

BLACKROCK SENIOR HIGH INCOME FUND, INC.

Form N-Q

January 29, 2010

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: Anne F. Ackerley, Chief Executive Officer, BlackRock Senior High Income Fund, Inc., 55 East 52nd Street, New York, NY 10055.

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

Date of fiscal year end: 02/28/2010

Date of reporting period: 11/30/2009

Item 1 – Schedule of Investments

BlackRock Senior High Income Fund, Inc. (ARK)

Schedule of Investments November 30, 2009 (Unaudited)

(Percentages shown are based on Net Assets)

Industry	Common Stocks (a)	Shares	Value
Auto Components - 0.2%	Lear Corp.	5,576	\$ 351,262
Building Products - 0.7%	Masonite Worldwide Holdings	40,055	1,401,925
Capital Markets - 0.2%	E*Trade Financial Corp.	271,000	444,440
Chemicals - 0.0%	GEO Specialty Chemicals, Inc. (b)	142,466	54,693
	Wellman Holdings, Inc.	5,131	1,283
			55,976
Containers & Packaging - 0.1%	Smurfit Kappa Plc	18,171	148,987
Hotels, Restaurants & Leisure - 0.0%	Lodgian, Inc.	41,866	53,170
Metals & Mining - 0.0%	Euramax International	935	28,047
Paper & Forest Products - 0.7%	Ainsworth Lumber Co. Ltd.	375,634	729,628
	Ainsworth Lumber Co. Ltd. (b)	421,556	819,720
			1,549,348
	Total Common Stocks - 1.9%		4,033,155
	Corporate Bonds	Par (000)	
Aerospace & Defense - 2.8%	Moog, Inc., 7.25%, 6/15/18	USD 5,000	4,800,000
	TransDigm, Inc., 7.75%, 7/15/14 (b)	1,100	1,116,500
			5,916,500
Airlines - 0.5%	Delta Air Lines, Inc., Series B, 9.75%, 12/17/16	500	500,000
	United Air Lines, Inc., 12.75%, 7/15/12	600	610,500
			1,110,500
Auto Components - 1.9%	The Goodyear Tire & Rubber Co., 8.63%, 12/01/11	4,000	4,095,000
	Venture Holdings Co. LLC, 12.00%, 6/01/09 (a)(c)	700	
	Venture Holdings Co. LLC, Series B, 9.50%, 7/01/05 (a)(c)(d)	3,325	332
			4,095,332
Biotechnology - 0.1%	QHP Pharma, 10.25%, 3/15/15 (b)	315	318,600

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Building Products - 2.5%	CPG International I, Inc., 7.87%, 7/01/12 (e)	3,500	3,176,250
	CPG International I, Inc., 10.50%, 7/01/13	1,500	1,361,250
	Ply Gem Industries, Inc., 11.75%, 6/15/13	725	692,375
			5,229,875
Chemicals - 3.1%	American Pacific Corp., 9.00%, 2/01/15	610	568,825
	GEO Specialty Chemicals, Inc., 7.50%, 3/31/15 (b)(f)(g)	1,869	1,214,605
	GEO Specialty Chemicals, Inc., 10.00%, 3/31/15	1,839	1,195,168
	Huntsman International LLC, 5.50%, 6/30/16 (b)	495	429,412
	Wellman Holdings, Inc., Second Lien Subordinate Note, 10.00%, 1/29/19 (b)(f)	2,383	2,383,000
	Wellman Holdings, Inc., Third Lien Subordinate Note, 5.00%, 1/29/19 (f)(g)	1,599	799,500
Commercial Services & Supplies - 2.0%	ACCO Brands Corp., 10.63%, 3/15/15 (b)	365	393,744
	Clean Harbors, Inc., 7.63%, 8/15/16 (b)	700	704,375
	The Geo Group, Inc., 7.75%, 10/15/17 (b)	450	456,750
	RSC Equipment Rental, Inc., 10.00%, 7/15/17 (b)	550	592,625
	Sally Holdings LLC, 9.25%, 11/15/14	420	434,700
	Sally Holdings LLC, 10.50%, 11/15/16	570	609,900

