BLACKROCK ENHANCED CAPITAL & INCOME FUND, INC Form N-Q March 31, 2010

UNITEDSTATES SECURITIESANDEXCHANGECOMMISSION Washington, D. C. 20549

FORM N-Q

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number 811-21506

Name of Fund: BlackRock Enhanced Capital and Income Fund, Inc. (CII)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: Anne F. Ackerley, Chief Executive Officer, BlackRock

Enhanced Capital and 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: 10/31/2010

Date of reporting period: 01/31/2010

Item 1 Schedule of Investments

Schedule of Investments January 31, 2010 (Unaudited)

Common Stocks	Shares	Value
Aerospace & Defense 5.7%		
Honeywell International, Inc.	333,600	\$ 12,890,304
Northrop Grumman Corp.	203,200	11,501,120
Raytheon Co.	210,200	11,020,786
		35,412,210
Capital Markets 4.9%		
The Bank of New York Mellon Corp.	344,300	10,015,687
Invesco Ltd.	582,400	11,240,320
Morgan Stanley	353,613	9,469,756
		30,725,763
Chemicals 1.9%		
E.I. du Pont de Nemours & Co.	353,100	11,514,591
Commercial Banks 1.4%		
Wells Fargo & Co.	316,600	9,000,938
Communications Equipment 1.1%		
Nokia Oyj - ADR	503,900	6,898,391
Computers & Peripherals 3.9%		
Hewlett-Packard Co.	250,992	11,814,193
International Business Machines		
Corp.	101,253	12,392,355
		24,206,548
Diversified Financial Services 5.1%		
Bank of America Corp.	424,000	6,436,320
Citigroup, Inc.	1,835,400	6,093,528
JPMorgan Chase & Co.	500,439	19,487,095
		32,016,943
Diversified Telecommunication Services 6.7%		
AT&T, Inc.	476,700	12,089,112
Qwest Communications		
International, Inc.	3,531,401	14,867,198
Verizon Communications, Inc.	509,300	14,983,606
		41,939,916
Electric Utilities 2.7%		
FPL Group, Inc.	151,144	7,369,781
The Southern Co.	293,300	9,385,600
		16,755,381

Electrical Equipment 1.0%		
Emerson Electric Co.	155,900	6,476,086
Energy Equipment & Services 2.0%		
Halliburton Co.	434,089	12,679,740
Food & Staples Retailing 1.3%		
Walgreen Co.	221,000	7,967,050
Food Products 7.2%		
General Mills, Inc.	200,171	14,274,194
Kraft Foods, Inc.	594,200	16,435,572
Unilever NV - ADR	468,932	14,339,941
		45,049,707
Household Products 3.6%		
Clorox Co.	103,100	6,100,427
Common Stocks	Shares	Value
Household Products (concluded)		
Kimberly-Clark Corp.	274,800	\$ 16,320,372
		22,420,799
Insurance 7.1%		
ACE Ltd.	202,000	9,952,540
MetLife, Inc.	275,225	9,720,947
The Travelers Cos., Inc.	484,530	24,551,135
		44,224,622
Machinery 1.9%		
Deere & Co.	232,700	11,623,365
Media 3.3%		
Comcast Corp. Special, Class A	391,000	5,919,740
Time Warner, Inc.	538,272	14,775,566
		20,695,306
Metals & Mining 1.5%		
Nucor Corp.	232,300	9,477,840
Multi-Utilities 1.1%		
Dominion Resources, Inc.	181,700	6,806,482
Oil, Gas & Consumable Fuels 7.3%		
Anadarko Petroleum Corp.	83,700	5,338,386
Chevron Corp.	256,400	18,491,568
Exxon Mobil Corp.	247,100	15,920,653
Peabody Energy Corp.	129,500	5,454,540
		45,205,147
Pharmaceuticals 12.0%		
Bristol-Myers Squibb Co.	812,600	19,794,936

Eli Lilly & Co.	362,500	12,760,000
Johnson & Johnson	151,400	9,517,004
Merck & Co., Inc.	426,800	16,295,224
Pfizer, Inc.	861,500	16,075,590
		74,442,754
Semiconductors & Semiconductor Equipment 10.4%		
Analog Devices, Inc.	490,900	13,234,664
Intel Corp.	501,078	9,720,913
LSI Corp. (a)	3,494,200	17,436,058
Maxim Integrated Products, Inc.	794,500	13,887,860
Micron Technology, Inc. (a)	1,170,500	10,206,760
		64,486,255
Software 0.9%		
Microsoft Corp.	189,514	5,340,504
Specialty Retail 2.6%		
Home Depot, Inc.	238,000	6,666,380
Limited Brands, Inc.	488,500	9,291,270
		15,957,650
Total Common Stocks 96.6%		601,323,988

