Pioneer Floating Rate Trust Form N-Q April 28, 2010

OMB APPROVAL

OMB Number: 3235-0578 Expires: April 30, 2010 Estimated average burden hours per response..... 10.5

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, 2010

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 2/28/10 (unaudited)

Principal Amount			
USD (\$)			Value (\$)
		COLLATERALIZED LOAN OBLIGATIONS - 1.6% of Ne Banks - 1.6%	et Assets
		Diversified Banks - 0.5%	
1,000,000	(a) (b) (c)Primus, Ltd., 2007-2A D, 2.651%, 7/15/21 (144	147,510
1,000,000		Rampart, Ltd., 2006-1A, 3.801%, 4/18/21 (144A	
951 , 289	(a) (b)	Stanfield McLaren, Ltd., 2007-1A B2L, 4.752%,	
		Thrifts (Montgage Finance 1 1%	1,423,795
1,000,000	(a) (b)	Thrifts & Mortgage Finance - 1.1% ACA, Ltd. 2007-1A D, 2.601%, 6/15/22 (144A)	561,540
1,000,000		Goldman Sachs Asset Management, Plc, 2007-1A	594,570
1,013,186		Gulf Stream Sextant, Ltd., 2007-1A D, 2.653%,	592,683
1,000,000	(a) (b)	Landmark CDO, Ltd., 2007-9A E, 3.751%, 4/15/2	454,430
2,000,000	(a) (b)	Stone Tower, Ltd., 2007-6A C, 1.601%, 4/17/21	1,000,000
			3,203,223
		Total Banks	4,627,018
		TOTAL COLLATERALIZED LOAN OBLIGATIONS (Cost \$6,285,819)	4,627,018
		(COSC 40, 203, 013)	4,027,010
		SENIOR SECURED FLOATING RATE LOAN INTERESTS - Energy - 5.7%	139.9%*
		Oil & Gas Drilling - 2.2%	
2,184,684			2,157,375
1,737,816		Big West Oil LLC, Initial Advance Term Loan,	1,716,094
1,300,000		Big West Oil LLC, Term Loan, 9.5%, 1/30/15	1,261,000
942,442) TARH E&P Holdings, L.P., First Lien Second Ou	
371 , 360	(a) (d) (e)TARH E&P Holdings, L.P., Second Lien Debt Ter	352,792 6,429,703
		Oil & Gas Equipment & Services - 2.3%	
2,120,274		Coffeyville Resources LLC, Tranche D Term Loa	
4,490,749	(a) (d)	Value Creation, Inc., Term Loan, 12.5%, 3/31/	
		Oil & Gas Exploration & Production - 0.9%	6,826,617
2-055-208	(a) (c) (e	Crusader Energy Group, Inc., Second Lien Term	0
1,000,000	(4) (6) (6	Targa Resources, Inc., Term Loan, 6.0%, 7/5/1	
1,612,942		VenoCo., Inc., Second Lien Term Loan, 4.25%,	
			2,512,093
1 000 605		Oil & Gas Storage & Transportation - 0.3%	1 001 775
1,023,695		Atlas Pipeline Partners, L.P., Term Loan, 6.7 Total Energy	1,021,775
		Materials - 8.4%	
		Commodity Chemicals - 0.5%	
1,500,000		Celanese US Holdings LLC, Term Loan, 7.099%,	1,444,087
		Diversified Chemicals - 4.0%	
383,573		Ashland, Inc., Term B Borrowing, 7.65%, 5/13/	
250,000	_	Huntsman International LLC, New Dollar Term L	
10,959,148	3	Solutia, Inc., Term Loan, 7.25%, 2/28/14	11,135,272 11,761,764
		Specialty Chemicals - 1.4%	11, O1, O1
3,500,000		Chemtura Corp., Facility Term Loan, 6.0%, 2/1	3,521,875