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Industry	Corporate Bonds	Par (000)	Value
	Scientific Games International, Inc., 9.25%, 6/15/19	USD 960	\$ 997,200
			4,189,294
Construction Materials - 1.2%	Nortek, Inc., 10.00%, 12/01/13	2,570	2,634,250
Consumer Finance - 1.1%	Ford Motor Credit Co. LLC, 3.03%, 1/13/12 (e)	1,340	1,214,710
	Inmarsat Finance Plc, 7.38%, 12/01/17 (b)	1,150	1,161,500
			2,376,210
Containers & Packaging - 3.0%	Berry Plastics Corp., 4.13%, 9/15/14 (e)	100	78,000
	Berry Plastics Escrow LLC, 8.25%, 11/15/15 (b)	1,100	1,086,250
	Clondalkin Acquisition BV, 2.25%, 12/15/13 (b)(e)	2,000	1,765,000
	Crown Americas LLC, 7.63%, 5/15/17 (b)	400	408,000
	Graphic Packaging International, Inc., 9.50%, 6/15/17	555	585,525
	Packaging Dynamics Finance Corp., 10.00%, 5/01/16 (b)	1,650	1,221,000
	Smurfit Kappa Funding Plc, 7.75%, 4/01/15	1,050	1,002,750
	Solo Cup Co., 10.50%, 11/01/13 (b)	250	263,125
			6,409,650
Diversified Financial Services - 1.6%	Highland Legacy Ltd., 6.53%, 6/01/11 (b)(e)	4,000	2,400,000
	Reynolds Group DL Escrow, Inc., 7.75%, 10/15/16 (b)	955	964,550
			3,364,550
Diversified Telecommunication Services - 2.8%	Cincinnati Bell, Inc., 8.25%, 10/15/17	900	893,250
	Nordic Telephone Co. Holdings ApS, 8.88%, 5/01/16 (b)	1,200	1,260,000
	PAETEC Holding Corp., 8.88%, 6/30/17	600	595,500
	Qwest Corp., 8.38%, 5/01/16 (b)	3,000	3,135,000
			5,883,750
Electric Utilities - 0.4%	NSG Holdings LLC, 7.75%, 12/15/25 (b)	1,000	895,000
Food & Staples Retailing - 0.5%	Duane Reade, Inc., 11.75%, 8/01/15 (b)	155	167,012
	Rite Aid Corp., 9.75%, 6/12/16	825	891,000
			1,058,012
Food Products - 0.4%	Smithfield Foods, Inc., 10.00%, 7/15/14 (b)	750	785,625

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Health Care Equipment & Supplies - 0.8%	DJO Finance LLC, 10.88%, 11/15/14	710	747,275
	Hologic, Inc., 2.00%, 12/15/37 (f)(h)	1,200	972,000
			1,719,275
Health Care Providers & Services - 3.1%	Community Health Systems, Inc., Series WI, 8.88%, 7/15/15	1,880	1,917,600
	DaVita, Inc., 7.25%, 3/15/15	525	522,375
	Snoqualmie Entertainment Authority, 4.68%, 2/01/14 (b)(e)	500	255,000
	Tenet Healthcare Corp., 10.00%, 5/01/18 (b)	850	945,625
	Tenet Healthcare Corp., 8.88%, 7/01/19 (b)	2,775	2,969,250
			6,609,850
Hotels, Restaurants & Leisure - 1.8%	American Real Estate Partners LP, 7.13%, 2/15/13	2,450	2,401,000
	Little Traverse Bay Bands of Odawa Indians, 10.25%, 2/15/14 (a)(b)(c)	1,210	302,500
	MGM Mirage, 10.38%, 5/15/14 (b)	185	197,487
	MGM Mirage, 11.13%, 11/15/17 (b)	750	821,250

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Industry	Corporate Bonds	Par (000)	Value
	Shingle Springs Tribal Gaming Authority, 9.38%, 6/15/15 (b)	USD 190	\$ 137,750
	Tropicana Entertainment LLC, Series WI, 9.63%, 12/15/14 (a)(c)	220	825
			3,860,812
Household Durables - 1.6%	Beazer Homes USA, Inc., 12.00%, 10/15/17 (b)	1,000	1,080,000
	Jarden Corp., 7.50%, 5/01/17	985	975,150
	K Hovnanian Enterprises, Inc., 10.63%, 10/15/16 (b)	1,265	1,290,300
	KB Home, 6.38%, 8/15/11	106	106,265
			3,451,715
IT Services - 2.1%	First Data Corp., 9.88%, 9/24/15	5,030	4,476,700
Independent Power Producers & Energy Traders - 3.3%	The AES Corp., 8.75%, 5/15/13 (b)	335	340,862
	AES Eastern Energy LP, Series 99-B, 9.67%, 1/02/29	570	490,200
	Calpine Construction Finance Co. LP, 8.00%, 6/01/16 (b)	1,000	1,005,000
	Dynegy Holdings, Inc., 8.38%, 5/01/16	1,260	1,156,050
	Energy Future Holdings Corp., 11.25%, 11/01/17 (g)	910	569,000
	NRG Energy, Inc., 7.25%, 2/01/14	3,000	3,026,250
	NRG Energy, Inc., 8.50%, 6/15/19	500	505,000
	Texas Competitive Electric Holdings Co. LLC, 10.50%, 11/01/16 (g)	71	45,273
			7,137,635
Industrial Conglomerates - 1.4%	Sequa Corp., 11.75%, 12/01/15 (b)	1,430	1,272,700
	Sequa Corp., 13.50%, 12/01/15 (b)(g)	1,937	1,684,951
			2,957,651
Internet & Catalog Retail - 0.1%	NetFlix, Inc., 8.50%, 11/15/17 (b)	250	256,250
Life Sciences Tools & Services - 0.5%	Bio-Rad Laboratories, Inc., 6.13%, 12/15/14	1,035	1,006,537
Machinery - 2.0%	ESCO Corp., 4.13%, 12/15/13 (b)(e)	1,540	1,409,100
	Navistar International Corp., 8.25%, 11/01/21	1,500	1,473,750
	RBS Global, Inc., 8.88%, 9/01/16	835	722,275
	Titan International, Inc., 8.00%, 1/15/12	770	752,675
			4,357,800
Marine - 0.3%	Navios Maritime Holdings, Inc., 9.50%, 12/15/14	254	249,873

