

BLACKROCK MUNIYIELD NEW JERSEY FUND, INC.

Form N-Q

December 21, 2012

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 811-06570

Name of Fund: BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock MuniYield New Jersey 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: 07/31/2013

Date of reporting period: 10/31/2012

Item 1 – Schedule of Investments

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)**Schedule of Investments October 31, 2012 (Unaudited)**

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
New Jersey — 123.8%		
Corporate — 4.8%		
Middlesex County Improvement Authority, RB, Senior Heldrich Center Hotel, Series A, 5.00%, 1/01/20	\$655	\$ 422,036
New Jersey EDA, Refunding RB, New Jersey American Water Co., Inc. Project, AMT:		
Series A, 5.70%, 10/01/39	2,925	3,277,521
Series B, 5.60%, 11/01/34	2,430	2,770,953
Salem County Pollution Control Financing Authority, Refunding RB, Atlantic City Electric, Series A, 4.88%, 6/01/29	4,550	5,052,093
		11,522,603
County/City/Special District/School District — 15.5%		
Bergen County Improvement Authority, Refunding RB, Fair Lawn Community Center, Inc. Project, 5.00%, 9/15/34	1,470	1,759,825
City of Margate City New Jersey, GO, Refunding, Improvement, New Jersey:		
5.00%, 1/15/26	1,200	1,401,768
5.00%, 1/15/27	845	979,735
City of Perth Amboy New Jersey, GO, CAB, Refunding (AGM):		
5.00%, 7/01/33	1,575	1,714,734
5.00%, 7/01/34	1,925	2,083,562
County of Hudson New Jersey, COP, Refunding (NPFGC), 6.25%, 12/01/16	1,500	1,731,525
Essex County Improvement Authority, Refunding RB, Project Consolidation (NPFGC):		
5.50%, 10/01/28	2,700	3,577,581
5.50%, 10/01/29	5,085	6,785,882
Garden State Preservation Trust, RB, CAB, Series B (AGM), 3.41%, 11/01/28 (a)	4,540	2,643,052
Gloucester County Improvement Authority, RB, County Guaranteed Loan - County Capital Program, 5.00%, 4/01/38	1,000	1,099,800
Hudson County Improvement Authority, RB, Harrison Parking Facility Project, Series C (AGC), 5.38%, 1/01/44	4,800	5,394,144
Monmouth County Improvement Authority, Refunding RB, Government Loan (AMBAC):		
5.00%, 12/01/15	5	5,012
5.00%, 12/01/16	5	5,012
Newark Housing Authority, RB, South Ward Police Facility (AGC), 6.75%, 12/01/38	1,750	2,202,182

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Newark Housing Authority, Refunding RB, Redevelopment Project (NPFGC), 4.38%, 1/01/37 2,875 2,881,900

Par Value
(000)

Municipal Bonds

New Jersey (continued)

County/City/Special District/School District (concluded)

Union County Improvement Authority, RB, Guaranteed Lease-Family Court Building Project, 5.00%, 5/01/42 \$ 2,835 3,252,709

37,518,423

Education — 17.7%

New Jersey EDA, RB, School Facilities Construction, Series CC-2:

5.00%, 12/15/31 1,700 1,928,837

5.00%, 12/15/32 1,300 1,467,427

New Jersey EDA, Refunding RB, Series GG, 5.25%, 9/01/27 3,000 3,518,460

New Jersey Educational Facilities Authority, RB, Montclair State University, Series J, 5.25%, 7/01/38 1,140 1,258,321

New Jersey Educational Facilities Authority, Refunding RB:

College of New Jersey, Series D (AGM), 5.00%, 7/01/35 6,115 6,710,968

Georgian Court University, Series D, 5.25%, 7/01/37 1,000 1,061,860

Kean University, Series A, 5.50%, 9/01/36 4,500 5,157,315

New Jersey Institute of Technology, Series H, 5.00%, 7/01/31 1,250 1,412,725

Ramapo College, Series B, 5.00%, 7/01/37 155 175,417

Ramapo College, Series B, 5.00%, 7/01/42 340 386,284

Rider University, Series A, 5.00%, 7/01/32 1,000 1,104,170

Rowan University, Series B (AGC), 5.00%, 7/01/24 1,800 2,025,702

University of Medicine & Dentistry, Series B, 7.13%, 12/01/23 1,300 1,670,357

University of Medicine & Dentistry, Series B, 7.50%, 12/01/32 1,625 2,046,671

New Jersey Higher Education Student Assistance Authority, Refunding RB:

Series 1A, 5.00%, 12/01/25 1,035 1,138,603

Series 1A, 5.00%, 12/01/26 645 708,326

Series 1A, 5.25%, 12/01/32 900 998,028

Series A, AMT, 5.75%, 12/01/29 4,045 4,679,620

New Jersey Institute of Technology, RB, Series A, 5.00%, 7/01/42 4,320 4,934,952

Rutgers - The State University of New Jersey, Refunding RB, Series F, 5.00%, 5/01/39 500 558,345

42,942,388

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)**Schedule of Investments (continued)****(Percentages shown are based on Net Assets)**

	Par (000)	Value
Municipal Bonds		
New Jersey (continued)		
Health — 13.8%		
New Jersey EDA, RB, Masonic Charity Foundation of New Jersey:		
5.25%, 6/01/24	\$1,425	\$ 1,466,567
5.25%, 6/01/32	685	703,653
New Jersey EDA, Refunding RB, First Mortgage, Winchester, Series A:		
5.75%, 11/01/24	2,500	2,569,575
5.80%, 11/01/31	1,000	1,027,180
New Jersey Health Care Facilities Financing Authority, RB:		
Childrens Specialized Hospital, Series A, 5.50%, 7/01/36	1,540	1,584,429
Hunterdon Medical Center, Series A, 5.13%, 7/01/35	1,950	2,024,022
Meridian Health, Series I (AGC), 5.00%, 7/01/38	970	1,041,576
Pascack Valley Hospital Association, 6.63%, 7/01/36 (b)(c)	1,845	18
Virtua Health (AGC), 5.50%, 7/01/38	2,500	2,790,150
New Jersey Health Care Facilities Financing Authority, Refunding RB:		
AHS Hospital Corp., 6.00%, 7/01/41	2,435	3,016,015
Barnabas Health, Series A, 5.63%, 7/01/32	1,090	1,235,657
Barnabas Health, Series A, 5.63%, 7/01/37	3,030	3,403,963
Kennedy Health System, 5.00%, 7/01/31	750	826,673
Kennedy Health System, 5.00%, 7/01/37	415	452,848
Meridian Health System, 5.00%, 7/01/23	500	585,650
Meridian Health System, 5.00%, 7/01/25	1,000	1,151,300
Meridian Health System, 5.00%, 7/01/26	830	947,412
Meridian Health System, 5.00%, 7/01/27	1,000	1,136,580
Robert Wood Johnson, 5.00%, 7/01/31	1,000	1,102,300
South Jersey Hospital, 5.00%, 7/01/36	385	400,119
South Jersey Hospital, 5.00%, 7/01/46	1,650	1,709,020
St. Barnabas Health Care System, Series A, 5.00%, 7/01/29	4,155	4,289,456
		33,464,163

	Par (000)	Value
Municipal Bonds		
New Jersey (continued)		
Housing — 8.3%		
New Jersey State Housing & Mortgage Finance Agency, RB:		
M/F Housing, Series A, 4.55%, 11/01/43	\$2,880	\$ 2,972,333
S/F Housing, Series CC, 5.00%, 10/01/34	2,830	3,056,796

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S/F Housing, Series U, AMT, 4.95%, 10/01/32	660	691,601
S/F Housing, Series U, AMT, 5.00%, 10/01/37	920	956,405
S/F Housing, Series X, AMT, 4.85%, 4/01/16	2,050	2,110,086
S/F Housing, Series X, AMT, 5.05%, 4/01/18	420	463,222
Series A, 4.75%, 11/01/29	2,305	2,454,525
Series A, 6.50%, 10/01/38	990	1,047,925
Series A, AMT (NPFGC), 4.90%, 11/01/35	1,365	1,376,575
New Jersey State Housing & Mortgage Finance Agency, Refunding RB, S/F Housing, Series T, AMT, 4.65%, 10/01/32	4,765	4,941,543
		20,071,011

State — 27.2%

Garden State Preservation Trust, RB (AGM):

CAB, Series B, 2.86%, 11/01/23 (a)	1,860	1,361,204
Election of 2005, Series A, 5.80%, 11/01/15 (d)(e)	2,500	2,898,100

New Jersey EDA, RB:

Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/25	2,000	2,472,440
Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/33	12,500	13,311,250
School Facilities Construction, Series KK, 5.00%, 3/01/35	1,500	1,701,795
School Facilities Construction, Series KK, 5.00%, 3/01/38	1,470	1,663,820
School Facilities Construction, Series L (AGM), 5.00%, 3/01/30	5,800	6,244,222
School Facilities Construction, Series P, 5.00%, 9/01/15	3,000	3,354,930
School Facilities Construction, Series P, 5.25%, 9/01/16	2,710	3,036,853
School Facilities Construction, Series Z (AGC), 5.50%, 12/15/34	3,665	4,202,546
Series Y, 5.00%, 9/01/33	880	969,549
New Jersey EDA, Refunding RB:		
5.00%, 6/15/26	440	495,493
5.00%, 6/15/28	720	806,306
5.00%, 6/15/29	1,760	1,958,827
School Facilities, Series GG, 5.25%, 9/01/26	7,000	8,266,510

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BlackRock MuniYield New Jersey Fund, Inc. (MYJ)**Schedule of Investments (continued)****(Percentages shown are based on Net Assets)**

	Par (000)	Value
Municipal Bonds		
New Jersey (continued)		
State (concluded)		
New Jersey EDA, Refunding RB (concluded):		
School Facilities Construction, Series AA, 5.50%, 12/15/29	\$ 3,000	\$ 3,516,090
School Facilities Construction, Series AA, 5.25%, 12/15/33	1,000	1,131,620
New Jersey Health Care Facilities Financing Authority, RB, Hospital Asset Transformation Program, Series A, 5.25%, 10/01/38	2,300	2,515,924
State of New Jersey, COP, Equipment Lease Purchase, Series A:		
5.25%, 6/15/27	4,200	4,763,850
5.25%, 6/15/28	1,100	1,243,374
		65,914,703
Transportation — 31.1%		
Delaware River Port Authority Pennsylvania & New Jersey, RB, Series D, 5.00%, 1/01/40	1,535	1,716,897
New Jersey State Turnpike Authority, RB:		
Growth & Income Securities, Series B (AMBAC), 4.79%, 1/01/15 (f)	4,870	4,595,868
Series A, 5.00%, 1/01/35	1,160	1,341,668
Series E, 5.25%, 1/01/40	2,525	2,842,569
New Jersey State Turnpike Authority, Refunding RB, Series B, 5.00%, 1/01/30	2,660	3,130,740
New Jersey Transportation Trust Fund Authority, RB, Transportation System:		
CAB, Series A (AGC), 5.63%, 12/15/28	1,250	1,505,050
CAB, Series C (AMBAC), 4.69%, 12/15/35 (a)	4,140	1,418,612
Series A, 6.00%, 6/15/35	6,030	7,441,623
Series A, 5.88%, 12/15/38	3,650	4,248,308
Series A, 6.00%, 12/15/38	1,950	2,287,993
Series A, 5.50%, 6/15/41	5,000	5,848,050
Series A (AGC), 5.50%, 12/15/38	1,000	1,138,240
Series B, 5.25%, 6/15/36	5,000	5,779,050
Series B, 5.00%, 6/15/42	7,340	8,275,336
Port Authority of New York & New Jersey, RB:		
Consolidated, 169th Series, AMT, 5.00%, 10/15/41	250	276,875
Consolidated, 93rd Series, 6.13%, 6/01/94	5,000	6,235,500
JFK International Air Terminal, 6.00%, 12/01/42	2,700	3,150,873

Par (000)	Value
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Municipal Bonds

New Jersey (concluded)

Transportation (concluded)

Port Authority of New York & New Jersey, Refunding RB,
AMT:

Consolidated, 152nd Series, 5.75%, 11/01/30	\$ 3,300	\$ 3,892,515
Consolidated, 152nd Series, 5.25%, 11/01/35	240	265,270
Consolidated, 172nd Series, 5.00%, 10/01/34	1,500	1,701,015
South Jersey Port Corp., Refunding RB (e):		
4.75%, 1/01/13	4,280	4,311,758
5.00%, 1/01/13	2,000	2,015,680
South Jersey Transportation Authority, Refunding RB, Series A:		
5.00%, 11/01/28	1,075	1,242,463
5.00%, 11/01/29	575	663,510
		75,325,463