746,250	Nalco Co., Term Loan, 6.5%, 5/13/16	754,459 4,276,334
1,500,000	Construction Materials - 0.5% Summit Materials, Term Loan, 6.75%, 7/7/14	1,503,750
756,195 818,063 1,780,401 1,700,000	Paper Packaging - 1.7% Graham Packaging Co., L.P., Term Loan B., 2.5 Graham Packaging Co., L.P., Term Loan C, 6.75 Graphic Packaging International, Inc., Increm Smurfit-Stone Container Enterprises, Inc., Ex	824,821 1,751,593
1,000,000	Aluminum - 0.3% Noranda Aluminum Acquisition Corp., Term Loan Total Materials	878,333 878,333 24,882,072
487,429 1,629,714 757,268	Capital Goods - 7.0% Aerospace & Defense - 2.2% Aeroflex, Inc., Tranche B-2 Term Loan, 4.0%, BE Aerospace, Inc., Tranche B Term Loan, 5.75 DAE Aviation Holdings, Inc., Tranche B-1 Term	457,372 1,646,302 708,046
1,675,790 911,148 (d) 738,952 175,000 325,000	Hunter Defense Technologies, Inc., Term Loan, IAP Worldwide Services, Inc., First Lien Term Standard Aero, Ltd., Tranche B-2 Term Loan, 4 TASC, Inc., Tranche A Term Loan, 5.5%, 12/18/TASC, Inc., Tranche B Term Loan, 5.75%, 12/18	815,478 690,920 176,240
5,691,518 (a)(c)(d	Building Products - 2.2% A) Atrium Companies, Inc., Closing Date Term Loa Custom Building Products, Inc., First Lien Te	
1,505,630	Construction & Engineering - 0.5% URS Corp., Tranche B Term Loan, 2.479%, 5/15/	1,501,622
989,744	Industrial Conglomerates - 0.3% Kansas City Southern Railway Co., Advance Ter	966,650
1,500,000 2,955,176 868,601	Construction & Farm Machinery & Heavy Trucks Bucyrus International, Inc., Tranche C U.S. D Manitowoc Co., Inc., Term Loan B, 7.5%, 11/6/Oshkosh Truck Corp., Term Loan B, 6.25% - 6.2	1,511,709 2,951,482
	Total Capital Goods	20,573,256
40,205 1,408,199 747,292	Commercial & Professional Services - 5.3% Commercial Printing - 0.8% Cenveo Corp., Delayed Draw Term Loan, 4.753%, Cenveo Corp., Facility Term Loan C, 4.753%, 6 World Color Press, Inc. & World Color (USA) C	1,410,620 757,879
970,000 5,647,454	Diversified Commercial & Professional Service Aramark Canada, Ltd., Canadian Term Loan, 2.1 Cydcor, Inc., First Lien Tranche B Term Loan,	923,925
1,750,000 1,100,000 422,875	Environmental & Facilities Services - 1.1% Advanced Disposal Services, Inc., Term Loan B Brickman Group Holdings, Inc., Tranche B Term Casella Waste Systems, Inc., Term Loan B, 7.0	1,051,875
890,069 398,974	Diversified Support Services - 1.0% Allied Security Holdings LLC, Term Loan, 6.75 Iron Mountain, Inc., Initial Term Loan, 1.5%,	900,639

1,750,000	Language Line LLC, Tranche B Term Loan, 5.5%,	1,760,937 3,048,581
997,500	Security & Alarm Services - 0.3% Protection One Alarm Monitoring, Inc., Tranch Total Commercial & Professional Services	964,665 15,671,102
980,000 472,727 897,750 3,650,000	Transportation - 3.2% Airlines - 1.7% Delta Airlines, Inc., Credit-Linked Deposit L Delta Airlines, Inc., Second Lien Term Loan, Delta Airlines, Inc., Term Loan, 8.75%, 9/27/ US Airways Group, Inc., Term Loan, 2.729%, 3/	403,473 906,503
1,437,500	Marine - 0.4% Horizon Lines LLC, Term Loan, 3.26%, 8/8/12	1,214,688
1,067,819 (c) 512,360 2,463,211 (d) 1,080,571	Trucking - 0.6% (d) Gainey Corp., Term Loan, 12.5%, 4/20/12 SIRVA Worldwide, Inc., Revolving Credit Loan, SIRVA Worldwide, Inc., Second Lien Term Loan, SIRVA Worldwide, Inc., Term Loan, 10.25% - 13 Airport Services - 0.5%	338,692
1,713,689	AWAS Capital, Inc., First Lien Term Loan, 2.0 Total Transportation	1,602,299 9,455,112
2,878,981 37,495 (c) 32,045 (c) 97,713 (c) 40,695 (c) 244,083 (c) 271,324 (c) 134,653 (c) 75,733 (c) 592,635 302,365 3,889,710 1,687,500 500,000	Automobiles & Components - 6.4% Auto Parts & Equipment - 3.3% Allison Transmission, Inc., Term Loan, 2.98% Cooper-Standard Automotive Canada, Ltd., Cana Cooper-Standard Automotive Canada, Ltd., Tran Cooper-Standard Automotive Canada, Ltd., Tran Cooper-Standard Automotive, Inc., Multicurren Cooper-Standard Automotive, Inc., Tranche C T Cooper-Standard Automotive, Inc., Tranche D T Cooper-Standard Automotive, Inc., Tranche E T Cooper-Standard Automotive, Inc., U.S. Revolv Federal-Mogul Corp., Tranche B Term Loan, 2.1 Federal-Mogul Corp., Tranche C Term Loan, 2.1 Key Safety Systems, Inc., First Lien Term Loa Lear Corp., Delayed Draw Term Loan, 7.5%, 11/ TRW Automotive Inc., Tranche B-3 Term Loan, 5	1,696,148
9,687,108	Ford Motor Co., Tranche B-1 Term Loan, 3.24% Total Automobiles & Components	9,099,159 18,738,319
		418,872 300,000
1,000,000	Apparel, Accessories & Luxury Goods - 0.3% Hanesbrands, Inc., New Term Loan, 5.25%, 12/1 Total Consumer Durables & Apparel	1,013,036 2,882,558