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	Navios Maritime Holdings, Inc., 8.88%, 11/01/17 (b)	450	461,250
			711,123
Media - 5.2%	Affinion Group, Inc., 10.13%, 10/15/13	1,015	1,035,300
	CSC Holdings, Inc., 8.50%, 4/15/14 (b)	390	409,987
	Charter Communications Holdings LLC, 10.00%, 4/01/09 (a)(c)	1,121	5,605
	Charter Communications Holdings LLC, 11.13%, 1/15/11 (a)(c)	1,319	65,950
	Charter Communications Holdings LLC, 10.00%, 5/15/11 (a)(c)	660	3,300
	EchoStar DBS Corp., 7.00%, 10/01/13	850	850,000
	Intelsat Corp., 9.25%, 8/15/14	3,500	3,526,250

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	Local Insight Regatta Holdings, Inc., 11.00%, 12/01/17	USD 644	\$ 386,400
	Nielsen Finance LLC, 11.63%, 2/01/14	2,500	2,687,500
	UPC Germany GmbH, 8.13%, 12/01/17 (b)	1,500	1,500,000
	WMG Acquisition Corp., 9.50%, 6/15/16 (b)	555	596,625
			11,066,917
Metals & Mining - 1.9%	Aleris International, Inc., 9.00%, 12/15/14 (a)(c)	840	3,150
	Murray Energy Corp., 10.25%, 10/15/15 (b)	420	411,600
	RathGibson, Inc., 11.25%, 2/15/14 (a)(c)	2,175	761,250
	Ryerson, Inc., 7.66%, 11/01/14 (e)	1,800	1,588,500
	Teck Resources Ltd., 10.75%, 5/15/19	1,075	1,255,062
			4,019,562
Multiline Retail - 0.2%	Dollar General Corp., 11.88%, 7/15/17 (g)	198	221,265
	Saks, Inc., 9.88%, 10/01/11	125	129,375
			350,640
Oil, Gas & Consumable Fuels - 4.6%	Arch Coal, Inc., 8.75%, 8/01/16 (b)	750	772,500
	Atlas Energy Operating Co. LLC, 12.13%, 8/01/17	825	921,937
	Atlas Energy Resources LLC, 10.75%, 2/01/18 (b)	200	217,500
	Chesapeake Energy Corp., 6.88%, 1/15/16	1,000	960,000
	Denbury Resources, Inc., 9.75%, 3/01/16	520	549,900
	El Paso Corp., 7.00%, 6/15/17	775	759,500
	Forest Oil Corp., 8.50%, 2/15/14 (b)	810	828,225
	Forest Oil Corp., 7.25%, 6/15/19	205	194,237
	Massey Energy Co., 6.88%, 12/15/13	800	788,000
	OPTI Canada, Inc., 9.00%, 12/15/12 (b)	550	548,625
	Sabine Pass LNG LP, 7.50%, 11/30/16	2,985	2,477,550
	SandRidge Energy, Inc., 3.91%, 4/01/14 (e)	1,000	845,752
			9,863,726
Paper & Forest Products - 3.3%	Ainsworth Lumber Co. Ltd., 11.00%, 7/29/15 (b)(g)	1,291	787,404
	Clearwater Paper Corp., 10.63%, 6/15/16 (b)	365	401,500
	Georgia-Pacific LLC, 8.25%, 5/01/16 (b)	1,630	1,727,800
	NewPage Corp., 6.53%, 5/01/12 (e)	5,175	3,182,625
	Verso Paper Holdings LLC, 11.50%, 7/01/14 (b)	315	343,350
	Verso Paper Holdings LLC, Series B, 4.03%, 8/01/14 (e)	745	558,750
			7,001,429

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Pharmaceuticals - 1.5%	Angiotech Pharmaceuticals, Inc., 4.01%, 12/01/13 (e)	2,690	2,219,250
	Elan Corp. Plc, 8.75%, 10/15/16 (b)	520	488,800
	Valeant Pharmaceuticals International, 8.38%, 6/15/16 (b)	450	463,500
			3,171,550
Semiconductors & Semiconductor Equipment - 1.2%	Advanced Micro Devices, Inc., 8.13%, 12/15/17 (b)	400	377,500
	Avago Technologies Finance Pte. Ltd., 5.86%, 6/01/13 (e)	766	766,479
	Spansion, Inc., 3.79%, 6/01/13 (a)(b)(c)	1,460	1,518,400

