

BLACKROCK MUNIASSETS FUND, INC.  
Form N-CSRS  
January 05, 2018

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: 811-07642

Name of Fund: BlackRock MuniAssets Fund, Inc. (MUA)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock MuniAssets Fund,  
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Registrant's telephone number, including area code: (800) 882-0052, Option 4

Date of fiscal year end: 04/30/2018

Date of reporting period: 10/31/2017

Item 1 Report to Stockholders

OCTOBER 31, 2017

**SEMI-ANNUAL REPORT (UNAUDITED)**

**BlackRock MuniAssets Fund, Inc. (MUA)**

**BlackRock MuniEnhanced Fund, Inc. (MEN)**

**BlackRock MuniHoldings Fund, Inc. (MHD)**

**BlackRock MuniHoldings Fund II, Inc. (MUH)**

**BlackRock MuniHoldings Quality 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**

## The Markets in Review

Dear Shareholder,

In the 12 months ended October 31, 2017, risk assets, such as stocks and high-yield bonds, continued to deliver strong performance. These markets showed great resilience during a period with big political surprises, including the aftermath of the U.K.'s vote to leave the European Union and the outcome of the U.S. presidential election, which brought only brief spikes in equity market volatility. In contrast, closely watched elections in France, the Netherlands, and Australia countered the isolationist and nationalist political developments in the U.K. and the United States.

Interest rates rose, which worked against high-quality assets with more interest rate sensitivity. Consequently, longer-term U.S. Treasuries posted negative returns, as rising energy prices, modest wage increases, and steady job growth led to expectations of higher inflation and further interest rate increases by the U.S. Federal Reserve (the Fed).

The market's performance reflected reflationary expectations early in the reporting period, as investors began to sense that a global recovery was afoot. Thereafter, many countries throughout the world experienced sustained and synchronized growth for the first time since the financial crisis. Growth rates and inflation are still relatively low, but they are finally rising together.

The Fed responded to these positive developments by increasing short-term interest rates three times and setting expectations for additional interest rate increases. The Fed also began reducing the vast balance sheet reserves that had accumulated in the wake of the financial crisis. In October 2017, the Fed reduced its \$4.5 trillion balance sheet by only \$10 billion, while setting expectations for additional modest reductions and rate hikes in 2018.

By contrast, the European Central Bank (ECB) and the Bank of Japan (BoJ) both continued to expand their balance sheets despite nascent signs of sustained economic growth. The Eurozone and Japan are both approaching the limits of central banks' ownership share of debt issued by their respective governments, which is a structural pressure point that limits their capacity to deliver additional monetary stimulus. In October 2017, the ECB announced plans to cut the amount of its bond purchases in half for 2018, while the BoJ reiterated its commitment to economic stimulus until the inflation rate rises to its target of 2.0%.

Emerging market growth also stabilized, as accelerating growth in China, the second largest economy in the world and the most influential of all developing economies, improved the outlook for corporate profits and economic growth across most developing nations. Chinese demand for commodities and other raw materials allayed concerns about the country's banking system, leading to rising equity prices and foreign investment flows.

While escalating tensions between the United States and North Korea and our nation's divided politics are significant concerns, benign credit conditions, modest inflation, solid corporate earnings, and the positive outlook for growth in the world's largest economies have kept markets relatively tranquil.

High valuations across most assets have laid the groundwork for muted returns going forward. At current valuation levels, potential equity gains will likely be closely tied to the pace of earnings growth, which has remained solid thus far in 2017, particularly in emerging markets. In this environment, investors need to think globally, extend their scope across a broad array of asset classes, and be nimble as market conditions change. We encourage you to talk with your financial advisor and visit [blackrock.com](http://blackrock.com) for further insight about investing in today's markets.

Sincerely,

Rob Kapito

President, BlackRock Advisors, LLC

Rob Kapito

President, BlackRock Advisors, LLC

**Total Returns as of October 31, 2017**

	<b>6-month</b>	<b>12-month</b>
U.S. large cap equities (S&P 500® Index)	9.10%	23.63%
U.S. small cap equities (Russell 2000® Index)	8.01	27.85
International equities (MSCI Europe, Australasia, Far East Index)	10.74	23.44
Emerging market equities (MSCI Emerging Markets Index)	16.14	26.45
3-month Treasury bills (BofA Merrill Lynch 3-Month U.S. Treasury Bill Index)	0.49	0.72
U.S. Treasury securities (BofA Merrill Lynch 10-Year U.S. Treasury Index)	0.15	(2.98)
U.S. investment grade bonds (Bloomberg Barclays U.S. Aggregate Bond Index)	1.58	0.90
Tax-exempt municipal bonds (S&P Municipal Bond Index)	2.22	1.80
U.S. high yield bonds (Bloomberg Barclays U.S. Corporate High Yield 2% Issuer Capped Index)	3.44	8.92

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

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Municipal Market Overview For the Reporting Period Ended October 31, 2017

**Municipal Market Conditions**

Municipal bonds experienced modestly positive performance for the period as a result of rising interest rates spurring from generally stronger economic data, signs of inflation pressures, Fed monetary policy normalization, and market expectations for pro-growth fiscal policy. However, ongoing reassurance from the Fed that rates would be increased gradually and would likely remain low overall resulted in continued demand for fixed income investments. More specifically, investors favored the income, attractive relative yield, and stability of municipal bonds amid bouts of interest rate volatility (bond prices rise as rates fall) resulting from geopolitical tensions, the contentious U.S. election, and evolving global central bank policies. During the 12 months ended October 31, 2017, municipal bond funds experienced net outflows of approximately \$3 billion (based on data from the Investment Company Institute). The asset class came under pressure post the November U.S. election as a result of uncertainty surrounding potential tax-reform, though expectation that tax reform was likely to be delayed or watered down quickly eased investor concerns.

For the same 12-month period, total new issuance remained healthy from a historical perspective at \$376 billion (though well below the robust \$441 billion issued in the prior 12-month period). A noteworthy portion of new supply during this period was attributable to refinancing activity (roughly 51%) as issuers continued to take advantage of low interest rates and a flat yield curve to reduce their borrowing costs.

S&P Municipal Bond Index  
Total Returns as of October 31, 2017  
6 months: 2.22%  
12 months: 1.80%

**A Closer Look at Yields**

From October 31, 2016 to October 31, 2017, yields on AAA-rated 30-year municipal bonds increased by 27 basis points ( bps ) from 2.56% to 2.83%, while 10-year rates rose by 28 bps from 1.73% to 2.01% and 5-year rates increased 29 bps from 1.13% to 1.42% (as measured by Thomson Municipal Market Data). The municipal yield curve steepened modestly over the 12-month period with the spread between 2- and 30-year maturities steepening by just 2 bps.

During the same time period, on a relative basis, tax-exempt municipal bonds strongly outperformed U.S. Treasuries with the greatest outperformance experienced in the front and intermediate portions of the yield curve. The relative positive performance of municipal bonds was driven largely by a supply/demand imbalance within the municipal market as investors sought income and incremental yield in an environment where opportunities became increasingly scarce. The asset class is known for its lower relative volatility and preservation of principal with an emphasis on

income as tax rates rise.

### **Financial Conditions of Municipal Issuers**

The majority of municipal credits remain strong, despite well-publicized distress among a few issuers. Four of the five states with the largest amount of debt outstanding—California, New York, Texas and Florida—have exhibited markedly improved credit fundamentals during the slow national recovery. However, several states with the largest unfunded pension liabilities have seen their bond prices decline noticeably and remain vulnerable to additional price deterioration. On the local level, Chicago's credit quality downgrade is an outlier relative to other cities due to its larger pension liability and inadequate funding remedies. BlackRock maintains the view that municipal bond defaults will remain minimal and in the periphery while the overall market is fundamentally sound. We continue to advocate careful credit research and believe that a thoughtful approach to structure and security selection remains imperative amid uncertainty in a modestly improving economic environment.

The opinions expressed are those of BlackRock as of October 31, 2017, and are subject to change at any time due to changes in market or economic conditions. The comments should not be construed as a recommendation of any individual holdings or market sectors. Investing involves risk including loss of principal. Bond values fluctuate in price so the value of your investment can go down depending on market conditions. Fixed income risks include interest-rate and credit risk. Typically, when interest rates rise, there is a corresponding decline in bond values. Credit risk refers to the possibility that the bond issuer will not be able to make principal and interest payments. There may be less information on the financial condition of municipal issuers than for public corporations. The market for municipal bonds may be less liquid than for taxable bonds. Some investors may be subject to Alternative Minimum Tax (AMT). Capital gains distributions, if any, are taxable.

The Standard & Poor's Municipal Bond Index, a broad, market value-weighted index, seeks to measure the performance of the U.S. municipal bond market. All bonds in the index are exempt from U.S. federal income taxes or subject to the AMT. Past performance is no guarantee of future results. Index performance is shown for illustrative purposes only. It is not possible to invest directly in an index.



## The Benefits and Risks of Leveraging

The Funds may utilize leverage to seek to enhance the distribution rate on, and net asset value ( NAV ) of, their common shares ( Common Shares ). However, these objectives cannot be achieved in all interest rate environments.

In general, the concept of leveraging is based on the premise that the financing cost of leverage, which is based on short-term interest rates, is normally lower than the income earned by a Fund on its longer-term portfolio investments purchased with the proceeds from leverage. To the extent that the total assets of the Funds (including the assets obtained from leverage) are invested in higher-yielding portfolio investments, the Funds' shareholders benefit from the incremental net income. The interest earned on securities purchased with the proceeds from leverage is paid to shareholders in the form of dividends, and the value of these portfolio holdings is reflected in the per share NAV.

To illustrate these concepts, assume a Fund's Common Shares capitalization is \$100 million and it utilizes leverage for an additional \$30 million, creating a total value of \$130 million available for investment in longer-term income securities. If prevailing short-term interest rates are 3% and longer-term interest rates are 6%, the yield curve has a strongly positive slope. In this case, a Fund's financing costs on the \$30 million of proceeds obtained from leverage are based on the lower short-term interest rates. At the same time, the securities purchased by a Fund with the proceeds from leverage earn income based on longer-term interest rates. In this case, a Fund's financing cost of leverage is significantly lower than the income earned on a Fund's longer-term investments acquired from such leverage proceeds, and therefore the holders of Common Shares ( Common Shareholders ) are the beneficiaries of the incremental net income.

However, in order to benefit Common Shareholders, the return on assets purchased with leverage proceeds must exceed the ongoing costs associated with the leverage. If interest and other costs of leverage exceed the Funds' return on assets purchased with leverage proceeds, income to shareholders is lower than if the Funds had not used leverage. Furthermore, the value of the Funds' 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 value of the Funds' obligations under their respective leverage arrangements generally does not fluctuate in relation to interest rates. As a result, changes in interest rates can influence the Funds' NAVs positively or negatively. Changes in the future direction of interest rates are very difficult to predict accurately, and there is no assurance that the Funds' intended leveraging strategy will be successful.

The use of leverage also generally causes greater changes in each Fund's NAV, market price and dividend rates than comparable portfolios without leverage. In a declining market, leverage is likely to cause a greater decline in the NAV and market price of a Fund's Common Shares than if the Fund were not leveraged. In addition, each Fund 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 the Fund to incur losses. The use of leverage may limit a Fund's ability to invest in certain types of securities or use certain types of hedging strategies. Each Fund incurs expenses in connection with the use of leverage, all of which are borne by Common Shareholders and may reduce income to the Common Shares. Moreover, to the extent the calculation of the Funds' investment advisory fees includes assets purchased with the proceeds of leverage, the investment advisory fees payable to the Funds' investment adviser will be higher than if the Funds did not use leverage.

To obtain leverage, each Fund has issued Variable Rate Demand Preferred Shares ( VRDP Shares ) and Variable Rate Muni Term Preferred Shares ( VMTP Shares ) (collectively, Preferred Shares ) and/or leveraged its assets through the use of tender option bond trusts ( TOB Trusts ) as described in the Notes to Financial Statements.

Under the Investment Company Act of 1940, as amended (the 1940 Act ), each Fund is permitted to issue debt up to 33 1/3% of its total managed assets or equity securities (e.g., Preferred Shares) up to 50% of its total managed assets. A Fund may voluntarily elect to limit its leverage to less than the maximum amount permitted under the 1940 Act. In addition, a Fund may also be subject to certain asset coverage, leverage or portfolio composition requirements imposed by the Preferred Shares governing instruments or by agencies rating the Preferred Shares, which may be more stringent than those imposed by the 1940 Act.

If a Fund segregates or designates on its books and records cash or liquid assets having a value not less than the value of a Fund's obligations under the TOB Trust (including accrued interest), then the TOB Trust is not considered a senior security and is not subject to the foregoing limitations and requirements imposed by the 1940 Act.

#### Derivative Financial Instruments

The Funds may invest in various derivative financial instruments. These instruments are used to obtain exposure to a security, commodity, index, market, and/or other asset without owning or taking physical custody of securities, commodities and/or other referenced assets or to manage market, equity, credit, interest rate, foreign currency exchange rate, commodity and/or other risks. Derivative financial instruments may give rise to a form of economic leverage and involve risks, including the imperfect correlation between the value of a derivative financial instrument and the underlying asset, possible default of the counterparty to the transaction or illiquidity of the instrument. The Funds' successful use of a derivative financial instrument depends on the investment adviser's ability to predict pertinent market movements accurately, which cannot be assured. The use of these instruments may result in losses greater than if they had not been used, may limit the amount of appreciation a Fund can realize on an investment and/or may result in lower distributions paid to shareholders. The Funds' investments in these instruments, if any, are discussed in detail in the Notes to Financial Statements.

