

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

BLACKROCK APEX MUNICIPAL FUND INC
Form N-CSR
July 07, 2010
UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEMENT INVESTMENT COMPANIES

Investment Company Act file number 811-05227

Name of Fund: BlackRock Apex Municipal Fund, Inc. (APX)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: Anne F. Ackerley, Chief Executive Officer, BlackRock Apex Municipal 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: 04/30/2010

Date of reporting period: 04/30/2010

Item 1 – Report to Stockholders

Annual Report

APRIL 30, 2010

BlackRock Apex Municipal Fund, Inc. (APX)

BlackRock MuniAssets Fund, Inc. (MUA)

BlackRock MuniEnhanced Fund, Inc. (MEN)

BlackRock MuniHoldings Fund, Inc. (MHD)

BlackRock MuniHoldings Fund II, Inc. (MUH)

BlackRock MuniHoldings Insured Fund, Inc. (MUS)

BlackRock Muni Intermediate Duration Fund, Inc. (MUI)

BlackRock MuniVest Fund II, Inc. (MVT)

NOT FDIC INSURED
MAY LOSE VALUE
NO BANK GUARANTEE

Table of Contents

	Page
<u>Dear Shareholder</u>	3
Annual Report:	
<u>Fund Summaries</u>	4
<u>The Benefits and Risks of Leveraging</u>	12
<u>Derivative Financial Instruments</u>	12
Financial Statements:	
<u>Schedules of Investments</u>	13
<u>Statements of Assets and Liabilities</u>	51
<u>Statements of Operations</u>	53
<u>Statements of Changes in Net Assets</u>	54
<u>Statements of Cash Flows</u>	58
<u>Financial Highlights</u>	59
<u>Notes to Financial Statements</u>	67
<u>Report of Independent Registered Public Accounting Firm</u>	76
<u>Important Tax Information</u>	78
<u>Automatic Dividend Reinvestment Plans</u>	79
<u>Officers and Directors</u>	80
<u>Additional Information</u>	83

Dear Shareholder

Although overall global economic and financial conditions have generally improved over the past year, the period ended with high levels of market volatility and diminishing investor confidence sparked by the sovereign debt crisis in Europe, concerns over the strength of the economic recovery and uncertainty surrounding the future of interest rate policies. Additionally, as the period drew to a close, the increasing likelihood of more stringent financial market regulations added to the overall sense of investment uncertainty. Despite the uneven nature of recent market conditions, we continue to believe that the Great Recession likely ended at some point last summer, thanks primarily to massive fiscal and monetary stimulus, and that the global economy remains in recovery mode.

Global equity markets bottomed in early 2009 and since that time have moved unevenly higher as investors were lured back into the markets by depressed valuations, desire for higher yields and improvements in corporate earnings prospects. There have been several corrections along the way and volatility levels have remained elevated – reflections of mixed economic data, lingering deflation issues (especially in Europe) and uncertainty surrounding financial regulations. On balance, however, improving corporate revenues and profits and a positive macro backdrop helped push stock prices higher over the last twelve and six months. From a geographic perspective, US equities have outpaced their international counterparts in recent months, as the domestic economic recovery has been more pronounced and as credit-related issues have held European markets down.

Within fixed income markets, yields have been moving unevenly as improving economic conditions have been acting to push Treasury yields higher (and prices correspondingly lower), while concerns over ongoing deflation threats have acted as a counterweight. As the period drew to a close, Treasury yields were falling as investors flocked to the safe haven asset class in the face of escalating uncertainty. Over the course of the last twelve and six months, however, Treasuries underperformed other areas of the bond market, particularly the high yield sector, which has been benefiting from increased investor demand. Meanwhile, municipal bonds slightly outperformed taxable sectors over both the six- and twelve-month periods thanks to continued high demand levels, but have continued to face the headwinds of ongoing state and local budget problems. As in the taxable arena, high yield municipals have been outperforming the rest of the market.

Regarding cash investments, yields on money market securities remain near all-time lows (producing returns only marginally above zero percent), with the Federal Open Market Committee reiterating that economic circumstances are likely to necessitate an accommodative interest rate stance for an extended period.

Against this backdrop, the major market averages posted the following returns:

Total Returns as of April 30, 2010	6-month	12-month
US equities (S&P 500 Index)	15.66%	38.84%
Small cap US equities (Russell 2000 Index)	28.17	48.95
International equities (MSCI Europe, Australasia, Far East Index)	2.48	34.43
3-month Treasury bill (BofA Merrill Lynch 3-Month Treasury Bill Index)	0.04	0.15
US Treasury securities (BofA Merrill Lynch 10-Year US Treasury Index)	(0.54)	(1.32)
Taxable fixed income (Barclays Capital US Aggregate Bond Index)	2.54	8.30
Tax-exempt fixed income (Barclays Capital Municipal Bond Index)	3.68	8.85
High yield bonds (Barclays Capital US Corporate High Yield 2% Issuer Capped Index)	11.60	42.53

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

Past performance is no guarantee of future results. Index performance shown for illustrative purposes only. You cannot invest directly in an index.

Global financial markets continue to show signs of improvement, but questions about the strength and sustainability of the recovery abound. Through periods of uncertainty, as ever, BlackRock's full resources are dedicated to the management of our clients' assets. For additional market perspective and investment insight, visit www.blackrock.com/shareholdermagazine, where you'll find the most recent issue of our award-winning *Shareholder*[®] magazine, as well as its quarterly companion newsletter, *Shareholder Perspectives*. As always, we thank you for entrusting BlackRock with your investments, and we look forward to your continued partnership in the months and years ahead.

Sincerely,
Rob Kapito
President, BlackRock Advisors, LLC

THIS PAGE NOT PART OF YOUR FUND REPORT

3

Fund Summary as of April 30, 2010

BlackRock Apex Municipal Fund, Inc.

Investment Objective

BlackRock Apex Municipal Fund, Inc. (APX) (the Fund) seeks to provide shareholders with high current income exempt from federal income taxes by investing primarily in a portfolio of medium- to lower-grade or unrated municipal obligations, the interest on which, in the opinion of bond counsel to the issuer, is exempt from federal income taxes.

No assurance can be given that the Fund's investment objective will be achieved.

Performance

For the 12 months ended April 30, 2010, the Fund returned 22.73% based on market price and 27.99% based on net asset value (NAV). For the same period, the closed-end Lipper High Yield Municipal Debt Funds category posted an average return of 34.42% on a market price basis and 31.62% on a NAV basis. All returns reflect reinvestment of dividends. The Fund moved from a premium to NAV to a discount by period end, which accounts for the difference between performance based on price and performance based on NAV. Positive performance was derived primarily from sector allocation decisions and included concentrations in transportation, health care and corporate-related debt, which continue to benefit from the relative outperformance of these sectors. In light of positive returns in the municipal market, portfolio duration positioning has also proven beneficial, reflecting recent moves to modestly increase the portfolio's sensitivity to interest rate fluctuations. Negative factors included underweight positioning in the tax-backed, public utility and the county/city/special district/school district sectors, which staged a modest rebound late in the reporting period. In addition, the ongoing compression in credit spreads remains pronounced with respect to non-rated bonds, in which the Fund maintains below market weight exposure. More significantly, a majority of peers within the Lipper category employ a higher degree of leverage, which can enhance both returns and distribution yields.

The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results

Fund Information

Symbol on New York Stock Exchange (NYSE)	APX
Initial Offering Date	July 25, 1989
Yield on Closing Market Price as of April 30, 2010 (\$8.87) ¹	5.95%
Tax Equivalent Yield ²	9.15%
Current Monthly Distribution per Common Share ³	\$0.044
Current Annualized Distribution per Common Share ³	\$0.528
Leverage as of April 30, 2010 ⁴	4%

¹ Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

- ² Tax equivalent yield assumes the maximum federal tax rate of 35%.
- ³ The distribution is not constant and is subject to change.
- ⁴ Represents tender option bond trusts (TOBs) as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to TOBs, minus the sum of accrued liabilities. For a discussion of leveraging techniques utilized by the Fund, please see The Benefits and Risks of Leveraging on page 12.

The table below summarizes the changes in the Fund's market price and NAV per share:

	4/30/10	4/30/09	Change	High	Low
Market Price	\$ 8.87	\$ 7.72	14.90%	\$ 9.29	\$ 7.46
Net Asset Value	\$ 9.19	\$ 7.67	19.82%	\$ 9.19	\$ 7.67

The following unaudited charts show the sector and credit quality allocations of the Fund's long-term investments:

Sector Allocations

	4/30/10	4/30/09
Health	29%	22%
Corporate	20	24
County/City/Special District/School District	16	20
Transportation	11	11
Education	7	6
Tobacco	5	3
State	4	2
Utilities	4	6
Housing	4	6

Credit Quality Allocations⁵

	4/30/10	4/30/09
AAA/Aaa	7%	7%
AA/Aa	2	5
A	11	12
BBB/Baa	26	23
BB/Ba	8	10
B	7	5
CCC/Caa	4	3
Not Rated ⁶	35	35

⁵ Using the higher of Standard & Poor's (S&P's) or Moody's Investors Service (Moody's) ratings.

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

⁶ The investment advisor has deemed certain of these securities to be of investment grade quality. As of April 30, 2010 and April 30, 2009, the market value of these securities was \$14,523,630 representing 8% and \$8,923,111 representing 6%, respectively, of the Fund's long-term investments.

4

ANNUAL REPORT

APRIL 30, 2010

Fund Summary as of April 30, 2010

BlackRock MuniAssets Fund, Inc.

Investment Objective

BlackRock MuniAssets Fund, Inc. (MUA) (the Fund) seeks to provide shareholders with current income exempt from federal income taxes by investing primarily in a portfolio of medium- to lower-grade or unrated municipal obligations, the interest on which, in the opinion of bond counsel to the issuer, is exempt from federal income taxes.