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Industry	Corporate Bonds	Par (000)	Value
Specialty Retail - 0.4%	United Auto Group, Inc., 7.75%, 12/15/16	USD 915	\$ 885,262
Textiles, Apparel & Luxury Goods - 0.9%	Quiksilver, Inc., 6.88%, 4/15/15	2,525	1,931,625
Wireless Telecommunication Services - 3.2%	Cricket Communications, Inc., 9.38%, 11/01/14	140	134,750
	Cricket Communications, Inc., 10.00%, 7/15/15	120	116,400
	Cricket Communications, Inc., 7.75%, 5/15/16 (b)	2,000	1,975,000
	Crown Castle International Corp., 9.00%, 1/15/15	145	153,337
	Digicel Group Ltd., 12.00%, 4/01/14 (b)	800	894,000
	MetroPCS Wireless, Inc., 9.25%, 11/01/14	2,000	2,005,000
	Nextel Communications, Inc., Series E, 6.88%, 10/31/13	690	655,500
	Nextel Communications, Inc., Series F, 5.95%, 3/15/14	100	90,500
	Orascom Telecom Finance SCA, 7.88%, 2/08/14 (b)	395	331,800
	Sprint Capital Corp., 7.63%, 1/30/11	220	222,200
	Sprint Capital Corp., 6.88%, 11/15/28	370	277,500
			6,855,987
	Total Corporate Bonds - 63.3%		135,212,083
	Floating Rate Loan Interests (e)		
Aerospace & Defense - 0.6%	Hawker Beechcraft Acquisition Co., LLC, Letter of Credit Facility Deposit, 2.28%, 3/26/14	94	69,799
	Hawker Beechcraft Acquisition Co., LLC, Term Loan, 2.23% - 2.28%, 3/26/14	1,583	1,181,408
			1,251,207
Airlines - 0.5%	Delta Air Lines, Inc., Credit-Linked Deposit Loan, 0.09% - 2.28%, 4/30/12	1,225	1,075,958
Auto Components - 3.0%	Allison Transmission, Inc., Term Loan, 2.99% - 3.04%, 8/07/14	5,053	4,421,613
	Dana Holding Corp., Term Advance, 7.25%, 1/31/15	1,351	1,205,605
	The Goodyear Tire & Rubber Co., Loan (Second Lien), 2.34%, 4/30/14	300	268,125
	Lear Corp., Term Loan (Second Lien), 9.00%, 11/09/12	500	500,834
			6,396,177
Automobiles - 0.4%	Ford Motor Co., Term Loan, 3.24% - 3.29%, 12/15/13	1,071	938,173

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Beverages - 0.7%	Inbev NV/SA, Bridge Loan, 5.25%, 7/15/13	1,500	1,468,595
Building Products - 1.1%	Building Materials Corp., of America, Term Loan Advance, 3.00%, 2/22/14	1,226	1,109,001
	Goodman Global Holdings, Term Loan B, 6.25%, 2/13/14	1,175	1,174,021
			2,283,022
Chemicals - 3.0%	Ashland Inc., Term B Borrowing, 7.65%, 5/13/14	324	329,327
	Gentek, Inc., Term Loan B, 7.00%, 10/20/14	400	401,667
	Nalco Co., Term Loan, 6.50%, 5/13/16	1,020	1,026,249
	PQ Corp., (fka Niagara Acquisition, Inc.), Original Term Loan (First Lien), 3.49% - 3.54%, 7/30/14	3,938	3,465,000
	Solutia Inc., Loan, 7.25%, 2/28/14	1,104	1,116,892
			6,339,135

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Industry	Floating Rate Loan Interests (e)	Par (000)	Value
Commercial Services & Supplies - 1.7%	ARAMARK Corp., Facility Letter of Credit, 2.31%, 1/26/14	USD 71	\$ 63,847
	ARAMARK Corp., U.S. Term Loan, 2.11% - 2.16%, 1/26/14	1,077	970,835
	Casella Waste Systems, Inc., Term Loan B, 7.00%, 4/08/14	219	219,999
	John Maneely Co., Term Loan, 3.49% - 3.53%, 12/09/13	866	792,271
	Synagro Technologies, Inc., Term Loan (First Lien), 2.23% - 2.24%, 4/02/14	425	342,656
	West Corp., Term Loan B3, 7.25%, 11/08/13	1,248	1,239,780
Construction & Engineering - 0.2%	Brand Energy & Infrastructure Services, Inc. (FR Brand Acquisition Corp.), Synthetic Letter of Credit Term Loan (First Lien), 2.44%, 2/07/14	500	446,875
Containers & Packaging - 0.3%	Graham Packaging Co., LP, Term Loan B, 2.50%, 10/07/11	597	576,046
Distributors - 0.2%	Keystone Automotive Operations, Inc., Loan, 3.74% - 5.75%, 1/12/12	616	385,290
Diversified Consumer Services - 1.8%	Coinmach Service Corp., Term Loan, 3.24% - 3.27%, 11/14/14	1,970	1,674,436
	Laureate Education, Term Loan B, 7.00%, 12/31/14	2,250	2,168,438
			3,842,874
Diversified Financial Services - 0.4%	Reynolds Group, Term Loan B, 6.25%, 10/28/15	900	897,750
Diversified Telecommunication Services - 0.6%	Cavtel Holdings, LLC, Term Loan, 10.50%, 12/31/12	425	334,688
	Integra Telecom Holdings, Inc., Term Loan (First Lien), 10.50%, 8/31/13	894	888,507
	PAETEC Holding Corp., Incremental Term Loan, 2.73%, 2/28/13	147	138,317
			1,361,512
Electrical Equipment - 0.2%	Generac Acquisition Corp., Term Loan (First Lien), 2.78%, 11/10/13	554	500,298
Energy Equipment & Services - 0.9%	Dresser, Inc., Term Loan B, 2.52%, 5/04/14	206	188,808
	Dresser, Inc., Term Loan (Second Lien), 5.99% - 6.02%, 5/04/15	1,000	902,500

