

BLACKROCK SENIOR HIGH INCOME FUND, INC.
 Form N-Q
 July 29, 2008

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

FORM N-Q

**QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED
 MANAGEMENT INVESTMENT COMPANY**

Investment Company Act file number 811-07456

Name of Fund: BlackRock Senior High Income Fund, Inc. (ARK)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: Donald C. Burke, Chief Executive Officer, BlackRock Senior High Income Fund, Inc., 800 Scudders Mill Road, Plainsboro, NJ, 08536. Mailing address: P.O. Box 9011, Princeton, NJ, 08543-9011

Registrant's telephone number, including area code: (800) 882-0052, Option 4

Date of fiscal year end: 02/28/2009

Date of reporting period: 03/01/2008 - 05/31/2008

Item 1 Schedule of Investments

BlackRock Senior High Income Fund, Inc.

(Percentages shown are based on
 Net Assets)

Schedule of Investments May 31, 2008 (Unaudited)

| Industry | Corporate Bonds | Par (000) | Value |
|---------------------------------------|--|--------------|--------------|
| Aerospace & Defense - 1.7% | Moog, Inc., 7.25%, 6/15/18 (a) | \$ 5,000 | \$ 5,037,500 |
| Auto Components - 2.3% | The Goodyear Tire & Rubber Co., 6.678%, 12/01/09 (b) | 5,070 | 5,076,337 |
| | The Goodyear Tire & Rubber Co., 8.625%, 12/01/11 | 1 | 1,055 |
| | Lear Corp., 8.75%, 12/01/16 | 1,495 | 1,356,713 |
| | Metaldyne Corp., 11%, 6/15/12 | 1,075 | 354,750 |
| | Venture Holdings Co. LLC, 12%, 6/01/09 (c) | 700 | 0 |
| | Venture Holdings Co. LLC Series B, 9.50%, 7/01/05 (c) | 3,325 | 333 |
| | | | 6,789,188 |

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| | | | |
|--|---|-------|------------|
| Building Products - 1.4% | CPG International I, Inc., 11.468%, 7/01/12 (b) | 3,500 | 2,905,000 |
| | CPG International I, Inc., 10.50%, 7/01/13 | 1,500 | 1,245,000 |
| | | | 4,150,000 |
| Chemicals - 4.4% | American Pacific Corp., 9%, 2/01/15 | 610 | 600,850 |
| | ARCO Chemical Co., 9.80%, 2/01/20 | 1,350 | 1,134,000 |
| | GEO Specialty Chemicals, Inc., 7.50%, 3/31/15 (a)(d)(e) | 1,690 | 1,265,385 |
| | GEO Specialty Chemicals, Inc., 13.85%, 12/31/09 (d) | 2,873 | 2,151,159 |
| | Hanna (M.A.) Co., 6.89%, 9/22/08 | 1,000 | 1,000,000 |
| | Hexion U.S. Finance Corp., 7.176%, 11/15/14 (b) | 3,500 | 3,325,000 |
| | NOVA Chemicals Corp., 5.953%, 11/15/13 (b) | 3,845 | 3,306,700 |
| | | | |
| Commercial Banks - 0.2% | Investcorp SA, 7.54%, 10/21/08 | 500 | 500,306 |
| Commercial Services & Supplies - 0.2% | PNA Intermediate Holding Corp., 9.676%, 2/15/13 (b)(e) | 550 | 474,375 |
| Construction Materials - 1.2% | Nortek Holdings, Inc., 10%, 12/01/13 (a) | 3,420 | 3,398,625 |
| Containers & Packaging - 5.0% | Berry Plastics Holding Corp., 6.675%, 9/15/14 (b) | 100 | 84,500 |
| | Clondalkin Acquisition BV, 4.776%, 12/15/13 (a)(b) | 3,500 | 3,080,000 |
| | Graphic Packaging International Corp., 9.50%, 8/15/13 | 215 | 216,612 |
| | Packaging Dynamics Finance Corp., 10%, 5/01/16 (a) | 4,285 | 2,828,100 |
| | Smurfit Kappa Funding Plc, 7.75%, 4/01/15 | 5,150 | 4,673,625 |
| | Smurfit-Stone Container Enterprises, Inc., 8.375%, 7/01/12 | 800 | 744,000 |
| | Smurfit-Stone Container Enterprises, Inc., 8%, 3/15/17 | 1,300 | 1,121,250 |
| | Wise Metals Group LLC, 10.25%, 5/15/12 | 2,000 | 1,745,000 |
| | | | 14,493,087 |
| Diversified Financial Services - 1.9% | Ford Motor Credit Co. LLC, 5.80%, 1/12/09 | 680 | 667,175 |
| | Ford Motor Credit Co. LLC, 5.46%, 1/13/12 (b) | 1,340 | 1,132,285 |
| | Ford Motor Credit Co. LLC, 7.163%, 4/15/12 (b) | 250 | 245,932 |
| | Highland Legacy Ltd., 9.10%, 6/01/11 (a)(b) | 4,000 | 3,381,600 |
| | | | 5,426,992 |

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|--|---------------------------------------|-------|-----------|
| Diversified Telecommunication Services - 0.3% | Qwest Corp., 6.05%, 6/15/13 (b) | 1,025 | 994,250 |
| Electric Utilities - 0.9% | NSG Holdings LLC, 7.75%, 12/15/25 (a) | 2,620 | 2,587,250 |

1

BlackRock Senior High Income Fund, Inc.