Portfolio Abbreviation

To simplify the listings of portfolio holdings in the Schedules of Investments, the name and description of the securities have been abbreviated according to

the following list:

ADR American Depositary Receipts

BlackRock Enhanced Capital and Income Fund, Inc. January 31, 2010 1

Schedule of Investments (continued)

Preferred Securities	Shares	Value
Preferred Stocks		
Diversified Financial Services 0.3%		
Bank of America Corp., 10.00% (b)	108,000 \$	1,630,800
Total Preferred Securities 0.3%		1,630,800
Total Long-Term Investments		
(Cost \$670,148,903) 96.9% 602,954,	788	
Short-Term Securities		
BlackRock Liquidity Funds,		
TempFund, Institutional Class,		
0.10% (c)(d)	18,267,129	18,267,129
Total Short-Term Securities		
(Cost \$18,267,129) 2.9%		18,267,129
Total Investments Before Options Written		
(Cost \$688,416,032*) 99.8%		621,221,917
Options Written	Contracts	
Exchange-Traded Call Options Written (0.4)%		
ACE Ltd., Strike Price \$50, Expires		
2/20/10	610	(51,850)
ACE Ltd., Strike Price \$55, Expires		
2/20/10	100	(1,000)
AT&T Inc., Strike Price \$28, Expires		
2/20/10	380	(1,140)
Analog Devices, Inc., Strike Price		
\$32.50, Expires 2/20/10	97	(485)
Bank of America Corp., Strike Price		
\$16, Expires 2/20/10	650	(13,325)
Bank of America Corp., Strike Price		
\$17, Expires 2/20/10	500	(2,750)
Bank of America Corp., Strike Price		
\$16, Expires 3/20/10	500	(24,500)
Bank of America Corp., Strike Price		
\$17, Expires 3/20/10	350	(7,700)
The Bank of New York Mellon Corp.,		
Strike Price \$28, Expires 2/20/10	1,450	(221,125)
The Bank of New York Mellon Corp.,		
Strike Price \$31, Expires 3/20/10	175	(9,625)

Bristol-Myers Squibb Co. , Strike Price			
\$26, Expires 2/20/10		1,390	(9,035)
Bristol-Myers Squibb Co. , Strike Price			, ,
\$26, Expires 3/20/10		260	(7,670)
Citigroup, Inc., Strike Price \$4,			
Expires 3/20/10		2,500	(8,750)
Comcast Corp., Special, Class A,			
Strike Price \$16, Expires 3/20/10		1,250	(50,000)
Comcast Corp., Special, Class A,			
Strike Price \$17, Expires 4/17/10		100	(2,250)
Options Written	Contracts		Value
Exchange-Traded Call Options Written (continued)			
Dominion Resources, Inc., Strike			
Price \$40, Expires 2/20/10	1,210		\$ (6,050)
Eli Lilly & Co., Strike Price \$37,			
Expires 2/20/10	795		(11,925)
Eli Lilly & Co., Strike Price \$37,			
Expires 3/20/10	150		(6,375)
Emerson Electric Co., Strike Price			
\$43, Expires 2/20/10	345		(13,800)
Emerson Electric Co., Strike Price			
\$45, Expires 2/20/10	19		(190)
Emerson Electric Co., Strike Price			
\$44, Expires 3/20/10	50		(2,500)
Emerson Electric Co., Strike Price			
\$45, Expires 3/20/10	100		(3,000)
General Mills, Inc., Strike Price \$70,			
Expires 2/20/10	770		(148,225)
General Mills, Inc., Strike Price			
\$72.50, Expires 3/20/10	730		(94,900)
Halliburton Co., Strike Price \$36,			
Expires 3/20/10	1,300		(12,350)
Home Depot, Inc., Strike Price \$30,			
Expires 2/20/10	1,750		(10,500)
Honeywell International, Inc. , Strike			
Price \$42, Expires 2/20/10	200		(1,500)
Honeywell International, Inc., Strike			
Price \$43, Expires 3/20/10	650		(13,000)
Intel Corp., Strike Price \$21, Expires			
2/20/10	1,375		(12,375)