No assurance can be given that the Fund's investment objective will be achieved.

Performance

For the 12 months ended April 30, 2010, the Fund returned 24.17% based on market price and 27.72% based on NAV. For the same period, the closed-end Lipper High Yield Municipal Debt Funds category posted an average return of 34.42% on a market price basis and 31.62% on a NAV basis. All returns reflect reinvestment of dividends. The Fund's premium to NAV, which narrowed during the period, accounts for the difference between performance based on price and performance based on NAV. Positive performance was derived primarily from sector allocation decisions and included concentrations in transportation, health care and corporate-related debt, which continue to benefit from the relative outperformance of these sectors. In light of positive returns in the municipal market, portfolio duration positioning has also proven beneficial, reflecting recent moves to modestly increase the portfolio's sensitivity to interest rate fluctuations. Negative factors included underweight positioning in the tax-backed, public utility and the county/city/special district/school district sectors, which staged a modest rebound late in the reporting period. In addition, the ongoing compression in credit spreads remains pronounced with respect to non-rated bonds, in which the Fund maintains below market weight exposure. More significantly, a majority of peers within the Lipper category employ a higher degree of leverage, which can enhance both returns and distribution yields.

The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results.

Fund Information

Symbol on NYSE	MUA
Initial Offering Date	June 25, 1993
Yield on Closing Market Price as of April 30, 2010 (\$12.65) ¹	5.93%
Tax Equivalent Yield ²	9.12%
Current Monthly Distribution per Common Share ³	\$0.0625
Current Annualized Distribution per Common Share ³	\$0.7500
Leverage as of April 30, 2010 ⁴	4%

¹ Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

- 2 Tax equivalent yield assumes the maximum federal tax rate of 35%.
- 3 The distribution is not constant and is subject to change.
- 4 Represents TOBs as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to TOBs, minus the sum of accrued liabilities. For a discussion of leveraging techniques used by the Fund, please see The Benefits and Risks of Leveraging on page 12.

The table below summarizes the changes in the Fund's market price and NAV per share:

	4/30/10	4/30/09	Change	High	Low
Market Price	\$ 12.65	\$ 10.91	15.95%	\$ 12.78	\$ 10.64
Net Asset Value	\$ 12.63	\$ 10.59	19.26%	\$ 12.63	\$ 10.59

The following unaudited charts show the sector and credit quality allocations of the Fund's long-term investments:

Sector Allocations

	4/30/10	4/30/09
Health	29%	25%
Corporate	24	26
County/City/Special District/School District	13	18
Transportation	11	12
Education	6	4
Tobacco	5	2
State	4	2
Utilities	4	7
Housing	4	4

Credit Quality Allocations⁵

	4/30/10	4/30/09
AAA/Aaa	6%	9%
AA/Aa	3	3
A	14	19
BBB/Baa	26	19
BB/Ba	8	9
B	7	5
CCC/Caa	4	3
CC/Ca		1
Not Rated ⁶	32	32

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

- ⁵ Using the higher of S&P's or Moody's ratings.
- ⁶ The investment advisor has deemed certain of these securities to be of investment grade quality. As of April 30, 2010 and April 30, 2009, the market value of these securities was \$15,867,930 representing 6% and \$12,884,659 representing 6%, respectively, of the Fund's long-term investments.

ANNUAL REPORT

APRIL 30, 2010

5

Fund Summary as of April 30, 2010

BlackRock MuniEnhanced Fund, Inc.

Investment Objective

BlackRock MuniEnhanced Fund, Inc. (MEN) (the Fund) seeks to provide shareholders with as high a level of current income exempt from federal income taxes as is consistent with its investment policies by investing primarily in a portfolio of long-term, investment grade municipal obligations, the interest on which, in the opinion of bond counsel to the issuer, is exempt from federal income taxes.

No assurance can be given that the Fund's investment objective will be achieved.

Performance

For the 12 months ended April 30, 2010, the Fund returned 29.59% based on market price and 18.76% based on NAV. For the same period, the closed-end Lipper Insured Municipal Debt Funds (Leveraged) category posted an average return of 24.79% on a market price basis and 15.40% on a NAV basis. All returns reflect reinvestment of dividends. The Fund's discount to NAV, which narrowed during the period, accounts for the difference between performance based on price and performance based on NAV. Among the factors that contributed to Fund performance during the reporting period were the Fund's constructive position toward the market during a period of declining yields; exposure to the long end of the yield curve during a period of curve flattening; a general tightening of credit spreads, which drove performance in the Fund's holdings of insured bonds with weaker underlying credits; and the Fund's concentration in the transportation and housing sectors, which outperformed during the period. Conversely, lower relative exposure to the public utility and education sectors detracted from Fund performance as both segments performed well. The Fund's holdings of zero-coupon bonds also detracted from performance as spreads in this sector generally underperformed relative to spreads on coupon bonds.

The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results.

Fund Information

Symbol on NYSE	MEN
Initial Offering Date	March 2, 1989
Yield on Closing Market Price as of April 30, 2010 (\$10.81) ¹	6.33%
Tax Equivalent Yield ²	9.74%
Current Monthly Distribution per Common Share ³	\$0.057
Current Annualized Distribution per Common Share ³	\$0.684
Leverage as of April 30, 2010 ⁴	39%

¹ Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.

² Tax equivalent yield assumes the maximum federal tax rate of 35%.

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

³ The distribution is not constant and is subject to change.

⁴ Represents Auction Market Preferred Shares (Preferred Shares) and TOBs as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to Preferred Shares and TOBs, minus the sum of accrued liabilities. For a discussion of leveraging techniques used by the Fund, please see The Benefits and Risks of Leveraging on page 12.

The table below summarizes the changes in the Fund's market price and NAV per share:

	4/30/10	4/30/09	Change	High	Low
Market Price	\$ 10.81	\$ 8.88	21.73%	\$ 10.85	\$ 8.59
Net Asset Value	\$ 10.90	\$ 9.77	11.57%	\$ 11.16	\$ 9.62

The following unaudited charts show the sector and credit quality allocations of the Fund's long-term investments:

Sector Allocations

	4/30/10	4/30/09
County/City/Special District/School District	28%	29%
Transportation	24	23
State	19	21
Utilities	14	12
Health	7	4
Housing	3	4
Education	3	2
Corporate	2	4
Tobacco		1

Credit Quality Allocations⁵

	4/30/10	4/30/09
AAA/Aaa	46%	45%
AA/Aa	23	33
A	26	19
BBB/Baa	5	3

⁵ Using the higher of S&P's or Moody's ratings.

Fund Summary as of April 30, 2010

BlackRock MuniHoldings Fund, Inc.

Investment Objective

BlackRock MuniHoldings Fund, Inc. (MHD) (the Fund) seeks to provide shareholders with current income exempt from federal income taxes by investing primarily in a portfolio of long-term, investment grade municipal obligations the interest on which, in the opinion of bond counsel to the issuers, is exempt from federal income taxes.

No assurance can be given that the Fund's investment objective will be achieved.

Performance

For the 12 months ended April 30, 2010, the Fund returned 40.68% based on market price and 27.31% based on NAV. For the same period, the closed-end Lipper General Municipal Debt Funds (Leveraged) category posted an average return of 28.13% on a market price basis and 22.67% on a NAV basis. All returns reflect reinvestment of dividends and distributions. The Fund's discount to NAV, which narrowed during the period, accounts for the difference between performance based on price and performance based on NAV. Positive performance was attributable in part to sector allocation decisions and included concentrations in health care, housing, county/city/special district/school district and corporate-related debt, which all performed well. Increasing risk appetite has also proven beneficial given the portfolio's focus on lower-rated credits. Additionally, portfolio positioning with respect to a modestly long duration stance and an emphasis on longer-dated bonds was additive in an environment where yields on the long end of the curve fell substantially. Negative factors included underweight positioning in the tax-backed, public utilities and tobacco sectors, portions of which have performed well on a relative basis.

The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results.

Fund Information

Symbol on NYSE	MHD
Initial Offering Date	May 2, 1997
Yield on Closing Market Price as of April 30, 2010 (\$15.70) ¹	6.57%
Tax Equivalent Yield ²	10.11%
Current Monthly Distribution per Common Share ³	\$0.086
Current Annualized Distribution per Common Share ³	\$1.032
Leverage as of April 30, 2010 ⁴	36%

¹ Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.

² Tax equivalent yield assumes the maximum federal tax rate of 35%.

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

³ The distribution is not constant and is subject to change.

⁴ Represents Preferred Shares and TOBs as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to Preferred Shares and TOBs, minus the sum of accrued liabilities. For a discussion of leveraging techniques used by the Fund, please see The Benefits and Risks of Leveraging on page 12.

The table below summarizes the changes in the Fund's market price and NAV per share:

	4/30/10	4/30/09	Change	High	Low
Market Price	\$ 15.70	\$ 11.97	31.16%	\$ 15.90	\$ 11.88
Net Asset Value	\$ 15.75	\$ 13.27	18.69%	\$ 15.84	\$ 13.27

The following unaudited charts show the sector and credit quality allocations of the Fund's long-term investments:

Sector Allocations

	4/30/10	4/30/09
Health	23%	19%
Corporate	14	15
State	12	10
County/City/Special District/School District	11	13
Transportation	11	11
Utilities	11	10
Education	9	9
Housing	7	9
Tobacco	2	4

Credit Quality Allocations⁵

	4/30/10	4/30/09
AAA/Aaa	19%	29%
AA/Aa	32	21
A	23	24
BBB/Baa	11	10
BB/Ba	2	2
B	2	1
CCC/Caa	2	2
Not Rated ⁶	9	11

⁵ Using the higher of S&P's or Moody's ratings.

⁶

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

The investment advisor has deemed certain of these non-rated securities to be of investment grade quality. As of April 30, 2010 and April 30, 2009, the market value of these securities was \$2,973,600 representing 1% and \$6,532,075 representing 2%, respectively, of the Fund's long-term investments.