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	MEG Energy Corp., Delayed Draw Term Loan, 2.29%, 4/02/13	492	446,991
	MEG Energy Corp., Initial Term Loan, 2.29%, 4/03/13	483	438,472
			1,976,771
Food & Staples Retailing - 1.6%	McJunkin Corp., Term Loan, 5.50%, 1/31/14	348	331,380
	Pilot Travel Centers Term Loan B, 0.00%, 11/18/15	1,250	1,251,041
	Rite Aid Corp., Tranche 4 Term Loan, 9.50%, 6/10/15	1,200	1,234,000
	SuperValu, Term Loan B, 1.50%, 6/02/12	635	599,916
			3,416,337
Food Products - 1.4%	Dole Food Co., Inc., Credit-Linked Deposit, 7.78%, 4/12/13	828	831,598
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Industry	Floating Rate Loan Interests (e)	Par (000)	Value
	Solvest, Ltd. (Dole), Tranche C Term Loan, 8.00%, 4/12/13	USD 622	\$ 625,078
	Wm. Wrigley Jr. Co., Tranche B Term Loan, 6.50%, 9/30/14	1,675	1,679,736
			3,136,412
Health Care Equipment & Supplies - 0.6%	Biomet, Inc., Dollar Term Loan, 3.25% - 3.29%, 3/25/15	350	330,750
	DJO Finance LLC (ReAble Therapeutics Finance LLC), Term Loan, 3.23% - 3.28%, 5/20/14	983	922,322
			1,253,072
Health Care Providers & Services - 3.4%	CCS Medical, Inc. (Chronic Care), Term Loan (First Lien), 4.35%, 9/30/12 (a)(c)	250	130,833
	CCS Medical Return of Capital, 0.00%, 9/30/11	500	261,666
	CHS/Community Health Systems, Inc., Delayed Draw Term Loan, 2.51%, 7/25/14	101	91,860
	CHS/Community Health Systems, Inc., Funded Term Loan, 2.48% - 2.51%, 7/25/14	1,929	1,763,053
	Fresenius SE, Tranche B1 Term Loan, 6.75%, 9/26/14	645	646,403
	Fresenius SE, Tranche B2 Term Loan, 6.75%, 9/26/14	347	348,224
	HCA Inc., Tranche A-1 Term Loan, 1.78%, 11/17/12	3,466	3,218,616
	Vanguard Health Holding Co., II, LLC (Vanguard Health System, Inc.), Replacement Term Loan, 2.48%, 9/23/11	875	847,099
			7,307,754
Hotels, Restaurants & Leisure - 2.9%	Busch Entertainment Corp., Term Loan, 5.75%, 5/05/16	1,250	1,250,313
	Harrah s Operating Co., Inc., Term Loan B-2, 3.28%, 1/28/15	557	431,484
	Harrah s Operating, Term Loan B, 9.50%, 10/31/16	1,250	1,209,688
	QCE, LLC (Quiznos), Term Loan (Second Lien), 2.56%, 11/05/13	968	778,434
	Universal City Development Term Loan B, 7.75%, 10/29/14	1,250	1,243,360
	VML US Finance LLC (aka Venetian Macau), New Project Term Loan, 5.79%, 5/25/13	995	940,690
	VML US Finance LLC (aka Venetian Macau), Term B Delayed Draw Project Loan, 5.79%, 5/25/12	249	235,172
			6,089,141
IT Services - 2.4%	Audio Visual Services Group, Inc., Loan (Second Lien), 6.79%, 8/28/14 (g)	529	52,933
		997	683,257

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Audio Visual Services Group, Inc., Tranche B Term Loan (First Lien), 2.54%, 2/28/14		
Ceridian Corp, U.S. Term Loan, 3.24% - 3.28%, 11/09/14	1,483	1,278,436
First Data Corp., Initial Tranche B-2 Term Loan, 3.03% - 3.04%, 9/24/14	1,474	1,224,527
First Data Corp., Initial Tranche B-3 Term Loan, 3.03% - 3.04%, 9/24/14	390	323,440
RedPrairie Corp., Tack-on Loan, 3.38%, 7/20/12	260	243,983

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BlackRock Senior High Income Fund, Inc. (ARK)
 Schedule of Investments November 30, 2009 (Unaudited)

(Percentages shown are based on Net Assets)