International Business Machines		
Corp., Strike Price \$130, Expires		
2/20/10	510	(14,280)
International Business Machines		
Corp., Strike Price \$135, Expires		
3/20/10	50	(1,925)
Invesco Ltd., Strike Price \$25,		
Expires 2/20/10	300	(3,000)
Invesco Ltd., Strike Price \$22.50,		
Expires 4/17/10	295	(9,587)
JPMorgan Chase & Co., Strike Price		
\$43, Expires 2/20/10	875	(14,875)
JPMorgan Chase & Co., Strike Price		
\$44, Expires 3/20/10	630	(26,460)
JPMorgan Chase & Co., Strike Price		
\$45, Expires 3/20/10	250	(7,250)
Johnson & Johnson, Strike Price		
\$65, Expires 2/20/10	235	(4,817)
Kraft Foods, Inc., Strike Price \$28,		
Expires 2/20/10	1,680	(92,400)
Kraft Foods, Inc., Strike Price \$27,		
Expires 3/20/10	1,770	(247,800)
Kraft Foods, Inc., Strike Price \$28,		
Expires 3/20/10	1,000	(85,000)
Limited Brands, Inc., Strike Price		
\$20, Expires 3/20/10	287	(18,655)
Maxim Integrated Products, Inc.,		
Strike Price \$17.50, Expires		
3/20/10	400	(30,000)
Merck & Co., Inc., Strike Price \$38,		
Expires 2/20/10	385	(47,355)
2 BlackRock Enhanced Capital and Income Fund, Inc. January 31, 2010		

Schedule of Investments (continued)

Options Written	Contracts	Value
Exchange-Traded Call Options Written (concluded)		
Merck & Co., Inc., Strike Price \$40,		
Expires 2/20/10	35	\$ (1,488)
Merck & Co., Inc., Strike Price \$41,		
Expires 2/20/10	1,950	(43,875)
MetLife, Inc., Strike Price \$39,		
Expires 3/20/10	830	(53,950)
Micron Technology, Inc., Strike Price		
\$10, Expires 2/20/10	600	(4,500)
Micron Technology, Inc., Strike Price		
\$11, Expires 2/20/10	600	(3,000)
Micron Technology, Inc., Strike Price		
\$11, Expires 3/20/10	3,000	(22,500)
Microsoft Corp., Strike Price \$31,		
Expires 2/20/10	390	(3,315)
Microsoft Corp., Strike Price \$32,		
Expires 2/20/10	100	(350)
Morgan Stanley, Strike Price \$31,		
Expires 2/20/10	1,250	(8,125)
Nokia Oyj ADR, Strike Price \$13,		
Expires 2/20/10	1,000	(85,000)
Nokia Oyj ADR, Strike Price \$14,		
Expires 2/20/10	750	(19,875)
Nucor Corp., Strike Price \$45,		
Expires 2/20/10	150	(3,375)
Nucor Corp., Strike Price \$48,		
Expires 2/20/10	665	(6,650)
Peabody Energy Corp., Strike Price		
\$50, Expires 2/20/10	450	(6,750)
Pfizer, Inc., Strike Price \$19, Expires		
3/20/10	2,555	(136,693)
Pfizer, Inc., Strike Price \$20, Expires		
3/20/10	1,350	(31,725)
Raytheon Co., Strike Price \$55,		
Expires 2/20/10	300	(4,500)
Time Warner, Inc., Strike Price \$30,		