ANNUAL REPORT

APRIL 30, 2010

7

Fund Summary as of April 30, 2010

BlackRock MuniHoldings Fund II, Inc.

Investment Objective

BlackRock MuniHoldings Fund II, Inc. (MUH) (the Fund) seeks to provide shareholders with current income exempt from federal income taxes by investing primarily in a portfolio of long-term, investment grade municipal obligations the interest on which, in the opinion of bond counsel to the issuer, is exempt from federal income taxes.

No assurance can be given that the Fund's investment objective will be achieved.

Performance

For the 12 months ended April 30, 2010, the Fund returned 38.64% based on market price and 25.71% based on NAV. For the same period, the closed-end Lipper General Municipal Debt Funds (Leveraged) category posted an average return of 28.13% on a market price basis and 22.67% on a NAV basis. All returns reflect reinvestment of dividends. The Fund moved from a discount to NAV to a premium by period end, which accounts for the difference between performance based on price and performance based on NAV. Positive performance was attributable in part to sector allocation decisions and included concentrations in health care, housing, county/city/special district/school district and corporate-related debt, which all performed well. Increasing risk appetite has also proven beneficial given the portfolio's focus on lower-rated credits. Additionally, portfolio positioning with respect to a modestly long duration stance and an emphasis on longer-dated bonds was additive in an environment where yields on the long end of the curve fell substantially. Negative factors included underweight positioning in the tax-backed, public utilities and tobacco sectors, portions of which have performed well on a relative basis.

The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results.

Fund Information

Symbol on NYSE	MUH
Initial Offering Date	February 27, 1998
Yield on Closing Market Price as of April 30, 2010 (\$14.68) ¹	6.58%
Tax Equivalent Yield ²	10.12%
Current Monthly Distribution per Common Share ³	\$0.0805
Current Annualized Distribution per Common Share ³	\$0.9660
Leverage as of April 30, 2010 ⁴	35%

¹ Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.

² Tax equivalent yield assumes the maximum federal tax rate of 35%.

³ The distribution is not constant and is subject to change.

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

⁴ Represents Preferred Shares and TOBs as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to Preferred Shares and TOBs, minus the sum of accrued liabilities. For a discussion of leveraging techniques used by the Fund, please see The Benefits and Risks of Leveraging on page 12.

The table below summarizes the changes in the Fund's market price and NAV per share:

	4/30/10	4/30/09	Change	High	Low
Market Price	\$ 14.68	\$ 11.33	29.57%	\$ 14.69	\$ 11.27
Net Asset Value	\$ 14.65	\$ 12.47	17.48%	\$ 14.72	\$ 12.46

The following unaudited charts show the sector and credit quality allocations of the Fund's long-term investments:

Sector Allocations

	4/30/10	4/30/09
Health	21%	18%
County/City/Special District/School District	15	16
Corporate	15	11
State	12	10
Education	10	11
Transportation	10	13
Utilities	8	9
Housing	7	8
Tobacco	2	4

Credit Quality Allocations⁵

	4/30/10	4/30/09
AAA/Aaa	18%	26%
AA/Aa	37	26
A	20	25
BBB/Baa	12	10
BB/Ba	2	1
B	1	2
CCC/Caa	2	1
Not Rated ⁶	8	9

⁵ Using the higher of S&P's or Moody's ratings.

⁶ The investment advisor has deemed certain of these securities to be of investment grade quality. As of April 30, 2010 and April 30, 2009, the market value of these securities was \$4,406,945 representing 2% and \$4,974,331 representing 2%, respectively, of

the Fund's long-term investments.

Fund Summary as of April 30, 2010

BlackRock MuniHoldings Insured Fund, Inc.**Investment Objective**

BlackRock MuniHoldings Insured Fund, Inc. (MUS) (the Fund) seeks to provide shareholders with current income exempt from federal income taxes by investing primarily in a portfolio of long-term, investment grade municipal obligations the interest on which, in the opinion of bond counsel to the issuers, is exempt from federal income taxes. Under normal circumstances, the Fund invests at least 80% of its total assets in municipal bonds that are covered by insurance.

No assurance can be given that the Fund's investment objective will be achieved.

Performance

For the 12 months ended April 30, 2010, the Fund returned 31.59% based on market price and 16.05% based on NAV. For the same period, the closed-end Lipper Insured Municipal Debt Funds (Leveraged) category posted an average return of 24.79% on a market price basis and 15.40% on a NAV basis. All returns reflect reinvestment of dividends. The Fund moved from a discount to NAV to a premium by period end, which accounts for the difference between performance based on price and performance based on NAV. Notable positions in health care and housing bonds enhanced the Fund's performance for the period. In both sectors, the maturity range of the Fund's holdings was 20 years and longer, and they subsequently benefited from the flattening of the yield curve during the past 12 months. Conversely, the Fund's insured holdings, with weak underlying credits, detracted from performance for the period.

The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results.

Fund Information

Symbol on NYSE	MUS
Initial Offering Date	May 1, 1998
Yield on Closing Market Price as of April 30, 2010 (\$13.40) ¹	6.63%
Tax Equivalent Yield ²	10.20%
Current Monthly Distribution per Common Share ³	\$0.074
Current Annualized Distribution per Common Share ³	\$0.888
Leverage as of April 30, 2010 ⁴	41%

¹ Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.

² Tax equivalent yield assumes the maximum federal tax rate of 35%.

³ The distribution is not constant and is subject to change.

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

⁴ Represents Preferred Shares and TOBs as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to Preferred Shares and TOBs, minus the sum of accrued liabilities. For a discussion of leveraging techniques used by the Fund, please see The Benefits and Risks of Leveraging on page 12.

The table below summarizes the changes in the Fund's market price and NAV per share:

	4/30/10	4/30/09	Change	High	Low
Market Price	\$ 13.40	\$ 10.87	23.28%	\$ 13.80	\$ 10.73
Net Asset Value	\$ 13.34	\$ 12.27	8.72%	\$ 13.81	\$ 11.98

The following unaudited charts show the sector and credit quality allocations of the Fund's long-term investments:

Sector Allocations

	4/30/10	4/30/09
County/City/Special District/School District	33%	42%
Utilities	22	14
Transportation	16	17
State	13	12
Health	9	7
Housing	5	6
Corporate	2	2

Credit Quality Allocations⁵

	4/30/10	4/30/09
AAA/Aaa	58%	50%
AA/Aa	16	39
A	24	6
BBB/Baa	1	4
Not Rated ⁶	1	1

⁵ Using the higher of S&P's or Moody's ratings.

⁶ The investment advisor has deemed certain of these securities to be of investment grade quality. As of April 30, 2010 and April 30, 2009, the market value of these securities was \$2,342,435 representing 1% and \$3,333,138 representing 1%, respectively, of the Fund's long-term investments.

Fund Summary as of April 30, 2010

BlackRock Muni Intermediate Duration Fund, Inc.**Investment Objective**

BlackRock Muni Intermediate Duration Fund, Inc. (MUI) (the Fund) seeks to provide shareholders with high current income exempt from federal income taxes by investing primarily in a portfolio of municipal obligations, the interest on which, in the opinion of bond counsel to the issuer, is exempt from federal income taxes.

No assurance can be given that the Fund's investment objective will be achieved.

Performance

For the 12 months ended April 30, 2010, the Fund returned 27.29% based on market price and 19.85% based on NAV. For the same period, the closed-end Lipper Intermediate Municipal Debt Funds category posted an average return of 22.05% on a market price basis and 15.50% on a NAV basis. All returns reflect reinvestment of dividends. The Fund's discount to NAV, which narrowed during the period, accounts for the difference between performance based on price and performance based on NAV. The Fund benefited from a tightening of credit spreads, specifically within the corporate high yield sector, which helped the Fund's lower-quality holdings outperform. In addition, we actively structured new-issue deals with discounted coupons at the longer end of the Fund's duration range. These holdings benefited from the outperformance of the new-issue market, the flattening of the yield curve and the reduced supply of tax-exempt issuance due to Build America Bonds (BAB) issuance. We also diversified the Fund's holdings to increase exposure to specialty-state paper, which outperformed as a result of increased demand by retail buyers. Finally, the Fund benefited from an above-average yield relative to its Lipper group peers. Conversely, the Fund's shorter maturity holdings, as well as its bonds with greater negative convexity, underperformed the market.

The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results.

Fund Information

Symbol on NYSE	MUI
Initial Offering Date	August 1, 2003
Yield on Closing Market Price as of April 30, 2010 (\$14.13) ¹	5.56%
Tax Equivalent Yield ²	8.55%
Current Monthly Distribution per Common Share ³	\$0.0655
Current Annualized Distribution per Common Share ³	\$0.7860
Leverage as of April 30, 2010 ⁴	38%

¹ Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.

² Tax equivalent yield assumes the maximum federal tax rate of 35%.

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

³ The Monthly Distribution per Common Share, declared on June 1, 2010, was increased to \$0.0680. The Yield on Closing Market Price, Current Monthly Distribution per Common Share and Current Annualized Distribution per Common Share do not reflect the new distribution rate. The new distribution rate is not constant and is subject to further change in the future.

⁴ Represents Preferred Shares and TOBs as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to Preferred Shares and TOBs, minus the sum of accrued liabilities. For a discussion of leveraging techniques used by the Fund, please see The Benefits and Risks of Leveraging on page 12.

