                                              15,515,641
                 TOTAL SENIOR SECURED FLOATING RATE LOAN INTERESTS
                 (Cost $474,984,958)
                                                             302,635,361
                CLAIMS - 0.0%
                Capital Goods - 0.0%
                Aerospace & Defense - 0.0%
1,200,000 (a) (e) Northwest Airlines, Inc., ALPA Claim-Escrow, 2
                                                                    826
                                                                 1,720
2,500,000 (a)(e) Northwest Airlines, Inc., Bell Atlantic Claim-
2,500,000 (a)(e) Northwest Airlines, Inc., EDC Claim-Escrow, 5.
                                                                  1,720
2,130,600 (a)(e) Northwest Airlines, Inc., Flight Attendant Cla
                                                                   1,466
                                                                   1,032
1,500,000 (a)(e) Northwest Airlines, Inc., GE Claim-Escrow, 2.5
                                                                    870
1,264,500 (a)(e) Northwest Airlines, Inc., IAM Claim-Escrow, 2.
1,404,900 (a)(e) Northwest Airlines, Inc., Retiree Claim-Escrow
                                                                    966
                Total Capital Goods
                                                                   8,600
                 TOTAL CLAIMS
                (Cost $0)
                                                                   8,600
                CORPORATE NOTES - 16.8%
                Materials - 0.2%
                Commodity Chemicals - 0.2%
                Georgia Gulf Corp., 9.5%, 10/15/14 (144A)
2,940,000
                                                              382,200
                Total Materials
                                                                 382,200
                Automobiles & Components - 1.1%
                Tires & Rubber - 1.1%
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3,000,000 (b)	American Tire Distributors, Inc., 7.709%, 4/1/ Total Automobiles & Components	2,130,000 2,130,000
1,000,000 (c)	Media - 0.0% Broadcasting - 0.0% CCH I LLC, 11.0%, 10/1/15 (144A) Total Media	85,000 85,000
	Pharmaceuticals & Biotechnology & Life Science Biotechnology - 4.2%	s - 15.5%
4,630,077 (a) 2,642,485 (a)(b) 2,280,000 (a)	Fosamprenavir Pharma, 15.5%, 6/15/18 (144A) (Molecular Insight Pharmaceuticals, Inc., 10.80 Pharma V, 13.0%, 10/15/13 (144A)	4,074,468 2,113,988 2,097,600 8,286,056
	Pharmaceuticals - 11.0% Azithromycin Royalty Sub LLC, 16.0%, 5/15/19 (Celtic Pharma Phinco B.V., 17.0%, 6/15/12 (144 (Pharma VI, 6.434%, 10/15/14 (144A) TCD Pharma, 16.0%, 4/15/24 (144A)	
1,038,750 (a)(d)	Life Sciences Tools & Services - 0.3% Pharma X, 15.5%, 3/30/17 (144A) Total Pharmaceuticals & Biotechnology & Life S TOTAL CORPORATE NOTES (Cost \$42,926,150)	675,187
Shares	COMMON STOCK - 0.0% Transportation - 0.0% Airlines - 0.0%	
3,275 (e)	Delta Airlines, Inc.	16,473
12,887 (e)	Trucking - 0.0% SIRVA Worldwide, Inc. (144A) Total Transportation TOTAL COMMON STOCK (Cost \$1,384,679)	64,435 80,908 80,908
213,605 (e)	WARRANTS - 0.0% Energy - 0.0% Oil & Gas Equipment & Services - 0.0% Value Creation, Inc., Exp. 1/29/14 Total Energy	0 0
400,000 (e)	Telecommunication Services - 0.0% Integrated Telecommunication Services - 0.0% Clearwire Corp., Exp. 8/15/10 (144A) Total Telecommunication Services TOTAL WARRANTS	2,000 2,000
Principal Amount USD (\$)	(Cost \$956,752)	2,000 Value
	TEMPORARY CASH INVESTMENTS - 20.0%	
8,000,000 of \$8,000,000 pl	Repurchase Agreements - 20.0% Bank of America Corp., 0.27%, dated 2/27/09, rus accrued	epurchase price
National Mortgag		
	5.5% - 6.5%, 11/15/38 - 2/20/39	8,000,000
8,000,000	Barclays Plc, 0.25%, dated 2/27/09, repurchase	price of

\$8,000,000 plus accrued interest on 3/2/09 collateralized by the following: \$4,079,655 Federal National Mortgage Association, 4.5%, 10/1/35 \$4,080,345 Freddie Mac Giant, 5.0%, 4/1/33 8,000,000 8,000,000 BNP Paribas Securities Corp., 0.25% dated 2/27/09, repurchase price of \$8,000,000 plus accrued interest on 3/2/09 collateralized by the following: \$4,007,859 U.S. Treasury Inflation Notes, 2.0% - 2.375%, 1/15/25 - 1/15/26 \$4,154,975 U.S. Treasury Strip, 0.0%, 5/15/16- 8,000,000 Deutsche Bank AG, 0.29%, dated 2/27/09, repurchase price of 8,000,000 \$8,000,000 plus accrued interest on 3/2/09 collateralized by the following: \$2,831,104 Federal National Mortgage Association, 4.5% - 5.0%, 5/1/11 - 1/1/39 \$5,328,896 Freddie Mac Giant, 5.5%, 6/1/38 8,000,000 JPMorgan Chase & Co., .026%, dated 2/27/09, repurchase price of \$8,000,000 plus accrued interest on 3/2/09 collateralized by \$8,130,425 Federal National Mortgage Association, 5.0% - 5.5%, 3/1/38 - 5/1/38 8,000,000 TOTAL TEMPORARY CASH INVESTMENTS (Cost \$40,000,000) 40,000,000 TOTAL INVESTMENTS IN SECURITIES - 188.3% (Cost \$566,388,239)(f) 377,121,318 OTHER ASSETS AND LIABILITIES 2.8% 5,597,441 PREFERRED SHARES AT REDEMPTION VALUE, INCLUDING DIVIDENDS PAYABLE - (91.1)% (182,477,326)NET ASSETS APPLICABLE TO COMMON SHAREOWNERS - 200,241,433 Senior secured floating rate loan interests in which the Trust invests generally pay interest at rates that are periodically redetermined by reference to a base lending rate plus a premium. These base lending rates are generally (i) the lending rate offered by one or more major European banks, such as LIBOR (London InterBank Offered Rate), (ii) the prime rate offered by one or more major United States banks. (iii) the certificate of deposit (iv) other base lending rates used by commercial lenders. The rate shown is the coupon rate accruing at February 28, 2009. Security is exempt from registration under Rule 144A of the Securities Act of 1933. Such securities may be resold normally to qualified institutional buyers in a transaction exempt from registration. At February 28, 2009 the value of these securities amounted to \$47,891,237 or 23.9% of total net assets applicable to common shareowners.