Schedule of Investments May 31, 2008 (Unaudited)

(Percentages shown are based on Net Assets)

| Industry | Corporate Bonds | Par (000) | Value |
|--|--|-----------|--------------|
| Electronic Equipment & Instruments - 2.0% | Communications & Power Industries, Inc., 8%, 2/01/12 | \$ 3,000 | \$ 2,947,500 |
| | NXP BV, 5.463%, 10/15/13 (b) | 3,125 | 2,859,375 |
| | | | 5,806,875 |
| Energy Equipment & Services - 2.7% | Ocean RIG ASA, 6.70%, 4/04/11 (b) | 5,000 | 5,000,000 |
| | SemGroup LP, 8.75%, 11/15/15 (a) | 3,025 | 2,949,375 |
| | | | 7,949,375 |
| Gas Utilities - 0.5% | El Paso Performance-Linked Trust, 7.75%, 7/15/11 (a) | 1,525 | 1,568,737 |
| Health Care Equipment & Supplies - 0.7% | LVB Acquisition Merger Sub, Inc., 10%, 10/15/17 (a) | 600 | 643,500 |
| | LVB Acquisition Merger Sub, Inc., 10.375%, 10/15/17 (a)(e) | 600 | 637,500 |
| | LVB Acquisition Merger Sub, Inc., 11.625%, 10/15/17 (a) | 800 | 848,000 |
| | | | 2,129,000 |
| Health Care Providers & Services - 0.5% | Community Health Systems, Inc. Series WI, 8.875%, 7/15/15 | 990 | 1,020,938 |
| | Universal Hospital Services, Inc., 6.303%, 6/01/15 (b) | 460 | 435,850 |
| | | | 1,456,788 |
| Hotels, Restaurants & Leisure - 7.3% | American Real Estate Partners LP, 7.125%, 2/15/13 | 3,000 | 2,745,000 |
| | CCM Merger, Inc., 8%, 8/01/13 (a) | 4,125 | 3,506,250 |
| | Harrah's Operating Co., Inc., | | |

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| | | | |
|--|--|-------|------------|
| | 10.75%, 2/01/16 (a) Harrah's Operating Co., Inc., | 6,916 | 5,922,886 |
| | 10.75%, 2/01/18 (a)(e) Little Traverse Bay Bands of Odawa Indians, | 2,130 | 1,682,700 |
| | 10.25%, 2/15/14 (a) Pinnacle Entertainment, Inc., | 1,210 | 1,131,350 |
| | 7.50%, 6/15/15 (a) Shingle Springs Tribal Gaming Authority, | 810 | 668,250 |
| | 9.375%, 6/15/15 (a) Snoqualmie Entertainment Authority, 6.936%, 2/01/14 (a)(b) | 690 | 602,025 |
| | Station Casinos, Inc., 7.75%, 8/15/16 | 1,000 | 832,500 |
| | Tropicana Entertainment LLC Series WI, 9.625%, 12/15/14 (c) | 445 | 249,200 |
| | Tunica-Biloxi Gaming Authority, 9%, 11/15/15 (a) | 1,500 | 1,462,500 |
| | Universal City Florida Holding Co. I, 7.623%, 5/01/10 (b) | 2,050 | 2,014,125 |
| | | | 21,204,286 |
| Household Durables - 0.3% | Jarden Corp., 7.50%, 5/01/17 | 970 | 865,725 |
| Independent Power Producers & Energy Traders - 2.1% | Energy Future Holding Corp., 11.25%, 11/01/17 (a)(e) | 1,500 | 1,545,000 |
| | Texas Competitive Electric Holdings Co. LLC, 10.25%, 11/01/15 (a) | 3,220 | 3,288,425 |
| | Texas Competitive Electric Holdings Co. LLC, 10.50%, 11/01/16 (a)(e) | 1,200 | 1,218,000 |
| | | | 6,051,425 |
| Leisure Equipment & Products - 1.0% | Quiksilver, Inc., 6.875%, 4/15/15 | 3,525 | 2,890,500 |

2

BlackRock Senior High Income Fund, Inc.

Schedule of Investments May 31, 2008 (Unaudited) (Percentages shown are based on Net Assets)

| Industry | Corporate Bonds | Par (000) | Value |
|-------------------------|---|--------------|--------------|
| Machinery - 1.8% | Ahern Rentals, Inc., 9.25%, 8/15/13 (a) | \$ 2,700 | \$ 2,160,000 |
| | ESCO Corp., 6.675%, 12/15/13 (a)(b) | 1,540 | 1,416,800 |
| | RBS Global, Inc., 8.875%, 9/01/16 | 835 | 805,775 |
| | Titan International, Inc., 8%, 1/15/12 | 770 | 775,775 |
| | | | |

