Pioneer Floating Rate Trust Form N-Q October 26, 2006

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: August 31, 2006

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 8/31/06 (unaudited)

| Principal<br>Amount<br>USD (\$) |   | Value                |
|---------------------------------|---|----------------------|
|                                 | SENIOR SECURED FLOATING RATE LOAN INTERESTS - 139.3% of Net Assets*   |                      |
|                                 | Aerospace - 7.7%  |                      |
| 3,447,609                       | American Airlines, Inc., Term Facility Loan, 10.17% -\$   | 3,494,655            |
| 4,818,956                       | AWAS Capital, Inc., First Priority Term Loan, 7.25%, 3  | 4,722,577            |
| 3,969,991                       | DeCrane Aircraft Holdings, Inc., First Lien Term Loan,  | 3,994,804            |
| 5,000,000                       | Delta Airlines, Inc., DIP, Term Loan A, 8.023%, 3/16/0  | 5,066,070            |
| 4,937,500                       | DynCorp International, LLC (Di Finance), New Term Loan  | 4,965,273            |
| 1,377,569                       | Hunter Defense Holdings, Inc., Term Loan B, 8.375% - 1  | 1,384,457            |
| 995,000                         | IAP Worldwide Services, Inc., First Lien Term Loan, 8.  | 1,009,925            |
| 6,000,000                       | Northwest Airlines, Inc., DIP, Term Loan, 2.5%, 8/21/0  | 6,011,250            |
| 3,000,000                       | US Airways, Inc., Term Loan, 8.999%, 3/31/11  | 3,018,126            |
| 3,000,000                       | Vought Aircraft Industries, Inc., Tranche B Letter of   | 3,028,125            |
|                                 | \$  | 36,695,262           |
|                                 | Broadcasting - 2.7%   |                      |
| 955 <b>,</b> 592                | NEP Supershooters, L.P., First Lien Term Loan, 9.47% -  | 966,343              |
| 1,447,997                       | NEP Supershooters, L.P., First Lien Term Loan B, 9.0%,  | 1,464,287            |
| 7,000,000                       | Paxson Communications Corp., First Lien Term Loan, 8.7  | 7,113,750            |
| 500,000                         | TDF SA, Facility Term Loan B, 4.85%, 3/11/13  | 645,391              |
| 500,000                         | TDF SA, Facility Term Loan D, 6.475%, 3/11/15   | 651,225              |
| 1,980,000                       | Young Broadcasting, Inc., Term Loan, 7.938% - 8.0%, 11  | 1,971,646            |
|                                 | \$  | 12,812,642           |
|                                 | Cable/Wireless Video - 9.8%   |                      |
| 6,500,000                       | Century Cable Holdings, LLC, Discretionary Term Loan,   | 6,300,938            |
| 2,000,000                       | Century Cable Holdings, LLC, Term Loan, 10.25%, 6/30/0  | 1,947,500            |
|                                 | Charter Communications Operating, LLC, Facility Term L  | 12,817,265           |
| 7,980,000                       | CSC Holdings, Inc. (Cablevision), Incremental Term Loa  | 7,945,088            |
| 6,000,000                       | Olympus Cable Holdings, LLC, Term Loan A, 9.25%, 6/30/  | 5,790,936            |
|                                 | Persona Cable, Tranche A Term Loan, 7.929%, 4/27/09   | 9,022,302            |
| 500,000                         | RCN Corp., Initial Term Loan, 7.25% - 7.313%, 5/30/13   | 500,625              |
| 1,000,000                       | UPC Financing Partnership, Facility Term Loan J2, 7.64  | 999,642              |
| 1,000,000                       | UPC Financing Partnership, Facility Term Loan K2, 7.55  | 999,642              |
|                                 | \$  | 46,323,938           |
| 02 222                          | Chemicals - 1.2%  | 04 275               |
| 83,333                          | Basell BV, Facility USD Term Loan B4, 6.906%, 8/1/13  | 84,375               |
| 83,333<br>416,667               | Basell BV, Facility USD Term Loan C4, 7.668%, 8/1/14 Basell USA, Inc., Facility Term Loan B2, 6.906%, 8/1/1   | 84,740<br>422,266    |
|                                 |   |                      |
| 416,667                         | Basell USA, Inc., Facility Term Loan C2, 7.668%, 8/1/1  | 422,266              |
| 2,965,025                       | CII Carbon, LLC, Term Loan B, 7.375% - 7.5%, 8/23/12  | 2,968,731            |
| 740,458                         | Lucite International U.S. Finco, LLC, Facility Term Lo Panda Hereford Ethanol, L.P., Tranche A Term Loan, 9.1 | 745,558              |
| 1,000,000                       | randa mererord Echanor, E.F., Tranche A Term Loan, 9.1  | 998,750<br>5,726,686 |
|                                 | Consumer - Durables - 0.2%  | 5,720,000            |
| 1,000,000                       | Rexair, LLC, Additional Term Facility, 9.749% - 11.5%\$   | 1,000,000            |
| _, 000,000                      | Totall, but inductional form facility, 5.7150 11.509  | 1,000,000            |
|                                 | Consumer - Non-Durables - 6.4%  |                      |
| 2,000,000                       | Bare Escentuals Beauty, Inc. (MD Beauty, Inc)., Secon\$   | 2,015,000            |

| 2,268,000        | Camelbak Products, LLC, First Lien Term Loan, 9.16% -  | 2,222,640        |
|------------------|--|------------------|
| 1,000,000        | Camelbak Products, LLC, Second Lien Term Loan, 12.96%, | 805,000          |
| 3,803,846        | CEI Holdings, Inc. (Cosmetic Essence), First Lien Term | 3,813,356        |