Expires 2/20/10	1,350	(23,625)
Time Warner, Inc., Strike Price \$31,		
Expires 2/20/10	1,350	(10,125)
Time Warner, Inc., Strike Price \$30,		
Expires 3/20/10	250	(11,875)
The Travelers Cos., Inc., Strike Price		
\$50, Expires 2/20/10	725	(101,500)
The Travelers Cos., Inc., Strike Price		
\$50, Expires 3/20/10	1,000	(197,500)
Verizon Communications, Inc., Strike		
Price \$34, Expires 2/20/10	1,600	(2,400)
Verizon Communications, Inc., Strike		
Price \$30, Expires 3/20/10	1,200	(81,600)
Walgreen Co., Strike Price \$38,		
Expires 2/20/10	700	(8,750)
Walgreen Co., Strike Price \$37,		
Expires 3/20/10	100	(7,000)
Wells Fargo & Co., Strike Price \$28,		
Expires 2/20/10	350	(48,650)
Wells Fargo & Co., Strike Price \$29,		
Expires 3/20/10	1,400	(188,300)
Expires 3/20/10	1,400	(188,300) (2,468,295)
		(2,468,295)
Options Written	1,400 Contracts	
Options Written Over-the-Counter Call Options Written (0.3)%		(2,468,295)
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85,		(2,468,295)
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit	Contracts	(2,468,295) Value
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit Suisse International		(2,468,295)
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit Suisse International AT&T, Inc., Strike Price \$27.55,	Contracts	(2,468,295) Value
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit Suisse International AT&T, Inc., Strike Price \$27.55, Expires 3/05/10, Broker Morgan	Contracts	(2,468,295) Value \$ (10)
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit Suisse International AT&T, Inc., Strike Price \$27.55, Expires 3/05/10, Broker Morgan Stanley Capital Services, Inc.	Contracts	(2,468,295) Value
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit Suisse International AT&T, Inc., Strike Price \$27.55, Expires 3/05/10, Broker Morgan Stanley Capital Services, Inc. Analog Devices, Inc., Strike Price	Contracts	(2,468,295) Value \$ (10)
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit Suisse International AT&T, Inc., Strike Price \$27.55, Expires 3/05/10, Broker Morgan Stanley Capital Services, Inc. Analog Devices, Inc., Strike Price \$28.06, Expires 3/01/10, Broker	Contracts	(2,468,295) Value \$ (10)
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit Suisse International AT&T, Inc., Strike Price \$27.55, Expires 3/05/10, Broker Morgan Stanley Capital Services, Inc. Analog Devices, Inc., Strike Price \$28.06, Expires 3/01/10, Broker Morgan Stanley Capital Services,	1,960 270	(2,468,295) Value \$ (10)
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit Suisse International AT&T, Inc., Strike Price \$27.55, Expires 3/05/10, Broker Morgan Stanley Capital Services, Inc. Analog Devices, Inc., Strike Price \$28.06, Expires 3/01/10, Broker Morgan Stanley Capital Services, Inc.	Contracts	(2,468,295) Value \$ (10)
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit Suisse International AT&T, Inc., Strike Price \$27.55, Expires 3/05/10, Broker Morgan Stanley Capital Services, Inc. Analog Devices, Inc., Strike Price \$28.06, Expires 3/01/10, Broker Morgan Stanley Capital Services, Inc. Anadarko Petroleum Corp., Strike	1,960 270	(2,468,295) Value \$ (10)
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit Suisse International AT&T, Inc., Strike Price \$27.55, Expires 3/05/10, Broker Morgan Stanley Capital Services, Inc. Analog Devices, Inc., Strike Price \$28.06, Expires 3/01/10, Broker Morgan Stanley Capital Services, Inc. Anadarko Petroleum Corp., Strike Price \$67.47, Expires 3/26/10,	Contracts 1,960 270	(2,468,295) Value \$ (10) (2,024)
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit Suisse International AT&T, Inc., Strike Price \$27.55, Expires 3/05/10, Broker Morgan Stanley Capital Services, Inc. Analog Devices, Inc., Strike Price \$28.06, Expires 3/01/10, Broker Morgan Stanley Capital Services, Inc. Anadarko Petroleum Corp., Strike Price \$67.47, Expires 3/26/10, Broker Credit Suisse International	1,960 270	(2,468,295) Value \$ (10)
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit Suisse International AT&T, Inc., Strike Price \$27.55, Expires 3/05/10, Broker Morgan Stanley Capital Services, Inc. Analog Devices, Inc., Strike Price \$28.06, Expires 3/01/10, Broker Morgan Stanley Capital Services, Inc. Anadarko Petroleum Corp., Strike Price \$67.47, Expires 3/26/10, Broker Credit Suisse International Bristol-Myers Squibb Co., Strike Price	Contracts 1,960 270	(2,468,295) Value \$ (10) (2,024)
Options Written Over-the-Counter Call Options Written (0.3)% AT&T, Inc., Strike Price \$27.85, Expires 2/03/10, Broker Credit Suisse International AT&T, Inc., Strike Price \$27.55, Expires 3/05/10, Broker Morgan Stanley Capital Services, Inc. Analog Devices, Inc., Strike Price \$28.06, Expires 3/01/10, Broker Morgan Stanley Capital Services, Inc. Anadarko Petroleum Corp., Strike Price \$67.47, Expires 3/26/10, Broker Credit Suisse International	Contracts 1,960 270	(2,468,295) Value \$ (10) (2,024)