Utilities — 5.4%

New Jersey EDA, Refunding RB, United Water of New Jersey, Inc., Series B (AMBAC), 4.50%, 11/01/25	4,500	4,894,605
Rahway Valley Sewerage Authority, RB, CAB, Series A (NPFGC), 4.40%, 9/01/31 (a)	6,000	2,642,820
Union County Utilities Authority, Refunding RB, Series A:		
County Deficiency Agreement, 5.00%, 6/15/41	4,115	4,732,661
Covanta Union, AMT, 5.25%, 12/01/31	670	748,377
		13,018,463
Total Municipal Bonds in New Jersey		299,777,217

Puerto Rico — 6.1%

State — 6.1%

Puerto Rico Sales Tax Financing Corp., RB, First Sub-Series

A:		
5.75%, 8/01/37	6,000	6,626,580
6.00%, 8/01/42	4,000	4,424,040
Puerto Rico Sales Tax Financing Corp., Refunding RB, First Sub-Series C, 6.00%, 8/01/39	3,320	3,716,242
Total Municipal Bonds in Puerto Rico		14,766,862

Total Municipal Bonds – 129.9% 314,544,079

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

Schedule of Investments (continued)

(Percentages shown are based on Net Assets)

Par (000)	Value
Municipal Bonds	
Transferred to Tender	
Option Bond (TOB)	
Trusts (g)	
New Jersey	20.4%
Education	2.7%
New Jersey	
EDA,	
RB,	
School	
Facilities	
\$3,600	4,237,236
Construction,	
Series	
Z	
(AGC),	
6.00%,	
12/15/34	
Rutgers	
-	
The	
State	
University	
of	
New	
2,009	2,243,421
Jersey,	
Refunding	
RB,	
Series	
F,	
5.00%,	
5/01/39	
	6,480,657
State	3.0%
Garfield	7,289,646
State	
Preservation	
Trust,	
RB,	
Election	
of	
2005,	

Series

A

(AGM),

5.75%,

11/01/28

Transportation 8.8%

New

Jersey

Transportation

Trust

Fund

Authority,

RB, 4,100 4,733,409

Transportation

System,

Series

A

(AGM),

5.00%,

12/15/32

Port

Authority

of

New

York

&

New

Jersey, 250 12,459,375

RB,

Consolidated,

169th

Series,

AMT,

5.00%,

10/15/41

Port, 764 4,159,967

Authority

of

New

York

&

New

Jersey,

Refunding

RB,

Consolidated,

152nd

Series,

AMT,

5.25%,

11/01/35

21,352,751

Utilities 5.9%

Union

County

Utilities

Authority,

Refunding

RB,

Covanta

Union,

12,820 14,319,684

Series

A,

AMT,

5.25%,

12/01/31

Total

Municipal

Bonds in 49,442,738

New

Jersey

Puerto Rico 1.0%

State 1.0%

Puerto

Rico

Sales

Tax

Financing

Corp,

2,220 2,436,827

Refunding

RB,

Series

C,

5.25%,

8/01/40

Total 51,879,565

Municipal

Bonds

Transferred

to

Tender

Option

Bond

(TOB)

Trusts
21.4%

Total
Long-Term
Investments
(Cost 366,423,644
\$333,785,539)
151.3%

	Shares	Value
Short-Term Securities		
BIF New Jersey Municipal Money Fund, 0.00% (h)(i)	801,590	\$ 801,590
Total Short-Term Securities (Cost – \$801,590) – 0.3%		801,590

Total Investments (Cost - \$334,587,129*) – 151.6%	367,225,234
Other Assets Less Liabilities – 1.7%	3,986,875
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable – (11.1)%	(26,830,545)
VRDP Shares, at Liquidation Value – (42.2)%	(102,200,000)
Net Assets Applicable to Common Shares – 100.0%	\$242,181,564

* As of October 31, 2012, gross unrealized appreciation and gross unrealized depreciation based on cost for federal income tax purposes were as follows:

Tax cost	\$308,268,347
Gross unrealized appreciation	\$33,466,499
Gross unrealized depreciation	(1,322,308)
Net unrealized appreciation	\$32,144,191

- (a) Represents a zero-coupon bond. Rate shown reflects the current yield as of report date.
- (b) Issuer filed for bankruptcy and/or is in default of principal and/or interest payments.
- (c) Non-income producing security.
- (d) US government securities, held in escrow, are used to pay interest on this security, as well as to retire the bond in full at the date indicated, typically at a premium to par.
- (e) Security is collateralized by Municipal or US Treasury obligations.
- (f) Represents a step-up bond that pays an initial coupon rate for the first period and then a higher coupon rate for the following periods. Rate shown is as of report date.
- (g) Securities represent bonds transferred to a TOB in exchange for which the Fund acquired residual interest certificates. These securities serve as collateral in a financing transaction.
- (h) Investments in issuers considered to be an affiliate of the Fund during the period ended October 31, 2012, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

Affiliate	Shares Held at July 31, 2012	Net Activity	Shares Held at October 31, 2012	Income
BIF New Jersey Municipal Money Fund	1,495,608	(694,018)	801,590	—

- (i) Represents the current yield as of report date.