| 2,799,465        | Eastman Kodak Co., Term Loan B-1 Advance, 7.649% - 7.7 | 2,801,886        |
| 1,176,471        | Eastman Kodak Co., Term Loan B-2 Advance, Delayed Draw | 1,177,311        |
| 6,000,000        | Hanesbrands, Inc., Term Loan B, 2.25%, 9/5/13          | 6,055,176        |
| 2,000,000        | HBI Branded Apparel Limited, Inc., Second Lien Facilit | 2,038,438        |
| 1,111,111        | Playpower, Inc., Dollar Term Loan, 8.5%, 12/18/09      | 1,111,111        |
| 860,080          | Polaroid Corp., Term Loan, 14.0%, 4/27/11              | 862,231          |
| 1,750,000        | Revlon Consumer Products Corp., Term Loan, 11.4% - 11. | 1,796,667        |
| 2,000,000        | Spectrum Brands, Dollar Term Loan, 7.58% - 8.51%, 2/7/ | 2,003,750        |
| 877 <b>,</b> 526 | Visant Corp., Tranche C Term Loan , 7.068%, 10/4/11    | 882 <b>,</b> 572 |
| 3,000,000        | Yell Group Plc, Facility Term Loan B1, 2.0%, 10/27/12  | 3,015,000        |
|                  | \$   | 30,600,138       |

#### Pioneer Floating Rate Trust

#### SCHEDULE OF INVESTMENTS 8/31/06 (unaudited) (continued)

| Principal<br>Amount<br>USD (\$)  |   | Value   |
|--|---|---|
| 7,594,826<br>987,500<br>3,174,200<br>1,000,000<br>1,470,000  | Diversified Media - 3.0%  ALM Media Holdings, Inc., First Lien Term Loan, 7.999\$  North American Membership Group, Inc., First Lien Tran  Six Flags Theme Parks, Inc., Tranche B-1 Term Loan, 7.  Sunshine Acquisition Ltd., First Lien Term Advance Loa  Wallace Theater Corp. (Hollywood Theaters), First Lien   | 7,592,457<br>985,031<br>3,226,063<br>1,005,833<br>1,480,106<br>14,289,490                       |
| 4,950,000<br>2,977,500<br>1,193,402<br>803,607<br>2,000,000<br>2,000,000<br>2,000,000<br>364,404<br>2,000,000<br>1,000,000 | Energy - 4.1%  ATP Oil & Gas Corp., Term Loan, 8.36% - 8.859%, 4/14/\$ Cheniere LNG Holdings, LLC, Term Loan, 8.249%, 8/30/12 Coffeyville Resources, LLC, First Lien Tranche C Term Coffeyville Resources, LLC, New Funded Letter of Credi Coffeyville Resources, LLC, Second Lien Term Loan, 12. Hawkeye Renewables, LLC, First Lien Term Loan, 9.35%, OPTI Canada Inc., Term Loan, 7.078% - 7.26%, 5/17/13 SemCrude, L.P., U.S. Term Loan, 7.579% - 7.69%, 3/16/1 TARH E&P Holdings, L.P., Second Lien Term Loan, 11.063 Venoco, Inc., Second Lien Term Loan, 9.625% - 10.0%, 4 | 5,008,781 3,004,485 1,203,397 810,337 2,065,000 1,986,250 2,000,750 365,998 2,005,000 1,006,250 |
| 1,000,000<br>1,913,462<br>997,500<br>1,869,720<br>1,083,833  | Financial - 1.4%  ARG Holdings, Inc. (Alliant Resources Group), Second \$ FleetCor Technologies Operating Co., LLC, Term Loan, 8  HMSC Corp., First Lien Term Loan, 8.19% - 8.248%, 11/1  The Nasdaq Stock Market, Inc., Tranche B Term Loan, 6.  The Nasdaq Stock Market, Inc., Tranche C Term Loan, 6.  \$ Food & Drug - 1.0%  Jean Coutu Group (PJC), Inc., Term Loan B, 7.938% - 8\$  | 19,456,248  1,013,750 1,913,462 1,002,488 1,869,954 1,083,969 6,883,623                         |
| 769,625<br>3,472,727<br>1,000,000<br>1,874,500<br>186,047  | Food & Tobacco - 8.6%  AFC Enterprises, Inc., Tranche B Term Loan, 8.0%, 5/1\$  Carrols Corp., Term Loan B, 8.0%, 12/31/10  Chiquita Brands, LLC, Term Loan C, 2.25%, 6/28/12  Commonwealth Brands, Inc., Term Loan, 7.75%, 12/22/12  Dole Food Company, Inc., Credit Linked Deposit Loan, 5  | 772,030<br>3,492,261<br>1,003,333<br>1,888,090<br>183,579                                       |

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Dole Food Company, Inc., Tranche B Term Loan, 7.125% -
417,558
                                                                       412,020
1,391,860 Dole Food Company, Inc., Tranche C Term Loan, 7.313% -
                                                                     1,373,399
6,023,978 DS Water Enterprises, L.P., Term Loan, 9.832% - 9.89%,
                                                                     5,991,984
600,000 Krispy Kreme Doughnut Corp., Second Lien Tranche A Cre
                                                                      621,000
2,370,000 Krispy Kreme Doughnut Corp., Second Lien Tranche B Ter
                                                                     2,452,950
5,211,552 Merisant Co., Tranche B Term Loan, 8.735%, 1/11/10
                                                                     5,176,806
1,760,000 National Distributing Co., Inc., Second Lien Term Loan
                                                                     1,764,400
1,000,000 Nellson Nutraceutical, Inc., First Lien Term Loan, 3.0
                                                                       940,000
994,063 New World Restaurant Group, Inc., First Lien Term Loan
                                                                       999,033
2,837,669 PBM Products, LLC, Term Loan B, 8.33%, 7/26/11
                                                                     2,857,178
3,837,712 Pinnacle Foods Group, Inc., Term Loan, 6.95% - 6.99%,
                                                                     3,844,907
2,000,000 Real Mex Restaurants, Inc., Term Loan, 14.92%, 12/31/0
                                                                     2,040,000
5,000,000 Sturm Foods, Inc., First Lien Term Loan, 9.25%, 5/26/1
                                                                     5,018,750
                                                                     40,831,720
           Forest Products/Containers - 2.3%
3,000,000 Georgia-Pacific Corp., Second Lien Term Loan, 7.92% -$
                                                                     3,030,624
7,955,013 Georgia-Pacific Corp., Term Loan B, 7.17% - 7.35%, 12/