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| | | | |
|---|--|-------|------------|
| Marine - 0.1% | Navios Maritime Holdings, Inc., 9.50%, 12/15/14 (a) | 324 | 333,720 |
| Media - 6.3% | Affinion Group, Inc., 10.125%, 10/15/13 | 120 | 122,700 |
| | Affinion Group, Inc., 11.50%, 10/15/15 | 395 | 401,419 |
| | Cablevision Systems Corp. Series B, 7.133%, 4/01/09 (b) | 3,175 | 3,190,875 |
| | Charter Communications Holdings LLC, 10%, 4/01/09 | 1,750 | 1,710,625 |
| | Charter Communications Holdings LLC, 11.125%, 1/15/11 | 1,319 | 896,920 |
| | Charter Communications Holdings LLC, 10%, 5/15/11 | 660 | 462,000 |
| | Mediacom LLC, 9.50%, 1/15/13 | 1,875 | 1,790,625 |
| | Nielsen Finance LLC, 10%, 8/01/14 (a) | 1,860 | 1,918,125 |
| | Paxson Communications Corp., 5.963%, 1/15/12 (a)(b) | 1,325 | 1,106,375 |
| | R.H. Donnelley Corp., 8.875%, 10/15/17 (a) | 800 | 536,000 |
| | Rainbow National Services LLC, 8.75%, 9/01/12 (a) | 5,250 | 5,381,250 |
| | Windstream Regatta Holdings, Inc., 11%, 12/01/17 (a) | 1,244 | 833,480 |
| | | | 18,350,394 |
| Metals & Mining - 4.3% | Aleris International, Inc., 9%, 12/15/14 | 1,070 | 874,725 |
| | Freeport-McMoRan Copper & Gold, Inc., 5.883%, 4/01/15 (b) | 5,430 | 5,429,457 |
| | Indalex Holding Corp. Series B, 11.50%, 2/01/14 | 1,731 | 943,395 |
| | RathGibson, Inc., 11.25%, 2/15/14 | 2,225 | 2,191,625 |
| | Ryerson, Inc., 10.248%, 11/01/14 (a)(b) | 3,360 | 3,099,600 |
| | | | 12,538,802 |
| Oil, Gas & Consumable Fuels - 3.6% | Chaparral Energy, Inc., 8.50%, 12/01/15 | 730 | 646,050 |
| | Compton Petroleum Finance Corp., 7.625%, 12/01/13 | 1,475 | 1,443,656 |
| | Peabody Energy Corp., 7.375%, 11/01/16 | 4,530 | 4,631,925 |
| | Sabine Pass LNG LP, 7.50%, 11/30/16 | 2,985 | 2,727,544 |
| | SandRidge Energy, Inc., 6.323%, 4/01/14 (a)(b) | 1,000 | 980,000 |
| | | | 10,429,175 |
| Paper & Forest Products - 6.8% | Abitibi-Consolidated, Inc., 6.276%, 6/15/11 (b) | 3,275 | 1,473,750 |
| | Ainsworth Lumber Co. Ltd., 6.446%, 10/01/10 (b) | 4,225 | 2,028,000 |
| | Ainsworth Lumber Co. Ltd., 6.696%, 4/01/13 (b) | 2,500 | 1,275,000 |
| | Bowater, Inc., 5.776%, 3/15/10 (b) | 7,400 | 5,846,000 |
| | Domtar Corp., 7.125%, 8/15/15 | 1,775 | 1,695,125 |

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|-------------------------------|---|-------|-------------------|
| | NewPage Corp., 9.123%, 5/01/12 (b) | 5,175 | 5,407,875 |
| | Verso Paper Holdings LLC Series B, 6.623%, 8/01/14 (b) | 2,300 | 2,139,000 |
| | | | <u>19,864,750</u> |
| Pharmaceuticals - 2.1% | Angiotech Pharmaceuticals, Inc., 6.432%, 12/01/13 (b) | 2,690 | 2,326,850 |

3

BlackRock Senior High Income Fund, Inc.

Schedule of Investments May 31, 2008 (Unaudited)

(Percentages shown are based on Net Assets)

| Industry | Corporate Bonds | Par (000) | Value |
|--|--|--------------|------------------|
| | Elan Finance Plc, 6.676%, 11/15/11 (b) | \$ 2,325 | \$ 2,185,500 |
| | Elan Finance Plc, 7.75%, 11/15/11 | 1,650 | 1,612,875 |
| | | | <u>6,125,225</u> |
| Real Estate Management & Development - 1.1% | Realogy Corp., 11%, 4/15/14 | 4,950 | 3,217,500 |
| Road & Rail - 0.3% | Swift Transportation Co., Inc., 10.426%, 5/15/15 (a)(b) | 2,430 | 801,900 |
| Semiconductors & Semiconductor Equipment - 1.1% | Avago Technologies Finance Pte. Ltd., 8.182%, 6/01/13 (b) | 766 | 765,042 |
| | Freescale Semiconductor, Inc., 8.875%, 12/15/14 | 850 | 752,250 |
| | Spanion, Inc., 5.807%, 6/01/13 (a)(b) | 2,180 | 1,591,400 |
| | | | <u>3,108,692</u> |
| Specialty Retail - 0.6% | Michaels Stores, Inc., 10%, 11/01/14 | 1,055 | 975,875 |
| | United Auto Group, Inc., 7.75%, 12/15/16 | 915 | 850,950 |
| | | | <u>1,826,825</u> |
| Wireless Telecommunication Services - 0.7% | iPCS, Inc., 4.998%, 5/01/13 (b) | 630 | 541,800 |
| | Nordic Telephone Co. Holdings ApS, 8.875%, 5/01/16 (a) | 1,200 | 1,182,000 |
| | Orascom Telecom Finance SCA, 7.875%, 2/08/14 (a) | 395 | 378,212 |
| | | | <u>2,102,012</u> |

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| | Total Corporate Bonds - 65.4% | | 190,414,723 |
|---------------------------------------|--|-------|-------------|
| | | | |
| | Floating Rate Loan Interests | | |
| Aerospace & Defense - 2.0% | Hawker Beechcraft Acquisition Co. LLC Letter of Credit, 4.73%, 3/31/14 | 294 | 275,010 |
| | Hawker Beechcraft Acquisition Co. LLC Term Loan B, 4.696%, 3/31/14 | 5,041 | 4,719,177 |
| | IAP Worldwide Services, Inc. Term Loan, 9%, 12/31/12 | 890 | 732,982 |
| | | | 5,727,169 |
| Airlines - 0.4% | Delta Air Lines, Inc. First Lien Term Loan, 4.436% - 6.832%, 5/15/12 | 1,238 | 1,050,107 |
| Auto Components - 2.7% | Allison Transmission Term Loan B, 5.48% - 5.74%, 8/07/14 | 5,240 | 4,799,243 |
| | Delphi Automotive Systems Term Loan, 8.50%, 12/31/08 | 908 | 891,008 |
| | Goodyear Tire & Rubber Co., Second Lien Term Loan, 4.54%, 4/30/14 | 1,000 | 934,250 |
| | Intermet Corp. First Lien Term Loan, 10.146%, 11/08/10 | 447 | 394,590 |
| | Intermet Corp. Letter of Credit, 9.441%, 11/08/10 | 648 | 571,991 |
| | Metaldyne Corp. Letter of Credit, 3.146% - 6.50%, 1/15/12 | 58 | 45,216 |
| | Metaldyne Corp. Term Loan B, 6.50%, 1/15/14 | 392 | 307,471 |
| | | | 7,943,769 |
| Biotechnology - 0.3% | Talecris Biotherapeutics, Inc. First Lien Term Loan, 6.51% - 8.38%, 11/13/14 | 995 | 905,416 |
| Building Products - 1.4% | Building Material Corp. of America First Lien Term Loan, 6.75%, 2/22/14 | 2,004 | 1,791,158 |

4

BlackRock Senior High Income Fund, Inc.