	5,000,000 563,337 1,126,673 1,200,000 715,085	(c)	Consumer Services - 5.4% Casinos & Gaming - 1.3% Fontainebleau Florida Hotel LLC, Tranche C Te Fontainebleau Las Vegas LLC, Delayed Draw Ter Fontainebleau Las Vegas LLC, Initial Term Loa Harrah's Operating Co., Inc., Term Loan B-4, Penn National Gaming, Inc., Term Loan B, 1.98	111,259 222,518 1,202,000
	1,190,445		Hotels, Resorts & Cruise Lines - 0.4% Yellowstone Mountain Club LLC, Senior First L	
	2,500,000 12,111 587,649 6,402,380 1,765,105 750,000		Leisure Facilities - 1.4% Cedar Fair, LP Term Loan B, 3.75%, 4/1/16 Lake at Las Vegas Joint Venture, Mezzanine Lo Lake at Las Vegas Joint Venture, Revolving Cr Lake at Las Vegas Joint Venture, Term Loan, 1 Lake at Las Vegas Joint Venture, Debtor in Po Universal City Development Partners, Ltd., Te	2,500,390 424 11,263 122,714 617,787 756,563 4,009,141
	1,795,443		Education Services - 0.6% Bright Horizons Family Solutions, Inc., Tranc	
	1,017,765 165,170 3,910,021		Specialized Consumer Services - 1.7% Adesa, Inc., Initial Term Loan, 2.98%, 10/21/ Travelport LLC, Incremental Term Loan C, 10.5 Web Service Co., LLC, Term Loan, 7.0%, 8/28/1	166,340
			Total Consumer Services	15,945,393
			Media - 26.9% Advertising - 0.5%	
	1,475,380		Lamar Media Corp., Incremental Term Loan Seri	1,471,692
AUD	2,652,051 16,466,037 11,115,966 3,769,895	5	Broadcasting - 9.8% Discovery Communications Holding, LLC, Term L SMG H5 Pty, Ltd., Facility Term Loan A, 5.731 Univision Communications, Inc., Initial Term Young Broadcasting, Inc., Term Loan, 4.75%, 1 Cable & Satellite - 12.0%	13,363,015 9,620,524
			Broadstripe LLC, First Lien Term Loan, 9.25%, Broadstripe LLC, Revolver Credit Loan, 8.87% Cequel Communications LLC, Term Loan, 2.249% Charter Communications Operating LLC, New Ter Knology, Inc., Term Loan, 2.479%, 6/30/12 WideOpenWest Finance LLC, First Lien Term Loa Movies & Entertainment - 3.8%	714,102 9,260,089 4,621,250 6,402,266
	2,380,607 1,608,032 1,500,000 1,563,966 7,734,045	(c)	Alpha Topco, Ltd., Facility Term Loan B-1, 2. Alpha Topco, Ltd., Facility Term Loan B-2, 2. Carmike Cinemas, Inc., Initial Term Loan, 5.5 Lodgenet Entertainment Corp., Closing Date Te Metro-Goldwyn-Mayer, Inc., Tranche B Term Loa	1,446,023 1,499,532 1,457,616
	0935,574 0935,574 3,500,000	(c)	Publishing - 0.8% Mediannuaire Holding, Term Loan B-2, 2.964%, Mediannuaire Holding, Term Loan C, 3.464%, 10 Penton Media Holdings, Inc., Second Lien Term Total Media	924,389 924,389 525,000 2,373,778 79,151,840

Retailing - 5.7%

14,944,776(a)(c)(d	Distributors - 0.9%)Home Interiors & Gifts, Inc., Proof of Claims	2,615,336
554,615	Catalog Retail - 0.2% QVC, Inc., Tranche 2-W Term Loan, 3.749%, 10/	555 , 295
2,841,135 4,268,478	General Merchandise Stores - 2.3% Dollar General Corp., Tranche B-1 Term Loan, Dollar General Corp., Tranche B-2 Term Loan,	2,763,990 4,120,682 6,884,672
1,700,000	Oil & Gas - 0.6% Pilot Travel Centers LLC, Term Loan B, 3.5%,	1,715,021
967,414 4,180,100	Specialty Stores - 1.7% Sally Holdings LLC, Term Loan B, 2.48%, 11/16 Toys R Us - Delaware, Inc., Tranche B Term Lo	4,181,830 5,134,906
	Total Retailing	16,905,230
1,400,000	Food & Staples Retailing - 2.1% Drug Retail - 0.5% Rite Aid Corp., Tranche 4 Term Loan, 9.5%, 6/	1,459,850
4,875,000	Food Retail - 1.6% Pinnacle Foods Finance LLC, Term Loan, 2.979% Total Food & Staples Retailing	4,601,459 6,061,309
363,391 736,609	Food, Beverage & Tobacco - 2.8% Distillers & Vintners - 0.4% Constellation Brands, Inc., Extending Tranche Constellation Brands, Inc., Non-Extending Tra	
1,500,000	Agricultural Products - 0.5% Wm. Bolthouse Farms, Inc., First Lien Term Lo	1,503,124
992,347 260,245 309,108 220,588 931,627 529,412 2,540,730	Packaged Foods & Meats - 1.9% Dean Foods Co., Tranche B Term Loan, 1.615% - Dole Food Co., Inc., Credit-Linked Deposit Lo Dole Food Co., Inc., Tranche B Term Loan, 8.0 Dole Food Co., Inc., Tranche B-1 Term Loan, 3 Dole, Ltd., Tranche C Term Loan, 8.0%, 4/12/1 Dole, Ltd., Tranche C-1 Term Loan, 3.25%, 2/1 Sturm Foods, Inc., Initial First Lien Term Lo	260,245 309,108 221,278 931,627 531,066
	Total Food, Beverage & Tobacco	8,355,357
2,486,039 1,700,000 1,400,000 4,125,841 (d) 210,397 1,032,010	Household & Personal Products - 4.7% Household Products - 3.6% Central Garden & Pet Co., Tranche B Term Loan JohnsonDiversey, Inc., Tranche B Dollar Term Reynolds Group Holdings, Inc., U.S. Term Loan Spectrum Brands, Inc., Dollar Term Loan B, 8. Spectrum Brands, Inc., LC Loan, 1.5%, 6/30/12 Yankee Candle Co., Inc., Term Loan, 2.23% - 2 Personal Products - 0.9%	1,717,000 1,413,825 4,130,999 210,660
977,444 (a) 2,500,000	Appleseed's Intermediate Holdings, Inc., Firs Revlon Consumer Products Corp., Term Loan, 4. Total Household & Personal Products	