Fund Summary as of October 31, 2017

**BlackRock MuniAssets Fund, Inc.****Investment Objective**

**BlackRock MuniAssets Fund, Inc. s (MUA) (the Fund )** investment objective is to provide high current income exempt from U.S. 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 U.S. federal income taxes. The Fund seeks to achieve its investment objective by investing, under normal market conditions, at least 80% of its assets in municipal bonds exempt from U.S. federal income taxes (except that the interest may be subject to the U.S. federal alternative minimum tax). The Fund invests at least 65% of its assets in municipal bonds that are rated in the medium to lower rating categories by nationally recognized rating services (for example, Baa or lower by Moody s Investors Service, Inc. ( Moody s ) or BBB or lower by Standard & Poor s Corporation ( S&P ), or securities that are unrated but are deemed by the investment adviser to be of comparable quality at the time of investment. The Fund may invest directly in such securities or synthetically through the use of derivatives.

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

**Fund Information**

Symbol on New York Stock Exchange ( NYSE )	MUA
Initial Offering Date	June 25, 1993
Yield on Closing Market Price as of October 31, 2017 (\$14.94) <sup>(a)</sup>	4.62%
Tax Equivalent Yield <sup>(b)</sup>	8.16%
Current Monthly Distribution per Common Share <sup>(c)</sup>	\$0.0575
Current Annualized Distribution per Common Share <sup>(c)</sup>	\$0.6900
Economic Leverage as of October 31, 2017 <sup>(d)</sup>	12%

<sup>(a)</sup> 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.

<sup>(b)</sup> Tax equivalent yield assumes the maximum marginal U.S. federal tax rate of 43.4%, which includes the 3.8% Medicare tax. Actual tax rates will vary based on income, exemptions and deductions. Lower taxes will result in lower tax equivalent yields.

<sup>(c)</sup> The monthly distribution per Common Share, declared on December 1, 2017, was decreased to \$0.0545 per share. 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 change in the future.

<sup>(d)</sup> Represents TOB Trusts as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to TOB Trusts, minus the sum of its accrued liabilities. For a discussion of leveraging techniques utilized by the Fund, please see The Benefits and Risks of Leveraging on page 5.

**Performance**

Returns for the six months ended October 31, 2017 were as follows:

Returns Based On

	<i>Market Price</i>	<i>NAV</i>
MUA <sup>(a)(b)</sup>	3.26%	3.01%
Lipper Closed-End High Yield Municipal Debt Funds <sup>(c)</sup>	3.73%	3.64%

(a) All returns reflect reinvestment of dividends and/or distributions at actual reinvestment prices.

(b) The Fund's premium to NAV widened during the period, which accounts for the difference between performance based on market price and performance based on NAV.

(c) Average return. Returns reflect reinvestment of dividends and/or distributions at NAV on the ex-dividend as calculated by Lipper.

Past performance is not indicative of future results. Performance results may include adjustments made for financial reporting purposes in accordance with U.S. generally accepted accounting principles.

**The following discussion relates to the Fund's absolute performance based on NAV:**

U.S. municipal bonds rallied in the six-month period due to the combination of fading prospects for tax reform during the early spring and summer, a positive balance of supply and demand in the market, and budget agreements in Illinois and Connecticut. Longer-term bonds outpaced shorter-term issues, reflecting the backdrop of muted inflation data and expectations for continued monetary policy tightening by the Fed.

The Fund's positions in longer-dated securities made the largest contribution to performance, as bonds in the 20- to 40-year maturity range outpaced the broader market.

Investments in lower-rated investment-grade, below investment-grade and non-rated securities benefited performance at a time of robust investor risk appetites. Credit spreads narrowed considerably amid strong fund flows and investors' ongoing search for yield.

At the sector level, the largest contributions came from health care, transportation and tobacco issues. The Fund gained an additional benefit from investments in development districts and single-site project financings.

Investments in high-quality, pre-refunded securities in the one- to five-year range declined in value amid the upward pressure on short-term interest rates fostered by the ongoing normalization of monetary policy. These positions, which the Fund acquired in a higher-rate environment, were retained due to their above average income.

The Fund's modest exposure to general obligation bonds issued by Puerto Rico, which suffered large price declines in the wake of hurricane damage on the island, also detracted.

Fund Summary as of October 31, 2017 (continued)

**BlackRock MuniAssets Fund, Inc.**

The Fund sought to manage interest rate risk using U.S. Treasury futures, which had a small, positive effect on returns.

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.

**Market Price and Net Asset Value Per Share Summary**

	<i>10/31/17</i>	<i>4/30/17</i>	<i>Change</i>	<i>High</i>	<i>Low</i>
Market Price	\$ 14.94	\$ 14.82	0.81%	\$ 15.84	\$ 14.44
Net Asset Value	\$ 14.15	\$ 14.07	0.57%	\$ 14.29	\$ 14.05

**Market Price and Net Asset Value History For the Past Five Years****Overview of the Fund's Total Investments\*****SECTOR ALLOCATION**

<i>Sector</i>	<i>10/31/17</i>	<i>4/30/17</i>
Health	20%	22%
County/City/Special District/School District	18	13
Tobacco	17	16
Transportation	17	19
Education	9	10
Utilities	8	8
Corporate	7	7
State	3	3
Housing	1	2

For Fund compliance purposes, the Fund's sector classifications refer to one or more of the sector sub-classifications used by one or more widely recognized market indexes or rating group indexes, and/or as defined by the investment adviser. These definitions may not apply for purposes of this report, which may combine such sector sub-classifications for reporting

ease.

**CALL/MATURITY SCHEDULE** <sup>(c)</sup>

Calendar Year Ended December 31,

2017	14%
2018	8
2019	5
2020	13
2021	20

<sup>(c)</sup> Scheduled maturity dates and/or bonds that are subject to potential calls by issuers over the next five years.

\* Excludes short-term securities.

**CREDIT QUALITY ALLOCATION** <sup>(a)</sup>

<i>Credit Rating</i>	<i>10/31/17</i>	<i>4/30/17</i>
AA/Aa	20%	19%
A	6	8
BBB/Baa	21	21
BB/Ba	9	9
B/B	12	11
CCC/Caa		1
N/R <sup>(b)</sup>	32	31

<sup>(a)</sup> For financial reporting purposes, credit quality ratings shown above reflect the highest rating assigned by either S&P or Moody's if ratings differ. These rating agencies are independent, nationally recognized statistical rating organizations and are widely used. Investment grade ratings are credit ratings of BBB/Baa or higher. Below investment grade ratings are credit ratings of BB/Ba or lower. Investments designated N/R are not rated by either rating agency. Unrated investments do not necessarily indicate low credit quality. Credit quality ratings are subject to change.

<sup>(b)</sup> The investment adviser evaluates the credit quality of unrated investments based upon certain factors including, but not limited to, credit ratings for similar investments and financial analysis of sectors and individual investments. Using this approach, the investment adviser has deemed certain of these unrated securities as investment grade quality. As of October 31, 2017 and April 30, 2017, the market value of unrated securities deemed by the investment adviser to be investment grade represents 1% and 5%, respectively, of the Fund's total investments.

Fund Summary as of October 31, 2017

**BlackRock MuniEnhanced Fund, Inc.****Investment Objective**

**BlackRock MuniEnhanced Fund, Inc. s (MEN) (the Fund )** investment objective is to provide shareholders with as high a level of current income exempt from U.S. federal income taxes as is consistent with its investment policies and prudent investment management. The Fund seeks to achieve its investment objective by investing at least 80% of its assets in municipal bonds exempt from U.S. federal income taxes (except that the interest may be subject to the U.S. federal alternative minimum tax). Under normal market conditions, the Fund invests primarily in long-term municipal bonds rated investment grade quality or, if unrated, are deemed to be of comparable quality by the investment adviser at the time of investment and invests primarily in long-term municipal bonds with maturities of more than ten years at the time of investment. The Fund may invest directly in such securities or synthetically through the use of derivatives.

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

**Fund Information**

Symbol on NYSE	MEN
Initial Offering Date	March 2, 1989
Yield on Closing Market Price as of October 31, 2017 (\$11.75) <sup>(a)</sup>	5.77%
Tax Equivalent Yield <sup>(b)</sup>	10.19%
Current Monthly Distribution per Common Share <sup>(c)</sup>	\$0.0565
Current Annualized Distribution per Common Share <sup>(c)</sup>	\$0.6780
Economic Leverage as of October 31, 2017 <sup>(d)</sup>	38%

(a) 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.

(b) Tax equivalent yield assumes the maximum marginal U.S. federal tax rate of 43.4%, which includes the 3.8% Medicare tax. Actual tax rates will vary based on income, exemptions and deductions. Lower taxes will result in lower tax equivalent yields.

(c) The monthly distribution per Common Share, declared on December 1, 2017, was decreased to \$0.048 per share. 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 change in the future.

(d) Represents VRDP Shares and TOB Trusts as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to VRDP Shares and TOB Trusts, minus the sum of its accrued liabilities. For a discussion of leveraging techniques utilized by the Fund, please see The Benefits and Risks of Leveraging on

page 5.

**Performance**

Returns for the six months ended October 31, 2017 were as follows:

	Returns Based On	
	<i>Market Price</i>	<i>NAV</i>
MEN <sup>(a)(b)</sup>	3.40%	4.27%
Lipper General & Insured Municipal Debt Funds (Leveraged) <sup>(c)</sup>	2.34%	3.81%

(a) All returns reflect reinvestment of dividends and/or distributions at actual reinvestment prices.

(b) The Fund's discount to NAV widened during the period, which accounts for the difference between performance based on market price and performance based on NAV.

(c) Average return. Returns reflect reinvestment of dividends and/or distributions at NAV on the ex-dividend as calculated by Lipper.

Past performance is not indicative of future results. Performance results may include adjustments made for financial reporting purposes in accordance with U.S. generally accepted accounting principles.

**The following discussion relates to the Fund's absolute performance based on NAV:**

U.S. municipal bonds rallied in the six-month period due to the combination of fading prospects for tax reform during the early spring and summer, a positive balance of supply and demand in the market, and budget agreements in Illinois and Connecticut. Longer-term bonds outpaced shorter-term issues, reflecting the backdrop of muted inflation data and expectations for continued monetary policy tightening by the Fed.

Portfolio income, enhanced by leverage, produced the largest positive contribution to performance in a period characterized by a mild decline in municipal bond yields. (Prices and yields move in opposite directions.)

The Fund's exposure to the long end of the yield curve aided results at a time of outperformance for longer-term bonds. Positions in lower-coupon bonds, including zero-coupon issues, contributed to performance due to their above-average interest rate sensitivity.

The Fund's position in New Jersey state-appropriated debt benefited from a meaningful tightening of yield spreads. At the sector level, transportation issues made a strong contribution to performance. Municipal bonds subject to the AMT, which outperformed in anticipation of possible tax law changes, also performed well.

The Fund sought to manage interest rate risk using U.S. Treasury futures, which had a small, positive effect on returns.

Exposure to pre-refunded issues slightly hurt Fund results given the underperformance of short-term bonds.



Reinvestment was a further detractor, as the proceeds of higher-yielding bonds that matured or were called needed to be reinvested at materially lower prevailing rates.

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 Summary as of October 31, 2017 (continued)

**BlackRock MuniEnhanced Fund, Inc.****Market Price and Net Asset Value Per Share Summary**

	<i>10/31/17</i>	<i>4/30/17</i>	<i>Change</i>	<i>High</i>	<i>Low</i>
Market Price	\$ 11.75	\$ 11.69	0.51%	\$ 12.45	\$ 11.61
Net Asset Value	\$ 11.93	\$ 11.77	1.36%	\$ 12.11	\$ 11.75

**Market Price and Net Asset Value History For the Past Five Years****Overview of the Fund's Total Investments\*****SECTOR ALLOCATION**

<i>Sector</i>	<i>10/31/17</i>	<i>4/30/17</i>
Transportation	26%	24%
State	17	15
County/City/Special District/School District	15	18
Health	15	12
Utilities	12	15
Education	9	11
Corporate	3	3
Housing	2	1
Tobacco	1	1

For Fund compliance purposes, the Fund's sector classifications refer to one or more of the sector sub-classifications used by one or more widely recognized market indexes or rating group indexes, and/or as defined by the investment adviser. These definitions may not apply for purposes of this report, which may combine such sector sub-classifications for reporting ease.

**CALL/MATURITY SCHEDULE <sup>(c)</sup>**

Calendar Year Ended December 31,

2017	3%
2018	9
2019	15
2020	3
2021	12

(c) Scheduled maturity dates and/or bonds that are subject to potential calls by issuers over the next five years.

\* Excludes short-term securities.

**CREDIT QUALITY ALLOCATION** <sup>(a)</sup>

<i>Credit Rating</i>	<i>10/31/17</i>	<i>4/30/17</i>
AAA/Aaa	8%	11%
AA/Aa	50	57
A	24	17
BBB/Baa	10	12
BB/Ba	2	
N/R <sup>(b)</sup>	6	3

(a) For financial reporting purposes, credit quality ratings shown above reflect the highest rating assigned by either S&P or Moody's if ratings differ. These rating agencies are independent, nationally recognized statistical rating organizations and are widely used. Investment grade ratings are credit ratings of BBB/Baa or higher. Below investment grade ratings are credit ratings of BB/Ba or lower. Investments designated N/R are not rated by either rating agency. Unrated investments do not necessarily indicate low credit quality. Credit quality ratings are subject to change.