Schedule of Investments May 31, 2008 (Unaudited)

(Percentages shown are based on Net Assets)

| Industry | Floating Rate Loan Interests | Par (000) | Value |
|----------|-----------------------------------|-----------|-------|
| | Masonite International Term Loan, | | |

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| | | | |
|--|---|----------|-------------------|
| | 4.63% - 5.046%, 4/06/13 | \$ 1,255 | \$ 1,188,701 |
| | Masonite International Term Loan B, 5.046%, 4/06/13 | 1,245 | 1,180,064 |
| | | | <u>4,159,923</u> |
| Chemicals - 5.3% | Huish Detergents, Inc. First Lien Term Loan, 4.45%, 4/15/14 | 993 | 878,892 |
| | Huntsman ICI Holdings Term Loan B, 4.636%, 8/16/12 | 1,121 | 1,084,767 |
| | ISP Chemco Term Loan B, 4.125% - 4.563%, 5/25/14 | 993 | 942,255 |
| | Ineos Group Plc Term Loan B, 4.885%, 2/20/15 | 500 | 457,500 |
| | Ineos Group Plc Term Loan C, 5.385%, 2/20/14 | 500 | 457,500 |
| | PQ Corp. First Lien Term Loan, 8.61%, 5/29/15 | 5,000 | 4,687,500 |
| | Rockwood Specialties Group, Inc. Tranche D Term Loan, 4.744%, 12/10/12 | 1,552 | 1,482,646 |
| | Wellman, Inc. First Lien Term Loan, 7.239%, 2/10/09 (c) | 8,000 | 5,400,000 |
| | | | <u>15,391,060</u> |
| Commercial Services & Supplies - 5.9% | ARAMARK Corp. Letter of Credit, 3.18%, 1/30/14 | 263 | 247,103 |
| | ARAMARK Corp. Term Loan B, 4.571%, 1/30/14 | 4,146 | 3,889,564 |
| | Euramax International Plc First Lien Term Loan, 7.813%, 6/29/12 | 1,624 | 1,396,528 |
| | Euramax International Plc Second Lien Term Loan, 10.728%, 6/29/13 | 995 | 586,895 |
| | Euramax International Plc Second Lien Term Loan, 12.646%, 6/29/13 | 755 | 445,605 |
| | John Maneely Co. Term Loan B, 6.02% - 7.693%, 12/15/13 | 1,120 | 1,043,070 |
| | Metokote Corp. Second Lien Term Loan, 5.70% - 7%, 11/27/11 | 608 | 565,685 |
| | NES Rentals Holdings, Inc. Term Loan C, 9.625%, 7/12/13 | 1,726 | 1,346,055 |
| | Waste Services, Inc. Term Loan D, 5.15%, 3/31/11 | 5,914 | 5,840,253 |
| | West Corp. Term Loan, 5.02% - 6.093%, 10/31/13 | 1,975 | 1,826,216 |
| | | | <u>17,186,974</u> |
| Communications Equipment - 1.0% | Alltel Corp. Term Loan B2, 5.564%, 5/16/15 | 499 | 462,310 |
| | Alltel Corp. Term Loan B3, 5.232%, 5/18/15 | 2,743 | 2,542,707 |

| | | | | |
|--|---|--|-------|-----------|
| | | | | 3,005,017 |
| Computers & Peripherals - 0.7% | Intergraph Corp. Term Loan, 6.819% - 7.506%, 5/15/14 | | 419 | 402,466 |
| | Reynolds and Reynolds Co. First Lien Term Loan, 4.383%, 10/31/12 | | 1,791 | 1,711,313 |
| | | | | 2,113,779 |
| Construction & Engineering - 0.1% | Brand Energy & Infrastructure Services, Inc. Letter of Credit, 2.625%, 2/15/14 | | 500 | 454,375 |
| Construction Materials - 0.3% | Headwaters, Inc. Term Loan B-1, 5.17% - 6.89%, 4/30/11 | | 781 | 744,141 |

5

BlackRock Senior High Income Fund, Inc.

Schedule of Investments May 31, 2008 (Unaudited)

(Percentages shown are based on Net Assets)

| Industry | Floating Rate Loan Interests | Par (000) | Value |
|--|--|--------------|--------------|
| Containers & Packaging - 1.3% | Anchor Glass Container Corp. Term Loan B, 5.113%, 5/03/13 | \$ 1,108 | \$ 1,094,300 |
| | Graham Packaging Co. LP Term Loan B, 5% - 7.75%, 4/15/11 | 1,980 | 1,888,425 |
| | Solo Cup Co. Term Loan, 6.10% - 6.20%, 2/27/11 (g) | 903 | 889,122 |
| | | | 3,871,847 |
| Distributors - 0.4% | Keystone Automotive Operations, Inc. Term Loan B, 6.138% - 7.75%, 1/15/12 | 1,437 | 1,142,630 |
| Diversified Consumer Services - 0.6% | Coinmach Laundry Corp. Term Loan B, 5.70%, 11/15/14 | 2,000 | 1,770,000 |
| Diversified Financial Services - 1.9% | Chrysler Financial Corp. First Lien Term Loan, 6.78%, 8/03/12 | 3,491 | 3,134,348 |
| | J.G. Wentworth Manufacturing Term Loan B, 7.093%, 4/15/14 | 3,200 | 2,520,000 |
| | | | 5,654,348 |
| Diversified Telecommunication Services - 0.9% | Winstar Communications Debtor In Possession, | | |