(a) Indicates a security that has been deemed illiquid.

The aggregate cost of illiquid securities is
\$176,324,374. The aggregate value\$100,293,124 represents 50.1%

of

the total net assets applicable to common shareowners.

- (b) Floating Rate Note. The rate shown is the coupon rate at February 28, 2009.
 - (c) Security is in default and is non-income producing.
- (d) Payment-in-Kind (PIK) security which may pay interest in additional principal amount.
 - (e) Non-income producing.
 - (f) At February 28, 2009, the net unrealized loss on investments based on cost for federal income tax purposes of \$566,729,541 was as follows:

Aggregate gross unrealized gain for all investments in which there is an excess of value over tax cost 200,052
Aggregate gross unrealized loss for all investments in which there is an excess of tax cost over value (189,808,275)
Net unrealized loss (189,608,223)

For financial reporting purposes net unrealized loss on investments was \$189,266,921. and cost of investments aggregated \$566,388,239.

Glossary of Terms:
LC- Letter of Credit

 $\hbox{ Principal amounts are denominated in U.S. dollars unless otherwise noted. }$

AUD - Australian Dollar EURO - Euro

Various inputs are used in determining the value of the Trust's investments.

 $\hbox{ These inputs are summarized in the three broad levels listed below.} \\$

Highest priority is given to Level 1 inputs and lowest priority is given to Level 3.

Level 1 - quoted prices in active markets for identical

securities

Level 2 - other significant observable inputs (including quoted

prices for

similar securities, interest rates, prepayment speeds, credit

risk, etc.)

Level 3 - significant unobservable inputs (including the

Trust's own

assumptions in determining fair value of investments)

The following is a summary of the inputs used as of February

28, 2009, in

valuing the Trust's investments:

	Investments
Valuation Inputs	in Securities
Level 1 - Quoted Prices	16,473
Level 2 - Other Significant Observable Inputs	345,298,996
Level 3 - Significant Unobservable Inputs	31,805,849
Total	377,121,318

Following is a reconciliation of assets valued using significant unobservable inputs (Level 3): Investments in Securities Balance as of 11/30/08 33,032,207 Realized gain (loss) 0 Change in unrealized appreciation (depreciatio (1,249,702) Net purchases (sales) 14,744 Transfers in and out of Level 3 8,600 Balance as of 2/28/09 31,805,849

ITEM 2. CONTROLS AND PROCEDURES.

(a) Disclose the conclusions of the registrant's principal executive officer or officers and principal financial officer or officers, or persons performing similar functions, about the effectiveness of the registrant's disclosure controls and procedures (as defined in Rule 30a-3(c) under the Act (17 CFR 270.30a-3(c))) as of a date within 90 days of the filing date of the report that includes the disclosure required by this paragraph, based on their evaluation of these controls and procedures required by Rule 30a-3(b) under the Act (17 CFR270.30a-3(b))) and Rule 13a-15(b) or 15d-15(b) under the Exchange Act (17 CFR240.13a-15(b) or 240.15d-15(b)).

The registrant's principal executive officer and principal financial officer have concluded that the registrant's disclosure controls and procedures are effective based on their evaluation of these controls and procedures as of a date within 90 days of the filing date of this report.

(b) Disclose any change in the registrant's internal controls over financial reporting (as defined in Rule 30a-3 (d) under the Act (17 CFR270.30a-3 (d)) that occurred during the registrant's last fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

There were no significant changes in the registrant's internal control over financial reporting that occurred during the second fiscal quarter of the period covered by this report that have materially affected, or are reasonably likely to materially affect, the registrant's internal control over financial reporting.

ITEM 3. EXHIBITS.

(a) A separate certification for each principal executive officer and principal financial officer of the registrant as required by Rule 30a-2 under the Act (17 CFR 270.30a-2).

Filed herewith.

SIGNATURES

[See General Instruction F]

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.

(Registrant) Pioneer Floating Rate Trust

By (Signature and Title)* /s/ John F. Cogan, Jr. John F. Cogan, Jr, President

Date April 29, 2009

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 (Signature and Title)* /s/ John F. Cogan, Jr. John F. Cogan, Jr., President

Date April 29, 2009

By (Signature and Title)* /s/ Mark Bradley Mark Bradley, Treasurer

Date April 29, 2009

* Print the name and title of each signing officer under his or her signature.