(b) The investment adviser evaluates the credit quality of unrated investments based upon certain factors including but not limited to, credit ratings for similar investments and financial analysis of sectors and individual investments. Using this approach, the investment adviser has deemed certain of these unrated securities as investment grade quality. As of October 31, 2017 and April 30, 2017, the market value of unrated securities deemed by the investment adviser to be investment grade each represents less than 1% of the Fund's total investments.

Fund Summary as of October 31, 2017

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

**BlackRock MuniHoldings Fund, Inc. s (MHD) (the Fund )** investment objective is to provide shareholders with current income exempt from U.S. federal income taxes. The Fund seeks to achieve its investment objective by investing at least 80% of its assets in municipal bonds exempt from U.S. federal income taxes (except that the interest may be subject to the U.S. federal alternative minimum tax). The Fund invests, under normal market conditions, at least 75% of its assets in municipal bonds rated investment grade or, if unrated, are deemed to be of comparable quality by the investment adviser at the time of investment and invests primarily in long-term municipal bonds with a maturity of more than ten years at the time of investment. The Fund may invest directly in such securities or synthetically through the use of derivatives.

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

**Fund Information**

Symbol on NYSE	MHD
Initial Offering Date	May 2, 1997
Yield on Closing Market Price as of October 31, 2017 (\$16.59) <sup>(a)</sup>	5.39%
Tax Equivalent Yield <sup>(b)</sup>	9.52%
Current Monthly Distribution per Common Share <sup>(c)</sup>	\$0.0745
Current Annualized Distribution per Common Share <sup>(c)</sup>	\$0.8940
Economic Leverage as of October 31, 2017 <sup>(d)</sup>	38%

<sup>(a)</sup> 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.

<sup>(b)</sup> Tax equivalent yield assumes the maximum marginal U.S. federal tax rate of 43.4%, which includes the 3.8% Medicare tax. Actual tax rates will vary based on income, exemptions and deductions. Lower taxes will result in lower tax equivalent yields.

<sup>(c)</sup> The distribution rate is not constant and is subject to change.

<sup>(d)</sup> Represents VMTP Shares and TOB Trusts as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to VMTP Shares and TOB Trusts, minus the sum of its accrued liabilities. For a discussion of leveraging techniques utilized by the Fund, please see The Benefits and Risks of Leveraging on page 5.

**Performance**

Returns for the six months ended October 31, 2017 were as follows:

	Returns Based On	
	<i>Market Price</i>	<i>NAV</i>
MHD <sup>(a)(b)</sup>	2.48%	3.95%
Lipper General & Insured Municipal Debt Funds (Leveraged) <sup>(c)</sup>	2.34%	3.81%

- (a) All returns reflect reinvestment of dividends and/or distributions at actual reinvestment prices.
- (b) The Fund's discount to NAV widened during the period, which accounts for the difference between performance based on market price and performance based on NAV.
- (c) Average return. Returns reflect reinvestment of dividends and/or distributions at NAV on the ex-dividend as calculated by Lipper.

Past performance is not indicative of future results. Performance results may include adjustments made for financial reporting purposes in accordance with U.S. generally accepted accounting principles.

**The following discussion relates to the Fund's absolute performance based on NAV:**

U.S. municipal bonds rallied in the six-month period due to the combination of fading prospects for tax reform during the early spring and summer, a positive balance of supply and demand in the market, and budget agreements in Illinois and Connecticut. Longer-term bonds outpaced shorter-term issues, reflecting the backdrop of muted inflation data and expectations for continued monetary policy tightening by the Fed.

The Fund's positions in longer-dated securities made the largest contribution to performance, as bonds in the 20- to 40-year maturity range outpaced the broader market.

Investments in lower-rated securities within the investment-grade market benefited performance at a time of robust investor risk appetites. Credit spreads narrowed considerably amid strong fund flows and investors' ongoing search for yield.

At the sector level, the largest contributions came from state and local tax-backed, transportation and health care issues.

Investments in high-quality, pre-refunded securities in the one- to five-year range declined in value amid the upward pressure on short-term interest rates fostered by the ongoing normalization of monetary policy. These positions, which the Fund acquired in a higher-rate environment, were retained due to their above average income.

The Fund sought to manage interest rate risk using U.S. Treasury futures, which had a small, positive effect on returns.

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 Summary as of October 31, 2017 (continued)

BlackRock MuniHoldings Fund, Inc.

**Market Price and Net Asset Value Per Share Summary**

	<i>10/31/17</i>	<i>4/30/17</i>	<i>Change</i>	<i>High</i>	<i>Low</i>
Market Price	\$ 16.59	\$ 16.65	(0.36)%	\$ 18.25	\$ 16.48
Net Asset Value	\$ 17.03	\$ 16.85	1.07%	\$ 17.24	\$ 16.82

**Market Price and Net Asset Value History For the Past Five Years****Overview of the Fund's Total Investments\*****SECTOR ALLOCATION**

<i>Sector</i>	<i>10/31/17</i>	<i>4/30/17</i>
Transportation	23%	24%
Health	20	19
County/City/Special District/School District	16	12
State	12	12
Utilities	9	11
Education	8	11
Corporate	6	6
Tobacco	6	5
Housing <sup>(a)</sup>		

<sup>(a)</sup> Representing less than 1% of the Fund's total investments.

For Fund compliance purposes, the Fund's sector classifications refer to one or more of the sector sub-classifications used by one or more widely recognized market indexes or rating group indexes, and/or as defined by the investment adviser. These definitions may not apply for purposes of this report, which may combine such sector sub-classifications for reporting ease.

**CALL/MATURITY SCHEDULE <sup>(d)</sup>**

Calendar Year Ended December 31,

2017	5%
2018	5
2019	24
2020	11
2021	12

(d) Scheduled maturity dates and/or bonds that are subject to potential calls by issuers over the next five years.

\* Excludes short-term securities.

**CREDIT QUALITY ALLOCATION** <sup>(b)</sup>

<i>Credit Rating</i>	<i>10/31/17</i>	<i>4/30/17</i>
AAA/Aaa	3%	5%
AA/Aa	47	47
A	19	19
BBB/Baa	16	16
BB/Ba	4	4
B	3	2
N/R <sup>(c)</sup>	8	7

(b) For financial reporting purposes, credit quality ratings shown above reflect the highest rating assigned by either S&P or Moody's if ratings differ. These rating agencies are independent, nationally recognized statistical rating organizations and are widely used. Investment grade ratings are credit ratings of BBB/Baa or higher. Below investment grade ratings are credit ratings of BB/Ba or lower. Investments designated N/R are not rated by either rating agency. Unrated investments do not necessarily indicate low credit quality. Credit quality ratings are subject to change.

(c) The investment adviser evaluates the credit quality of unrated investments based upon certain factors including, but not limited to, credit ratings for similar investments and financial analysis of sectors and individual investments. Using this approach, the investment adviser has deemed certain of these unrated securities as investment grade quality. As of October 31, 2017 and April 30, 2017, the market value of unrated securities deemed by the investment adviser to be investment grade each represents 1% of the Fund's total investments.

Fund Summary as of October 31, 2017

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

**BlackRock MuniHoldings Fund II, Inc. s (MUH) (the Fund )** investment objective is to provide shareholders with current income exempt from U.S. federal income taxes. The Fund seeks to achieve its investment objective by investing, under normal market conditions, at least 80% of its assets in municipal bonds exempt from U.S. federal income taxes (except that the interest may be subject to the U.S. federal alternative minimum tax). The Fund invests, under normal market conditions, at least 75% of its assets in municipal bonds rated investment grade or, if unrated, are deemed to be of comparable quality by the investment adviser at the time of investment and invests primarily in long-term municipal bonds with a maturity of more than ten years at the time of investment. The Fund may invest directly in such securities or synthetically through the use of derivatives.

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

**Fund Information**

Symbol on NYSE	MUH
Initial Offering Date	February 27, 1998
Yield on Closing Market Price as of October 31, 2017 (\$14.93) <sup>(a)</sup>	5.43%
Tax Equivalent Yield <sup>(b)</sup>	9.59%
Current Monthly Distribution per Common Share <sup>(c)</sup>	\$0.0675
Current Annualized Distribution per Common Share <sup>(c)</sup>	\$0.8100
Economic Leverage as of October 31, 2017 <sup>(d)</sup>	37%

<sup>(a)</sup> 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.

<sup>(b)</sup> Tax equivalent yield assumes the maximum marginal U.S. federal tax rate of 43.4%, which includes the 3.8% Medicare tax. Actual tax rates will vary based on income, exemptions and deductions. Lower taxes will result in lower tax equivalent yields.

<sup>(c)</sup> The distribution rate is not constant and is subject to change.

<sup>(d)</sup> Represents VMTP Shares and TOB Trusts as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to VMTP Shares and TOB Trusts, minus the sum of its accrued liabilities. For a discussion of leveraging techniques utilized by the Fund, please see The Benefits and Risks of Leveraging on page 5.

**Performance**

Returns for the six months ended October 31, 2017 were as follows:

	Returns Based On	
	<i>Market Price</i>	<i>NAV</i>
MUH <sup>(a)(b)</sup>	(1.50)%	3.72%
Lipper General & Insured Municipal Debt Funds (Leveraged) <sup>(c)</sup>	2.34%	3.81%



- (a) All returns reflect reinvestment of dividends and/or distributions at actual reinvestment prices.
- (b) The Fund moved from a premium to NAV to a discount during the period, which accounts for the difference between performance based on market price and performance based on NAV.
- (c) Average return. Returns reflect reinvestment of dividends and/or distributions at NAV on the ex-dividend as calculated by Lipper.

Past performance is not indicative of future results. Performance results may include adjustments made for financial reporting purposes in accordance with U.S. generally accepted accounting principles.

**The following discussion relates to the Fund's absolute performance based on NAV:**

U.S. municipal bonds rallied in the six-month period due to the combination of fading prospects for tax reform during the early spring and summer, a positive balance of supply and demand in the market, and budget agreements in Illinois and Connecticut. Longer-term bonds outpaced shorter-term issues, reflecting the backdrop of muted inflation data and expectations for continued monetary policy tightening by the Fed.

The Fund's positions in longer-dated securities made the largest contribution to performance, as bonds in the 20- to 40-year maturity range outpaced the broader market.

Investments in lower-rated securities within the investment-grade market benefited performance at a time of robust investor risk appetites. Credit spreads narrowed considerably amid strong fund flows and investors' ongoing search for yield.

At the sector level, the largest contributions came from state and local tax-backed, transportation and utilities issues.

Investments in high-quality, pre-refunded securities in the one- to five-year range declined in value amid the upward pressure on short-term interest rates fostered by the ongoing normalization of monetary policy. These positions, which the Fund acquired in a higher-rate environment, were retained due to their above average income.

The Fund sought to manage interest rate risk using U.S. Treasury futures, which had a small, positive effect on returns.

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 Summary as of October 31, 2017 (continued)

BlackRock MuniHoldings Fund II, Inc.

**Market Price and Net Asset Value Per Share Summary**

	<i>10/31/17</i>	<i>4/30/17</i>	<i>Change</i>	<i>High</i>	<i>Low</i>
Market Price	\$ 14.93	\$ 15.59	(4.23)%	\$ 16.63	\$ 14.91
Net Asset Value	\$ 15.65	\$ 15.52	0.84%	\$ 15.85	\$ 15.49

**Market Price and Net Asset Value History For the Past Five Years****Overview of the Fund's Total Investments\*****SECTOR ALLOCATION**

<i>Sector</i>	<i>10/31/17</i>	<i>4/30/17</i>
Transportation	22%	23%
Health	19	19
County/City/Special District/School District	16	12
State	14	14
Utilities	9	11
Education	8	10
Corporate	6	6
Tobacco	5	4
Housing	1	1

For Fund compliance purposes, the Fund's sector classifications refer to one or more of the sector sub-classifications used by one or more widely recognized market indexes or rating group indexes, and/or as defined by the investment adviser. These definitions may not apply for purposes of this report, which may combine such sector sub-classifications for reporting ease.

**CALL/MATURITY SCHEDULE <sup>(c)</sup>**

Calendar Year Ended December 31,	
2017	6%
2018	5
2019	26
2020	11
2021	12

(c) Scheduled maturity dates and/or bonds that are subject to potential calls by issuers over the next five years.

\* Excludes short-term securities.

**CREDIT QUALITY ALLOCATION** <sup>(a)</sup>

<i>Credit Rating</i>	<i>10/31/17</i>	<i>4/30/17</i>
AAA/Aaa	4%	6%
AA/Aa	49	50
A	18	18
BBB/Baa	15	15
BB/Ba	4	3
B	2	1
N/R <sup>(b)</sup>	8	7

(a) For financial reporting purposes, credit quality ratings shown above reflect the highest rating assigned by either S&P or Moody's if ratings differ. These rating agencies are independent, nationally recognized statistical rating organizations and are widely used. Investment grade ratings are credit ratings of BBB/Baa or higher. Below investment grade ratings are credit ratings of BB/Ba or lower. Investments designated N/R are not rated by either rating agency. Unrated investments do not necessarily indicate low credit quality. Credit quality ratings are subject to change.

(b) The investment adviser evaluates the credit quality of unrated investments based upon certain factors including, but not limited to, credit ratings for similar investments and financial analysis of sectors and individual investments. Using this approach, the investment adviser has deemed certain of these unrated securities as investment grade quality. As of October 31, 2017 and April 30, 2017, the market value of unrated securities deemed by the investment adviser to be investment grade each represents 1% of the Fund's total investments.