The table below summarizes the changes in the Fund's market price and NAV per share:

	4/30/10	4/30/09	Change	High	Low
Market Price	\$ 14.13	\$ 11.77	20.05%	\$ 14.27	\$ 11.51
Net Asset Value	\$ 14.75	\$ 13.05	13.03%	\$ 14.79	\$ 13.01

The following unaudited charts show the sector and credit quality allocations of the Fund's long-term investments:

Sector Allocations

	4/30/10	4/30/09
State	23%	23%
City/County/Special District/School District	21	25
Corporate	12	11
Health	12	10
Transportation	8	13
Utilities	8	7
Education	6	2
Tobacco	6	6
Housing	4	3

Credit Quality Allocations⁵

	4/30/10	4/30/09
AAA/Aaa	28%	36%
AA/Aa	25	30
A	23	11
BBB/Baa	11	12
BB/Ba	1	
B	2	1
CCC/Caa	3	1
Not Rated ⁶	7	9

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

⁵ Using the higher of S&P's or Moody's ratings.

⁶ The investment advisor has deemed certain of these securities to be of investment grade quality. As of April 30, 2010 and April 30, 2009, the market value of these securities was \$11,900,188 representing 1% and \$16,548,864 representing 2%, respectively, of the Fund's long-term investments.

10

ANNUAL REPORT

APRIL 30, 2010

Fund Summary as of April 30, 2010

BlackRock MuniVest Fund II, Inc.

Investment Objective

BlackRock MuniVest Fund II, Inc. (MVT) (the Fund) seeks to provide shareholders with as high a level of current income exempt from federal income taxes as is consistent with its investment policies and prudent investment management by investing primarily in a portfolio of long-term, investment grade municipal obligations, the interest on which, in the opinion of bond counsel to the issuers, is exempt from federal income taxes.

No assurance can be given that the Fund's investment objective will be achieved.

Performance

For the 12 months ended April 30, 2010, the Fund returned 37.99% based on market price and 29.75% based on NAV. For the same period, the closed-end Lipper General Municipal Debt Funds (Leveraged) category posted an average return of 28.13% on a market price basis and 22.67% on a NAV basis. All returns reflect reinvestment of dividends. The Fund moved from a discount to NAV to a premium by period end, which accounts for the difference between performance based on price and performance based on NAV. Positive performance was attributable in part to sector allocation decisions and included concentrations in health care, housing, development districts and corporate-related debt, which all performed well. Increasing risk appetite has also proven beneficial given the portfolio's focus on lower-rated credits. Additionally, portfolio positioning with respect to a modestly long duration stance and an emphasis on longer-dated bonds was additive in an environment where yields on the long end of the curve fell substantially. Negative factors included underweight positioning in the tax-backed, public utilities and education sectors, all of which have performed well on a relative basis.

The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results.

Fund Information

Symbol on NYSE	MVT
Initial Offering Date	March 29, 1993
Yield on Closing Market Price as of April 30, 2010 (\$14.94) ¹	6.91%
Tax Equivalent Yield ²	10.63%
Current Monthly Distribution per Common Share ³	\$0.086
Current Annualized Distribution per Common Share ³	\$1.032
Leverage as of April 30, 2010 ⁴	40%

¹ Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.

² Tax equivalent yield assumes the maximum federal tax rate of 35%.

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

³ The distribution is not constant and is subject to change.

⁴ Represents Preferred Shares and TOBs as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to Preferred Shares and TOBs, minus the sum of accrued liabilities. For a discussion of leveraging techniques used by the Fund, please see The Benefits and Risks of Leveraging on page 12.

The table below summarizes the changes in the Fund's market price and NAV per share:

	4/30/10	4/30/09	Change	High	Low
Market Price	\$ 14.94	\$ 11.65	28.24%	\$ 14.94	\$ 11.54
Net Asset Value	\$ 14.41	\$ 11.95	20.59%	\$ 14.55	\$ 11.94

The following unaudited charts show the sector and credit quality allocations of the Fund's long-term investments:

Sector Allocations

	4/30/10	4/30/09
Health	22%	18%
Corporate	18	16
State	14	14
Transportation	12	13
County/City/Special District/School District	10	13
Utilities	10	11
Education	6	6
Housing	5	5
Tobacco	3	4

Credit Quality Allocations⁵

	4/30/10	4/30/09
AAA/Aaa	18%	26%
AA/Aa	39	28
A	18	18
BBB/Baa	11	12
BB/Ba		1
B	3	2
CCC/Caa	1	
Not Rated ⁶	10	13

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

- ⁵ Using the higher of S&P's or Moody's ratings.
- ⁶ The investment advisor has deemed certain of these securities to be of investment grade quality. As of April 30, 2010 and April 30, 2009, the market value of these securities was \$5,505,082 representing 1% and \$10,825,769 representing 3%, respectively, of the Fund's long-term investments.

ANNUAL REPORT

APRIL 30, 2010

11

The Benefits and Risks of Leveraging

The Funds may utilize leverage to seek to enhance the yield and NAV of their Common Shares. However, these objectives cannot be achieved in all interest rate environments.

To leverage, all of the Funds, except APX and MUA, issue Preferred Shares, which pay dividends at prevailing short-term interest rates, and invest the proceeds in long-term municipal bonds. In general, the concept of leveraging is based on the premise that the cost of assets to be obtained from leverage will be based on short-term interest rates, which normally will be lower than the income earned by each Fund on its longer-term portfolio investments. To the extent that the total assets of each Fund (including the assets obtained from leverage) are invested in higher-yielding portfolio investments, each Fund's Common Shareholders will benefit from the incremental net income.

To illustrate these concepts, assume a Fund's Common Shares capitalization is \$100 million and it issues Preferred Shares for an additional \$50 million, creating a total value of \$150 million available for investment in long-term municipal bonds. If prevailing short-term interest rates are 3% and long-term interest rates are 6%, the yield curve has a strongly positive slope. In this case, the Fund pays dividends on the \$50 million of Preferred Shares based on the lower short-term interest rates. At the same time, the securities purchased by the Fund with assets received from the Preferred Shares issuance earn the income based on long-term interest rates. In this case, the dividends paid to Preferred Shareholders are significantly lower than the income earned on the Fund's long-term investments, and therefore the Common Shareholders are the beneficiaries of the incremental net income.

If short-term interest rates rise, narrowing the differential between short-term and long-term interest rates, the incremental net income pickup on the Common Shares will be reduced or eliminated completely. Furthermore, if prevailing short-term interest rates rise above long-term interest rates of 6%, the yield curve has a negative slope. In this case, the Fund pays dividends on the higher short-term interest rates whereas the Fund's total portfolio earns income based on lower long-term interest rates.

Furthermore, the value of a Fund's portfolio investments generally varies inversely with the direction of long-term interest rates, although other factors can influence the value of portfolio investments. In contrast, the redemption value of the Funds' Preferred Shares does not fluctuate in relation to interest rates. As a result, changes in interest rates can influence the Funds' NAV positively or negatively in addition to the impact on Fund performance from leverage from Preferred Shares discussed above.

The Funds may also leverage their assets through the use of tender option bond (TOB) programs, as described in Note 1 of the Notes to Financial Statements. TOB investments generally will provide the Funds with economic benefits in periods of declining short-term interest rates, but expose the Funds to risks during periods of rising short-term interest rates similar to those associated with Preferred Shares issued by the Funds, as described above. Additionally, fluctuations in the market value of municipal bonds deposited into the TOB trust may adversely affect each Fund's NAV per share.

The use of leverage may enhance opportunities for increased income to the Funds and Common Shareholders, but as described above, it also creates risks as short- or long-term interest rates fluctuate. Leverage also will generally cause greater changes in the Funds' NAV, market price and dividend rate than a comparable portfolio without leverage. If the income derived from securities purchased with assets received from leverage exceeds the cost of leverage, the Funds' net income will be greater than if leverage had not been used. Conversely, if the income from the securities purchased is not sufficient to cover the cost of leverage, each Fund's net income will be less than if leverage had not been used, and therefore the amount available for distribution to Common Shareholders will be reduced. The Funds may be required to sell portfolio securities at inopportune times or at distressed values in order to comply with regulatory requirements applicable to the use of leverage or as required by the terms of leverage instruments, which may cause a Fund to incur losses. The use of leverage may limit each Fund's ability to invest in certain types of securities or use certain types of hedging strategies, such as in the case of certain restrictions imposed by ratings agencies that rate preferred shares issued by the Funds. Each Fund will incur expenses in connection with the use of leverage, all of which are borne by Common Shareholders and may reduce income to the Common Shares.

Under the Investment Company Act of 1940, the Funds are permitted to issue Preferred Shares in an amount up to 50% of their total managed assets at the time of issuance. Under normal circumstances, each Fund anticipates that the total economic leverage from Preferred Shares and/or TOBs will not exceed 50% of its total managed assets at the time such leverage is incurred. As of April 30, 2010, the Funds had economic leverage from Preferred Shares and/or TOBs as a percentage of their total managed assets as follows:

	Percent of Leverage
APX	4%
MUA	4%
MEN	39%
MHD	36%
MUH	35%
MUS	41%
MUI	38%
MVT	40%

Derivative Financial Instruments

The Funds may invest in various derivative instruments, including financial futures contracts, as specified in Note 2 of the Notes to Financial Statements, which may constitute forms of economic leverage. Such instruments are used to obtain exposure to a market without owning or taking physical custody of securities or to hedge market and/or interest rate risks. Such derivative instruments involve risks, including the imperfect correlation between the value of a derivative instrument and the underlying asset to the transaction or illiquidity of the derivative instrument. Each Fund's ability to successfully use a derivative instrument depends on the investment advisor's ability to accurately predict pertinent market movements, which cannot be assured. The use of derivative instruments may result in losses greater than if they had not been used, may require a Fund to sell or purchase portfolio securities at inopportune times or for distressed values, may limit the amount of appreciation a Fund can realize on an investment or may cause a Fund to hold a security that it might otherwise sell. The Funds' investments in these instruments are discussed in detail in the Notes to Financial Statements.