Bristol-Myers Squibb Co., Strike Price		
\$26.01, Expires 2/25/10, Broker		
Morgan Stanley Capital Services,		
Inc.	1,745	(11,636)
Chevron Corp., Strike Price \$78.13,		
Expires 2/08/10, Broker		
Citibank NA	750	(1,162)
Chevron Corp., Strike Price \$79.25,		
Expires 2/18/10, Broker Deutsche		
Bank AG	1,170	(6,499)
Citigroup, Inc., Strike Price \$3.65,		
Expires 2/05/10, Broker Credit		
Suisse International	5,500	(4,263)
Clorox Co., Strike Price \$62.53,		
Expires 2/04/10, Broker Morgan		
Stanley Capital Services, Inc.	370	(465)
Clorox Co., Strike Price \$62.27,		
Expires 3/26/10, Broker Morgan		
Stanley Capital Services, Inc.	400	(20,915)
Deere & Co., Strike Price \$56.06,		
Expires 2/26/10, Broker Credit		
Suisse International	1,430	(87,330)
Deere & Co., Strike Price \$56,		
Expires 3/08/10, Broker UBS AG	320	(22,630)
E.I. Du Pont De Nemours & Co. ,		
Strike Price \$33, Expires 2/16/10,		
Broker UBS AG	2,650	(163,208)
Eli Lilly & Co., Strike Price \$37.97,		
Expires 3/05/10, Broker UBS AG	1,050	(15,923)
Exxon Mobil Corp., Strike Price		
\$69.71, Expires 3/05/10, Broker		
Deutsche Bank AG	1,850	(47,712)
FPL Group, Inc., Strike Price \$51.21,		
Expires 2/18/10, Broker UBS AG	920	(10,885)
FPL Group, Inc., Strike Price \$53.82,		
Expires 2/26/10, Broker Morgan		
Stanley Capital Services, Inc.	214	(2,795)
Halliburton Co., Strike Price \$30.93,		
Expires 2/26/10, Broker Morgan		
Stanley Capital Services, Inc.	1,100	(61,290)
Hewlett-Packard Co., Strike Price		

\$52, Expires 2/19/10, Broker

Jeffries & Co. 290 (4,906)

BlackRock Enhanced Capital and Income Fund, Inc. January 31, 2010 3

Schedule of Investments (continued)

Options Written	Contracts	Value
Over-the-Counter Call Options Written		
(continued)		
Hewlett-Packard Co., Strike Price		
\$52.75, Expires 3/19/10, Broker		
Jeffries & Co.	460	\$ (20,833)
Honeywell International, Inc., Strike		
Price \$39.59, Expires 2/19/10,		
Broker Morgan Stanley Capital		
Services, Inc.	1,000	(47,184)
Intel Corp., Strike Price \$21.05,		
Expires 3/26/10, Broker Goldman		
Sachs Bank USA	1,390	(40,359)
Invesco Ltd., Strike Price \$23.44,		
Expires 2/11/10, Broker Morgan		
Stanley Capital Services, Inc.	1,440	(86)
Johnson & Johnson, Strike Price		
\$65, Expires 2/16/10, Broker		
Deustche Bank AG	310	(6,355)
Johnson & Johnson, Strike Price		
\$65.44, Expires 2/26/10, Broker		
UBS AG	589	(11,196)
Kimberly-Clark Corp., Strike Price		
\$60.50, Expires 3/12/10, Broker		
Citibank NA	430	(35,439)
Kimberly-Clark Corp., Strike Price		
\$63.29, Expires 3/26/10, Broker		
Credit Suisse International	950	(28,805)
LSI Corp., Strike Price \$6.12, Expires		
2/05/10, Broker Morgan Stanley		
Capital Services, Inc.	9,600	(10)
LSI Corp., Strike Price \$5.91, Expires		
3/05/10, Broker Morgan Stanley		
Capital Services, Inc.	2,500	(7,665)
Limited Brands Inc., Strike Price		
\$20.29, Expires 3/04/10, Broker		
JPMorgan Chase Bank NA	2,435	(82,878)