                                                                     7,971,034
                                                                    11,001,658
           Pioneer Floating Rate Trust
            SCHEDULE OF INVESTMENTS 8/31/06 (unaudited) (continued)
 Principal
 Amount
 USD ($)
                                                                         Value
           Gaming & Leisure - 10.3%
1,085,00(a)BRE/ESA Mezz5, LLC, Mezzanine D Term Loan, 8.609%, 7/$
                                                                     1,087,713
5,915,00(a)BRE/Homestead Mezz4, LLC, Mezzanine D Term Loan, 8.609
                                                                     5,915,000
1,980,750 CCM Merger, Inc. (Motor City Casino), Term Loan B, 7.2
                                                                     1,977,036
5,000,000 Edge Las Vegas Development, LLC, Second Lien Term Loan
                                                                     5,025,000
600,000 Fontainebleu Florida Hotel, LLC, Tranche A Term Loan,
                                                                      600,000
400,000 Fontainebleu Florida Hotel, LLC, Tranche B Term Loan,
                                                                       400,000
1,488,750 Kuilima Resort Co. (Turtle Bay), First Lien Term Loan,
                                                                     1,477,584
4,510,749 Lake at Las Vegas Joint Venture, First Lien Term Loan,
                                                                     4,518,399
1,500,000 Lakes Gaming and Resorts, LLC, Term Loan, 11.687%, 6/2
                                                                     1,492,500
6,865,155 OpBiz, LLC, New Term Loan A, 8.508%, 8/31/10
                                                                     6,660,917
          OpBiz, LLC, New Term Loan B, 9.508%, 8/31/10
18,358
                                                                        17,842
992,500
          Pivotal Promontory, LLC, First Lien Term Loan, 8.08%,
                                                                       980,921
5,310,574 Resorts International Holdings, LLC, Second Lien Term
                                                                     5,522,997
8,900,006 Resorts International Holdings, LLC, Term Loan B, 9.5\%
                                                                     8,965,643
1,488,741 Trump Entertainment Resorts Holdings, L.P., Term Loan
                                                                     1,500,372
1,000,000 Wynn Las Vegas, LLC, Term B Loan, 7.205%, 8/15/13
                                                                     1,003,750
1,901,867 Yellowstone Mountain Club, LLC, First Lien Term Loan,
                                                                     1,896,220
                                                                     49,041,894
          Healthcare - 10.5%
5,390,000 Alliance Imaging, Inc., Tranche C1 Term Loan, 7.938% $
                                                                     5,405,496
1,946,129 AMR HoldCo, Inc. EmCare HoldCo, Inc., Term Loan, 7.27%
                                                                     1,950,388
995,000 Capella Healthcare, Inc., First Lien Term Loan, 8.24%,
                                                                     1,001,841
970,000 CCS Medical, Inc. (Chronic Care), First Lien Term Loan
                                                                      941,102
2,731,684 DaVita, Inc., Tranche B Term Loan, 6.99% - 7.69%, 10/5
                                                                     2,743,269
5,000,000 FHC Health Systems, Inc., Third Lien Term Loan, 14.23%
                                                                     5,175,000
2,992,500 Golden Gate National Senior Care, LLC, First Lien Term
                                                                     3,011,203
2,000,000 Golden Gate National Senior Care, LLC, Second Lien Ter
                                                                     2,035,000
                                                                     3,014,376
3,000,000 HealthSouth Corp., Term Loan B, 8.52%, 3/10/13
676,090 Matria Healthcare, Inc., First Lien Tranche B Term Loa
                                                                       676,935
        Matria Healthcare, Inc., First Lien Tranche C Term Loa
294,872
                                                                       292,660
904,867 MMM Holding, Inc./NAMM Holdings, Inc./PHMC, MMM Origin
                                                                       904,301
118,155 MMM Holding, Inc./NAMM Holdings, Inc./PHMC, NAMM New T
                                                                      118,081
        MMM Holding, Inc./NAMM Holdings, Inc/PHMC, NAMM Origin
                                                                      213,110
212,910
          MMM Holding, Inc./NAMM Holdings, Inc./PHMC, NAMM PHMC
20,650
                                                                       20,638
743,418
          MMM Holding, Inc./NAMM Holdings, Inc./PHMC, PHMC Acqui
                                                                       744,115
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2,000,000 National Renal Institutes, Inc., (DSI Renal) Facility
                                                                      2,004,376
1,990,000 QTC Acquisition, Inc., First Lien Term Loan, 8.08%, 11
                                                                      1,994,975