Industry	Floating Rate Loan Interests (e)	Par (000)	Value
	RedPrairie Corp., Term Loan B, 3.31% - 5.25%, 7/20/12	USD 605	\$ 568,608
	SunGard Data Systems Inc. (Solar Capital Corp.), Incremental Term Loan, 6.75%, 2/28/14	748	752,225
			5,127,409
Independent Power Producers & Energy Traders - 0.5%	Dynegy Holdings Inc., Term Letter of Credit Facility Term Loan, 3.99%, 4/02/13	463	436,829
	Dynegy Holdings Inc., Tranche B Term Loan, 3.99%, 4/02/13	37	35,255
	Texas Competitive Electric Holdings Co., LLC (TXU), Initial Tranche B-2 Term Loan, 3.74% - 3.78%, 10/10/14	485	361,302
	Texas Competitive Electric Holdings Co., LLC (TXU), Initial Tranche B-3 Term Loan, 3.74% - 3.78%, 10/10/14	228	168,165
			1,001,551
Industrial Conglomerates - 0.2%	Sequa Corp., Term Loan, 3.58% - 3.94%, 12/03/14	450	388,688
Insurance - 0.1%	Alliant Holdings I, Inc., Term Loan, 3.28%, 8/21/14	143	129,106
Internet & Catalog Retail - 0.3%	FTD Group, Inc., Tranche B Term Loan, 6.75%, 8/26/14	688	682,799
Leisure Equipment & Products - 0.8%	Fender Musical Instruments Corp., Delayed Draw Loan, 2.54%, 6/09/14	659	556,756
	Fender Musical Instruments Corp., Initial Loan, 2.54%, 6/09/14	1,304	1,102,236
			1,658,992
Life Sciences Tools & Services - 0.3%	Life Technologies Corp., Term B Facility, 5.25%, 11/23/15	597	596,107
Machinery - 1.4%	LN Acquisition Corp. (Lincoln Industrial), Initial Term Loan (Second Lien), 6.04%, 1/09/15	1,000	660,000
	Navistar Financial Corp., Tranche A Term Loan, 2.25%, 3/27/10	750	737,813
	Oshkosh Truck Corp., Term B Loan, 6.29% - 6.33%, 12/06/13	1,582	1,576,446
			2,974,259
Media - 11.7%		1,420	1,260,517

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Affinion Group Holdings, Inc., Loan, 8.27%, 3/01/12
(g)

Cengage Learning Acquisitions, Inc. (Thomson Learning), Tranche 1 Incremental Term Loan, 7.50%, 7/03/14

4,090 4,023,190

Cequel Communications, LLC, Term Loan, 2.26% - 4.25%, 11/05/13

1,397 1,288,577

Cequel Communications, LLC, Tranche B Term Loan (Second Lien), 6.26%, 5/05/14

1,413 1,405,818

Charter Communications, Term Loan B1, 7.25%, 3/25/14

1,000 1,010,000

Ellis Communications KDOC, LLC, Loan, 10.00%, 12/30/11

3,879 1,086,013

HMH Publishing Co., Ltd., Tranche A Term Loan, 5.28%, 6/12/14

4,656 3,951,967

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(Percentages shown are based on Net Assets)

Industry	Floating Rate Loan Interests (e)	Par (000)	Value
	Hanley-Wood, LLC (FSC Acquisition), Term Loan, 2.48% - 2.53%, 3/08/14	USD 983	\$ 412,650
	Lamar Media Corp., Series B Incremental Loan, 5.50%, 9/28/12	1,325	1,314,201
	Lamar Media Corp., Term Loan, 5.50%, 9/30/12	236	234,376
	MCC Iowa LLC (Mediacom Broadband Group), Tranche E Term Loan, 6.50%, 1/03/16	274	274,477
	Mediacom Illinois, LLC (fka Mediacom Communications, LLC), Tranche D Term Loan, 5.50%, 3/31/17	500	498,125
	Newsday, LLC, Fixed Rate Term Loan, 10.50%, 8/01/13	3,250	3,401,668
	Penton Media, Inc., Term Loan (First Lien), 2.48% - 2.53%, 2/01/13	731	478,055
	Sinclair Broadcast Group, Term Loan B, 6.50%, 10/16/15	500	500,209
	Sunshine Acquisition Ltd., (aka HIT Entertainment), Term Facility, 2.53%, 3/20/12	1,200	1,029,000
	United Pan Europe Communications, Term Loan, 3.74%, 12/31/16	1,750	1,663,375
	World Color Press Inc. and World Color (USA) Corp. (fka Quebecor World Inc.), Advance, 9.00%, 7/23/12	499	500,345
	Yell Group Plc TPI, Term Loan A, 7.12%, 8/09/11	750	686,250
			<u>25,018,813</u>
Metals & Mining - 1.3%	Euramax International, Inc., Domestic Term Loan, 10.00%, 6/29/13 (g)	858	531,788
	Euramax International, Inc., Domestic Term Loan, 14.00%, 6/29/13 (g)	863	535,349
	RathGibson, Inc., Debtor in Possession Loan, 10.50% - 10.75%, 2/10/10	1,796	1,795,560
			<u>2,862,697</u>
Multi-Utilities - 0.4%	FirstLight Power Resources, Inc. (fka NE Energy, Inc.), Synthetic Letter of Credit, 2.81%, 11/01/13	103	93,545
	FirstLight Power Resources, Inc. (fka NE Energy, Inc.), Term B Advance (First Lien), 2.81%, 11/01/13	797	726,018
			<u>819,563</u>
Multiline Retail - 0.4%	Dollar General Corp., Tranche B-2 Term Loan, 2.98%, 7/07/14	748	696,483
	The Neiman Marcus Group Inc., Term Loan, 2.24% - 2.32%, 4/06/13	130	110,572
			<u>807,055</u>