Schedule of Investments April 30, 2010

BlackRock Apex Municipal Fund, Inc. (APX)
 (Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Alabama 0.4%		
County of Jefferson Alabama, RB, Series A:		
5.25%, 1/01/13	\$ 435	\$ 412,328
5.25%, 1/01/17	365	330,931
		743,259
Alaska 1.1%		
Alaska Industrial Development & Export Authority, RB, Williams Lynxs Alaska Cargoport, AMT, 8.00%, 5/01/23		
	2,000	1,925,240
Arizona 4.1%		
Maricopa County IDA Arizona, RB, Series A:		
Arizona Charter Schools Project, 6.63%, 7/01/20	1,100	847,495
Sun King Apartments Project, 6.00%, 11/01/10	5	4,969
Phoenix IDA Arizona, Refunding RB, America West Airlines Inc. Project, AMT, 6.30%, 4/01/23	2,950	2,306,988
Pima County IDA, RB, Arizona Charter Schools Project, Series E, 7.25%, 7/01/31	960	963,571
Pima County IDA, Refunding IDR, Tucson Electric Power, 5.75%, 9/01/29	460	468,087
Salt Verde Financial Corp., RB, Senior, 5.00%, 12/01/32	1,950	1,768,533
University Medical Center Corp. Arizona, RB, 6.25%, 7/01/29	540	574,814
Yavapai County IDA Arizona, RB, Yavapai Regional Medical Center, Series A, 6.00%, 8/01/33	500	502,870
		7,437,327
California 4.2%		
California Statewide Communities Development Authority, Refunding RB:		
American Baptist Homes of the West, 6.25%, 10/01/39	885	879,053
Senior Living, Southern California, 7.00%, 11/15/29	400	429,628
Senior Living, Southern California, 7.25%, 11/15/41	1,440	1,561,651
City of Fontana California, Special Tax Bonds, Refunding, Community Facilities District No. 22-Sierra, Series H, 6.00%, 9/01/34	1,000	955,630
State of California, GO: 4.50%, 10/01/36	1,755	1,572,585
Various Purpose, 6.00%, 3/01/33	2,120	2,333,505

Municipal Bonds	Par (000)	Value
Colorado 2.8%		
Elk Valley Public Improvement Corp., RB, Public Improvement Fee, Series A, 7.30%, 9/01/22	\$ 2,800	\$ 2,737,896
Plaza Metropolitan District No. 1 Colorado, Tax Allocation Bonds, Tax Increment:		
Public Improvement Fee, 8.00%, 12/01/25	2,000	2,002,240
Subordinate Public Improvement Fee, 8.13%, 12/01/25	500	476,880
		<u>5,217,016</u>
Connecticut 2.3%		
Harbor Point Infrastructure Improvement District, Tax Allocation Bonds, Harbor Point Project, Series A, 7.88%, 4/01/39	1,610	1,686,298
Mohegan Tribe of Indians of Connecticut, RB, Public Improvement, Priority Distribution:		
6.25%, 1/01/31	1,785	1,434,890
5.25%, 1/01/33 (a)	1,500	1,072,530
		<u>4,193,718</u>
District of Columbia 2.3%		
District of Columbia, RB, Methodist Home District of Columbia, Series A:		
7.38%, 1/01/30	680	689,377
7.50%, 1/01/39	1,110	1,126,351
District of Columbia Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, 6.50%, 5/15/33	730	716,305
Metropolitan Washington Airports Authority, RB, CAB, 2nd Senior Lien, Series B (AGC), 6.75%, 10/01/39 (b)	9,770	1,691,871
		<u>4,223,904</u>
Florida 9.4%		
Capital Region Community Development District Florida, Special Assessment Bonds, Capital Improvement, Series A, 7.00%, 5/01/39	630	590,852
County of Miami-Dade Florida, Refunding RB, Miami International Airport, Series A-1, 5.38%, 10/01/41	360	364,136
Hillsborough County IDA, RB, AMT, National Gypsum Co.: Series A, 7.13%, 4/01/30	2,500	2,177,525
Series B, 7.13%, 4/01/30	1,560	1,358,776
Jacksonville Economic Development Commission, RB, Gerdau Ameristeel US Inc., AMT, 5.30%, 5/01/37	900	695,916
Jacksonville Economic Development Commission, Refunding RB, Florida Proton Therapy Institute, Series A, 6.00%, 9/01/17	840	856,876
Lee County IDA Florida, RB, Series A, Lee Charter Foundation, 5.38%, 6/15/37	1,810	1,385,247

Portfolio Abbreviations

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

ACA	American Capital Access Corp.
AGC	Assured Guaranty Corp.
AGM	Assured Guaranty Municipal Corp.
AMBAC	American Municipal Bond Assurance Corp.
AMT	Alternative Minimum Tax (subject to)
ARB	Airport Revenue Bonds
BHAC	Berkshire Hathaway Assurance Corp.
CAB	Capital Appreciation Bonds
COP	Certificates of Participation
EDA	Economic Development Authority
EDC	Economic Development Corp.
ERB	Education Revenue Bonds
FGIC	Financial Guaranty Insurance Co.
FHA	Federal Housing Administration
GNMA	Government National Mortgage Association
GO	General Obligation Bonds
HDA	Housing Development Authority
HFA	Housing Finance Agency
HRB	Housing Revenue Bonds
HUD	US Department of Housing and Urban Development
IDA	Industrial Development Authority
IDB	Industrial Development Board
IDRB	Industrial Development Revenue Bonds
ISD	Independent School District
M/F	Multi-Family
MRB	Mortgage Revenue Bonds
NPFGC	National Public Finance Guarantee Corp.
PSF-GTD	Permanent School Fund Guaranteed
RB	Revenue Bonds
S/F	Single-Family
TE	Tax-Exempt

See Notes to Financial Statements.

Schedule of Investments (continued)

BlackRock Apex Municipal Fund, Inc. (APX)
 (Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Florida (concluded)		
Main Street Community Development District, Special Assessment Bonds, Series B, 6.90%, 5/01/17	\$ 345	\$ 323,724
Midtown Miami Community Development District, Special Assessment Bonds, Series A:		
6.00%, 5/01/24	1,370	1,313,707
6.25%, 5/01/37	1,350	1,266,651
Santa Rosa Bay Bridge Authority, RB, 6.25%, 7/01/28	2,140	1,165,337
Sarasota County Health Facilities Authority, Refunding RB, Village On The Isle Project:		
5.50%, 1/01/27	590	536,003
5.50%, 1/01/32	550	487,652
Sumter Landing Community Development District Florida, RB, Sub-Series B, 5.70%, 10/01/38	1,615	1,264,222
Tampa Palms Open Space & Transportation Community Development District, RB, Capital Improvement, Richmond Place Project, 7.50%, 5/01/18	1,905	1,905,152
Tolomato Community Development District, Special Assessment Bonds, Special Assessment, 6.65%, 5/01/40	1,850	1,472,230
		17,164,006
Georgia 4.1%		
City of Atlanta Georgia, Tax Allocation Bonds, Princeton Lakes Project, 5.50%, 1/01/31	395	346,731
Clayton County Development Authority, RB, Delta Air Lines Inc. Project, Series A, 8.75%, 6/01/29	1,375	1,466,877
County of Clayton Georgia, Tax Allocation Bonds, Ellenwood Project, 7.50%, 7/01/33	1,640	1,558,836
DeKalb County Hospital Authority Georgia, RB, DeKalb Medical Center Inc. Project, 6.13%, 9/01/40 (c)	1,805	1,805,505
Gainesville & Hall County Development Authority, Refunding RB, Acts Retirement Life Community, Series A-2, 6.63%, 11/15/39	645	670,142
Rockdale County Development Authority, RB, Visy Paper Project, Series A, AMT, 6.13%, 1/01/34	1,680	1,549,330
Thomasville Hospital Authority, RB, Anticipation Certificates, John D. Archbold, 5.38%, 11/01/40 (c)	210	208,289
		7,605,710
Guam 1.9%		
Guam Government Waterworks Authority, Refunding RB, Water: 6.00%, 7/01/25	515	526,170

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

5.88%, 7/01/35	800	784,776
Territory of Guam, GO, Series A:		
6.00%, 11/15/19	250	258,803
6.75%, 11/15/29	440	467,966
7.00%, 11/15/39	455	485,867
Territory of Guam, RB, Section 30, Series A, 5.63%, 12/01/29		
	1,000	1,018,860

3,542,442

Illinois 5.6%

City of Chicago Illinois, Refunding RB, American Airlines Inc. Project, 5.50%, 12/01/30		
	2,860	2,124,694
Illinois Finance Authority, RB:		
Clare at Water Tower Project, Series A, 6.13%, 5/15/38 (d)(e)		
	2,050	817,806
Roosevelt University Project, 6.50%, 4/01/44		
	1,700	1,782,807
Rush University Medical Center Obligation Group, Series A, 7.25%, 11/01/30		
	2,000	2,277,400

Municipal Bonds	Par (000)	Value
-----------------	--------------	-------

Illinois (concluded)

Illinois Finance Authority, Refunding RB:		
Friendship Village of Schaumburg, 7.25%, 2/15/45	\$ 1,630	\$ 1,617,465
Primary Health Care Centers Program, 6.60%, 7/01/24		
	490	435,968
Village of Lincolnshire Illinois, Special Tax Bonds, Sedgebrook Project, 6.25%, 3/01/34		
	755	609,783
Village of Wheeling Illinois, Tax Allocation Bonds, North Milwaukee/Lake-Cook TIF Project, 6.00%, 1/01/25		
	750	684,383

10,350,306

Indiana 1.7%

Indiana Finance Authority, Refunding RB, Improvement, U.S. Steel Corp., 6.00%, 12/01/26 (c)		
	620	624,625
Indiana Health & Educational Facilities Financing Authority, Refunding RB, Community Foundation Northwest Indiana, 5.50%, 3/01/37		
	1,770	1,723,856
Vigo County Hospital Authority Indiana, RB, Union Hospital Inc. (a):		
5.70%, 9/01/37	440	382,167
5.75%, 9/01/42	545	466,716