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| | | | |
|--|--|-------|-----------|
| | 6.366%, 12/31/06 (c) | 1,703 | 2,592,120 |
| Electrical Equipment - 0.3% | Generac Power Systems, Inc. First Lien Term Loan, 5.184%, 11/15/13 | 1,059 | 860,675 |
| Energy Equipment & Services - 1.2% | Dresser, Inc. First Lien Term Loan, 5.113% - 5.219%, 5/15/14 | 1,473 | 1,407,801 |
| | Dresser, Inc. Second Lien Term Loan, 4.69% - 4.70%, 5/15/15 | 1,000 | 945,833 |
| | MEG Energy Corp. Delayed Draw Term Loan, 6.73%, 3/23/13 | 499 | 470,661 |
| | MEG Energy Corp. Term Loan B, 4.70%, 4/03/13 | 490 | 461,008 |
| | | | 3,285,303 |
| Food & Staples Retailing - 1.9% | Bolthouse Farms, Inc. Second Lien Term Loan, 8.196%, 12/01/13 | 750 | 705,000 |
| | Dole Food Co., Inc. Letter of Credit, 4.247%, 4/12/13 | 1,151 | 1,064,672 |
| | Dole Food Co., Inc. Term Loan B, 4.75% - 7.125%, 4/12/13 | 518 | 479,016 |
| | Dole Food Co., Inc. Term Loan C, 4.813% - 7%, 4/04/13 | 2,753 | 2,547,323 |
| | McJunkin Corp. Term Loan B, 6.134%, 1/30/14 | 494 | 485,932 |
| | Sturm Foods, Inc. First Lien Term Loan, 5.813%, 1/30/14 | 248 | 192,637 |
| | | | 5,474,580 |
| Food Products - 0.6% | Eight O'Clock Coffee First Lien Term Loan, 5.188%, 7/21/12 | 907 | 870,348 |
| | Jetro Holdings, Inc. Term Loan, 5.20%, 5/11/14 | 969 | 910,625 |
| | | | 1,780,973 |
| Health Care Equipment & Supplies - 1.0% | Biomet, Inc. Term Loan B, 5.696%, 3/25/14 | 1,990 | 1,932,234 |
| | ReAble Therapeutics Finance LLC Term Loan, 5.696%, 5/14/14 | 998 | 970,069 |
| | | | 2,902,303 |
| Health Care Providers & Services - 0.8% | Community Health Systems, Inc. Term Loan B, 4.631%, 6/18/14 | 1,904 | 1,795,102 |
| | Sterigenics International, Inc. Term Loan B, 5.05% - 7.25%, 11/30/13 | 487 | 438,595 |
| | | | 2,233,697 |

BlackRock Senior High Income Fund, Inc.

Schedule of Investments May 31, 2008 (Unaudited)

(Percentages shown are based on Net Assets)

| Industry | Floating Rate Loan Interests | Par (000) | Value | |
|--|--|---|--------------|------------|
| Hotels, Restaurants & Leisure - 4.1% | Cedar Fair LP Term Loan B, 4.381%, 8/30/12 | \$ 2,948 | \$ 2,800,535 | |
| | Greenwood Racing, Inc. Term Loan, 5.12%, 11/15/13 | 741 | 688,781 | |
| | Harrah's Entertainment, Inc. Term Loan B2, 6.244%, 1/29/15 | 1,000 | 933,594 | |
| | Las Vegas Sands LLC Delay Draw Term Loan, 4.17%, 5/23/14 | 300 | 275,750 | |
| | Las Vegas Sands LLC Term Loan B, 4.45%, 5/04/14 | 1,191 | 1,094,728 | |
| | OSI Restaurant Partners, Inc. Term Loan B, 5%, 5/15/14 | 1,199 | 1,032,181 | |
| | QCE LLC First Lien Term Loan, 7% - 7.125%, 5/05/13 | 985 | 839,508 | |
| | Venetian Macau US Finance Co. LLC Delay Draw Term Loan, 7.08%, 5/25/12 | 1,500 | 1,447,500 | |
| | Venetian Macau US Finance Co. LLC Term Loan B, 7.60%, 5/25/13 | 3,000 | 2,895,000 | |
| | | | | 12,007,577 |
| | IT Services - 5.4% | Activant Solutions Term Loan B, 5.063% - 4.75%, 5/02/13 | 1,638 | 1,449,966 |
| | | Audio Visual Services Corp. Second Lien Term Loan, 8.20%, 9/15/14 | 500 | 450,000 |
| | | Audio Visual Services Corp. Term Loan B, 4.95%, 3/15/14 | 1,990 | 1,691,500 |
| Ceridian Corp. Term Loan, 5.475%, 11/07/14 | | 1,500 | 1,312,500 | |
| First Data Corp. Term Loan B, 5.446% - 7.634%, 9/24/14 | | 746 | 691,723 | |
| First Data Corp. Term Loan B2, 5.349% - 5.446%, 9/24/14 | | 2,997 | 2,779,495 | |
| First Data Corp. Term Loan B3, 7.58% - 7.634%, 9/24/14 | | 997 | 925,300 | |
| RedPrairie Corp. Term Loan, 5.688% - 8%, 7/31/12 | | 690 | 607,608 | |
| RedPrairie Corp. Term Loan, 6%, 1/31/13 | | 296 | 251,813 | |