3,990,000 Quintiles Transnational Corp., First Lien Term Loan B,
                                                                      3,990,622
                                                                      2,435,949
2,411,831 Reliant Pharmaceuticals, Inc., First Lien Term Loan, 1
1,985,000 Renal Advantage, Inc., Tranche B Term Loan, 7.84%, 10/
                                                                      1,996,166
1,980,000 Skilled Healthcare Group, Inc., First Lien Term Loan,
                                                                      2,001,038
3,000,000 Triumph HealthCare Second Holdings, LLC, First Lien Te
                                                                      3,008,124
66,080 Warner Chilcott Co., Inc., Dovobet Delayed Draw Term L
                                                                        66,266
330,402 Warner Chilcott Co., Inc., Dovonex Delayed Draw Term L
                                                                       331,332
2,442,567 Warner Chilcott Co., Inc., Tranche B Acquisition Date
                                                                      2,449,946
993,256
          Warner Chilcott Corp., Tranche C Acquisition Date Term
                                                                        996,256
458,889
          Warner Chilcott Holdings Co. III, Ltd., Tranche D Acqu
                                                                        460,275
                                                                     49,982,840
          Housing - 6.8%
3,474,286 Associated Materials, Inc., Term Loan, 7.58% - 8.13%,$
                                                                      3,481,887
4,898,235 Atrium Companies, Inc., Closing Date Term Facility Loa
                                                                      4,751,288
2,500,000 BioMed Realty, L.P., Senior Secured Term Loan, 7.652%,
                                                                      2,465,625
          Contech Construction Products, Inc., New Term Loan, 7.
995,556
                                                                        997,734
2,835,595 Custom Building Products, Inc., First Lien Term Loan,
                                                                      2,853,907
1,331,750 Desa, LLC, Term Loan, 11.16% - 13.0%, 11/26/11
                                                                      1,334,247
1,000,000 Edge Star Partners, LLC (Harmon Koval), First Lien Ter
                                                                      1,004,375
3,500,000 Edge Star Partners, LLC (Harmon Koval), Second Lien Te
                                                                      3,517,500
5,000,000 LNR Property Corp., Initial Tranche B Term Loan, 8.11%
                                                                      5,037,500
1,000,000 Pro-Build Holdings, Inc. (Hope Lumber & Supply Co.), I
                                                                      1,000,208
2,000,000 Trustreet Properties, Inc., Term Loan, 7.402%, 4/8/10
                                                                      2,011,250
4,000,000 Woodlands Commercial Properties Co., L.P., Bridge Loan
                                                                     4,030,000
                                                               Ś
                                                                     32,485,521
           Pioneer Floating Rate Trust
            SCHEDULE OF INVESTMENTS 8/31/06 (unaudited) (continued)
 Principal
 Amount
 USD ($)
                                                                          Value
          Information Technology - 8.7%
2,992,500 Data Transmission Network Corp., First Lien Tranche B$
                                                                      3,007,463
4,000,000 GXS Worldwide, Inc., First Lien Term Loan, 10.258% - 1
                                                                      3,970,000
2,000,000 GXS Worldwide, Inc., Second Lien Term Loan, 14.508%, 1
                                                                      2,010,000
2,057,143 Infor Enterprise Solutions Holdings, Inc., Delayed Dra
                                                                      2,072,144
3,942,857 Infor Enterprise Solutions Holdings, Inc., Initial U.S
                                                                      3,971,608
933,333 (a) Inovis International, Inc, Term Loan, 8.87% - 9.25%, 1
                                                                       933,333
956,462 IPC Acquisition Corp., First Lien Tranche B Term Loan,
                                                                       961,723
1,000,000 IPC Acquisition Corp., Second Lien Term Loan, 12.52%,
                                                                      1,015,833
                                                                      1,982,531
1,995,000 Nuance Communications, Inc., Term Loan, 7.33%, 3/31/13
1,944,828 Open Solutions, Inc., First Lien Term Loan, 7.78%, 9/3
                                                                      1,958,198
1,000,000 Quantum Corp., First Lien Term Loan, 4.0%, 8/22/12
                                                                      1,001,250
4,827,650 Semiconductor Components Industries, Term Loan H, 7.75
                                                                      4,839,719
2,812,500 Serena Software, Inc., Term Loan, 7.41%, 3/10/13
                                                                      2,812,148
6,930,000 SunGard Data Systems, Inc. (Solar Capital Corp.), U.S.