Fund Summary as of October 31, 2017

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

**BlackRock MuniHoldings Quality Fund, Inc. s (MUS) (the Fund )** investment objective is to provide shareholders with current income exempt from U.S. federal income taxes. The Fund seeks to achieve its investment objective by investing primarily in long-term, investment grade municipal obligations exempt from U.S. federal income taxes (except that the interest may be subject to the U.S. federal alternative minimum tax). Under normal market conditions, the Fund invests at least 80% of its assets in investment grade municipal obligations, and obligations deemed to be of comparable quality by the investment adviser at the time of investment, with remaining maturities of one year or more at the time of investment. The Fund may invest directly in such securities or synthetically through the use of derivatives.

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

**Fund Information**

Symbol on NYSE	MUS
Initial Offering Date	May 1, 1998
Yield on Closing Market Price as of October 31, 2017 (\$13.34) <sup>(a)</sup>	5.71%
Tax Equivalent Yield <sup>(b)</sup>	10.09%
Current Monthly Distribution per Common Share <sup>(c)</sup>	\$0.0635
Current Annualized Distribution per Common Share <sup>(c)</sup>	\$0.7620
Economic Leverage as of October 31, 2017 <sup>(d)</sup>	39%

<sup>(a)</sup> 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.

<sup>(b)</sup> Tax equivalent yield assumes the maximum marginal U.S. federal tax rate of 43.4%, which includes the 3.8% Medicare tax. Actual tax rates will vary based on income, exemptions and deductions. Lower taxes will result in lower tax equivalent yields.

<sup>(c)</sup> The distribution rate is not constant and is subject to change.

<sup>(d)</sup> Represents VMTP Shares and TOB Trusts as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to VMTP Shares and TOB Trusts, minus the sum of its accrued liabilities. For a discussion of leveraging techniques utilized by the Fund, please see The Benefits and Risks of Leveraging on page 5.

**Performance**

Returns for the six months ended October 31, 2017 were as follows:

	Returns Based On	
	<i>Market Price</i>	<i>NAV</i>
MUS <sup>(a)(b)</sup>	2.50%	2.88%
Lipper General & Insured Municipal Debt Funds (Leveraged) <sup>(c)</sup>	2.34%	3.81%

- (a) All returns reflect reinvestment of dividends and/or distributions at actual reinvestment prices.
- (b) The Fund's discount to NAV widened during the period, which accounts for the difference between performance based on market price and performance based on NAV.
- (c) Average return. Returns reflect reinvestment of dividends and/or distributions at NAV on the ex-dividend as calculated by Lipper.

Past performance is not indicative of future results. Performance results may include adjustments made for financial reporting purposes in accordance with U.S. generally accepted accounting principles.

**The following discussion relates to the Fund's absolute performance based on NAV:**

U.S. municipal bonds rallied in the six-month period due to the combination of fading prospects for tax reform during the early spring and summer, a positive balance of supply and demand in the market, and budget agreements in Illinois and Connecticut. Longer-term bonds outpaced shorter-term issues, reflecting the backdrop of muted inflation data and expectations for continued monetary policy tightening by the Fed.

The Fund posted a gain in the period, with positive performance coming from both income and rising bond prices.

Geographically, positive returns were driven by exposure to Illinois and New Jersey bonds. Illinois passed its budget and moved closer to achieving fiscal balance and saw a stabilization of its credit rating. In New Jersey, legislation that redirected roughly \$1 billion annually in lottery proceeds to the state's pension funds helped stabilize its credit rating and contributed to positive returns for the New Jersey credits held in the Fund.

Positions in the tax-backed (state), tax-backed (local) and transportation sectors were positive contributors to performance. Holdings in longer-term bonds also added value in the period.

The Fund utilized a mix of U.S. Treasury futures contracts to help manage the risk of rising interest rates. This strategy was tactically adjusted throughout the period, resulting in a modestly positive contribution to performance.

The Fund's emphasis on higher-quality bonds was a headwind at a time of outperformance for issues rated below investment grade. Reinvestment was a further drag on results, as the proceeds of higher-yielding bonds that matured or were called needed to be reinvested at materially lower prevailing rates.

The Fund's holdings in short-term, pre-refunded bonds, while producing positive returns, lagged somewhat due to the premium amortization that occurred as the bonds approached their call and maturity dates. (When a bond's price trades at a premium over its face value, the difference is amortized over time. A premium occurs when the price of the bond has increased due to a decline in interest rates.)

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 Summary as of October 31, 2017 (continued)

**BlackRock MuniHoldings Quality Fund, Inc.****Market Price and Net Asset Value Per Share Summary**

	<i>10/31/17</i>	<i>4/30/17</i>	<i>Change</i>	<i>High</i>	<i>Low</i>
Market Price	\$13.34	\$13.38	(0.30)%	\$14.21	\$13.34
Net Asset Value	\$13.96	\$13.95	0.07%	\$14.17	\$13.93

**Market Price and Net Asset Value History For the Past Five Years****Overview of the Fund's Total Investments\*****SECTOR ALLOCATION**

<i>Sector</i>	<i>10/31/17</i>	<i>4/30/17</i>
Transportation	35%	38%
County/City/Special District/School District	24	25
Utilities	14	13
Health	10	11
State	6	5
Education	6	4
Housing	3	2
Tobacco	1	1
Corporate	1	1

For Fund compliance purposes, the Fund's sector classifications refer to one or more of the sector sub-classifications used by one or more widely recognized market indexes or rating group indexes, and/or as defined by the investment adviser. These definitions may not apply for purposes of this report, which may combine such sector sub-classifications for reporting ease.

**CALL/MATURITY SCHEDULE <sup>(b)</sup>**

Calendar Year Ended December 31,	<i>%</i>
2017	
2018	24
2019	12
2020	4
2021	18

- (b) Scheduled maturity dates and/or bonds that are subject to potential calls by issuers over the next five years.
- (c) Representing less than 1% of the Fund's total investments.
- \* Excludes short-term securities.

**CREDIT QUALITY ALLOCATION** <sup>(a)</sup>

<i>Credit Rating</i>	<i>10/31/17</i>	<i>4/30/17</i>
AAA/Aaa	5%	6%
AA/Aa	50	56
A	34	29
BBB/Baa	8	7
N/R	3	2

(a) For financial reporting purposes, credit quality ratings shown above reflect the highest rating assigned by either S&P or Moody's if ratings differ. These rating agencies are independent, nationally recognized statistical rating organizations and are widely used. Investment grade ratings are credit ratings of BBB/Baa or higher. Below investment grade ratings are credit ratings of BB/Ba or lower. Investments designated N/R are not rated by either rating agency. Unrated investments do not necessarily indicate low credit quality. Credit quality ratings are subject to change.



Fund Summary as of October 31, 2017

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

**BlackRock Muni Intermediate Duration Fund, Inc.** s (MUI) (the **Fund** ) investment objective is to provide common shareholders with high current income exempt from U.S. federal income taxes. The Fund seeks to achieve its investment objective by investing at least 80% of its assets in municipal bonds exempt from U.S. federal income taxes (except that the interest may be subject to the U.S. federal alternative minimum tax). Under normal market conditions, the Fund invests at least 75% of its assets in municipal bonds rated investment grade or, if unrated, are deemed to be of comparable quality by the investment adviser at the time of investment and invests at least 80% of its assets in municipal bonds with a duration of three to ten years at the time of investment. The Fund expects to maintain a dollar-weighted average portfolio duration, as calculated by the investment adviser, of three to ten years. The Fund may invest directly in such securities or synthetically through the use of derivatives.

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

**Fund Information**

Symbol on NYSE	MUI
Initial Offering Date	August 1, 2003
Yield on Closing Market Price as of October 31, 2017 (\$14.02) <sup>(a)</sup>	4.24%
Tax Equivalent Yield <sup>(b)</sup>	7.49%
Current Monthly Distribution per Common Share <sup>(c)</sup>	\$0.0495
Current Annualized Distribution per Common Share <sup>(c)</sup>	\$0.5940
Economic Leverage as of October 31, 2017 <sup>(d)</sup>	38%

<sup>(a)</sup> 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.

<sup>(b)</sup> Tax equivalent yield assumes the maximum marginal U.S. federal tax rate of 43.4%, which includes the 3.8% Medicare tax. Actual tax rates will vary based on income, exemptions and deductions. Lower taxes will result in lower tax equivalent yields.

<sup>(c)</sup> The distribution rate is not constant and is subject to change.

<sup>(d)</sup> Represents VMTP Shares and TOB Trusts as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to VMTP Shares and TOB Trusts, minus the sum of its accrued liabilities. For a discussion of leveraging techniques utilized by the Fund, please see The Benefits and Risks of Leveraging on page 5.

**Performance**

Returns for the six months ended October 31, 2017 were as follows:

	Returns Based On	
	<i>Market Price</i>	<i>NAV</i>
MUI <sup>(a)(b)</sup>	2.64%	4.43%
Lipper Intermediate Municipal Debt Funds <sup>(c)</sup>	1.06%	3.01%

- (a) All returns reflect reinvestment of dividends and/or distributions at actual reinvestment prices.
- (b) The Fund's discount to NAV widened during the period, which accounts for the difference between performance based on market price and performance based on NAV.
- (c) Average return. Returns reflect reinvestment of dividends and/or distributions at NAV on the ex-dividend as calculated by Lipper.

Past performance is not indicative of future results. Performance results may include adjustments made for financial reporting purposes in accordance with U.S. generally accepted accounting principles.

**The following discussion relates to the Fund's absolute performance based on NAV:**

U.S. municipal bonds rallied in the six-month period due to the combination of fading prospects for tax reform during the early spring and summer, a positive balance of supply and demand in the market, and budget agreements in Illinois and Connecticut. Longer-term bonds outpaced shorter-term issues, reflecting the backdrop of muted inflation data and expectations for continued monetary policy tightening by the Fed.

Concentrations in intermediate securities maturing in the 12- to 16-year range contributed to performance. The Fund's use of leverage also boosted returns by enhancing income and amplifying the effect of rising bond prices.

The Fund's allocation to A and BBB rated investment-grade debt aided results, as lower-quality bonds outperformed. Positions in the transportation and tax-backed (state) sectors further helped performance, highlighted by the strong showing of New Jersey and Illinois issues.

The Fund utilized a mix of U.S. Treasury futures contracts to help manage the risk of rising interest rates. This strategy was tactically adjusted throughout the period, resulting in a modestly positive contribution to performance.

Positions in shorter-dated bonds, including high-quality pre-refunded securities, hurt results at a time in which shorter-term bonds lagged. The Fund's more-seasoned holdings also detracted due to the premium amortization that occurred as the bonds approached their call and maturity dates. (When a bond's price trades at a premium over its face value, the difference is amortized over time. A premium occurs when the price of the bond has increased due to a decline in interest rates.) Additionally, positions in higher-quality securities underperformed relative to lower-quality issues.

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 Summary as of October 31, 2017 (continued)

**BlackRock Muni Intermediate Duration Fund, Inc.****Market Price and Net Asset Value Per Share Summary**

	<i>10/31/17</i>	<i>4/30/17</i>	<i>Change</i>	<i>High</i>	<i>Low</i>
Market Price	\$ 14.02	\$ 13.96	0.43%	\$ 14.41	\$ 13.79
Net Asset Value	\$ 15.50	\$ 15.17	2.18%	\$ 15.67	\$ 15.14

**Market Price and Net Asset Value History For the Past Five Years****Overview of the Fund's Total Investments\*****SECTOR ALLOCATION**

<i>Sector</i>	<i>10/31/17</i>	<i>4/30/17</i>
Transportation	29%	28%
State	16	12
County/City/Special District/School District	13	17
Education	13	14
Health	11	10
Utilities	10	11
Corporate	5	4
Tobacco	2	2
Housing	1	2

For Fund compliance purposes, the Fund's sector classifications refer to one or more of the sector sub-classifications used by one or more widely recognized market indexes or rating group indexes, and/or as defined by the investment adviser. These definitions may not apply for purposes of this report, which may combine such sector sub-classifications for reporting ease.

**CALL/MATURITY SCHEDULE <sup>(c)</sup>**

Calendar Year Ended December 31,

2017	2%
2018	4
2019	8
2020	8
2021	16

(c) Scheduled maturity dates and/or bonds that are subject to potential calls by issuers over the next five years.

\* Excludes short-term securities.

#### CREDIT QUALITY ALLOCATION <sup>(a)</sup>

<i>Credit Rating</i>	<i>10/31/17</i>	<i>4/30/17</i>
AAA/Aaa	4%	5%
AA/Aa	40	43
A	33	31
BBB/Baa	17	16
BB/Ba	1	1
B	1	1
N/R <sup>(b)</sup>	4	3

(a) For financial reporting purposes, credit quality ratings shown above reflect the highest rating assigned by either S&P's or Moody's if ratings differ. These rating agencies are independent, nationally recognized statistical rating organizations and are widely used. Investment grade ratings are credit ratings of BBB/Baa or higher. Below investment grade ratings are credit ratings of BB/Ba or lower. Investments designated N/R are not rated by either rating agency. Unrated investments do not necessarily indicate low credit quality. Credit quality ratings are subject to change.

(b) The investment adviser evaluates the credit quality of unrated Investments based upon certain factors including, but not limited to, credit ratings for similar investments and financial analysis of sectors and individual investments. Using this approach, the investment adviser has deemed certain of these unrated securities as investment grade quality. As of October 31, 2017 and April 30, 2017, the market value of unrated securities deemed by the investment adviser to be investment grade represents less than 1% and 1%, respectively, of the Fund's total investments.