3,197,364

Kentucky 0.7%

Kentucky Economic Development Finance Authority, Refunding RB, Owensboro Medical Health System:		
Series A, 6.38%, 6/01/40	645	663,060
Series B, 6.38%, 3/01/40	615	632,220

1,295,280

Louisiana 1.1%

2,000 2,056,640

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

Louisiana Local Government Environmental Facilities &
Community Development Authority, RB, Westlake
Chemical Corp. Projects, 6.75%, 11/01/32

Maryland 1.2%

Maryland EDC, RB, Transportation Facilities Project, Series A, 5.75%, 6/01/35	420	429,001
Maryland Health & Higher Educational Facilities Authority, RB, Washington Christian Academy, 5.50%, 7/01/38	410	176,308
Maryland State Energy Financing Administration, RB, Cogeneration, AES Warrior Run, AMT, 7.40%, 9/01/19	1,500	1,500,435
		2,105,744

Massachusetts 2.1%

Massachusetts Development Finance Agency, RB, First Mortgage, Overlook Communities, Series A, 6.25%, 7/01/34	1,845	1,584,597
Massachusetts Development Finance Agency, Refunding RB, Eastern Nazarene College, 5.63%, 4/01/19	1,070	975,519
Massachusetts Health & Educational Facilities Authority, RB, Jordan Hospital, Series E, 6.75%, 10/01/33	850	832,813
Massachusetts Health & Educational Facilities Authority, Refunding RB, Milton Hospital, Series C, 5.50%, 7/01/16	500	444,240
		3,837,169

Michigan 2.7%

Advanced Technology Academy, RB, 6.00%, 11/01/37	625	558,200
County of Wayne Michigan, GO, Building Improvement, Series A, 6.75%, 11/01/39	375	395,531
Monroe County Hospital Finance Authority, Refunding RB, Mercy Memorial Hospital Corp. Obligation, 5.50%, 6/01/35	1,260	1,037,975
Royal Oak Hospital Finance Authority Michigan, Refunding RB, William Beaumont Hospital, 8.25%, 9/01/39	2,575	3,039,350
		5,031,056

See Notes to Financial Statements.

Schedule of Investments (continued)

BlackRock Apex Municipal Fund, Inc. (APX)
 (Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Missouri 1.0%		
Kansas City IDA Missouri, RB, First Mortgage, Bishop Spencer, Series A, 6.50%, 1/01/35	\$ 1,000	\$ 887,200
Kirkwood IDA Missouri, RB, Aberdeen Heights, Series A, 8.25%, 5/15/39	945	940,814
		<u>1,828,014</u>
Multi-State 0.3%		
MuniMae TE Bond Subsidiary LLC, 7.50%, 6/30/49 (a)(f)(g)	672	623,477
Nevada 0.2%		
County of Clark Nevada, Special Assessment Bonds, Special Improvement District No. 142, Local Improvement, 6.38%, 8/01/23	380	359,339
New Hampshire 0.4%		
New Hampshire Health & Education Facilities Authority, RB, Catholic Medical Center, 5.00%, 7/01/36	835	709,825
New Jersey 6.8%		
New Jersey EDA, RB, Continental Airlines Inc. Project, AMT: 6.63%, 9/15/12	3,050	3,081,537
6.25%, 9/15/29	1,000	938,100
New Jersey EDA, Refunding RB, Newark Airport Marriott Hotel, 7.00%, 10/01/14	1,500	1,501,920
New Jersey Educational Facilities Authority, Refunding RB, University of Medicine & Dentistry, Series B: 7.13%, 12/01/23	670	774,078
7.50%, 12/01/32	1,065	1,219,755
New Jersey Health Care Facilities Financing Authority, RB, Pascack Valley Hospital Association, 6.63%, 7/01/36 (d)(e)	1,870	19
New Jersey Health Care Facilities Financing Authority, Refunding RB, St. Joseph's Healthcare System, 6.63%, 7/01/38	1,680	1,722,873
New Jersey Transportation Trust Fund Authority, RB, CAB, Transportation System, Series C (AMBAC), 5.05%, 12/15/35 (b)	2,760	591,827
Tobacco Settlement Financing Corp. New Jersey, Refunding RB, Series 1A: 4.50%, 6/01/23	2,050	1,958,037
5.00%, 6/01/41	860	594,681
		<u>12,382,827</u>

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

New York 6.1%

Brooklyn Arena Local Development Corp., RB, Barclays Center Project, 6.38%, 7/15/43	685	701,591
Chautauqua County Industrial Development Agency, RB, NRG Dunkirk Power Project, 5.88%, 4/01/42	1,710	1,738,506
Dutchess County Industrial Development Agency New York, RB, St. Francis Hospital, Series B, 7.50%, 3/01/29	1,000	993,870
Metropolitan Transportation Authority, RB, Series 2008-C, 6.50%, 11/15/28	2,000	2,322,580
New York City Industrial Development Agency, RB: American Airlines Inc., JFK International Airport, AMT, 8.00%, 8/01/28	720	750,146
British Airways Plc Project, AMT, 7.63%, 12/01/32 Series C, 6.80%, 6/01/28	1,730	1,710,555
Special Needs Facilities Pooled Program, Series C-1, 6.50%, 7/01/24	350	367,993
New York Liberty Development Corp., RB, National Sports Museum Project, Series A, 6.13%, 2/15/19 (d)(e)	830	771,178
New York State Dormitory Authority, RB, North Shore-Long Island Jewish Health System, Series A, 5.50%, 5/01/37	630	6
	1,000	1,024,960

Municipal Bonds	Par (000)	Value
New York (concluded)		
Yonkers Industrial Development Agency New York, RB, Sarah Lawrence College Project, Series A, 6.00%, 6/01/41	\$ 850	\$ 886,193
		11,267,578

North Carolina 1.8%

North Carolina Medical Care Commission, Refunding RB, First Mortgage, Deerfield, Series A, 6.13%, 11/01/38	3,230	3,206,324
------------------------------------------------------------------------------------------------------------	-------	-----------

Ohio 1.8%

Buckeye Tobacco Settlement Financing Authority, RB, Asset-Backed, Senior Series A-2: 5.13%, 6/01/24	1,120	1,030,635
6.50%, 6/01/47	2,685	2,203,419
		3,234,054

Pennsylvania 6.9%

Allegheny County Hospital Development Authority, Refunding RB, Health System, West Penn, Series A, 5.38%, 11/15/40	2,385	1,914,034
Bucks County IDA, RB, Ann's Choice Inc. Facility, Series A, 6.13%, 1/01/25	1,160	1,098,184
Cumberland County Municipal Authority, RB, Diakon Lutheran, 6.38%, 1/01/39	2,510	2,528,800
Lancaster County Hospital Authority, RB, Brethren Village Project, Series A: 6.25%, 7/01/26	475	474,468
6.50%, 7/01/40	410	397,839
Montgomery County IDA Pennsylvania, MRB, Whitmarsh Continuing Care, 6.25%, 2/01/35	1,700	1,260,176

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

Pennsylvania Higher Educational Facilities Authority, Refunding RB, Allegheny Delaware Valley Obligation, Series A (NPFGC), 5.88%, 11/15/21	470	453,400
Philadelphia Authority for Industrial Development, RB, AMT: Commercial Development, 7.75%, 12/01/17	3,000	3,003,270
Subordinate, Air Cargo, Series A, 7.50%, 1/01/25	1,600	1,524,768
		12,654,939
Puerto Rico 1.2%		
Puerto Rico Public Buildings Authority, Refunding RB, Series Q, 5.63%, 7/01/39	985	1,005,784
Puerto Rico Sales Tax Financing Corp., RB, First Sub-Series A, 6.50%, 8/01/44	1,000	1,129,710
		2,135,494
Rhode Island 0.8%		
Central Falls Detention Facility Corp., Refunding RB, 7.25%, 7/15/35	1,750	1,501,518
South Carolina 0.5%		
Connector 2000 Association Inc., RB, CAB, Senior Series B, 9.86%, 1/01/14 (b)(d)(e)	1,075	177,375
South Carolina Jobs, EDA, Refunding RB, Palmetto Health, 5.50%, 8/01/26	670	664,821
		842,196
Tennessee 0.1%		
Shelby County Health Educational & Housing Facilities Board, RB, Village at Germantown, 6.25%, 12/01/34	245	209,012

See Notes to Financial Statements.