                                                                     6,988,780
3,950,000 Telcordia Technologies, Inc., Term Loan, 7.727%, 9/15/
                                                                      3,767,313
                                                                     41,292,043
          Manufacturing - 1.4%
990,004
          Brand Services, Inc., Term Loan B, 7.65% - 7.735%, 1/$
                                                                        991,241
1,000,000 FCI USA, Inc., Facility Term Loan B-1, 7.73%, 11/3/13
                                                                      1,013,021
1,000,000 FCI USA, Inc., Facility Term Loan C-1, 8.23%, 11/3/14
                                                                      1,008,438
1,515,706 Mueller Group, LLC, Term Loan, 7.36% - 7.868%, 10/3/12
                                                                      1,527,209
2,000,000 Wire Rope Corporation of America, Inc., New Secured Te
                                                                      2,050,000
                                                                      6,589,909
          Media/Telecommunications - 10.8%
                                                                   1,000,156
1,000,000 Bresnan Communications, LLC, First Lien Term Loan B, $
2,000,000 Cequel Communications, LLC, Bridge Loan, 10.489%, 10/3
                                                                      2,007,500
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2,000,000 Cequel Communications, LLC, First Lien Term Loan B, 7.
                                                                      1,988,392
          Knology, Inc., New Term Loan, 7.626% - 7.999%, 6/29/10
                                                                      1,002,940
997,330
3,058,997 Knology, Inc., Second Lien Term Loan, 15.485%, 6/29/11
                                                                      3,579,027
2,000,000 Level 3 Financing, Inc., Term Loan, 8.413%, 12/1/11
                                                                      2,014,584
1,000,000 Mediacom Broadband Group, Tranche D-2 Term Loan, 7.38%
                                                                       996,641
4,987,500 MGM Holdings II, Inc./LOC Acquisition Co., Tranche B T
                                                                     4,975,510
12,741,757 Millennium Digital Media Systems, LLC, Facility Term L
                                                                     12,805,466
746,250 Montecito Broadcast Group, LLC, First Lien Term Loan,
                                                                       749,981
1,000,000 PaeTec Communications, Inc., Second Lien Term Loan, 12
                                                                      1,018,750
2,000,000 Sorenson Communications, Inc., Tranche B Term Loan, 8.
                                                                      2,008,334
1,500,000 Stratos Global Corp./Stratos Funding, L.P., Facility T
                                                                      1,497,188
4,000,000 VNU, Inc./Nielsen Finance, LLC, Dollar Term Loan, 2.75
                                                                      3,987,656
4,000,000 WideOpenWest Finance, LLC, First Lien Term Loan, 7.481
                                                                      4,005,356
3,000,000 Wind Telecomunicazione S.p.A., Facility Term Loan A-1,
                                                                      3,837,029
1,500,000 Wind Telecomunicazione S.p.A., Facility Term Loan B-1,
                                                                      1,926,573
1,500,000 Wind Telecomunicazione S.p.A., Facility Term Loan C-1,
                                                                     1,934,374
                                                                     51,335,457
          Metals & Minerals - 1.9%
815,217
          Gibraltar Industries, Inc., Term Loan, 6.688% - 7.25%$
                                                                        815,217
4,434,969 Murray Energy Corp., Tranche B Term Loan, 8.4%, 1/28/1
                                                                      4,479,318
3,447,697 Tube City, LLC, First Lien Tranche C Term Loan, 8.25%,
                                                                      3,458,471
                                                                      8,753,006
          Retail - 13.1%
13,374,950 Blockbuster, Inc., Tranche B Term Loan, 8.09% - 9.07%$
                                                                     13,412,948
3,982,494 Burlington Coat Factory Warehouse Corp., Term Loan, 7.
                                                                      3,875,775
                                                                      4,951,324
4,925,156 Dollarama Group, L.P., Replacement Term Loan B, 7.485%
997,290 Eddie Bauer, Inc., Term Loan, 9.58%, 6/21/11
                                                                        996,979
14,802,767 Home Interiors & Gifts, Inc., Initial Term Loan, 10.32
                                                                     12,804,394
877,193 J. Crew Group, Inc., Initial Term Loan, 9.5%, 5/15/13
                                                                       878,289
895,959 MAPCO Express, Inc./MAPCO Family Centers, Inc., Term L
                                                                       903,238
1,001,325 Movie Gallery, Inc., Term Loan A, 10.5%, 4/27/11
                                                                       951,973
16,845,838 Movie Gallery, Inc., Term Loan B, 10.75%, 4/27/11
                                                                     15,971,960
3,645,570 Neiman Marcus Group, Inc., Term Loan, 7.77%, 4/6/13
                                                                     3,679,138
4,000,000 Toys R Us - Delaware, Inc., Tranche B Term Loan, 9.643
                                                                     4,084,376
                                                                     62,510,394
          Service - 3.1%
2,625,000 Alliance Laundry Systems, LLC, Term Loan, 7.62%, 1/27$
                                                                      2,638,947
2,000,000 Education Management Corp., Tranche B Term Loan, 8.063
                                                                      2,011,876
2,815,722 Headwaters, Inc., First Lien Term Loan, 7.33% - 7.5%,
                                                                      2,831,560
2,000,000 Koosharem Corp. (Select Personnel), First Lien Term Lo
                                                                     1,995,000
1,122,727 La Petite Academy, Inc., Closing Date First Lien Term
                                                                     1,136,761
1,315,909 La Petite Academy, Inc., Closing Date First Lien Term
                                                                     1,322,489
1,618,704 Outsourcing Solutions, Inc., Term Loan, 9.83%, 9/30/10
                                                                     1,622,750
1,000,000 Vanguard Car Rental USA Holding, Inc., Term Loan, 8.31
                                                                     1,002,375
                                                                     14,561,758
          Telecommunications - 3.7%
1,995,000 Cavtel Holdings, LLC (Cavalier Telephone Corp.), Term
                                                                      2,023,678
3,000,000 Intelsat Corp., Tranche B-2 Term Loan, 8.008%, 1/3/14
                                                                      3,017,499
2,500,000 Nordic Telephone Company Holdings APS (TDC), Euro Faci
                                                                      3,230,924
2,500,000 Nordic Telephone Company Holdings APS (TDC), Euro Faci
                                                                      3,244,685
2,000,000 Pine Tree Holdings, Inc., (Country Road Communications
                                                                      2,030,000
4,151,997 WestCom Corp., Tranche B Term Loan, 8.195% - 8.293%, 1
                                                                     4,157,187
                                                                     17,703,973
           Pioneer Floating Rate Trust
            SCHEDULE OF INVESTMENTS 8/31/06 (unaudited) (continued)
 Principal
 Amount
 USD ($)
                                                                          Value
```

Transportation - 8.1%

```
4,373,004 Affinia Group, Inc., Tranche B Term Loan, 8.5%, 11/30$
                                                                     4,396,238
2,594,59(b)Carey International, Inc., Second Lien Term Loan, 13.0
                                                                     2,588,112
5,000,000 Dana Corp., DIP Term Loan, 7.65%, 4/13/08
                                                                     5,010,625
5,735,625 Delphi Corp., Term Loan, 13.75%, 6/14/11
                                                                     5,954,296
3,000,000 Federal-Mogul Corp., DIP Term Loan, 7.5%, 12/9/06
                                                                     3,009,375
2,970,000 Goodyear Dunlop Tires Europe B.V., GDTG Commitment, 5.