Fund Summary as of October 31, 2017

**BlackRock MuniVest Fund II, Inc.****Investment Objective**

**BlackRock MuniVest Fund II, Inc. s (MVT) (the Fund )** investment objective is to provide shareholders with as high a level of current income exempt from U.S. federal income taxes as is consistent with its investment policies and prudent investment management. The Fund seeks to achieve its investment objective by investing at least 80% of its assets in municipal bonds exempt from U.S. federal income taxes (except that the interest may be subject to the U.S. federal alternative minimum tax). The Fund invests, under normal market conditions, at least 75% of its assets in municipal bonds rated investment grade or, if unrated, are deemed to be of comparable quality by the investment adviser at the time of investment and invests primarily in long-term municipal bonds with a maturity of more than ten years at the time of investment. The Fund may invest directly in such securities or synthetically through the use of derivatives.

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

**Fund Information**

Symbol on NYSE	MVT
Initial Offering Date	March 29, 1993
Yield on Closing Market Price as of October 31, 2017 (\$15.21) <sup>(a)</sup>	5.76%
Tax Equivalent Yield <sup>(b)</sup>	10.18%
Current Monthly Distribution per Common Share <sup>(c)</sup>	\$0.0730
Current Annualized Distribution per Common Share <sup>(c)</sup>	\$0.8760
Economic Leverage as of October 31, 2017 <sup>(d)</sup>	38%

<sup>(a)</sup> 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.

<sup>(b)</sup> Tax equivalent yield assumes the maximum marginal U.S. federal tax rate of 43.4%, which includes the 3.8% Medicare tax. Actual tax rates will vary based on income, exemptions and deductions. Lower taxes will result in lower tax equivalent yields.

<sup>(c)</sup> The distribution rate is not constant and is subject to change.

<sup>(d)</sup> Represents VMTP Shares and TOB Trusts as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to VMTP Shares and TOB Trusts, minus the sum of its accrued liabilities. For a discussion of leveraging techniques utilized by the Fund, please see The Benefits and Risks of Leveraging on page 5.

**Performance**

Returns for the six months ended October 31, 2017 were as follows:

	Returns Based On	
	<i>Market Price</i>	<i>NAV</i>
MVT <sup>(a)(b)</sup>	1.29%	3.36%
Lipper General & Insured Municipal Debt Funds (Leveraged) <sup>(c)</sup>	2.34%	3.81%

- (a) All returns reflect reinvestment of dividends and/or distributions at actual reinvestment prices.
- (b) The Fund moved from a premium to NAV to a discount during the period, which accounts for the difference between performance based on market price and performance based on NAV.
- (c) Average return. Returns reflect reinvestment of dividends and/or distributions at NAV on the ex-dividend as calculated by Lipper.

Past performance is not indicative of future results. Performance results may include adjustments made for financial reporting purposes in accordance with U.S. generally accepted accounting principles.

**The following discussion relates to the Fund's absolute performance based on NAV:**

U.S. municipal bonds rallied in the six-month period due to the combination of fading prospects for tax reform during the early spring and summer, a positive balance of supply and demand in the market, and budget agreements in Illinois and Connecticut. Longer-term bonds outpaced shorter-term issues, reflecting the backdrop of muted inflation data and expectations for continued monetary policy tightening by the Fed.

The Fund's positions in longer-dated securities made the largest contribution to performance, as bonds in the 20- to 40-year maturity range outpaced the broader market.

Investments in lower-rated securities within the investment-grade market benefited performance at a time of robust investor risk appetites. Credit spreads narrowed considerably amid strong fund flows and investors' ongoing search for yield.

At the sector level, the largest contributions came from state and local tax-backed, transportation and utilities issues.

Investments in high-quality, pre-refunded securities in the one- to five-year range declined in value amid the upward pressure on short-term interest rates fostered by the ongoing normalization of monetary policy. These positions, which the Fund acquired in a higher-rate environment, were retained due to their above average income.

The Fund sought to manage interest rate risk using U.S. Treasury futures, which had a small, positive effect on returns.

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 Summary as of October 31, 2017 (continued)

BlackRock MuniVest Fund II, Inc.

**Market Price and Net Asset Value Per Share Summary**

	<i>10/31/17</i>	<i>4/30/17</i>	<i>Change</i>	<i>High</i>	<i>Low</i>
Market Price	\$ 15.21	\$ 15.45	(1.55)%	\$ 16.18	\$ 15.10
Net Asset Value	\$ 15.26	\$ 15.19	0.46%	\$ 15.46	\$ 15.16

**Market Price and Net Asset Value History For the Past Five Years****Overview of the Fund's Total Investments\*****SECTOR ALLOCATION**

<i>Sector Allocation</i>	<i>10/31/17</i>	<i>4/30/17</i>
Transportation	29%	26%
Health	18	18
County/City/Special District/School District	14	12
State	12	14
Utilities	9	11
Corporate	6	6
Tobacco	6	5
Education	5	7
Housing	1	1

For Fund compliance purposes, the Fund's sector classifications refer to one or more of the sector sub-classifications used by one or more widely recognized market indexes or rating group indexes, and/or as defined by the investment adviser. These definitions may not apply for purposes of this report, which may combine such sector sub-classifications for reporting ease.

**CALL/MATURITY SCHEDULE <sup>(c)</sup>**

Calendar Year Ended December 31,

2017	6%
2018	11
2019	22
2020	12
2021	11

(c) Scheduled maturity dates and/or bonds that are subject to potential calls by issuers over the next five years.

\* Excludes short-term securities.

**CREDIT QUALITY ALLOCATION** <sup>(a)</sup>

<i>Credit Rating</i>	<i>10/31/17</i>	<i>4/30/17</i>
AAA/Aaa	4%	5%
AA/Aa	46	50
A	16	13
BBB/Baa	17	16
BB/Ba	4	4
B	3	2
N/R <sup>(b)</sup>	10	10

(a) For financial reporting purposes, credit quality ratings shown above reflect the highest rating assigned by either S&P or Moody's if ratings differ. These rating agencies are independent, nationally recognized statistical rating organizations and are widely used. Investment grade ratings are credit ratings of BBB/Baa or higher. Below investment grade ratings are credit ratings of BB/Ba or lower. Investments designated N/R are not rated by either rating agency. Unrated investments do not necessarily indicate low credit quality. Credit quality ratings are subject to change.

(b) The investment adviser evaluates the credit quality of unrated investments based upon certain factors including, but not limited to, credit ratings for similar investments and financial analysis of sectors and individual investments. Using this approach, the investment adviser has deemed certain of these unrated securities as investment grade quality. As of October 31, 2017 and April 30, 2017 the market value of unrated securities deemed by the investment adviser to be investment grade represents 1% and 3%, respectively, of the Fund's total investments.



## Schedule of Investments

## BlackRock MuniAssets Fund, Inc. (MUA)

October 31, 2017  
(Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Municipal Bonds</b>		
<b>Alabama 1.3%</b>		
County of Jefferson Alabama Sewer, Refunding RB, Sub-Lien, Series D, 6.00%, 10/01/42	\$ 3,745	\$ 4,369,216
State of Alabama Docks Department, Refunding RB, 6.00%, 10/01/20 <sup>(a)</sup>	2,165	2,455,002
		6,824,218
<b>Alaska 1.3%</b>		
Northern Tobacco Securitization Corp., Refunding RB, Tobacco Settlement, Asset-Backed, Series A:		
4.63%, 6/01/23	875	899,990
5.00%, 6/01/32	1,500	1,465,050
5.00%, 6/01/46	4,540	4,332,749
		6,697,789
<b>Arizona 2.2%</b>		
Arizona IDA, Refunding RB, Basis Schools, Inc. Projects, Series A, 5.13%, 7/01/37 <sup>(b)</sup>	960	1,010,342
City of Phoenix Arizona IDA, RB:		
Great Hearts Academies Veritas Project, 6.40%, 7/01/21 <sup>(a)</sup>	425	500,960
Great Hearts Academies Veritas Projects, 6.30%, 7/01/21 <sup>(a)</sup>	500	587,585
Legacy Traditional Schools Project, Series A, 6.50%, 7/01/34 <sup>(b)</sup>	570	646,893
Legacy Traditional Schools Projects, Series A, 6.75%, 7/01/44 <sup>(b)</sup>	1,000	1,119,070
City of Phoenix Arizona IDA, Refunding RB <sup>(b)</sup> :		
Basis Schools, Inc. Projects, 5.00%, 7/01/35	305	318,393
Basis Schools, Inc. Projects, 5.00%, 7/01/45	855	881,838
Basis Schools, Inc. Projects, Series A, 5.00%, 7/01/35	260	271,417
Basis Schools, Inc. Projects, Series A, 5.00%, 7/01/46	290	298,915
Legacy Traditional School Projects, 5.00%, 7/01/35	320	326,304
Legacy Traditional School Projects, 5.00%, 7/01/45	255	253,875
Salt Verde Financial Corp., RB, Senior, 5.00%, 12/01/37	1,650	2,010,162
State of Arizona IDA, RB, Academies of Math & Science Project, Series B, 5.13%, 7/01/47 <sup>(b)</sup>	665	659,441
State of Arizona IDA, Refunding RB, Basis Schools, Inc. Projects, Series A, 5.25%, 7/01/47 <sup>(b)</sup>	1,765	1,855,121
University Medical Center Corp., RB, 6.50%, 7/01/19 <sup>(a)</sup>	500	543,080
		11,283,396
<b>California 7.9%</b>		

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California Municipal Finance Authority, RB, Urban Discovery Academy Project <sup>(b)</sup> :		
5.50%, 8/01/34	315	324,264
6.00%, 8/01/44	665	680,834
6.13%, 8/01/49	580	592,934
California Municipal Finance Authority, Refunding RB, Community Medical Centers, Series A:		
5.00%, 2/01/36	345	391,102
5.00%, 2/01/37	255	288,425
California School Finance Authority, RB:		
Alliance for College Ready Public School 2023 Union LLC Project, Series A, 6.40%, 7/01/48	1,570	1,789,879
Value Schools, 6.65%, 7/01/33	435	497,588
Value Schools, 6.90%, 7/01/43	975	1,086,452
California Statewide Communities Development Authority, RB, Loma Linda University Medical Center, Series A <sup>(b)</sup> :		
5.00%, 12/01/46	725	778,070
5.25%, 12/01/56	620	673,921
	<i>Par</i>	
<i>Security</i>	<i>(000)</i>	<i>Value</i>
<b>California (continued)</b>		
California Statewide Communities Development Authority, Refunding RB:		
American Baptist Homes of the West, 6.25%, 10/01/39	\$ 2,175	\$ 2,326,032
California Baptist University, Series A, 5.00%, 11/01/32 <sup>(b)</sup>	630	700,151
California Statewide Financing Authority, RB, Asset-Backed, Tobacco Settlement, Series B, 6.00%, 5/01/43	1,650	1,650,297
City & County of San Francisco California Redevelopment Agency, Tax Allocation Bonds, Mission Bay South Redevelopment Project, Series D <sup>(b)(c)</sup> :		
0.00%, 8/01/26	1,250	814,300
0.00%, 8/01/43	1,500	376,635
City of San Jose California Hotel Tax, RB, Convention Center Expansion & Renovation Project:		
6.50%, 5/01/36	900	1,053,099
6.50%, 5/01/42	2,220	2,597,644
City of Stockton California Public Financing Authority, RB, Delta Water Supply Project, Series A, 6.25%, 10/01/40	375	457,384
County of Los Angeles California Tobacco Securitization Agency, RB, Asset-Backed, Los Angeles County Securitization Corp.:		
5.70%, 6/01/46	3,600	3,612,492
5.60%, 6/01/36	1,285	1,309,351
County of Riverside California Transportation Commission, RB, Senior Lien, Series A, 5.75%, 6/01/48	2,885	3,230,017
Golden State Tobacco Securitization Corp., Refunding RB, Asset-Backed, Senior Series A-1:		
5.13%, 6/01/47	4,455	4,381,626
5.75%, 6/01/47	3,745	3,744,888
Tobacco Securitization Authority of Southern California, Refunding RB, Tobacco Settlement, Asset-Backed, Senior Series A-1:		
4.75%, 6/01/25	1,230	1,230,750
5.00%, 6/01/37	5,580	5,597,633
		40,185,768
<b>Colorado 1.3%</b>		

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Castle Oaks Metropolitan District No. 3, GO, 6.25%, 12/01/44	500	531,685
Centerra Metropolitan District No. 1, Tax Allocation Bonds, 5.00%, 12/01/47	575	589,962
City & County of Denver Colorado, Refunding RB, United Airlines, Inc. Project, AMT, 5.00%, 10/01/32	1,620	1,755,027
Colorado Health Facilities Authority, Refunding RB, Sunny Vista Living Center Project, Series A <sup>(b)</sup> :		
6.13%, 12/01/45	335	352,507
6.25%, 12/01/50	1,115	1,174,853
Copperleaf Metropolitan District No. 2, GO, Refunding, 5.75%, 12/01/45	720	759,161
Regional Transportation District, RB, Denver Transit Partners Eagle P3 Project, 6.00%, 1/15/34	1,500	1,649,550
		6,812,745
<b>Connecticut 1.0%</b>		
Mohegan Tribal Finance Authority, RB, 7.00%, 2/01/45 <sup>(b)</sup>	1,400	1,483,328
Mohegan Tribe of Indians of Connecticut, RB, Series A, 6.75%, 2/01/45 <sup>(b)</sup>	1,271	1,366,570
Mohegan Tribe of Indians of Connecticut, Refunding RB, Public Improvement, Priority Distribution, Series C, 6.25%, 2/01/30 <sup>(b)</sup>	1,835	1,951,321
		4,801,219