BLACKROCK MUNIYIELD NEW JERSEY FUND, INC. OCTOBER 31, 2012

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BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

Schedule of Investments (concluded)

Portfolio Abbreviations

To simplify the listings of portfolio holdings in the Schedule of Investments, the names and descriptions of many of the securities have been abbreviated according to the following list:

AGC	Assured Guaranty Corp.
AGM	Assured Guaranty Municipal Corp.
AMBAC	American Municipal Bond Assurance Corp.
AMT	Alternative Minimum Tax (subject to)
CAB	Capital Appreciation Bonds
COP	Certificates of Participation
EDA	Economic Development Authority
GO	General Obligation Bonds
M/F	Multi-Family National Public
NPFGC	Finance Guarantee Corp.
RB	

S/F Revenue
Bonds
Single-Family

Fair Value

Measurements - Various inputs are used in determining the fair value of investments.

- These inputs to valuation techniques are categorized into a disclosure hierarchy consisting of three broad levels for financial reporting purposes as follows:

- Level 1 — unadjusted price quotations in active

- markets/exchanges for identical assets and liabilities that the Fund has the ability to access

- 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 hierarchy gives the
highest priority to
unadjusted quoted prices in
active markets for identical
assets or liabilities (Level 1
measurements) and the
lowest priority to
unobservable inputs (Level
3 measurements).

Accordingly, the degree of
judgment exercised in
determining fair value is
greatest for instruments
categorized in Level 3. The
inputs used to measure fair
value may fall into different
levels of the fair value
hierarchy. In such cases, for
disclosure purposes, the
level in the fair value
hierarchy within which the
fair value measurement falls
in its entirety is determined
based on the lowest level
input that is significant to
the fair value measurement
in its entirety.

Changes
in
valuation
techniques
may
result in
transfers

into or
out of an
assigned
level
within
the
disclosure
hierarchy.

In
accordance
with the
Fund's
policy,
transfers
between
different
levels of
the fair
value
disclosure
hierarchy
are
deemed
to have
occurred
as of the
beginning
of the
reporting
period.

The
categorization
of a value
determined
for
investments
is based
on the
pricing
transparency
of the
investment
and is not
necessarily
an
indication
of the
risks
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 Fund's investments categorized in the disclosure hierarchy as of October 31, 2012:

	Level 1	Level 2	Level 3	Total
Assets:				
Investments:				
Long-Term		\$366,423,644		\$366,423,644
Investments ¹				
Short-Term	\$801,590			801,590

Securities

Total \$801,590 \$366,423,644 \$367,225,234

1 See above Schedule of Investments for values in each sector or political subdivision.

Certain of the Fund's liabilities are held at carrying amount, which approximates fair value for financial reporting purposes. As of October 31, 2012, such liabilities are categorized within the disclosure hierarchy as follows:

	Level 1	Level 2	Level 3	Total
Liabilities:				
TOB trust certificates		\$(26,812,696)		\$(26,812,696)
VRDP Shares		(102,200,000)		(102,200,000)
Total		\$(129,012,696)		\$(129,012,696)

There were no transfers between levels during the period ended October 31, 2012.

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 MuniYield New Jersey Fund, Inc.

By: /s/ John M. Perlowski

John M. Perlowski
Chief Executive Officer (principal executive officer) of
BlackRock MuniYield New Jersey Fund, Inc.

Date: December 21, 2012

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/ John M. Perlowski

John M. Perlowski
Chief Executive Officer (principal executive officer) of
BlackRock MuniYield New Jersey Fund, Inc.

Date: December 21, 2012

By: /s/ Neal J. Andrews

Neal J. Andrews

Chief Financial Officer (principal financial officer) of
BlackRock MuniYield New Jersey Fund, Inc.

Date: December 21, 2012