                                                                     3,818,379
2,479,909 Key Plastics, LLC/Key Safety Systems, Inc., Term Loan
                                                                     2,507,808
2,000,000 Lear Corp., First Lien Term Loan B, 7.904% - 7.999%, 4
                                                                     1,981,042
875,000 Quality Distribution, Inc., PF Letter of Credit Loan,
                                                                      879,375
1,926,990 Quality Distribution, Inc., Term Loan, 8.33%, 11/13/09
                                                                     1,936,625
823,529 Rural/Metro Operating Co., LLC, Letter of Credit Term
                                                                      827,132
2,517,647 Rural/Metro Operating Co., LLC, Term Loan 1, 7.101% -
                                                                     2,528,662
879,859 SIRVA Worldwide, Inc., Tranche B Term Loan, 9.52% - 11
                                                                      843,198
2,418,616 Transport Industries, L.P., Term Loan B, 8.0%, 9/30/11
                                                                     2,429,198
                                                                    38,710,065
          Transportation-Automotive - 0.2%
          Insurance Auto Auctions, Inc., Delayed Draw Term Loa$
847,826
                                                                       852,861
          Utility - 8.7%
4,500,000 ANP Funding I, LLC, Tranche A Term Loan, 8.98%, 7/29/$
                                                                     4,535,159
5,700,00(c)Calpine Corp., Second Lien Term Loan, 10.35%, 7/16/07
                                                                     5,801,534
5,000,000 Coleto Creek Power, L.P., Second Lien Term Loan, 4.0%,
                                                                     4,700,000
254,777 Coleto Creek Power, L.P., Synthetic Facility Term Loan
                                                                     253,503
3,745,223 Coleto Creek Power, L.P., Term Loan, 8.195%, 6/28/13
                                                                     3,726,497
1,560,976 Covanta Energy Corp., New Funded Letter of Credit Loan
                                                                     1,573,008
1,118,598 Covanta Energy Corp., Tranche C Term Loan, 7.576% - 7.
                                                                     1,127,220
2,000,000 GBGH, LLC (U.S. Energy), First Lien Term Loan, 10.94%,
                                                                     2,005,000
2,962,500 KGEN, LLC, Tranche A Term Loan, 8.124%, 8/5/11
                                                                     2,973,609
5,893,077 Loy Yang Power Projects Pty, Ltd., Second Lien Term Lo
                                                                     4,477,748
2,636,662 NSG Holdings II, LLC, Initial Term Loan, 8.35%, 12/13/
                                                                     2,672,094
1,327,647 Pike Electric, Inc., Tranche C Term Loan, 6.875%, 12/1
                                                                     1,327,233
1,431,353 Plum Point Energy Associates, LLC, First Lien Term Loa
                                                                     1,440,896
388,571 Plum Point Energy Associates, LLC, Funded Letter of Cr
                                                                      391,162
1,982,874 Reliant Energy, Inc., Term Loan, 7.655% - 7.705%, 4/30
                                                                     1,985,661
199,357 (c)Teco Panda-Gila River Power, L.P., Project Letter of C
                                                                      199,606
546,624 (c) Teco Panda-Gila River Power, L.P., Tranche A Term Loan
                                                                       638,183
527,331 (c) Teco Panda-Gila River Power, L.P., Tranche B Term Loan
                                                                       615,659
12,862 (c)Teco Panda-Gila River Power, L.P., Working Capital, 0.
                                                                       12,878
57,878 (c)Teco Panda-Union Power Partners, L.P., Project Letter
                                                                        57,950
321,543 (c)Teco Panda-Union Power Partners, L.P., Tranche A Term
                                                                       375,402
308,682 (c) Teco Panda-Union Power Partners, L.P., Tranche B Term
                                                                       360,386
25,723 (c)Teco Panda-Union Power Partners, L.P., Working Capital
                                                                        25,756
                                                                    41,276,144
          Wireless Communication - 3.6%
1,847,187 Centennial Cellular Operating Co., Term Loan, 7.318% $
                                                                    1,861,865
10,000,000 Cricket Communications, Inc., Facility Term Loan B, 8.