Schedule of Investments (continued)

BlackRock Apex Municipal Fund, Inc. (APX)
(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Texas 10.1%		
Bexar County Health Facilities Development Corp., RB, Army Retirement Residence Project, 6.20%, 7/01/45	\$ 2,055	\$ 2,074,831
Brazos River Authority, Refunding RB, Texas Utility Co., Series, AMT, 7.70%, 4/01/33	2,530	1,506,615
Central Texas Regional Mobility Authority, RB:		
CAB, 7.48%, 1/01/28 (b)	1,000	282,670
CAB, 7.78%, 1/01/33 (b)	2,150	410,435
CAB, 7.79%, 1/01/34 (b)	4,000	708,200
Senior Lien, 5.75%, 1/01/25	450	454,612
City of Houston Texas, RB, Special Facilities, Continental Airlines, Series E, AMT, 6.75%, 7/01/21	1,865	1,858,566
Danbury Higher Education Authority Inc., RB, A.W. Brown Fellowship Charter, Series A (ACA), 5.13%, 8/15/36	1,000	1,133,290
Harris County Health Facilities Development Corp., Refunding RB, Memorial Hermann Healthcare System B, 7.25%, 12/01/35	1,110	1,251,159
Matagorda County Navigation District No. 1 Texas, Refunding RB, Central Power & Light Co. Project, Series A, 6.30%, 11/01/29	850	920,142
North Texas Tollway Authority, RB, Toll, 2nd Tier, Series F, 6.13%, 1/01/31	1,650	1,759,791
Tarrant County Cultural Education Facilities Finance Corp., RB, Series A:		
CC Young Memorial Home, 8.00%, 2/15/38	710	702,218
Senior Living Center Project, 8.25%, 11/15/44	1,710	1,692,541
Texas Private Activity Bond Surface Transportation Corp., RB, Senior Lien, Note Mobility, 6.88%, 12/31/39	1,605	1,676,776
Texas State Public Finance Authority, Refunding ERB, KIPP Inc., Series A (ACA), 5.00%, 2/15/28	2,250	2,068,065
		18,499,911
U.S. Virgin Islands 1.3%		
United States Virgin Islands, Refunding RB, Senior Secured, Hovensa Coker Project, AMT, 6.50%, 7/01/21	2,100	2,127,384
Virgin Islands Public Finance Authority, RB, Senior Lien, Capital Projects, Series A-1, 5.00%, 10/01/39	340	321,966
		2,449,350
Utah 1.2%		
County of Carbon Utah, Refunding RB, Laidlaw Environmental, Series A, AMT, 7.45%, 7/01/17	2,240	2,244,368
Virginia 2.7%		
	2,330	2,206,627

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

Dulles Town Center Community Development Authority, Special Assessment Bonds, Dulles Town Center Project, 6.25%, 3/01/26		
Tobacco Settlement Financing Corp. Virginia, Refunding RB, Senior Series B1, 5.00%, 6/01/47	4,040	2,780,853
		4,987,480

Wisconsin 2.2%

Wisconsin Health & Educational Facilities Authority, RB: New Castle Place Project, Series A, 7.00%, 12/01/31	1,320	1,270,262
Wheaton Franciscan Healthcare, 5.25%, 8/15/34	2,540	2,303,805
Wisconsin Health & Educational Facilities Authority, Refunding RB, St. John's Communities Inc., Series A: 7.25%, 9/15/29	175	178,980
7.63%, 9/15/39	350	363,157
		4,116,204

Wyoming 1.3%

County of Sweetwater Wyoming, Refunding RB, FMC Corp. Project, AMT, 5.60%, 12/01/35	2,500	2,401,450
----------------------------------------------------------------------------------------	-------	-----------

Total Municipal Bonds 94.4% 173,311,593

Municipal Bonds Transferred to Tender Option Bond Trusts (h)	Par (000)	Value
-----------------------------------------------------------------	--------------	-------

District of Columbia 1.7%

District of Columbia Water & Sewer Authority, RB, Series A, 6.00%, 10/01/35	\$ 2,730	\$ 3,075,819
--------------------------------------------------------------------------------	----------	--------------

Florida 3.3%

County of Miami-Dade Florida, RB, Miami International Airport, Series A, AMT (AGC), 5.25%, 10/01/33	6,130	6,113,326
--------------------------------------------------------------------------------------------------------	-------	-----------

Virginia 3.1%

Virginia HDA, RB, Sub-Series H-1 (NPFGC), 5.38%, 7/01/36	5,710	5,753,624
-------------------------------------------------------------	-------	-----------

**Total Municipal Bonds Transferred to
Tender Option Bond Trusts 8.1%** 14,942,769

**Total Long-Term Investments
(Cost \$191,036,266) 102.5%** 188,254,362

Short-Term Securities	Shares
-----------------------	--------

FII Institutional Tax-Exempt Fund, 0.25% (i)(j)	648,958	648,958
-------------------------------------------------	---------	---------

**Total Short-Term Securities
(Cost \$648,958) 0.4%** 648,958

Total Investments (Cost \$191,685,224*)	102.9%	188,903,320
Other Assets Less Liabilities	1.1%	2,009,210
Liability for Trust Certificates, Including Interest Expense and Fees Payable	(4.0)%	(7,290,410)
Net Assets	100.0%	\$ 183,622,120

* The cost and unrealized appreciation (depreciation) of investments as of April 30, 2010, as computed for federal income tax purposes, were as follows:

Aggregate cost	\$ 183,704,275
Gross unrealized appreciation	\$ 9,676,376
Gross unrealized depreciation	(11,762,777)
Net unrealized depreciation	\$ (2,086,401)

- (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.
- (b) Represents a zero-coupon bond. Rate shown reflects the current yield as of report date.
- (c) When-issued security. Net unsettled when-issued transactions were as follows:

Counterparty	Value	Unrealized Appreciation
BB&T Capital Markets	\$ 208,289	\$ 313
Morgan Stanley Capital Services, Inc.	\$ 624,625	\$ 4,625
Raymond C. Forbes	\$ 1,805,505	\$ 31,226

- (d) Issuer filed for bankruptcy and/or is in default of interest payments.
- (e) Non-income producing security.
- (f) Security represents a beneficial interest in a trust. The collateral deposited into the trust is federally tax-exempt revenue bonds issued by various state or local governments, or their respective agencies or authorities. The security is subject to remarketing prior to its stated maturity.
- (g) Variable rate security. Rate shown is as of report date.

See Notes to Financial Statements.

Schedule of Investments (concluded)

BlackRock Apex Municipal Fund, Inc. (APX)

- (h) Securities represent bonds transferred to a tender option bond trust in exchange for which the Fund acquired residual interest certificates. These securities serve as collateral in a financing transaction. See Note 1 of the Notes to Financial Statements for details of municipal bonds transferred to tender option bond trusts.
- (i) Investments in companies considered to be an affiliate of the Fund during the year, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, were as follows:

Affiliate	Shares Held at April 30, 2009	Net Activity	Shares Held at April 30, 2010	Income
FFI Institutional Tax-Exempt Fund	100,006	548,952	648,958	\$ 2,997

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

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 Note 1 of the Notes to Financial Statements.

The following table summarizes the inputs used as of April 30, 2010 in determining the fair valuation of the Fund's investments:

Valuation Inputs	Investments in Securities			
	Level 1	Level 2	Level 3	Total
Assets:				
Long-Term Investments ¹		\$ 188,254,362		\$ 188,254,362
Short-Term Securities	\$ 648,958			648,958
Total	\$ 648,958	\$ 188,254,362		\$ 188,903,320

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

See Notes to Financial Statements.

ANNUAL REPORT

APRIL 30, 2010

17

Schedule of Investments April 30, 2010

BlackRock MuniAssets Fund, Inc. (MUA)
(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Alabama 0.4%		
County of Jefferson Alabama, RB, Series A:		
5.25%, 1/01/13	\$ 635	\$ 601,904
5.25%, 1/01/17	530	480,530
		1,082,434
Alaska 0.1%		
Alaska Industrial Development & Export Authority, RB, Williams Lynxs Alaska Cargoport, AMT, 7.80%, 5/01/14		
	395	389,462
Arizona 6.3%		
Coconino County Pollution Control Corp. Arizona, Refunding RB, Tucson Electric Power-Navajo, Series A, AMT, 7.13%, 10/01/32		
	3,000	3,001,380
Maricopa County IDA Arizona, RB, Arizona Charter Schools Project, Series A, 6.63%, 7/01/20		
	1,625	1,251,981
Phoenix IDA Arizona, Refunding RB, America West Airlines Inc. Project, AMT, 6.30%, 4/01/23		
	4,800	3,753,744
Pima County IDA, RB, Arizona Charter Schools Project, Series E, 7.25%, 7/01/31		
	1,375	1,380,115
Pima County IDA, Refunding IDR, Tucson Electric Power, 5.75%, 9/01/29		
	670	681,779
Pima County IDA, Refunding RB: Arizona Charter Schools Project, Series O, 5.25%, 7/01/31		
	500	398,950
Charter Schools II, Series A, 6.75%, 7/01/31		
	670	646,195
Salt Verde Financial Corp., RB, Senior: 5.00%, 12/01/32		
	2,840	2,575,709
5.00%, 12/01/37		
	1,850	1,640,487
Show Low Improvement District, Special Assessment Bonds, District No. 5, 6.38%, 1/01/15		
	745	745,477
University Medical Center Corp. Arizona, RB: 6.25%, 7/01/29		
	280	298,052
6.50%, 7/01/39		
	500	532,990
		16,906,859
California 4.4%		
California Health Facilities Financing Authority, RB, Cedars-Sinai Medical Center, 5.00%, 8/15/39		
	640	618,938
California Statewide Communities Development Authority, Refunding RB: American Baptist Homes of the West, 6.25%, 10/01/39		
	1,290	1,281,331
Senior Living, Southern California, 7.00%, 11/15/29		
	600	644,442

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

Senior Living, Southern California, 7.25%, 11/15/41	2,060	2,234,029
City of Fontana California, Special Tax Bonds, Refunding, Community Facilities District No. 22-Sierra, Series H, 6.00%, 9/01/34	1,320	1,261,432
State of California, GO: 4.50%, 10/01/36	2,555	2,289,433
Various Purpose, 6.00%, 3/01/33	3,075	3,384,683
		<u>11,714,288</u>

Colorado 2.6%

Elk Valley Public Improvement Corp., RB, Public Improvement Fee:		
Series A, 7.10%, 9/01/14	1,395	1,424,532
Series A, 7.30%, 9/01/22	2,095	2,048,533
Series B, 7.45%, 9/01/31	200	186,542
Plaza Metropolitan District No. 1 Colorado, Tax Allocation Bonds, Tax Increment:		
Public Improvement Fee, 8.00%, 12/01/25	2,850	2,853,192
Subordinate Public Improvement Fee, 8.13%, 12/01/25	525	500,724
		<u>7,013,523</u>