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| | | | |
|--|---|-------|------------|
| | SunGard Data Systems, Inc. Term Loan B, 5.128%, 2/11/13 | 5,500 | 5,178,751 |
| | SunGard Data Systems, Inc. Term Loan B, 4.508%, 2/28/14 | 466 | 438,821 |
| | | | 15,777,477 |
| Independent Power Producers & Energy Traders - 1.0% | TXU Corp. Term Loan B-2, 6.121% - 6.478%, 10/14/29 | 995 | 936,318 |
| | TXU Corp. Term Loan B-3, 8.396%, 10/10/14 | 1,990 | 1,870,103 |
| | | | 2,806,421 |
| Insurance - 0.1% | Alliant Insurance Services Term Loan B, 5.696% - 7.72%, 10/23/14 | 498 | 461,431 |
| Leisure Equipment & Products - 0.6% | Fender Musical Instruments Corp. Delay Draw Term Loan, 6.97%, 5/25/14 | 667 | 600,501 |
| | Fender Musical Instruments Corp. Term Loan B, 7.16%, 5/25/14 | 1,324 | 1,191,994 |
| | | | 1,792,495 |
| Machinery - 3.4% | Harrington Holdings, Inc. Term Loan, 5.113%, 1/15/14 | 990 | 910,800 |
| | Invensys Plc Term Loan A, 6.898%, 12/15/10 | 1,457 | 1,394,284 |
| | Lincoln Industrials Second Lien Term Loan, 10.87%, 12/18/14 | 1,000 | 920,000 |
| | Maxim Crane Term Loan B, 4.724% - 6%, 6/14/14 | 992 | 982,575 |
| | Navistar International Transportation Corp. Revolving Credit, 4.794% - 6.149%, 6/30/12 | 1,067 | 1,001,778 |

7

BlackRock Senior High Income Fund, Inc.

Schedule of Investments May 31, 2008 (Unaudited)

(Percentages shown are based on Net Assets)

| Industry | Floating Rate Loan Interests | Par (000) | Value |
|----------|---|--------------|--------------|
| | Navistar International Transportation Corp. Term Loan, 6.501%, 6/30/12 | \$ 2,933 | \$ 2,754,890 |
| | OshKosh Truck Corp. Term Loan B, 4.76%, 11/30/13 | 1,975 | 1,885,301 |
| | | | 9,849,628 |

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Media - 13.5%

| | | |
|--|-------|------------|
| Affinion Group, Inc. Term Loan, 11.678%, 3/01/12 | 2,000 | 1,670,000 |
| Cequel Communications LLC Second Lien Term Loan, 7.373%, 5/04/14 | 4,789 | 4,106,612 |
| Cequel Communications LLC Term Loan B, 4.685%, 11/05/13 | 1,635 | 1,520,865 |
| Charter Communications, Inc. Term Loan B, 4.89%, 4/30/14 | 5,985 | 5,315,087 |
| ClientLogic Holding Corp. Term Loan B, 6.50%, 1/30/14 | 973 | 778,768 |
| Education Media and Publishing First Lien Term Loan B, 6.901%, 11/14/14 | 2,636 | 2,412,273 |
| Education Media and Publishing Term Loan B, 6.901%, 11/14/14 | 2,000 | 1,830,000 |
| Ellis Communications Term Loan, 10%, 12/30/11 | 3,895 | 3,116,296 |
| GateHouse Media Operating, Inc. Delay Draw Term Loan, 4.72% - 5.09%, 9/15/14 | 606 | 422,543 |
| GateHouse Media Operating, Inc. Term Loan B, 5.09%, 9/15/14 | 1,500 | 1,046,250 |
| Hanley-Wood LLC Term Loan B, 4.938% - 4.96%, 3/07/14 | 995 | 762,419 |
| Idearc, Inc. Term Loan B, 4.70%, 11/15/14 | 1,963 | 1,630,347 |
| Insight Midwest Holdings LLC Delay Draw Term Loan, 4.69%, 4/03/14 | 3,375 | 3,221,920 |
| Knology, Inc. Term Loan B, 4.934% - 6.953%, 3/15/12 | 744 | 684,825 |
| Mediacom Communications Term Loan D, 4.16% - 4.88%, 1/31/15 | 1,973 | 1,805,704 |
| Mediacom LLC Term Loan C, 4.16% - 5.74%, 1/31/15 | 2,535 | 2,306,162 |
| Nielsen Finance LLC Term Loan B, 5.346%, 8/15/13 | 3,448 | 3,236,972 |
| Penton Media Term Loan, 4.954% - 5.149%, 2/15/13 | 743 | 597,713 |
| Thomson Learning Inc. Term Loan, 5.20%, 6/30/14 | 1,493 | 1,344,929 |
| Univision Communications, Inc. First Lien Term Loan, 4.954%, 9/30/14 | 134 | 113,104 |
| Univision Communications, Inc. First Lien Term Loan, 5.375% - 5.494%, 9/30/14 | 1,541 | 1,298,293 |
| | | <hr/> |
| | | 39,221,082 |

Multiline Retail - 1.0%

| | | |
|---|-------|-----------|
| Neiman Marcus Group, Inc. Term Loan, 4.758%, 4/06/13 | 3,000 | 2,866,500 |
|---|-------|-----------|

Oil, Gas & Consumable Fuels - 1.5%

| | | |
|---|-----|---------|
| Big West Oil & Gas Delay Draw Term Loan, 4.482%, 5/15/14 | 125 | 116,875 |
| Big West Oil & Gas Term Loan B, | | |

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| | | |
|---|-------|-----------|
| 4.75%, 5/15/14 | 443 | 413,737 |
| Petroleum Geo-Services ASA Term Loan B, | | |
| 4.45%, 6/30/15 | 953 | 921,158 |
| Scorpion Drilling Ltd. Second Lien Term Loan, | | |
| 12.406%, 5/05/15 | 2,000 | 2,040,000 |

8

BlackRock Senior High Income Fund, Inc.