                                                                   10,088,750
3,000,000 Metro PCS Wireless, Inc., First Lien Tranche B Term Lo
                                                                    3,076,251
2,000,000 Metro PCS Wireless, Inc., Second Lien Term Loan, 12.93
                                                                     2,108,334
                                                                    17,135,200
           TOTAL SENIOR SECURED FLOATING RATE LOAN INTERESTS
           (Cost $659,453,665)
                                                              $
                                                                   662,388,042
           SENIOR SECURED FIXED RATE
           LOAN INTERESTS - 1.7% of Net Assets
          Telecommunications - 0.4%
2,000,000 Qwest Corp., Tranche B Term Loan, 6.95%, 6/30/10 $
                                                                     2,006,250
           Utility - 1.3%
          Eggborough Power, Ltd., Term Loan, 7.0%, 3/31/22
926,286
                                                              $
                                                                     6,014,081
           TOTAL SENIOR SECURED FIXED RATE LOAN INTERESTS
           (Cost $6,085,766)
                                                              $
                                                                     8,020,331
```

| 4 000 000                                   | CONVERTIBLE BONDS & NOTES - 0.7% of Net Assets Cable - 0.7%  | Ċ           | 3 505 000   |
|---|--|-------------|---|
| 4,000,000                                   | Charter Communications, Inc., 5.875%, 11/16/09<br>TOTAL CONVERTIBLE BONDS & NOTES<br>(Cost \$3,279,518)  | \$<br>\$    | 3,505,000<br>3,505,000                            |
|   | CORPORATE NOTES - 4.8% of Net Assets Consumer Non-Durables - 0.9%  |             |   |
| 4,000,00(d                                  | )Levi Strauss & Co., 10.258%, 4/1/12   | \$          | 4,130,000   |
| 500,000<br>1,500,000                        | Diversified Media - 0.4%<br>Six Flags, Inc., 9.625%, 6/1/14<br>Six Flags, Inc., 9.75%, 4/15/13   | \$          | 446,250<br>1,357,500                              |
| 2,000,00(d                                  | Energy - 0.4%<br>Secunda International, Ltd., 13.507%, 9/1/12  | \$<br>\$    | 1,803,750<br>2,090,000                            |
| 3,000,000                                   | Gaming & Leisure - 0.6% Trump Entertainment Resorts, Inc., 8.5%, 6/1/15  | \$          | 2,902,500   |
|   | Healthcare - 0.6%  |             |   |
|   | Pharma V (Duloxetine), 13.0%, 10/15/13 (144A)<br>)Pharma VI (Rotavax), 5.25%, 10/15/14 (144A)  | \$          | 2,010,000   |
| 2,000,00(d                                  | Housing - 0.4%<br>Builders FirstSource, Inc., 9.655%, 2/15/12  | \$          | 3,010,000   |
| 2,000,000                                   | Retail - 0.4% Finlay Fine Jewelry Corp., 8.375%, 6/1/12  | \$          | 1,740,000   |
|   |  |             |   |
|   | Pioneer Floating Rate Trust  |             |   |
|   | Pioneer Floating Rate Trust  SCHEDULE OF INVESTMENTS 8/31/06 (unaudited) (concl.   | uded)       |   |
| Principal<br>Amount                         | SCHEDULE OF INVESTMENTS 8/31/06 (unaudited) (concl   | uded)       |   |
| -   | SCHEDULE OF INVESTMENTS 8/31/06 (unaudited) (concl   | uded)       | Value   |
| Amount<br>USD (\$)                          | SCHEDULE OF INVESTMENTS 8/31/06 (unaudited) (conclusive conclusive | uded)       |   |
| Amount<br>USD (\$)                          | SCHEDULE OF INVESTMENTS 8/31/06 (unaudited) (concl   | uded)<br>\$ | Value<br>5,226,800                                |
| Amount USD (\$) 5,000,000                   | SCHEDULE OF INVESTMENTS 8/31/06 (unaudited) (conclusive conclusive |             |   |
| Amount<br>USD (\$)                          | SCHEDULE OF INVESTMENTS 8/31/06 (unaudited) (concluding the second state of the second | Ş           | 5,226,800   |
| Amount USD (\$) 5,000,000                   | SCHEDULE OF INVESTMENTS 8/31/06 (unaudited) (concluding the second secon | Ş           | 5,226,800   |
| Amount USD (\$) 5,000,000 Shares            | SCHEDULE OF INVESTMENTS 8/31/06 (unaudited) (concluding the second state of the second | \$          | 5,226,800<br>22,928,050                           |
| Amount USD (\$) 5,000,000 Shares            | Wireless Communication - 1.1% Clearwire Corp., 11.0%, 8/15/10  TOTAL CORPORATE NOTES (Cost \$22,483,176)  COMMON STOCK - 1.4% of Net Assets Utility - 1.4% Mirant Corp.  TOTAL COMMON STOCK (Cost \$5,670,713)  WARRANTS - 0.2% of Net Assets  | \$ \$       | 5,226,800<br>22,928,050<br>6,466,278              |