## Schedule of Investments (continued)

## BlackRock MuniAssets Fund, Inc. (MUA)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Delaware 0.9%</b>		
County of Sussex Delaware, RB, NRG Energy, Inc., Indian River Power LLC Project, 6.00%, 10/01/40	\$ 1,000	\$ 1,059,020
State of Delaware EDA, RB, Exempt Facilities, Indian River Power LLC Project, 5.38%, 10/01/45	3,180	3,284,876
		4,343,896
<b>Florida 8.3%</b>		
Boggy Creek Improvement District, Refunding RB, Special Assessment Bonds, 5.13%, 5/01/43	1,500	1,515,375
Capital Trust Agency, Inc., RB, Silver Creek St. Augustine Project, Series A <sup>(d)</sup> : 1st Mortgage, 8.25%, 1/01/44	515	420,863
1st Mortgage, 8.25%, 1/01/49	1,105	902,785
5.75%, 1/01/50	655	586,395
County of Collier Florida IDA, Refunding RB, Arlington of Naples Project, Series A, 8.13%, 5/15/44 <sup>(b)</sup>	2,510	2,789,087
County of Palm Beach Florida Health Facilities Authority, RB, Acts Retirement Life Community, 5.50%, 11/15/20 <sup>(a)</sup>	3,500	3,936,205
County of Palm Beach Florida Health Facilities Authority, Refunding RB, Series A, 7.25%, 6/01/34	500	603,335
Florida Development Finance Corp., RB: Renaissance Charter School, Series A, 5.75%, 6/15/29	690	741,508
Renaissance Charter School, Series A, 6.00%, 6/15/34	835	889,684
Renaissance Charter School, Series A, 6.13%, 6/15/44	3,180	3,344,120
Solid Waste Disposal Facility, Waste Pro USA, Inc. Project, AMT, 5.00%, 8/01/29 <sup>(b)(e)</sup>	1,550	1,587,339
Greeneway Improvement District, RB, Special Assessment Bonds, 5.13%, 5/01/43	1,855	1,878,466
Harbor Bay Community Development District Florida, Special Assessment Bonds, Series A, 7.00%, 5/01/33	380	381,376
Lakewood Ranch Stewardship District Special Assessment Bonds, Village of Lakewood Ranch Sector Projects, 4.00%, 5/01/21	150	152,033
Lakewood Ranch Stewardship District Special Assessment Bonds, Refunding, Lakewood Center & New Sector Projects, 8.00%, 5/01/40	1,485	1,752,508
Lakewood Ranch Stewardship District Special Assessment Bonds, Village of Lakewood Ranch Sector Projects: 4.25%, 5/01/26	150	153,368
5.13%, 5/01/46	880	913,449
Mid-Bay Florida Bridge Authority, RB, Springing Lien, Series A, 7.25%, 10/01/21 <sup>(a)</sup>	4,550	5,538,851
Midtown Miami Community Development District, Refunding, Special Assessment Bonds: Series A, 5.00%, 5/01/37	845	891,450
Series B, 5.00%, 5/01/37	495	522,210
Santa Rosa Bay Bridge Authority, RB, 6.25%, 7/01/28 <sup>(d)</sup>	4,052	2,917,743
Tampa Palms Open Space and Transportation Community Development District, RB, Capital Improvement, Richmond Place Project, 7.50%, 5/01/18	295	296,516

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Tolomato Community Development District, Refunding, Special Assessment Bonds:		
Convertible CAB, Series A2, 6.61%, 5/01/39	250	249,978
Convertible CAB, Series A3, 6.61%, 5/01/40 <sup>(f)</sup>	585	539,042
Convertible CAB, Series A4, 6.61%, 5/01/40 <sup>(f)</sup>	305	235,951
Series 2015-2, 6.61%, 5/01/40 <sup>(f)</sup>	805	532,821
Series A1, 6.65%, 5/01/40	865	865,199
Tolomato Community Development District:		
Series 1, 6.61%, 5/01/40 <sup>(f)</sup>	1,305	1,048,528
Series 1, 6.65%, 5/01/40 <sup>(d)(g)</sup>	50	48,805
Series 3, 6.61%, 5/01/40 <sup>(d)(g)</sup>	875	9
Series 3, 6.65%, 5/01/40 <sup>(d)(g)</sup>	710	7
	<i>Par</i>	
<i>Security</i>	<i>(000)</i>	<i>Value</i>
<b>Florida (continued)</b>		
Village Community Development District No. 9, Special Assessment Bonds:		
6.75%, 5/01/31	\$ 1,525	\$ 1,732,522
7.00%, 5/01/41	2,500	2,921,100
5.50%, 5/01/42	1,180	1,285,103
		42,173,731
<b>Georgia 1.6%</b>		
County of Clayton Georgia, Tax Allocation Bonds, Ellenwood Project, 7.50%, 7/01/33	2,520	2,522,949
County of Clayton Georgia Development Authority, Refunding RB, Delta Air Lines, Inc. Project, Series A, 8.75%, 6/01/29	3,365	3,875,437
County of Gainesville & Hall Georgia Development Authority, Refunding RB, Acts Retirement Life Community, Series A-2 <sup>(a)</sup> :		
6.38%, 11/15/19	700	773,094
6.63%, 11/15/19	880	976,298
		8,147,778
<b>Guam 0.3%</b>		
Territory of Guam, GO, Series A:		
6.00%, 11/15/19	270	280,200
7.00%, 11/15/19 <sup>(a)</sup>	1,115	1,243,727
		1,523,927
<b>Illinois 4.1%</b>		
City of Chicago Illinois, GO, Refunding, Series A, 6.00%, 1/01/38	1,260	1,442,309
Illinois Finance Authority, Refunding RB:		
Friendship Village of Schaumburg, 7.25%, 2/15/45	4,000	4,179,440
Lutheran Home & Services Obligated Group, 5.63%, 5/15/42	2,395	2,524,474
Presence Health Network, Series C, 4.00%, 2/15/41	1,500	1,520,850
Primary Health Care Centers Program, 6.60%, 7/01/24	890	888,478
Rogers Park Montessori School Project, Series 2014, 6.00%, 2/01/34	365	382,155
Rogers Park Montessori School Project, Series 2014, 6.13%, 2/01/45	860	886,178
Roosevelt University Project, 6.50%, 4/01/44	2,000	2,125,560
Metropolitan Pier & Exposition Authority, RB, McCormick Place Expansion Project, Series A, 5.50%, 6/15/53	2,370	2,603,943
Railsplitter Tobacco Settlement Authority, RB:		
5.50%, 6/01/23	180	203,593
6.00%, 6/01/28	710	800,042

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State of Illinois, GO:

5.25%, 2/01/29	1,000	1,085,690
5.00%, 3/01/35	740	765,249
Village of Lincolnshire Illinois, Special Tax Bonds, Sedgebrook Project, 6.25%, 3/01/34	1,661	1,664,405
		21,072,366

**Indiana 2.1%**

City of Valparaiso Indiana, RB, Exempt Facilities, Pratt Paper LLC Project, AMT:

6.75%, 1/01/34	825	976,973
7.00%, 1/01/44	2,000	2,380,080

City of Vincennes Indiana, Refunding RB, Southwest Indiana Regional Youth Village Project, 6.25%, 1/01/29<sup>(b)</sup>

2,450	2,378,975
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County of Allen Indiana, RB, StoryPoint Fort Wayne Project, Series A-1<sup>(b)</sup>:

6.63%, 1/15/34	290	305,155
6.75%, 1/15/43	525	550,205
6.88%, 1/15/52	860	903,215

SCHEDULES OF INVESTMENTS

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## Schedule of Investments (continued)

## BlackRock MuniAssets Fund, Inc. (MUA)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Indiana (continued)</b>		
Indiana Finance Authority, RB, Private Activity Bond, Ohio River Bridges East End Crossing Project, Series A, AMT: 5.00%, 7/01/44	\$ 470	\$ 505,917
5.00%, 7/01/48	1,555	1,668,873
Town of Chesterton Indiana, RB, StoryPoint Chesterton Project, Series A-1, 6.38%, 1/15/51 <sup>(b)</sup>	1,190	1,238,136
		10,907,529
<b>Iowa 2.7%</b>		
Iowa Finance Authority, Refunding RB: Midwestern Disaster Area, Iowa Fertilizer Co. Project, 5.50%, 12/01/22	2,090	2,140,139
Midwestern Disaster Area, Iowa Fertilizer Co. Project, 5.25%, 12/01/25	2,190	2,333,949
Sunrise Retirement Community Project, 5.50%, 9/01/37	1,355	1,377,263
Sunrise Retirement Community Project, 5.75%, 9/01/43	2,115	2,167,304
Iowa Tobacco Settlement Authority, Refunding RB: Asset-Backed, CAB, Series B, 5.60%, 6/01/34	795	800,318
Series C, 5.38%, 6/01/38	4,900	4,899,559
		13,718,532
<b>Kentucky 0.9%</b>		
Kentucky Public Transportation Infrastructure Authority, RB, Downtown Crossing, First Tier, Series A, 5.75%, 7/01/49	4,000	4,460,720
<b>Louisiana 3.1%</b>		
Juban Crossing Economic Development District, Refunding RB, General Infrastructure Project, Series C, 7.00%, 9/15/44 <sup>(b)</sup>	2,460	2,565,903
Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Westlake Chemical Corp. Project, 6.75%, 11/01/32	5,000	5,000,000
Louisiana Public Facilities Authority, RB, Belle Chasse Educational Foundation Project, 6.75%, 5/01/41	1,745	1,885,979
Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A, 5.25%, 5/15/35	5,570	6,059,547
		15,511,429
<b>Maine 0.6%</b>		
Maine Health & Higher Educational Facilities Authority, RB, Maine General Medical Center, 6.75%, 7/01/41	2,955	3,207,150
<b>Maryland 2.6%</b>		
City of Baltimore Maryland, Refunding RB, Convention Center Hotel, 5.00%, 9/01/33	470	543,861
County of Frederick Maryland, RB, Jefferson Technology Park Project, Series B, 7.13%, 7/01/43	2,840	3,083,246

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Maryland EDC, RB:		
Purple Line Light Rail Project, AMT, 5.00%, 3/31/51	2,185	2,423,383
Transportation Facilities Project, Series A, 5.75%, 6/01/35	3,615	3,852,578
Maryland EDC, Refunding RB, CNX Marine Terminals, Inc., 5.75%, 9/01/25	3,085	3,258,408
		13,161,476
<b>Massachusetts 1.4%</b>		
Massachusetts Development Finance Agency, RB:		
Boston Medical Center, Series D, 5.00%, 7/01/44	1,905	2,090,166
Foxborough Regional Charter School, Series A, 7.00%, 7/01/42	1,025	1,101,117
North Hill Communities Issue, Series A, 6.50%, 11/15/43 <sup>(b)</sup>	2,020	2,271,126
Massachusetts Development Finance Agency, Refunding RB:		
6.75%, 1/01/21 <sup>(a)</sup>	895	1,045,092
Series I, 6.75%, 1/01/36	595	680,424
		7,187,925
	<i>Par</i>	
	<i>(000)</i>	<i>Value</i>
<i>Security</i>		
<b>Michigan 0.9%</b>		
City of Detroit Michigan Sewage Disposal System, Refunding RB, Senior Lien, Series A, 5.25%, 7/01/39	\$ 2,785	\$ 3,087,702
Michigan Finance Authority, RB, Detroit Water & Sewage Disposal System, Senior Lien, Series 2014 C-2, AMT, 5.00%, 7/01/44	415	444,320
Michigan Finance Authority, Refunding RB, Detroit Water & Sewage Department Project, Senior Lien, Series C-1, 5.00%, 7/01/44	920	1,000,748
		4,532,770
<b>Minnesota 0.1%</b>		
St. Paul Housing & Redevelopment Authority, Refunding RB, Hmong College Prep Academy Project, Series A:		
5.75%, 9/01/46	195	202,593
6.00%, 9/01/51	290	304,561
		507,154
<b>Mississippi 0.1%</b>		
Mississippi Business Finance Corp., RB, Solid Waste Disposal Facility, Waste Pro USA, Inc. Project, AMT, 5.00%, 2/01/36 <sup>(b)(e)</sup>	620	634,936
<b>Missouri 1.3%</b>		
City of St. Louis Missouri IDA, Refunding RB:		
4.38%, 11/15/35	685	699,618
4.75%, 11/15/47	760	777,936
Kirkwood Missouri IDA, RB, Aberdeen Heights, Series A, 8.25%, 5/15/20 <sup>(a)</sup>	2,315	2,714,453
Lees Summit Missouri IDA, RB, John Knox Obligated Group, 5.25%, 8/15/39	2,235	2,373,526
		6,565,533
<b>New Jersey 5.2%</b>		
Casino Reinvestment Development Authority, Refunding RB:		
5.25%, 11/01/39	1,065	1,116,397
5.25%, 11/01/44	770	803,395