714,286 4,167,857	Health Care Equipment & Services - 12.2% Health Care Equipment & Services - 1.4% Fenwal, Inc., First Lien Delayed Draw Term Lo Fenwal, Inc., Initial First Lien Term Loan, 2	
464,930 1,914,539 2,823,229 150,564 5,163,713 (c)	Health Care Supplies - 2.9% Bausch & Lomb, Inc., Delayed Draw Term Loan, Bausch & Lomb, Inc., Parent Term Loan, 3.501% Biomet, Inc., Dollar Term Loan, 3.229% - 3.25 CCS Medical, Inc., Debtor in Possession Term CCS Medical, Inc., First Lien Term Loan, 4.35	1,840,617 2,741,901 150,564
750,000 1,500,000 1,069,076 2,923,664 1,016,396 (d) 1,920,000 1,000,000	Health Care Services - 3.2% Alliance HealthCare Services, Initial Term Lo Butler Animal Health Supply LLC, Term Loan, 5 Fresenius SE, Tranche B-1 Term Loan, 6.75%, 9 LifeCare Holdings, Term Loan, 4.5%, 8/10/12 Medical Staffing Network, Inc., Second Lien T RehabCare Group, Inc., Term Loan B, 6.0%, 11/ Rural/Metro Operating Co., LLC, Term Loan, 7.	1,511,250 1,079,099 2,550,897 533,608 1,921,200
56,563 1,106,643 10,813,450 302,147	Health Care Facilities - 4.0% CHS/ Community Health Systems, Inc., Delayed CHS/ Community Health Systems, Inc., Term Loa HCA, Inc., Tranche B-1 Term Loan, 2.501%, 11/ Psychiatric Solutions, Inc., Term Loan, 2.002	1,036,371 10,282,607
899,355 133,603 240,747 737,042	Managed Health Care - 0.7% Aveta, Inc., MMM Original Term Loan, 5.48%, 8 Aveta, Inc., NAMM New Term Loan, 5.48%, 8/22/ Aveta, Inc., NAMM Original Term Loan, 5.48%, Aveta, Inc., PHMC Acquisition Term Loan, 5.48 Total Health Care Equipment & Services	131,043 236,133
	Pharmaceuticals & Biotechnology & Life Science	
365,000 722,034 794,237 361,017	Biotechnology - 0.8% Warner Chilcott Co., Inc., Term Loan B-3, 5.7 Warner Chilcott Co., LLC, Term Loan A, 5.5%, Warner Chilcott Co., LLC, Term Loan B-2, 5.75 Warner Chilcott Corp., Term Loan B-1, 5.75%,	723,523
575,924 305,135 2,000,000 12,844,551	Pharmaceuticals - 4.7% Fresenius SE, Tranche B-2 Term Loan, 6.75%, 9 Graceway Pharmaceuticals LLC, First Lien Term Graceway Pharmaceuticals LLC, Mezzanine Loan, Mylan, Inc., U.S. Tranche B Term Loan, 3.5% -	219,697 350,000 12,728,590 13,879,610
	Total Pharmaceuticals & Biotechnology & Life Diversified Financials - 0.6%	10,120,034
1,920,181	Specialized Finance - 0.6% Collect Acquisition Corp., Advance Term Loan	1,907,781
6,809 5,007	Consumer Finance - 0.0% Dollar Financial Corp., Canadian Borrower Ter Dollar Financial Corp., Delayed Draw Term Loa	11,481
	Total Diversified Financials	1,919,262