| Amount USD (\$)  5,000,000  Shares  223,206 | Wireless Communication - 1.1% Clearwire Corp., 11.0%, 8/15/10  TOTAL CORPORATE NOTES (Cost \$22,483,176)  COMMON STOCK - 1.4% of Net Assets Utility - 1.4% Mirant Corp.  TOTAL COMMON STOCK (Cost \$5,670,713)  WARRANTS - 0.2% of Net Assets Gaming & Leisure - 0.0% )OpBiz, LLC, Term A, Exp. 8/31/10  | \$ \$       | 5,226,800<br>22,928,050<br>6,466,278<br>6,466,278 |
| Amount USD (\$)  5,000,000  Shares  223,206 | Wireless Communication - 1.1% Clearwire Corp., 11.0%, 8/15/10  TOTAL CORPORATE NOTES (Cost \$22,483,176)  COMMON STOCK - 1.4% of Net Assets Utility - 1.4% Mirant Corp.  TOTAL COMMON STOCK (Cost \$5,670,713)  WARRANTS - 0.2% of Net Assets Gaming & Leisure - 0.0%  | \$ \$ \$    | 5,226,800<br>22,928,050<br>6,466,278<br>6,466,278 |

|           | TOTAL | WARRANTS |  |
|-----------|-------|----------|--|
| Principal | (Cost | \$0)     |  |

\$ 673,200

Amount

USD (\$) TEMPORARY CASH INVESTMENT - 6.9% of Net Assets

Repurchase Agreement - 6.9% 33,000,000 UBS Warburg, Inc., 5.17%, dated 8/31/06, repurchase price

of \$33,000,000 plus accrued interest on 9/1/06 collateralized by \$33,535,000 U.S. Treasury Notes, 4.5%, 11/15/10 \$ 33,000,000

TOTAL TEMPORARY CASH INVESTMENT

(Cost \$33,000,000) \$ 33,000,000

TOTAL INVESTMENTS IN SECURITIES - 155.0%

(Cost \$729,972,838) (f) \$ 736,980,901

OTHER ASSETS AND LIABILITIES - (5.7)%

(26,843,840)

PREFERRED SHARES AT REDEMPTION VALUE, INCLUDING

DIVIDENDS PAYABLE - (49.3)%

(234, 621, 473)

NET ASSETS APPLICABLE TO COMMON SHAREOWNERS - 100.0% \$ 475,515,588

NR Security not rated by S&P or Moody's.

\* 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 or (iv) other base lending rates used by commercial lenders. The rate shown is the coupon rate at period end.

(14Security 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  $% \left( 1\right) =\left( 1\right) +\left( 1\right) +\left$ 

registration. At August 31, 2006 the value of these securities amounted to \$3,010,000 or

0.6% of net assets applicable to common shareowners.

(a) Indicates a security that has been deemed illiquid. The aggregate cost of illiquid securities is

\$7,933,333. The aggregate value \$7,936,046 represents 1.7% of the net assets.

- (b)Payment-in-Kind (PIK) security which may pay interest in additional principal amount.
  - (c) Security is in default and is non-income producing.
- (d) Floating Rate Note. The rate shown is the coupon rate at August 31, 2006.
  - (e) Non-income producing security.
- (f)At August 31, 2006, the net unrealized gain on investments based on cost for federal income tax purposes  $\frac{1}{2}$

of \$730,024,748 was as follows:

Aggregate gross unrealized gain for all investments\$ 10,608,605 Aggregate gross unrealized loss for all investments\$ (3,652,452)

Net unrealized gain

6,956,153

For financial reporting purposes net unrealized gain on investments was \$7,008,064 and cost of

investments aggregated \$729,972,838.

For the period ended August 31, 2006, the Trust had unfunded loan commitments of \$8,658,376, which would be extended at the option of the borrower, pursuant to the following loan agreements:

| Borrower   | Commitment |
|--|------------|
| Atrium Companies, Inc., Delayed Draw Term Loan         | 601,765    |
| Covanta Energy Corp., Revolver                         | 1,000,000  |
| Cricket Communications, Inc., Revolver                 | 1,984,882  |
| DeCrane Aircraft Holdings, Inc., First Lien Revolver   | 1,000,000  |
| Insurance Auto Auctions, Inc., Delayed Draw Term Loan  | 43,478     |
| La Petite Academy, Inc. First Lien Closing Date Term L | 561,364    |
| Lucite International U.S. Finco, LLC, Facility Term Lo | 259,542    |
| Millennium Digital Media Systems, LLC, Revolver        | 1,718,605  |
| Trump Entertainment Resorts Holdings, L.P., Term Loan  | 1,488,740  |
|  | 8,658,376  |

Glossary of Terms: DIP - Debtor-In-Possession LC - Letter of Credit

#### 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.

The registrant's principal executive officer and principal financial officer, however, voluntarily are reporting the following information:

In August of 2006 the registrant's investment adviser enhanced its internal procedures for reporting performance information required to be included in prospectuses. Those enhancements involved additional internal controls over the appropriateness of performance data generated for this purpose. Such enhancements were made following an internal review which identified prospectuses relating to certain classes of shares of a limited number of registrants where, inadvertently, performance information not reflecting the deduction of applicable sales charges was included. Those prospectuses were revised, and the revised prospectuses were distributed to shareholders.

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 October 30, 2006

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 October 30, 2006

By (Signature and Title) \* /s/ Vincent Nave Vincent Nave, Treasurer

Date October 30, 2006

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