Marin late wated Decidents Inc.		
Maxim Integrated Products, Inc.,		
Strike Price \$20.25, Expires	075	(0.5.7)
2/12/10, Broker Jeffries & Co.	375	(357)
Maxim Integrated Products, Inc.,		
Strike Price \$20.65, Expires		
2/26/10, Broker Morgan Stanley	055	(4.000)
Capital Services, Inc.	355	(1,338)
Maxim Integrated Products, Inc.,		
Strike Price \$20.91, Expires		
2/26/10, Broker Morgan Stanley		
Capital Services, Inc.	1,240	(3,502)
Maxim Integrated Products, Inc.,		
Strike Price \$20.29, Expires		
3/12/10, Broker Morgan Stanley		
Capital Services, Inc.	2,000	(24,382)
Microsoft Corp., Strike Price \$31.26,		
Expires 3/08/10, Broker Goldman		
Sachs Bank USA	940	(15,692)
	2	
Options Written	Contracts	Value
Over-the-Counter Call Options Written		
(concluded)		
Northrop Grumman Corp., Strike		
Price \$56.13, Expires 2/26/10,		
Broker Credit Suisse International	157 \$	(26,534)
Northrop Grumman Corp., Strike		
Price \$57.37, Expires 2/26/10,		
Broker Morgan Stanley Capital		
Services, Inc.	1,367	(153,047)
Pfizer, Inc., Strike Price \$18.50,		
Expires 2/19/10, Broker UBS AG	2,555	(138,803)
Qwest Communications		
International, Inc., Strike Price		
\$4.60, Expires 2/25/10, Broker		
Credit Suisse International	6,760	(104,516)
Qwest Communications		
International, Inc., Strike Price		
\$4.72, Expires 3/09/10, Broker		
UBS AG	6,330	(111,756)
Qwest Communications		
International, Inc., Strike Price		

\$4.72, Expires 3/16/10, Broker		
UBS AG	6,330	(128,721)
Raytheon Co., Strike Price \$53.44,		
Expires 2/04/10, Broker Morgan		
Stanley Capital Services, Inc.	475	(6,641)
Raytheon Co., Strike Price \$53.89,		
Expires 3/11/10, Broker Morgan		
Stanley Capital Services, Inc.	800	(60,198)
The Southern Co., Strike Price		
\$33.78, Expires 2/26/10, Broker		
Goldman Sachs Bank USA	1,925	(30,138)
The Southern Co., Strike Price		
\$33.94, Expires 3/05/10, Broker		
Citibank NA	275	(1,179)
Unilever NV - ADR, Strike Price		
\$32.82, Expires 2/11/10, Broker		
Morgan Stanley Capital Services,		
Inc.	1,090	(20,383)
		(1,822,773)
Total Options Written		
(Premiums Received \$9,771,311) (0.7)%		(4,291,068)
Total Investments, Net of Options Written 99.1%		616,930,849
Other Assets Less Liabilities 0.9%		5,308,724
Net Assets 100.0%		\$ 622,239,573
* The cost and unrealized appreciation (depreciation) of investments as of		
January 31	, 2010, as computed for federal	income tax purposes, were as
follows:		
Aggregate cost		\$ 713,932,535
Gross unrealized appreciation		\$ 2,733,317
Gross unrealized depreciation		(95,443,935)
Net unrealized depreciation		\$ (92,710,618)
(a) Non-income producing security.		
(b) Convertible security.		
4 BlackRock Enhanced Capital and Income Fund, Inc. January 31, 2010		

¹⁴

Schedule of Investments (concluded) BlackRock Enhanced Capital and Income Fund, Inc. (CII)

(c) 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:

Net

Affiliate Activity Income

BlackRock Liquidity Funds,

TempFund, Institutional Class \$ (6,300,326)\$ 7,949

(d) 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.

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 methodologies 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 January 31, 2010 in determining the fair valuation of the Fund s investments:

Investments in

Valuation Inputs Securities

Level 1

Long-Term Investments¹ \$601,323,988

Short-Term Securities 18,267,129

Total Level 1 619,591,117

Level 2

Long-Term Investments

Preferred Stocks 1,630,800

Level 3

Total \$ 621,221,917

¹See above Schedule of Investments for values in each security type

excluding the security types in Level 2 within the table.

Other Financial

Assets

Instruments²

Valuation Inputs Liabilities

Level 1 \$ (2,468,295)

Level 2 (1,822,773)

Level 3

Total \$ (4,291,068)

 $^{\rm 2}$ Other financial instruments are options, which are shown at market

value.

BlackRock Enhanced Capital and Income Fund, Inc. January 31, 2010 5

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 Enhanced Capital and Income Fund, Inc.

By: /s/ Anne F. Ackerley

Anne F. Ackerley

Chief Executive Officer of

BlackRock Enhanced Capital and Income Fund, Inc.

Date: March 19, 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 Enhanced Capital and Income Fund, Inc.

Date: March 19, 2010

By: /s/ Neal J. Andrews

Neal J. Andrews

Chief Financial Officer (principal financial officer) of BlackRock Enhanced Capital and Income Fund, Inc.

Date: March 19, 2010