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County of Essex New Jersey Improvement Authority, RB, AMT, 5.25%, 7/01/45 <sup>(b)</sup>	1,150	1,155,577
New Jersey EDA, RB:		
Goethals Bridge Replacement Project, AMT, Private Activity Bond, 5.38%, 1/01/43	2,155	2,398,644
Kapkowski Road Landfill Project, Series B, AMT, 6.50%, 4/01/31	2,250	2,594,767
Provident Group-Kean Properties, Series A, 5.00%, 7/01/32	165	180,997
Provident Group-Kean Properties, Series A, 5.00%, 7/01/37	260	280,184
Team Academy Charter School Project, 6.00%, 10/01/43	1,530	1,714,457
New Jersey EDA, Refunding RB, Greater Brunswick Charter School, Inc. Project, Series A, 6.00%, 8/01/49 <sup>(b)</sup>	500	512,470
New Jersey Health Care Facilities Financing Authority, Refunding RB <sup>(a)</sup> :		
St. Barnabas Health Care System, Series A, 5.63%, 7/01/21	2,650	3,055,635
St. Joseph s Healthcare System, 6.63%, 7/01/18	2,590	2,685,053
New Jersey Transportation Trust Fund Authority, RB, Transportation Program, Series AA, 5.25%, 6/15/41	1,140	1,242,908
Tobacco Settlement Financing Corp., Refunding RB, Series 1A, 5.00%, 6/01/41	5,210	4,994,306
Tobacco Settlement Financing Corp. New Jersey, Refunding RB, Series 1A, 5.00%, 6/01/29	3,735	3,743,180
		26,477,970

## Schedule of Investments (continued)

## BlackRock MuniAssets Fund, Inc. (MUA)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>New Mexico 0.6%</b>		
New Mexico Hospital Equipment Loan Council, Refunding RB, Gerald Champion Regional Medical Center Project, 5.50%, 7/01/42	\$ 2,970	\$ 3,211,313
<b>New York 7.9%</b>		
Counties of New York Tobacco Trust IV, Refunding RB, Settlement Pass-Through Turbo, Series A:		
6.25%, 6/01/41 <sup>(b)</sup>	5,300	5,484,175
5.00%, 6/01/42	3,155	3,025,645
5.00%, 6/01/45	1,185	1,122,231
Counties of New York Tobacco Trust VI, Refunding RB, Tobacco Settlement Pass-Through:		
Series A-2B, 5.00%, 6/01/51	900	928,476
Series B, 5.00%, 6/01/45	1,415	1,487,448
County of Dutchess New York Industrial Development Agency, Refunding RB, Bard College Civic Facility, Series A-1, 5.00%, 8/01/46	3,315	2,730,499
County of Nassau New York Tobacco Settlement Corp., Refunding RB, Asset-Backed, Series A-3, 5.13%, 6/01/46	275	268,736
County of Westchester New York Healthcare Corp., RB, Senior Lien, Series A, 5.00%, 11/01/44	1,310	1,409,895
Erie Tobacco Asset Securitization Corp., Refunding RB, Asset-Backed, Series A, 5.00%, 6/01/45	2,890	2,834,743
Metropolitan Transportation Authority, RB, Series C:		
6.50%, 11/15/18 <sup>(a)</sup>	1,490	1,573,455
6.50%, 11/15/18 <sup>(a)</sup>	125	132,001
6.50%, 11/15/28	385	406,976
New York Liberty Development Corp., Refunding RB:		
2nd Priority, Bank of America Tower at One Bryant Park Project, Class 3, 6.38%, 7/15/49	1,270	1,365,428
3 World Trade Center Project, Class 1, 5.00%, 11/15/44 <sup>(b)</sup>	4,705	5,114,194
3 World Trade Center Project, Class 2, 5.15%, 11/15/34 <sup>(b)</sup>	455	502,952
3 World Trade Center Project, Class 2, 5.38%, 11/15/40 <sup>(b)</sup>	1,080	1,201,748
3 World Trade Center Project, Class 3, 7.25%, 11/15/44 <sup>(b)</sup>	1,565	1,884,870
New York Transportation Development Corp., Refunding ARB, American Airlines, Inc., AMT, 5.00%, 8/01/31	1,195	1,275,113
Niagara Area Development Corp., Refunding RB, Solid Waste Disposal Facility, Covanta Energy Project, Series A, AMT, 5.25%, 11/01/42 <sup>(b)</sup>	1,335	1,335,895
Port Authority of New York & New Jersey, ARB, Special Project, JFK International Air Terminal LLC Project, Series 8, 6.00%, 12/01/36	1,340	1,492,304
State of New York Dormitory Authority, Refunding RB, Orange Regional Medical Center, 5.00%, 12/01/33 <sup>(b)</sup>	955	1,048,857

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Town of Oyster Bay New York, GO, BAN, Series A, 3.50%, 6/01/18	3,035	3,060,160
Town of Oyster Bay New York, GO, Refunding, BAN, Series B, 3.50%, 2/02/18	505	507,242
		40,193,043
<b>North Carolina 1.5%</b>		
North Carolina Medical Care Commission, Refunding RB, 1st Mortgage, Series A:		
Deerfield Project, 6.13%, 11/01/18 <sup>(a)</sup>	4,565	4,795,167
Retirement Facilities Whitestone Project, 7.75%, 3/01/31	1,000	1,113,460
Retirement Facilities Whitestone Project, 7.75%, 3/01/41	1,420	1,566,686
		7,475,313
	<i>Par</i>	
<i>Security</i>	<i>(000)</i>	<i>Value</i>
<b>Ohio 3.0%</b>		
Buckeye Tobacco Settlement Financing Authority, RB, Asset-Backed, Series A-2:		
Senior Turbo Term, 5.88%, 6/01/47	\$ 5,570	\$ 5,214,690
5.75%, 6/01/34	6,745	6,326,742
6.00%, 6/01/42	3,040	2,888,030
County of Hamilton Ohio, Refunding RB, Improvement-Life Enriching Communities, 5.00%, 1/01/46	875	934,754
		15,364,216
<b>Oklahoma 0.2%</b>		
Tulsa Oklahoma Industrial Authority, Refunding RB, Montereau, Inc. Project, 5.25%, 11/15/37	750	840,780
<b>Oregon 0.8%</b>		
County of Multnomah Oregon Hospital Facilities Authority, Refunding RB, Mirabella at South Waterfront, 5.50%, 10/01/49		
	1,765	1,898,099
Polk County Hospital Facility Authority, RB, Dallas Retirement Village Project, Series A:		
5.13%, 7/01/35	620	647,298
5.38%, 7/01/45	1,435	1,508,888
		4,054,285
<b>Pennsylvania 3.5%</b>		
Allentown Neighborhood Improvement Zone Development Authority, Refunding RB, Series A, 5.00%, 5/01/42		
	2,140	2,231,763
City of Philadelphia Pennsylvania Hospitals & Higher Education Facilities Authority, RB, Temple University Health System, Series A, 5.63%, 7/01/36		
	2,000	2,213,960
County of Cumberland Pennsylvania Municipal Authority, Refunding RB, Diakon Lutheran: 6.38%, 1/01/19 <sup>(a)</sup>		
	5,550	5,883,555
6.38%, 1/01/39	615	642,072
County of Lehigh Pennsylvania General Purpose Authority, Refunding RB, Bible Fellowship Church Homes, 5.13%, 7/01/32		
	1,800	1,832,346
County of Northampton Pennsylvania IDA, Route 33 Project, Tax Allocation Bonds, 7.00%, 7/01/32		
	2,030	2,352,486
Pennsylvania Economic Development Financing Authority, Refunding RB, National Gypsum Co., AMT, 5.50%, 11/01/44		
	2,710	2,871,137
		18,027,319
<b>Puerto Rico 1.2%</b>		

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Children s Trust Fund, Refunding RB, Tobacco Settlement, Asset-Backed Bonds:		
5.50%, 5/15/39	635	623,202
5.63%, 5/15/43	2,145	2,101,585
5.38%, 5/15/33	960	948,538
Commonwealth of Puerto Rico, GO, Refunding, Series A <sup>(d)</sup> :		
Public Improvement, 5.50%, 7/01/39	665	194,513
8.00%, 7/01/35	1,765	525,087
Commonwealth of Puerto Rico, GO, , 6.00%, 7/01/38 <sup>(d)</sup>	750	219,375
Commonwealth of Puerto Rico Aqueduct & Sewer Authority, RB, Senior Lien, Series A, 6.00%, 7/01/44	1,060	677,075
Commonwealth of Puerto Rico Aqueduct & Sewer Authority, Refunding RB, Senior Lien, Series A, 6.00%, 7/01/38	1,150	734,562
		6,023,937
<b>Rhode Island 2.3%</b>		
Central Falls Detention Facility Corp., Refunding RB, 7.25%, 7/15/35 <sup>(d)</sup>	4,190	1,047,500
Tobacco Settlement Financing Corp., Refunding RB:		
Series A, 5.00%, 6/01/35	1,000	1,077,680
Series A, 5.00%, 6/01/40	980	1,041,534
Series B, 4.50%, 6/01/45	5,055	5,064,504

SCHEDULES OF INVESTMENTS

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## Schedule of Investments (continued)

## BlackRock MuniAssets Fund, Inc. (MUA)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Rhode Island (continued)</b>		
Tobacco Settlement Financing Corp., Refunding RB (continued): Series B, 5.00%, 6/01/50	\$ 3,330	\$ 3,435,827
		11,667,045
<b>Texas 10.1%</b>		
Central Texas Regional Mobility Authority, Refunding RB: CAB, 0.00%, 1/01/28 <sup>(c)</sup>	1,000	711,290
CAB, 0.00%, 1/01/29 <sup>(c)</sup>	2,000	1,360,680
CAB, 0.00%, 1/01/30 <sup>(c)</sup>	1,170	758,956
CAB, 5.00%, 1/01/33 <sup>(c)</sup>	3,690	2,075,809
CAB, 0.00%, 1/01/34 <sup>(c)</sup>	4,000	2,145,880
Senior Lien, 6.25%, 1/01/21 <sup>(a)</sup>	2,210	2,550,207
City of Houston Texas Airport System, Refunding ARB, AMT: Special Facilities, Continental Airlines, Inc., Series A, 6.63%, 7/15/38	2,890	3,190,329
United Airlines, Inc. Terminal E Project, 5.00%, 7/01/29	910	997,260
Clifton Higher Education Finance Corp., ERB, Idea Public Schools <sup>(a)</sup> : 5.50%, 8/15/21	955	1,099,253
5.75%, 8/15/21	720	835,373
County of Bexar Texas Health Facilities Development Corp., RB, Army Retirement Residence Project, 6.20%, 7/01/20 <sup>(a)</sup>	5,040	5,687,287
County of Harris Texas Cultural Education Facilities Finance Corp., RB, 1st Mortgage, Brazos Presbyterian Homes, Inc. Project, Series B, 7.00%, 1/01/23 <sup>(a)</sup>	475	600,552
County of Matagorda Texas Navigation District No. 1, Refunding RB, Central Power & Light Co., Project, Series A, 6.30%, 11/01/29	2,090	2,272,729
County of Tarrant Texas Cultural Education Facilities Finance Corp., RB, Senior Living Center Project, Series A, 8.25%, 11/15/44	4,200	4,469,388
County of Tarrant Texas Cultural Education Facilities Finance Corp., Refunding RB, Trinity Terrace Project, 5.00%, 10/01/49	865	924,313
County of Travis Texas Health Facilities Development Corp., Refunding RB, 7.13%, 1/01/46	3,080	3,340,260
Mesquite Health Facility Development Corp., Refunding RB, 5.13%, 2/15/42	810	839,638
Mission Economic Development Corp., RB, Senior Lien, Natgasoline Project, Series B, AMT, 5.75%, 10/01/31 <sup>(b)</sup>	1,325	1,391,899
New Hope Cultural Education Facilities Corp., RB, Stephenville LLC Tarleton State University Project: 5.88%, 4/01/36	1,210	1,364,553
6.00%, 4/01/45	1,845	2,040,921
Newark Higher Education Finance Corp., RB, Series A <sup>(b)</sup> : 5.50%, 8/15/35	290	297,917
5.75%, 8/15/45	580	595,677
North Texas Education Finance Corp., ERB, Uplift Education, Series A, 5.25%, 12/01/47	1,600	1,735,840

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Red River Health Facilities Development Corp., First MRB, Project:		
Eden Home, Inc., 7.25%, 12/15/42 <sup>(d)</sup>	2,895	1,679,100
Wichita Falls Retirement Foundation, 5.13%, 1/01/41	900	928,674
Texas Private Activity Bond Surface Transportation Corp., RB, Senior Lien:		
LBJ Infrastructure Group LLC, 7.00%, 6/30/40	3,775	4,260,578
NTE Mobility Partners LLC, North Tarrant Express Managed Lanes Project, 6.88%, 12/31/39	3,000	3,327,000
		51,481,363
	<i>Par</i>	
	<i>(000)</i>	<i>Value</i>
<i>Security</i>		
<b>Utah 0.6%</b>		
State of Utah Charter School Finance Authority, Refunding RB, 6.75%, 10/15/43	\$ 2,950	\$ 2,995,165
<b>Vermont 0.2%</b>		
Vermont EDA, Refunding, MRB, Wake Robin Corp. Project, 5.40%, 5/01/33	770	816,246
<b>Virginia 2.4%</b>		
Lower Magnolia Green Community Development Authority, Special Assessment Bonds <sup>(b)</sup> :		
5.00%, 3/01/35	495	505,934
5.00%, 3/01/45	505	511,459
Mosaic District Community Development Authority, Special Assessment, Series A:		
6.63%, 3/01/26	1,485	1,618,858
6.88%, 3/01/36	1,300	1,420,029
Tobacco Settlement Financing Corp., Refunding RB, Senior Series B-1, 5.00%, 6/01/47	2,280	2,191,468
Virginia College Building Authority, RB, Marymount University Project, Series B, 5.00%, 7/01/45 <sup>(b)</sup>	535	558,133
Virginia College Building Authority, Refunding RB, Marymount University Project, Series A, 5.00%, 7/01/45 <sup>(b)</sup>	375	391,215
Virginia Small Business Financing Authority, RB, Senior Lien, Elizabeth River Crossings OpCo LLC Project, AMT, 6.00%, 1/01/37	4,440	5,019,642
		12,216,738
<b>Washington 0.8%</b>		
County of King Washington Public Hospital District No. 4, GO, Refunding, Snoqualmie Valley Hospital, 7.00%, 12/01/40		
	1,455	1,512,196
Greater Wenatchee Regional Events Center Public Facilities District, Refunding RB, Series A, 5.50%, 9/01/42		
	1,495	1,533,062
Washington State Housing Finance Commission, Refunding RB <sup>(b)</sup> :		
5.75%, 1/01/35	315	319,026
6.00%, 1/01/45	850	862,750
		4,227,034
<b>Wisconsin 1.1%</b>		
Public Finance Authority, RB:		
Delray Beach Radiation Therapy, 6.85%, 11/01/46 <sup>(b)</sup>	900	924,282
Delray Beach Radiation Therapy, 7.00%, 11/01/46 <sup>(b)</sup>	570	591,147
Series A, 5.00%, 12/01/45	1,505	1,579,964
Series A, 5.15%, 12/01/50	1,170	1,226,804