(Percentages shown are based on Net Assets)

Schedule of Investments May 31, 2008 (Unaudited)

| Industry | Floating Rate Loan Interests | Par (000) | Value |
|--|---|--------------|------------|
| | Western Refining Co. LP Term Loan B, 4.649%, 3/15/14 | \$ 922 | \$ 815,622 |
| | | | 4,307,392 |
| Paper & Forest Products - 0.3% | Boise Cascade Holdings LLC Second Lien Term Loan, 7.50%, 2/05/15 | 1,000 | 1,000,893 |
| Pharmaceuticals - 0.9% | Pharmaceutical Technologies & Services (PTS) Term Loan, 4.946%, 4/15/14 | 2,978 | 2,646,253 |
| Real Estate Management & Development - 2.1% | LNR Property Corp. Term Loan B, 6.03%, 7/12/11 Realogy Corp. Letter of Credit, 4.763%, 9/22/14 | 4,400 | 3,729,000 |
| | | 2,978 | 2,530,875 |
| | | | 6,259,875 |
| Specialty Retail - 1.0% | ADESA, Inc. Term Loan B, 4.95%, 10/30/13 Burlington Coat Factory Warehouse Corp. Term Loan B, 4.90%, 4/15/13 Claire's Stores Term Loan B, 5.399%, 5/24/14 | 1,985 | 1,839,599 |
| | | 494 | 417,418 |
| | | 743 | 590,527 |
| | | | 2,847,544 |
| Trading Companies & Distributors - 0.4% | United Rentals, Inc. Term Loan, 4.83%, 2/14/11 United Rentals, Inc. Tranche B Credit Linked Deposit, 4.50%, 2/14/11 | 725 | 718,444 |
| | | 306 | 303,784 |
| | | | 1,022,228 |

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| | | | |
|---|---|----------------------------------|-------------|
| Wireless Telecommunication Services - 1.4% | Centennial Cellular Operating Co. Term Loan, 4.381%, 2/09/11 | 2,750 | 2,683,312 |
| | IPC Systems First Lien Term Loan, 4.946%, 5/25/14 | 993 | 760,917 |
| | NG Wireless Term Loan, 5.446% - 5.163%, 7/31/14 | 610 | 579,144 |
| | | | 4,023,373 |
| Total Floating Rate Loan Interests - 67.7% | | | 197,140,375 |
| Common Stocks | | Shares | |
| Chemicals - 0.0% | GEO Specialty Chemicals, Inc. (f) | 142,466 | 54,693 |
| Containers & Packaging - 0.1% | Smurfit Kappa Plc | 18,171 | 185,165 |
| Hotels, Restaurants & Leisure - 0.1% | Lodgian, Inc. (f) | 41,866 | 376,794 |
| Total Common Stocks - 0.2% | | | 616,652 |
| Capital Trusts | | Par (000) | |
| Diversified Financial Services - 0.7% | Citigroup, Inc., 8.40%, 4/29/49 (b)(g) | \$ 2,000 | 1,982,580 |
| Total Capital Trusts - 0.7% | | | 1,982,580 |
| Warrants (h) | | Shares | |
| Wireless Telecommunication Services - 0.1% | American Tower Corp. (expires 8/01/08) | 600 | 386,025 |
| Total Warrants - 0.1% | | | 386,025 |
| Other Interests (i) | | Beneficial Interest (000) | |
| Auto Components - 0.0% | Cambridge Industries, Inc. (Litigation Trust Certificates) | \$ 4,131 | 41 |
| Media - 0.0% | Adelphia Preferred Escrow | 3 | 0 |

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| | Other Interests (i) | Beneficial Interest (000) | Value |
|---------------------|--|---------------------------|----------------|
| | Adelphia Recovery Trust Series ACC-6B INT | \$ 250 | \$ 25 |
| | | | 25 |
| | Total Other Interests - 0.0% | | 66 |
| | Total Long-Term Securities (Cost - \$436,609,774) - 134.1% | | 390,540,421 |
| | Short-Term Securities | | |
| | BlackRock Liquidity Series, LLC Cash Sweep Series, 2.63% (j)(k) | 3,967 | 3,967,069 |
| | Total Short-Term Securities (Cost - \$3,967,069) - 1.4% | | 3,967,069 |
| | Total Investments Before Options Written (Cost - \$440,576,843*) - 135.5% | | 394,507,490 |
| | Options Written | Contracts | |
| Call Options | Pay a fixed rate of 0.93% and receive a floating rate based on 3-month USD LIBOR, expiring July 2008, Broker Credit Suisse First Boston (g) | 4 | (24,064) |
| Put Options | Receive a fixed rate of 0.93% and pay a floating rate based on 3-month USD LIBOR, expiring July 2008, Broker Credit Suisse First Boston (g) | 4 | (155,172) |
| | Total Options Written (Premiums Received - \$240,000) - (0.1%) | | (179,236) |
| | Total Investments, Net of Options Written (Cost - \$440,336,843) - 135.4% | | 394,328,254 |
| | Liabilities in Excess of Other Assets - (35.4%) | | (103,108,268) |
| | Net Assets - 100.0% | | \$ 291,219,986 |

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* The cost and unrealized appreciation (depreciation) of investments as of May 31, 2008, as computed for federal income tax purposes, were as follows:

| | |
|-------------------------------|-----------------|
| Aggregate cost | \$ 440,589,893 |
| <hr/> | |
| Gross unrealized appreciation | \$ 5,465,209 |
| Gross unrealized depreciation | (51,547,612) |
| <hr/> | |
| Net unrealized depreciation | \$ (46,082,403) |
| <hr/> | |