Insurance - 1.7%

_		
847,875 861,964 3,125,933 498,750	Insurance Brokers - 1.7% HUB International, Ltd., Additional Term Loan HUB International, Ltd., Delayed Draw Term Lo HUB International, Ltd., Initial Term Loan, 2 USI Holdings Corp., New Term Loan Series C, 7	795,432 2,884,652
148,855	Multi-Line Insurance - 0.0% AMWINS Group, Inc., Initial Term Loan, 2.76%, Total Insurance	138,993 5,144,606
5,000,000	Real Estate - 1.3% Diversified Real Estate Investment Trust - 1.3 Spirit Finance Corp., Term Loan, 3.249%, 8/1/ Total Real Estate	
937,886 4,534,884 348,837 4,937,500 3,683,176	Software & Services - 14.0% IT Consulting & Other Services - 4.8% Activant Solutions, Inc., Term Loan, 2.25% - Keane International, Inc., Closing Date Term Keane International, Inc., Synthetic LC Loan, SunGard Data Systems, Inc., Incremental Term SunGard Data Systems, Inc., Tranche A U.S. Te	4,240,116 326,163 4,983,172
2,020,899 992,386 1,188,927	Data Processing & Outsourced Services - 1.4% DTN, Inc., Tranche C Term Loan, 5.227% - 7.0% First Data Corp., Initial Tranche B-2 Term Lo Lender Processing Services, Inc., Term Loan B Application Software - 1.9%	868,269
1,602,258 3,531,739 931,279	Nuance Communications, Inc., Term Loan, 2.23% Serena Software, Inc., Term Loan, 2.257%, 3/1 Verint Systems, Inc., Term Loan, 3.48%, 5/25/	3,306,591
1,250,000 2,334,269 2,324,507 2,925,000 4,455,304 1,466,667 2,533,333 665,334 1,000,000	Systems Software - 5.9% Allen Systems Group, Inc., First Lien Term Lo Applied Systems, Inc., Term Loan, 2.729%, 9/2 Infor Enterprise Solutions Holdings, Inc., De Infor Enterprise Solutions Holdings, Inc., Do Infor Enterprise Solutions Holdings, Inc., In Infor Enterprise Solutions Holdings, Inc., Se Infor Enterprise Solutions Holdings, Inc., Se Macrovision Solutions Corp., Term Loan, 6.0%, Vangent, Inc., Term Loan, 2.48% - 2.51%, 2/14 Total Software & Services	2,229,227 2,174,867 2,654,437 4,168,494 1,173,333 2,064,667 668,660
868,732 1,500,000	Technology Hardware & Equipment - 3.3% Communications Equipment - 0.8% CommScope, Inc., Term Loan B, 2.729% - 4.75%, TowerCo Finance LLC, Term Loan, 6.0%, 11/24/1	
611,111 1,151,542 1,543,513	Electronic Equipment & Instruments - 1.0% H3C Holdings, Ltd., Tranche B Term Loan, 3.63 Itron, Inc., Dollar Term Loan, 3.98%, 4/18/14 Scitor Corp., Term Loan, 4.48%, 9/26/14	
36,285 1,154,601	Electronic Components - 0.4% Flextronics International, Ltd., A-1-B Delaye Flextronics International, Ltd., A-3 Delayed	
1,730,570	Electronic Manufacturing Services - 1.1% Baldor Electric Co., Term Loan, 5.25%, 1/31/1	1,741,040

```
749,889
                        FCI USA, Inc., Facility Term Loan B-1, 3.617% 703,958
    749,889
                        FCI USA, Inc., Facility Term Loan B-5-B, 3.61 703,958
                                                                        3,148,956
                        Total Technology Hardware & Equipment
                                                                        9,769,202
                        Telecommunication Services - 11.0%
                        Alternative Carriers - 2.0%
    6,500,000
                        Level 3 Financing, Inc., Tranche A Term Loan, 5,881,148
                       Integrated Telecommunication Services - 6.6%
EURO752,152
                       Amsterdamse Beheer-EN Consultingmaatschappij 997,503
EURO390,705
                       Amsterdamse Beheer-EN Consultingmaatschappij 518,153
                      Amsterdamse Beheer-EN Consultingmaatschappij 1,515,657
EURO1,142,857
                      Amsterdamse Beheer-EN Consultingmaatschappij 1,136,742
EURO857,143
EURO857,143
                       Amsterdamse Beheer-EN Consultingmaatschappij 1,136,742
                     Hargray Acquisition Co., Second Lien Term Loa 850,000 Integra Telecom Holdings, Inc., First Lien Te 1,923,481
    1,000,000
    1,915,102
                       Telesat Canada, U.S. Term I Loan, 3.24%, 10/3 3,891,362
    3,983,117
                       Telesat Canada, U.S. Term II Loan, 3.24%, 10/ 334,235
Time Warner Telecom Holdings, Inc., Term Loan 732,122
    342,116
    748,072
                      West Corp., Term Loan B-2, 2.604% - 2.624%, 1 1,249,475
    1,289,573
EURO1,500,000
                       Wind Telecomunicazione S.p.A., Facility Term 1,986,108
EURO1,500,000
                       Wind Telecomunicazione S.p.A., Facility Term 1,986,108
                       Windstream Corp., Tranche B-2 Term Loan, 3.01 1,146,967
    1,177,887
                                                                        19,404,655
                        Wireless Telecommunication Services - 2.4%
                        MetroPCS Wireless, Inc., Tranche B Term Loan, 7,041,035
    7,280,694
                        Total Telecommunication Services
                                                                        32,326,838
                        Utilities - 5.7%
                        Electric Utilities - 4.8%
                        Bosque Power Co. LLC, Term Loan, 5.489%, 1/16 2,260,465
    2,971,040 (h)
    1,754,777
                        Coleto Creek Power, L.P., First Lien Syntheti 1,595,750
    3,370,991
                        Coleto Creek Power, L.P., First Lien Term Loa 3,065,495
                        Coleto Creek Power, L.P., Second Lien Term Lo 3,956,500
    4,825,000
    881,057 (a)(d)(e)GBGH LLC, First Lien Term Loan, 4.0%, 6/9/13 411,013 282,485 (a)(d)(e)GBGH, LLC, Second Lien Term Loan, 12.0%, 6/9/ 2,825
                       Texas Competitive Electric Holdings Co. LLC, 2,773,943
    3,430,445
                                                                        14,065,991
                        Independent Power Producers & Energy Traders - 0.9%
    1,978,502
                        Calpine Corp., First Priority Term Loan, 3.13 1,864,857
    275,941
                        Mach Gen LLC, First Lien Synthetic LC Loan, 0 257,177
    273,514
                        NRG Energy, Inc., Credit-Linked Deposit Loan, 264,951
    465,537
                       NRG Energy, Inc., Term Loan, 1.981% - 2.001%, 450,963
                                                                        2,837,948
                        Total Utilities
                                                                        16,903,939
                         TOTAL SENIOR SECURED FLOATING RATE LOAN INTERESTS
                        (Cost $477,679,903)
                                                                       412,315,711
                        CLAIMS - 0.0% of Net Assets
                        Capital Goods - 0.0%
                        Airlines - 0.0%
    1,200,000 (a) (e) (i) Northwest Airlines, Inc., ALPA Claim-Escrow,
    2,500,000 (a)(e)(i)Northwest Airlines, Inc., Bell Atlantic Claim
                                                                          1,720
    2,500,000 (a)(e)(i)Northwest Airlines, Inc., EDC Claim-Escrow, 5
                                                                          1,720
    2,130,600 (a)(e)(i)Northwest Airlines, Inc., Flight Attendant Cl
                                                                          1,466
    1,500,000 (a) (e) (i) Northwest Airlines, Inc., GE Claim-Escrow, 2.
                                                                          1,032
    1,264,500 (a) (e) (i) Northwest Airlines, Inc., IAM Claim-Escrow, 2
                                                                           870
    1,404,900 (a) (e) (i) Northwest Airlines, Inc., Retiree Claim-Escro
                                                                           966
                        Total Capital Goods
                                                                           8,600
                         TOTAL CLAIMS
                        (Cost $0)
                                                                           8,600
```