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Oil, Gas & Consumable Fuels - 0.9%	Big West Oil, LLC, Delayed Advance Loan, 4.50%, 5/15/14	546	518,862
	Big West Oil, LLC, Initial Advance Loan, 4.50%, 5/15/14	434	412,731
	ScorpionDrilling Ltd., Loan (Second Lien), 7.78%, 5/08/14	1,145	1,059,125
			1,990,718

BlackRock Senior High Income Fund, Inc. (ARK)
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(Percentages shown are based on Net Assets)

Industry	Floating Rate Loan Interests (e)	Par (000)	Value
Packaging - 0.2%	Berry Plastics Corp., Term Loan C, 2.30%, 4/02/15	USD 500	\$ 420,416
Paper & Forest Products - 0.2%	Georgia-Pacific LLC, Term Loan B, 2.24% - 2.30%, 12/22/12	515	489,135
Personal Products - 0.2%	American Safety Razor, Term Loan (First Lien), 2.79%, 7/25/13	250	234,583
	American Safety Razor Co., LLC, Loan (Second Lien), 6.54%, 1/30/14	175	143,792
			378,375
Pharmaceuticals - 0.8%	Warner Chilcott, Term Loan A, 5.50%, 10/14/14	644	641,649
	Warner Chilcott, Term Loan B, 5.75%, 3/30/15	322	320,824
	Warner Chilcott, Term Loan B1, 5.75%, 4/30/15	708	705,814
			1,668,287
Real Estate Management & Development - 1.2%	Realogy Corp., Synthetic Letter of Credit, 3.24%, 10/10/13	2,933	2,486,517
Specialty Retail - 0.6%	Adesa, Inc. (KAR Holdings, Inc.), Initial Term Loan, 2.49%, 10/21/13	750	688,750
	Michaels Stores, Inc., Term Loan B, 2.56%, 10/31/13	308	265,243
	Michaels Stores, Inc., Term Loan B, 4.81%, 7/31/16	415	368,192
			1,322,185
Wireless Telecommunication Services - 0.8%	Digicel International Finance Ltd., Tranche A, 2.81%, 3/30/12	1,283	1,228,808
	MetroPCS Wireless, Inc., Tranche B Term Loan, 2.50% - 2.56%, 11/03/13	500	460,625
			1,689,433
	Total Floating Rate Loan Interests - 50.2%		107,083,892
	Other Interests (i)	Beneficial Interest (000)	
Auto Components - 0.1%	Internet Liquidating Trust, Class A	649	194,641
	Lear Corp. Escrow	555	6
			194,647

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Diversified Financial Services - 0.4%	JG Wentworth LLC Preferred Equity Interests	(j)	860,854
Media - 0.0%	Adelphia Preferred Escrow	3	
	Adelphia Recovery Trust, Series ACC-6B INT	250	25
			<u>25</u>
	Total Other Interests - 0.5%		1,055,526
	Warrants (k)	Shares	
Auto Components - 0.1%	Lear Corp. (expires 11/09/14)	2,175	133,786
	Total Warrants - 0.1%		133,786
	Total Long-Term Investments (Cost - \$284,152,657) - 116.0%		247,518,442
	Short-Term Securities		
	BlackRock Liquidity Funds, TempFund, Institutional Class, 0.16% (l)(m)	2,851,401	2,851,401
	Total Short-Term Securities (Cost - \$2,851,401) - 1.3%		2,851,401
	Total Investments (Cost - \$287,004,058*) - 117.3%		250,369,843
	Liabilities in Excess of Other Assets - (17.3)%		<u>(37,008,089)</u>
	Net Assets - 100.0%		<u>\$ 213,361,754</u>

BlackRock Senior High Income Fund, Inc. (ARK)
Schedule of Investments November 30, 2009 (Unaudited)

* The cost and unrealized appreciation (depreciation) of investments as of November 30, 2009, as computed for federal income tax purposes, were as follows:

Aggregate cost	\$ 287,502,611
<hr/>	
Gross unrealized appreciation	\$ 7,866,683
Gross unrealized depreciation	(44,999,451)
<hr/>	
Net unrealized depreciation	\$ (37,132,768)
<hr/>	

- (a) Non-income producing security.
- (b) 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.
- (c) Issuer filed for bankruptcy and/or is in default of interest payments.
- (d) As a result of bankruptcy proceedings, the company did not repay the principal amount of the security upon maturity.
- (e) Variable rate security. Rate shown is as of report date.
- (f) Convertible security.
- (g) Represents a payment-in-kind security which may pay interest/dividends in additional par/shares.
- (h) Represents a step-down bond that pays an initial coupon rate for the first period and then a lower coupon rate for the following periods. Rate shown reflects the current yield as of report date.
- (i) Other interests represent beneficial interest in liquidation trusts and other reorganization entities and are non-income producing.
- (j) Amount is less than \$1,000.
- (k) 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.
- (l) Investments in companies considered to be an affiliate of the Fund, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, were as follows:

Affiliate	Net Activity	Income
BlackRock Liquidity Funds, TempFund, Institutional Class	USD 2,851,401	\$ 5,897
BlackRock Liquidity Series, LLC Cash Sweep Series	USD (4,346,896)	\$ 1,670

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

Foreign currency exchange contracts as of November 30, 2009 were as follows:

	Currency Purchased		Currency Sold		Settlement Date		Counterparty		Unrealized Appreciation
USD	576,268	CAD	599,500		1/27/10		Citibank NA	\$	8,242

BlackRock Senior High Income Fund, Inc. (ARK)
Schedule of Investments November 30, 2009 (Unaudited)

Credit default swaps on single-name issues buy protection outstanding as of November 30, 2009 were as follows:

Issuer	Pay Fixed Rate	Counterparty	Expiration	Notional Amount (000)	Unrealized Appreciation (Depreciation)
K Hovnanian Enterprises, Inc.	5.00%	Goldman Sachs International	December 2011	USD 460	\$ (6,163)
Masco Corp.	5.30%	JPMorgan Chase Bank NA	March 2014	USD 1,000	(116,579)
Mohawk Industries, Inc.	4.45%	JPMorgan Chase Bank NA	March 2014	USD 1,000	(85,020)
Ford Motor Co.	5.00%	Deutsche Bank AG	September 2014	USD 725	4,093
Boston Scientific Corp.	1.00%	Goldman Sachs Bank USA	December 2014	USD 500	6,020
Total					\$ (197,649)

Currency Abbreviations:

CAD Canadian Dollar
USD US Dollar

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 assets and liabilities

Level 2 - other observable inputs (including, but not limited to: quoted prices for similar assets or liabilities in markets that are active, quoted prices for identical or 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 circumstances, to the extent observable inputs are not available (including the Fund's own assumptions 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 semi-annual report.

The following table summarizes the inputs used as of November 30, 2009 in determining the fair valuation of the Fund's investments:

BlackRock Senior High Income Fund, Inc. (ARK)
Schedule of Investments November 30, 2009 (Unaudited)

Valuation Inputs	Investments in Securities	
	Assets	
Level 1		
Long-Term Investments:		
Common Stocks	\$	2,980,425
Short-Term Securities		2,851,401
Total Level 1		5,831,826
Level 2		
Long-Term Investments:		
Common Stocks		968,707
Corporate Bonds		126,653,528
Floating Rate Loan Interests		76,720,978
Warrants		133,786
Total Level 2		204,476,999
Level 3		
Long-Term Investments:		
Common Stocks		84,023
Corporate Bonds		8,558,555
Floating Rate Loan Interests		30,362,914
Other Interests		1,055,526
Total Level 3		40,061,018
Total	\$	250,369,843

Valuation Inputs	Other Financial Instruments ¹	
	Assets	Liabilities
Level 1		
Level 2	\$ 18,355	\$ (207,762)
Level 3		(10,617)
Total	\$ 18,355	\$ (218,379)

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¹Other financial instruments are foreign currency exchange contracts, swaps and unfunded loan commitments which are shown at the unrealized appreciation/depreciation on the instrument.

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

	Investment in Securities				
	Common Stocks	Corporate Bond	Floating Rate Loan Interest	Other Interests	Total
Balance, as of February 28, 2009	\$ 55,976	\$ 8,229,614	\$ 44,351,082	\$ 25	\$ 52,636,697
Accrued discounts/premiums					
Realized gain (loss)			(8,436,486)		(8,436,486)
Change in unrealized appreciation/Depreciation ²		888,600	24,467,337		25,355,937
Net purchases (sales)		(3,469,432)	(25,790,800)	(6,000)	(29,266,232)
Net transfers in/out of Level 3	28,047	2,909,773	(4,228,219)	1,061,501	(228,898)
Balance, as of November 30, 2009	\$ 84,023	\$ 8,558,555	\$ 30,362,914	\$ 1,055,526	\$ 40,061,018

²The change in unrealized appreciation/depreciation on securities still held at November 30, 2009 was \$7,861,549.

BlackRock Senior High Income Fund, Inc. (ARK)
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The following is a reconciliation of other financial instruments for unobservable inputs (Level 3) used in determining fair value:

	Other Financial Instruments¹
Balance, as of February 28, 2009	
Accrued discounts/premiums	
Realized gain (loss)	
Change in unrealized appreciation/depreciation	
Net purchases (sales)	
Net transfers in/out of Level 3	\$ (10,617)
Balance, as of November 30, 2009	\$ (10,617)

¹Other financial instruments are unfunded loan commitments.

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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 13(a)-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/ Anne F. Ackerley
Anne F. Ackerley
Chief Executive Officer of
BlackRock Senior High Income Fund, Inc.

Date: January 22, 2010

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

By: /s/ Anne F. Ackerley
Anne F. Ackerley
Chief Executive Officer (principal executive officer) of
BlackRock Senior High Income Fund, Inc.

Date: January 22, 2010

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

Date: January 22, 2010