Municipal Bonds	Par (000)	Value
Connecticut 2.9%		
Connecticut State Development Authority, RB, AFCO Cargo BDL LLC Project, AMT, 8.00%, 4/01/30	\$ 3,490	\$ 3,297,945
Harbor Point Infrastructure Improvement District, Tax Allocation Bonds, Harbor Point Project, Series A, 7.88%, 4/01/39	2,340	2,450,893
Mohegan Tribe of Indians of Connecticut, RB, Public Improvement, Priority Distribution, 6.25%, 1/01/31	2,610	2,098,075
		<u>7,846,913</u>

District of Columbia 2.2%

District of Columbia, RB, Methodist Home District of Columbia, Series A:		
7.38%, 1/01/30	985	998,583
7.50%, 1/01/39	1,615	1,638,789
District of Columbia Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, 6.50%, 5/15/33	1,055	1,035,208
Metropolitan Washington Airports Authority, RB, CAB, 2nd Senior Lien, Series B (AGC), 6.54%, 10/01/30 (a)	7,000	2,126,810
		<u>5,799,390</u>

Florida 9.0%

Capital Region Community Development District Florida, Special Assessment Bonds, Capital Improvement, Series A, 7.00%, 5/01/39	945	886,278
County of Miami-Dade Florida, Refunding RB, Miami International Airport, Series A-1, 5.38%, 10/01/41	705	713,100
	1,180	1,102,887

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

Greater Orlando Aviation Authority Florida, RB, Special Purpose, JetBlue Airways Corp., AMT, 6.38%, 11/15/26		
Harbor Bay Community Development District Florida, Special Assessment Bonds, Series A, 7.00%, 5/01/33	455	455,332
Hillsborough County IDA, RB: National Gypsum Co., Series A, AMT, 7.13%, 4/01/30	2,000	1,742,020
National Gypsum Co., Series B, AMT, 7.13%, 4/01/30	1,540	1,341,355
Tampa General Hospital Project, 5.00%, 10/01/36	2,670	2,492,071
Jacksonville Economic Development Commission, RB, Gerdau Ameristeel US Inc., AMT, 5.30%, 5/01/37	1,300	1,005,212
Jacksonville Economic Development Commission, Refunding RB, Florida Proton Therapy Institute, Series A, 6.00%, 9/01/17	850	867,077
Lee County IDA Florida, RB, Series A, Lee Charter Foundation, 5.38%, 6/15/37	2,620	2,005,165
Main Street Community Development District, Special Assessment Bonds, Series B, 6.90%, 5/01/17	500	469,165
Midtown Miami Community Development District, Special Assessment Bonds, Series A, 6.25%, 5/01/37	3,255	3,054,036
Santa Rosa Bay Bridge Authority, RB, 6.25%, 7/01/28	3,040	1,655,432
Sarasota County Health Facilities Authority, Refunding RB, Village On The Isle Project: 5.50%, 1/01/27	860	781,293
5.50%, 1/01/32	795	704,879
Sarasota County Public Hospital District, RB, Sarasota Memorial Hospital Project, Series A, 5.63%, 7/01/39	695	720,374
Sumter Landing Community Development District Florida, RB, Sub-Series B, 5.70%, 10/01/38	2,380	1,863,064
Tolomato Community Development District, Special Assessment Bonds, Special Assessment, 6.65%, 5/01/40	2,680	2,132,744
		23,991,484

See Notes to Financial Statements.

Schedule of Investments (continued)

BlackRock MuniAssets Fund, Inc. (MUA)
(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Georgia 4.2%		
City of Atlanta Georgia, Tax Allocation Bonds, Princeton Lakes Project, 5.50%, 1/01/31	\$ 640	\$ 561,792
Clayton County Development Authority, RB, Delta Air Lines Inc. Project, Series A, 8.75%, 6/01/29	1,990	2,122,972
County of Clayton Georgia, Tax Allocation Bonds, Ellenwood Project, 7.50%, 7/01/33	2,375	2,257,461
DeKalb County Hospital Authority Georgia, RB, DeKalb Medical Center Inc. Project, 6.13%, 9/01/40 (b)	2,625	2,625,735
Gainesville & Hall County Development Authority, Refunding RB, Acts Retirement Life Community, Series A-2: 6.38%, 11/15/29	700	727,076
6.63%, 11/15/39	235	244,160
Rockdale County Development Authority, RB, Visy Paper Project, Series A, AMT, 6.13%, 1/01/34	2,435	2,245,606
Thomasville Hospital Authority, RB, Anticipation Certificates, John D. Archbold, 5.38%, 11/01/40 (b)	300	297,555
		<u>11,082,357</u>
Guam 1.9%		
Guam Government Waterworks Authority, Refunding RB, Water: 6.00%, 7/01/25	750	766,267
5.88%, 7/01/35	1,150	1,128,115
Territory of Guam, GO, Series A: 6.00%, 11/15/19	365	377,852
6.75%, 11/15/29	635	675,361
7.00%, 11/15/39	660	704,774
Territory of Guam, RB, Section 30, Series A, 5.63%, 12/01/29	1,460	1,487,536
		<u>5,139,905</u>
Illinois 4.8%		
City of Chicago Illinois, Refunding RB, American Airlines Inc. Project, 5.50%, 12/01/30	4,140	3,075,606
Illinois Finance Authority, RB: Clare at Water Tower Project, Series A, 6.13%, 5/15/38 (c)(d)	2,950	1,176,843
Roosevelt University Project, 6.50%, 4/01/44	2,470	2,590,314
Rush University Medical Center Obligation Group, Series B, 7.25%, 11/01/30	1,170	1,332,279
Illinois Finance Authority, Refunding RB: Friendship Village of Schaumburg, 7.25%, 2/15/45	2,370	2,351,775
	685	609,465

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

Primary Health Care Centers Program, 6.60%,
7/01/24

Village of Lincolnshire Illinois, Special Tax Bonds, Sedgebrook Project, 6.25%, 3/01/34	1,070	864,196
Village of Wheeling Illinois, Tax Allocation Bonds, North Milwaukee/Lake-Cook TIF Project, 6.00%, 1/01/25	825	752,821
		12,753,299

Indiana 0.8%

Indiana Finance Authority, Refunding RB, Improvement, U.S. Steel Corp., 6.00%, 12/01/26 (b)	900	906,714
Vigo County Hospital Authority Indiana, RB, Union Hospital Inc.: 5.70%, 9/01/37	615	534,164
5.75%, 9/01/42	765	655,116
		2,095,994

Municipal Bonds	Par (000)	Value
------------------------	----------------------	--------------

Kentucky 0.7%

Kentucky Economic Development Finance Authority, Refunding RB, Owensboro Medical Health System: Series A, 6.38%, 6/01/40	\$ 935	\$ 961,180
Series B, 6.38%, 3/01/40	885	909,780
		1,870,960

Louisiana 1.2%

Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Westlake Chemical Corp. Projects, 6.75%, 11/01/32	3,000	3,084,960
----------------------------------------------------------------------------------------------------------------------------------------------------	-------	-----------

Maryland 1.3%

Maryland EDC, RB, Transportation Facilities Project, Series A, 5.75%, 6/01/35	615	628,179
Maryland EDC, Refunding RB, Health & Mental Hygiene Program, Series A, 7.75%, 3/01/25	1,480	1,495,570
Maryland Health & Higher Educational Facilities Authority, RB, Washington Christian Academy, 5.50%, 7/01/38	590	253,712
Maryland State Energy Financing Administration, RB, Cogeneration, AES Warrior Run, AMT, 7.40%, 9/01/19	1,080	1,080,313
		3,457,774

Massachusetts 0.6%

Massachusetts Development Finance Agency, Refunding RB, Eastern Nazarene College, 5.63%, 4/01/29	500	402,565
Massachusetts Health & Educational Facilities Authority, RB, Jordan Hospital, Series E, 6.75%, 10/01/33	1,150	1,126,747
		1,529,312

Michigan 2.7%

Advanced Technology Academy, RB, 6.00%, 11/01/37	900	803,808
	545	574,839

Edgar Filing: BLACKROCK APEX MUNICIPAL FUND INC - Form N-CSR

County of Wayne Michigan, GO, Building Improvement,
Series A, 6.75%, 11/01/39

Monroe County Hospital Finance Authority, Refunding RB,
Mercy Memorial Hospital Corp. Obligation, 5.50%,
6/01/35

1,740 1,433,395

Royal Oak Hospital Finance Authority Michigan, Refunding
RB, William Beaumont Hospital, 8.25%, 9/01/39

3,735 4,408,532

7,220,574

Minnesota 0.8%

City of Minneapolis Minnesota, Refunding RB, Fairview
Health Services, Series A, 6.75%, 11/15/32

1,785 1,992,078

Missouri 0.8%

Kansas City IDA Missouri, RB, First Mortgage, Bishop
Spencer, Series A, 6.50%, 1/01/35

1,000 887,200

Kirkwood IDA Missouri, RB, Aberdeen Heights, Series A,
8.25%, 5/15/39

1,370 1,363,931

2,251,131

Multi-State 0.3%

MuniMae TE Bond Subsidiary LLC, 7.50%,
6/30/49 (e)(f)(g)

960 890,681

Nevada 0.2%

County of Clark Nevada, Special Assessment Bonds,
Special Improvement District No. 142, Local
Improvement, 6.38%, 8/01/23

610 576,834

New Hampshire 0.4%

New Hampshire Health & Education Facilities Authority,
RB, Catholic Medical Center, 5.00%, 7/01/36

1,165 990,355

See Notes to Financial Statements.

ANNUAL REPORT

APRIL 30, 2010

19

Schedule of Investments (continued)

BlackRock MuniAssets Fund, Inc. (MUA)
 (Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
New Jersey 7.3%		
New Jersey EDA, RB, Continental Airlines Inc. Project, AMT:		
6.25%, 9/15/19	\$ 2,000	\$ 1,921,780
6.40%, 9/15/23	1,000	959,630
6.25%, 9/15/29	3,330	3,123,873
9.00%, 6/01/33	1,250	1,315,862