2,500,000	CORPORATE NOTES - 15.0% of Net Assets Energy - 0.9% Oil & Gas Exploration & Production - 0.9% Denbury Resources, Inc., 8.25%, 2/15/20	2,587,500
2,300,000	Total Energy	2,587,500
1,750,000 600,000	Materials - 0.8% Paper Products - 0.8% Appleton Papers, Inc., 10.5%, 6/15/15 (144A) Cellu Tissue Holdings, Inc., 11.5%, 6/1/14 Total Materials	1,618,750 664,500 2,283,250
	Capital Goods - 1.2% Aerospace & Defense - 0.8%	
550,000 1,850,000	DigitalGlobe, Inc., 10.5%, 5/1/14 (144A) Spirit AeroSystems, Inc., 7.5%, 10/1/17 (144A)	
1,000,000	Construction & Farm Machinery & Heavy Trucks Manitowoc Co., Inc., 9.5%, 2/15/18 Total Capital Goods	
	Automobiles & Components - 0.9% Auto Parts & Equipment - 0.1%	
127,932	Delphi International Holdings S.A.R.L, 12.0%,	127,932
3,000,000 (b)	Tires & Rubber - 0.8% American Tire Distributors, Inc., 6.501%, 4/1 Total Automobiles & Components	2,475,000 2,602,932
	Consumer Durables & Apparel - 0.3% Housewares & Specialties - 0.3%	
1,000,000	Jarden Corp., 8.0%, 5/1/16 Total Consumer Durables & Apparel	1,045,000 1,045,000
	Retailing - 0.6%	
1,825,000	Catalog Retail - 0.6% QVC, Inc., 7.5%, 10/1/19 (144A) Total Retailing	1,847,813 1,847,813
	Pharmaceuticals & Biotechnology & Life Science Biotechnology - 1.6%	es - 9.1%
3,863,129 (a) 2,884,444 (a) (b) (d	Fosamprenavir Pharma, 15.5%, 6/15/18 (144A)) Molecular Insight Pharmaceuticals, Inc., 9.23	3,554,079 1,298,000 4,852,079
15,000,000 (a) 11,482,524 (a) (d) 840,000 (a) 639,101 (a) (b) (d 1,209,357 (a) (d) 1,500,000 (a) (d)	Pharmaceuticals - 7.5% Azithromycin Royalty Sub LLC, 16.0%, 5/15/19 Celtic Pharma Phinco B.V., 17.0%, 6/15/12 (14 Pharma V, 13.0%, 10/15/13 (144A))Pharma VI, 5.501%, 10/15/14 (144A) Pharma X, 15.5%, 3/30/17 (144A) TCD Pharma, 16.0%, 4/15/24 (144A)	806,400 543,236 1,027,953 1,320,000
	Total Pharmaceuticals & Biotechnology & Life	22,137,103 26,989,182
200,000	Diversified Financials - 0.3% Consumer Finance - 0.1% Capital One Financial Corp., 7.375%, 5/23/14	229,268
530,000	Asset Management & Custody Banks - 0.2% Janus Capital Group, Inc., 6.25%, 6/15/12 Total Diversified Financials	531,000 760,268