- (a) Security exempt from registration under Rule 144A of the Securities Act of 1933. These securities may be resold in transactions exempt from registration to qualified institutional investors. Unless otherwise indicated, these securities are not considered to be illiquid.
- (b) Variable rate security. Rate shown is as of report date. Maturity shown is the final maturity date.
- (c) Non-income producing security Issuer filed for bankruptcy or is in default of interest payments.
- (d) Convertible security.
- (e) Represents a pay-in-kind security which may pay interest/dividends in additional face/shares.
- (f) Non-income producing security.
- (g) This European style swaption, which can be exercised only on the expiration date, represents a standby commitment whereby the writer of the option is obligated to enter into a predetermined interest rate swap contract exercise of the swaption.
- (h) Warrants entitle the Fund to purchase a predetermined number of shares of common stock and are non-income producing. The purchase price and number of shares are subject to adjustment under certain conditions until the expiration date.
- (i) Other interests represent beneficial interest in liquidation trusts and other reorganization entities and are non-income producing.
- (j) Investments in companies considered to be an affiliate of the, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, were as follows:

| Affiliate | Net Activity (000) | Interest Income |
|---------------------------------|--------------------------|--------------------|
| BlackRock Liquidity Series, LLC | | |
| Cash Sweep Series | \$ 3,967 | \$ 23,645 |
| | | |

10

BlackRock Senior High Income Fund, Inc.
Schedule of Investments May 31, 2008 (Unaudited)

(k) Represents the current yield as of report date.

- For Fund compliance purposes, the Fund's industry classifications refer to any one or more of the industry sub-classifications used by one or more widely recognized market indexes or ratings group indexes, and/or as defined by Fund management.

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This definition may not apply for purposes of this report, which may combine industry sub-classifications for reporting ease.

- Swaps outstanding as of May 31, 2008 were as follows:

| | Notional Amount (000) | Unrealized Depreciation |
|---|--------------------------------------|------------------------------------|
| Sold credit default protection on Ford Motor Credit Company and receive 2.05% Broker, Deutsche Bank AG London Expires March 2010 | \$ 5,000 | \$ (430,265) |
| Bought credit default protection on Dow Jones CDX North America High Yield Series 10 Index and pay 5% Broker, Morgan Stanley Capital Services, Inc. Expires June 2013 | \$ 1,065 | (4,729) |
| Bought credit default protection on Dow Jones CDX North America High Yield Series 10 Index and pay 5% Broker, Morgan Stanley Capital Services Inc. Expires June 2013 | \$ 3,143 | (65,749) |
| Total | | \$ (500,743) |

11

- Effective March 1, 2008, the Fund adopted Financial Accounting Standards Board Statement of Financial Accounting Standards No. 157, "Fair Value Measurements" ("FAS 157"). FAS 157 clarifies the definition of fair value, establishes a framework for measuring fair values and requires additional disclosures about the use of fair value measurements. Various inputs are used in determining the fair value of investments, which are as follows:

- Level 1 - price quotations in active markets/exchanges for identical securities
- Level 2 - other observable inputs (including, but not limited to: quoted prices for similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the assets or liabilities (such as interest rates, yield curves, volatilities, prepayment speeds, loss severities, credit risks, and default rates) or other market-corroborated inputs)
- Level 3 - unobservable inputs based on the best information available in the circumstance, to the extent observable inputs are not available (including the Fund's own assumption used in determining the fair value of investments)

The inputs or methodology used for valuing securities are not necessarily an indication of the risk associated with investing in those securities. For information about the Fund's policy regarding valuation of investments and other significant accounting policies, please refer to the Fund's most recent financial statements as contained in its annual report.

The following table summarizes the inputs used as of May 31, 2008 in determining the fair valuation of the Fund's investments:

| Valuation Inputs | Investments in Securities | Other Financial Instruments* |
|-----------------------------|--------------------------------------|---|
| Level 1 | \$ 561,959 | - |
| Level 2 | 394,021,876 | \$ 679,979 |
| Level 3 | 399 | - |

| | | |
|--------------|----------------|------------|
| Total | \$ 394,584,234 | \$ 679,979 |
|--------------|----------------|------------|

* Other financial instruments are swaps and options.

The following is a reconciliation of investments for unobservable inputs (Level 3) were used in determining fair value:

| | Investments in Securities |
|--|--------------------------------------|
| Balance, as of February 29, 2008 | \$ 399 |
| Accrued discounts/premiums | - |
| Realized gain (loss) | - |
| Change in unrealized appreciation (depreciation) | - |
| Net purchases (sales) | - |
| Net transfers in/out of Level 3 | - |
| Balance, as of May 31, 2008 | \$ 399 |

12

Item 2 Controls and Procedures

2(a) The registrant's principal executive and principal financial officers or persons performing similar functions have concluded that the registrant's disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940, as amended (the 1940 Act)) are effective as of a date within 90 days of the filing of this report based on the evaluation of these controls and procedures required by Rule 30a-3(b) under the 1940 Act and Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended.

2(b) There were no changes in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the 1940 Act) that occurred during the registrant's last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the registrant's internal control over financial reporting.

Item 3 Exhibits

Certifications Attached hereto

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.

BlackRock Senior High Income Fund, Inc.

By: /s/ Donald C. Burke
Donald C. Burke

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Chief Executive Officer of
BlackRock Senior High Income Fund, Inc.

Date: July 18, 2008

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

By: /s/ Donald C. Burke

Donald C. Burke
Chief Executive Officer (principal executive officer) of
BlackRock Senior High Income Fund, Inc.

Date: July 18, 2008

By: /s/ Neal J. Andrews

Neal J. Andrews
Chief Financial Officer (principal financial officer) of
BlackRock Senior High Income Fund, Inc.

Date: July 18, 2008