250,000 500,000 600,000	(b) (b) (b)	Insurance - 0.5% Reinsurance - 0.5% Muteki, Ltd., 4.65%, 5/24/11 (144A) Mystic Re, Ltd., 10.252%, 6/7/11 (144A) Residential Reinsurance 2008, Ltd., 7.002%, 6 Total Insurance	244,625 511,750 607,380 1,363,755
750,000		Real Estate - 0.3% Specialized Real Estate Investment Trusts - 0 Hospitality Properties Trust, 7.875%, 8/15/14	
150,000		Diversified Real Estate Activities - 0.0% WEA Finance LLC, 7.5%, 6/2/14 (144A) Total Real Estate	169,413 974,859
300,000		Telecommunication Services - 0.1% Integrated Telecommunication Services - 0.1% Frontier Communications Corp., 8.25%, 5/1/14 Total Telecommunication Services TOTAL CORPORATE NOTES (Cost \$53,497,823)	308,250 308,250 44,183,059
138 130,056		COMMON STOCK - 4.2% of Net Assets Energy - 0.0% Oil & Gas Drilling - 0.0% 1) TARH E&P Holdings GP, LLP Class A Membership 1) TARH E&P Holdings LP, Class A Partnership Int Total Energy	1 1,301 1,302
136,965	(i)	Materials - 0.7% Commodity Chemicals - 0.6% Georgia Gulf Corp.	1,954,490
20,650	(e)(i)	Diversified Chemicals - 0.1% Panda Herford Ethanol LP Total Materials	206,500 2,160,990
4,866	(i)	Transportation - 0.1% Airlines - 0.0% Delta Airlines, Inc.	62,869
12,887	(i)	Trucking - 0.1% SIRVA Worldwide, Inc. Total Transportation	193,305 256,174
829	(i)	Automobiles & Components - 3.3% Auto Parts & Equipment - 3.3% Delphi DIP Holdco LLP, Class B Subscription Total Automobiles & Components	9,813,287 9,813,287
5,325	(i)	Media - 0.1% Broadcasting - 0.1% Charter Communications, Inc. Total Media	158,419 158,419
1,589	(e)(i)	Utilities - 0.0% Electric Utilities - 0.0% GBGH, LLC Membership Interest Total Utilities TOTAL COMMON STOCK	16 16

	(Cost \$8,732,251)	12,390,188
3,377,886 (e)(i	LIQUIDATING TRUST - 0.0% of Net Assets Consumer Services - 0.0% Hotels, Resorts & Cruise Lines - 0.0% Yellowstone Mountain Club LLC, Liquidatir TOTAL LIQUIDATING TRUST (Cost \$0)	ng Tr 0
213,605 (a)(e	WARRANTS - 0.0% of Net Assets Energy - 0.0% Oil & Gas Equipment & Services - 0.0% (i) Value Creation, Inc., Exp. 1/29/14 Total Energy	0 0
400,000 (a)(i	Telecommunication Services - 0.0% Integrated Telecommunication Services - 0 Clearwire Corp., Exp. 8/15/10 (144A) Total Telecommunication Services TOTAL WARRANTS (Cost \$956,752)	400 400 400
5,600,000 \$5,600,000 plus accr		chase price of
	interest on 3/1/10 collateralized by the \$1,988,285 Federal Home Loan Mortgage 2.614% - 6.811%, 4/1/33 - 12/1/37 \$3,723,715 Federal National Mortgage (ARM), 1.881% - 6.342%, 6/1/17 - 1 TOTAL TEMPORARY CASH INVESTMENTS (Cost \$5,600,000)	e Corp., Association
	TOTAL INVESTMENTS IN SECURITIES - 162.6% (Cost \$552,752,548)(j) OTHER ASSETS AND LIABILITIES - (0.7)% PREFERRED SHARES AT REDEMPTION VALUE, INC DIVIDENDS PAYABLE - (61.9)% NET ASSETS APPLICABLE TO COMMON SHAREOWNE	CLUDING (182,482,039)
* generally	Floating rate loan interests in which the	e Trust invests
	pay interest at rates that are periodicall	y redetermined
base lending	reference to a base lending rate plus a p	oremium. These
j	rates are generally (i) the lending rate	offered by one
or more major	European banks, such as LIBOR (London Int	erBank Offered
Rate),	(ii) the prime rate offered by one or mor	re major United
States banks,	commercial lenders. The interest rate sh (iii) the certificate of deposit (iv) other	
rates used by	coupon rate accruing at February 28, 2010).
(144A)	Security is exempt from registration under 144A of the Securities Act of 1933. Such securities may be resold normally to qual institutional buyers in a transaction exempts.	n Lified

total	registration. At February 28, 2010, the value of these securities amounted to \$48,398,753 or 16.4% of
total	net assets applicable to common shareowners.
(a)	Indicates a security that has been deemed illiquid. The aggregate cost of illiquid securities is
\$112,839,597.	The aggregate value\$62,404,189 represents 21.2% of the total net assets applicable to common shareowners.
(b)	Floating Rate Note. The rate shown is the coupon rate at February 28, 2010.
(c)	Security is in default and is non-income producing.
(d)	Represents a pay in kind security.
(e)	Security is valued using fair value methods (other than prices supplied by independent pricing services).
(f)	Issuer in the process of reorganization.
(g)	The company and agent bank are in the process of negotiating forbearance.
(h)	On February 28, 2010, the security was not in default but defaulted after the period end.
(i)	Non-income producing.
(j) investments	At February 28, 2010, the net unrealized loss on
	based on cost for federal income tax purposes of \$553,114,688 was as follows:
	Aggregate gross unrealized gain for all investments in which there is an excess of value over tax \$14,641,075
	Aggregate gross unrealized loss for all investments in which there is an excess of tax cost over(88,630,787) Net unrealized loss (\$73,989,712)
on	For financial reporting purposes net unrealized loss
On .	investments was \$73,627,572 and cost of investments aggregated \$552,752,548.
	Glossary of Terms: LC- Letter of Credit
	Principal amounts are denominated in U.S. dollars unless otherwise noted. AUD - Australian Dollar EURO - Euro
unfunded	For the period ended February 28, 2010, the Trust had
loan	loan commitment of $$2,340,721$ which would be extended at the option of the borrower, pursuant to the following
	agreements:

_					Unfunded
Loan	Borrower Delphi Holdings : Delphi Holdings : Delphi Holdings : Delphi Holdings : SIRVA Worldwide,	LLP, Tra LLP, Tra LLP, Tra	inche A-2 inche B-1A inche B-2A	Loan Loan Loan Loan Credit Loan	Commitment \$32,763 76,448 331,844 774,303 1,125,363 2,340,721
Trust's	Various inputs are	used in	determin	ing the valu	e of the
broad	investments. These	e inputs	are summ	narized in th	e three
broad	levels listed be				
priority	Highest priority is is given to Leve	_	o Level 1	inputs and	lowest
securities	Level 1 - quoted prid	ces in a	ctive mar	kets for ide	ntical
quoted	Level 2 - other sign.	ificant	observabl	e inputs (in	cluding
-	rices for sim	ilar sec	curities,	interest rat	es,
prepayment speeds,	credit risk,				
Trust's	Level 3 - significant	t unobse	ervable in	puts (includ	ing the
investments)	own assumption	ons in d	leterminin	g fair value	of
	The following is a	alimma vi	of the i	noute used a	a of
February	-	_		-	5 01
	28, 2010, in val	uing the	e Trust's	assets:	
Collateralized loan		evel 1 \$0	Level 2 \$0	Level 3 \$4,627,018	
	n (oil&gas drilling)		34,469	1,295,234	
	n (oil&gas exploration				2,512,093
	n (cable & satellite)				
	n (electric utilities) n (other industries)		652 , 153	413 , 838 0	14,065,991 54,007,767
Claims	(Other industries)	0 334,	0	8 , 600	8,600
Corporate notes (bio	otech)	0	0	4,852,079	4,852,079
Corporate notes (pha	armaceuticals)	0	0	22,137,103	22,137,103
Corporate notes (oth			193 , 877	0	17,193,877
Common stock (oil &		0	0	1,302	1,302
Common stock (divers		0 19	0 93 , 305	206 , 500 0	206,500 193,305
Common stock (auto	•		13,287	0	9,813,287
Common stock (electi		0	0	16	16
Common stock (other	r industries 2,175		0	0	2,175,778
Liquidating trust		0	0	0	0
Warrants Temporary cash inves	stments	0 5,6	400 500 , 000	0	400 5,600,000
Total				44,051,629 \$	
Other Financial Inst	crumements :	\$0 (\$45	3,798)	\$0	(\$453,798)

The following is a reconciliation of assets valued using significant unobservable inputs (level 3):

Change in Net Transfers

Balance as unrealized purchase in/(out)Balance as of 11/30/09 app/(dep) (sales) Level 3 of 2/28/10 Collateralized loan oblig \$4,485,650 \$142,814 (\$1,446) \$0 \$4,627,018 Senior flt rate loan(oil/gas drill)1,275,323 (605) 20,516 0 1,295,234 Senior flt rate loan(oil&gas expl) 0 0 0 0 0 0 Senior flt rate loan(cable & sat)10,509,939 0 0 10,509,939 Senior flt rate loan(electric utl) 413,755 (8,210)8,293 0 413,838 8,600 0 0 0 8,600 Corporate notes (biotech) 6,001,042 (1,005,230) (143,733) 0 4,852,079 Corporate notes (pharma) 21,965,041 (332,445) 504,507 0 22,137,103 Common stock (oil/gas drill) 1,302 0 0 0 1,302 Common stock (diversified chem) 206,500 0 0 0 206 206,500 Common stock (broadcasting) 206,250 0 0 (206, 250) 0 0 0 0 0 16 Common stock (electric utl) 16 Liquidating trust 45,073,418 (\$1,203,676)\$388,137 (\$206,250) \$44,051,629 Ending balance

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.

^{*}Transfers are calcuated beginning of period.

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

Date April 29, 2010

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

Date April 29, 2010

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