Wisconsin Health & Educational Facilities Authority, Refunding RB, St. Johns  
Communities, Inc., Series A<sup>(a)</sup>:

7.25%, 9/15/19	425	472,298
7.63%, 9/15/19	855	956,061
		5,750,556

**Total Municipal Bonds 87.4%** 445,084,310

**Municipal Bonds Transferred to Tender Option Bond Trusts<sup>(h)</sup>**

**Colorado 2.4%**

Colorado Health Facilities Authority, Refunding RB, Sisters of Charity of Leavenworth Health System, Series A, 5.00%, 1/01/40	11,468	12,150,656
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**Florida 4.9%**

City of New York New York Housing Development Corp., RB, M/F Housing, Series D-1, Class B, 4.25%, 11/01/45	8,996	9,257,760
County of Miami-Dade Florida Aviation, Refunding ARB, Miami International Airport, Series A, AMT <sup>(a)</sup> : 5.25%, 10/01/18	11,655	12,071,899

## Schedule of Investments (continued)

## BlackRock MuniAssets Fund, Inc. (MUA)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Florida (continued)</b>		
County of Miami-Dade Florida Aviation, Refunding ARB, Miami International Airport, Series A, AMT <sup>(a)</sup> (continued): 5.25%, 10/01/18	\$ 3,345	\$ 3,464,651
		24,794,310
<b>Illinois 2.7%</b>		
Illinois Finance Authority, RB, Carle Foundation, Series A (AGM), 6.00%, 8/15/41	7,180	8,110,097
State of Illinois Toll Highway Authority, RB, Series A, 5.00%, 1/01/40	5,056	5,743,843
		13,853,940
<b>New York 11.6%</b>		
City of New York New York Water & Sewer System, Refunding RB, 2nd General Resolution: Fiscal 2013, Series CC, 5.00%, 6/15/47	14,181	16,138,758
Series HH, 5.00%, 6/15/31 <sup>(i)</sup>	8,610	9,648,337
Hudson Yards Infrastructure Corp., RB, Series A, 5.75%, 2/15/47 <sup>(i)</sup>	4,520	5,135,746
New York Liberty Development Corp., RB, World Trade Center Port Authority Consolidated, 5.25%, 12/15/43	18,105	20,409,561
New York Liberty Development Corp., Refunding RB, World Trade Center Project, 5.75%, 11/15/51 <sup>(i)</sup>	6,600	7,590,096
		58,922,498
<b>Pennsylvania 0.6%</b>		
Pennsylvania Turnpike Commission, RB, Sub-Series A, 5.50%, 12/01/42	2,505	2,944,502
<b>Washington 1.7%</b>		
City of Bellingham Washington Water & Sewer Revenue, RB, 5.00%, 8/01/40	7,966	8,838,204
<b>Total Municipal Bonds Transferred to Tender Option Bond</b>		
<b>Trusts 23.9%</b>		121,504,110
<b>Total Long-Term Investments 111.3%</b>		
<b>(Cost \$530,889,788)</b>		566,588,420
 <i>Security</i>		
<b>Short-Term Securities</b>		
BlackRock Liquidity Funds, MuniCash, Institutional Class, 0.74% <sup>(j)(k)</sup>	3,874,985	\$ 3,876,148
		3,876,148



**Total Short-Term Securities 0.8%**  
**(Cost \$3,876,148)**

**Total Investments 112.1%**  
**(Cost \$534,765,936)**

**Other Assets Less Liabilities 1.3%**

**Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable (13.4%)**

**Net Assets Applicable to Common Shares 100.0%** \$ 508,978,862

- (a) U.S. 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.
- (b) Security exempt from registration pursuant to Rule 144A under the Securities Act of 1933, as amended. These securities may be resold in transactions exempt from registration to qualified institutional investors.
- (c) Zero-coupon bond.
- (d) Issuer filed for bankruptcy and/or is in default.
- (e) Variable rate security. Rate shown is the rate in effect as of period end.
- (f) Step-up bond that pays an initial coupon rate for the first period and then a higher coupon rate for the following periods. Rate as of period end.
- (g) Non-income producing security.
- (h) Represent bonds transferred to a TOB Trust in exchange of cash and residual certificates received by the Fund. These bonds serve as collateral in a secured borrowing. See Note 4 of the Notes to Financial Statements for details.
- (i) All or a portion of security is subject to a recourse agreement. The aggregate maximum potential amount the Fund could ultimately be required to pay under the agreements, which expire between February 15, 2019 to November 15, 2019 is \$11,849,809. See Note 4 of the Notes to Financial Statements for details.
- (j) Annualized 7-day yield as of period end.
- (k) During the six months ended October 31, 2017, investments in issuers considered to be an affiliate of the Fund for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

	<i>Shares Held at 04/30/17</i>	<i>Net Activity</i>	<i>Shares Held at 10/31/17</i>	<i>Value at 10/31/17</i>	<i>Income</i>	<i>Realized Gain</i>	<i>Change in Net Unrealized Appreciation (Depreciation)</i>
<i>Affiliated</i> BlackRock Liquidity Funds, MuniCash, Institutional Class	1,057,065	2,817,920	3,874,985	\$ 3,876,148	\$ 15,053	\$ 515	\$ (96)

(a) Includes capital gain distribution, if applicable.

#### **Derivative Financial Instruments Outstanding as of Period End**

#### **Futures Contracts**

<i>Description</i>	<i>Number of Contracts</i>	<i>Expiration Date</i>	<i>Notional Amount (000)</i>	<i>Value/ Unrealized Appreciation (Depreciation)</i>
Short Contracts				
10-Year U.S. Treasury Note	(43)	12/19/17	\$ 5,372	\$ 78,743
Long U.S. Treasury Bond	(55)	12/19/17	8,386	161,430
Ultra Long U.S. Treasury Bond	(20)	12/19/17	3,296	70,048
5-Year U.S. Treasury Note	(61)	12/29/17	7,148	67,216
				\$ 377,437

Schedule of Investments (continued)

BlackRock MuniAssets Fund, Inc. (MUA)

October 31, 2017 (Unaudited)

**Derivative Financial Instruments Categorized by Risk Exposure**

As of period end, the fair values of derivative financial instruments located in the Statements of Assets and Liabilities were as follows:

	<i>Commodity Contracts</i>	<i>Credit Contracts</i>	<i>Equity Contracts</i>	<i>Foreign Currency Exchange Contracts</i>	<i>Interest Rate Contracts</i>	<i>Other Contracts</i>	<i>Total</i>
<b>Assets</b>							
<b>Derivative Financial Instruments</b>							
Futures contracts							
Net unrealized appreciation <sup>(a)</sup>	\$	\$	\$	\$	\$ 377,437	\$	\$ 377,437

<sup>(a)</sup> Includes cumulative appreciation (depreciation) on futures contracts, if any, as reported in the Schedule of Investments. Only current day's variation margin is reported within the Statements of Assets and Liabilities. For the six months ended October 31, 2017, the effect of derivative financial instruments in the Statements of Operations was as follows:

	<i>Commodity Contracts</i>	<i>Credit Contracts</i>	<i>Equity Contracts</i>	<i>Foreign Currency Exchange Contracts</i>	<i>Interest Rate Contracts</i>	<i>Other Contracts</i>	<i>Total</i>
<b>Net Realized Gain (Loss) from:</b>							
Futures contracts	\$	\$	\$	\$	\$ (570,618)	\$	\$ (570,618)
<b>Net Change in Unrealized Appreciation (Depreciation) on:</b>							
Futures contracts	\$	\$	\$	\$	\$ 616,931	\$	\$ 616,931

**Average Quarterly Balances of Outstanding Derivative Financial Instruments**

Futures contracts:

Average notional value of contracts short \$ 21,801,574

For more information about the Fund's investment risks regarding derivative financial instruments, refer to the Notes to Financial Statements.

**Fair Value Hierarchy as of Period End**

Various inputs are used in determining the fair value of investments and derivative financial instruments. For information about the Fund's policy regarding valuation of investments and derivative financial instruments, refer to the Notes to Financial Statements.

The following tables summarize the Fund's investments and derivative financial instruments categorized in the disclosure hierarchy:

	<i>Level 1</i>	<i>Level 2</i>	<i>Level 3</i>	<i>Total</i>
Assets:				
Investments:				
Long-Term Investments <sup>(a)</sup>	\$	\$ 566,588,420	\$	\$ 566,588,420
Short-Term Securities	3,876,148			3,876,148
	\$ 3,876,148	\$ 566,588,420	\$	\$ 570,464,568
Derivative Financial Instruments <sup>(b)</sup>				
Assets:				
Interest rate contracts	\$ 377,437	\$	\$	\$ 377,437

<sup>(a)</sup> See above Schedule of Investments for values in each state or political subdivision.

<sup>(b)</sup> Derivative financial instruments are futures contracts which are valued at the unrealized appreciation (depreciation) on the instrument.

The Fund may hold assets and/or liabilities in which the fair value approximates the carrying amount for financial statement purposes. As of period end, TOB Trust Certificates of \$67,756,523 are categorized as Level 2 within the disclosure hierarchy.

During the six months ended October 31, 2017, there were no transfers between levels.

*See notes to financial statements.*

## Schedule of Investments

## BlackRock MuniEnhanced Fund, Inc. (MEN)

October 31, 2017  
(Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Municipal Bonds</b>		
<b>Alabama 0.6%</b>		
County of Tuscaloosa Board of Education, RB, Special Tax School Warrants, 5.00%, 2/01/43	\$ 885	\$ 1,013,121
Homewood Educational Building Authority, Refunding RB, Educational Facilities, Samford University, Series A, 5.00%, 12/01/47	1,010	1,129,766
		2,142,887
<b>Alaska 0.7%</b>		
Alaska Industrial Development & Export Authority, RB, Providence Health Services, Series A, 5.50%, 10/01/41	990	1,093,029
Borough of Matanuska-Susitna Alaska, RB, Goose Creek Correctional Center (AGC):		
6.00%, 9/01/19	765	831,853
6.00%, 9/01/19	435	473,015
		2,397,897
<b>Arizona 1.9%</b>		
County of Maricopa Arizona IDA, Refunding RB, Banner Health Obligation Group, Series A:		
5.00%, 1/01/38	280	324,383
4.00%, 1/01/41	3,100	3,212,685
State of Arizona, COP, Department of Administration, Series A (AGM):		
5.00%, 10/01/27	2,700	2,886,597
5.00%, 10/01/29	400	427,488
		6,851,153
<b>California 14.2%</b>		
Anaheim Public Financing Authority California, RB, Senior, Public Improvements Project, Series A (AGM), 6.00%, 9/01/24	5,000	6,018,850
California Health Facilities Financing Authority, RB:		
St. Joseph Health System, Series A, 5.75%, 7/01/39	550	590,194
Sutter Health, Series B, 5.88%, 8/15/31	1,200	1,349,748
California Health Facilities Financing Authority, Refunding RB, St. Joseph Health System, Series A, 5.00%, 7/01/37	1,090	1,236,125
California Statewide Communities Development Authority, RB, Kaiser Permanente, Series A, 5.00%, 4/01/42	1,480	1,665,903
City & County of San Francisco California Airports Commission, Refunding ARB, Series A, AMT, 5.00%, 5/01/42	185	212,741
City of Redding California Electric System Revenue, COP, Refunding Series A, (AGM):		
5.00%, 6/01/18 <sup>(a)</sup>	620	634,427
5.00%, 6/01/30	600	612,720
City of San Jose California, Refunding ARB, Norman Y Mineta San Jose International Airport SJC, AMT:		

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Series A, 5.00%, 3/01/36	410	475,563
Series A, 5.00%, 3/01/37	455	526,558
Series A-1, 5.75%, 3/01/34	850	959,811
County of San Joaquin California Transportation Authority, Refunding RB, Limited Tax, Measure K, Series A, 6.00%, 3/01/21 <sup>(a)</sup>	2,175	2,514,039
County of San Mateo California Community College District, GO, CAB, Election of 2001, Series C (NPFGC), 0.00%, 9/01/30 <sup>(b)</sup>	12,740	8,880,035
Mount San Antonio Community College District, GO, Refunding, CAB, Election of 2008, Series A, 6.25%, 8/01/43 <sup>(c)</sup>	2,500	2,003,725
Poway Unified School District, GO, Refunding, CAB, School Facilities Improvement, Election of 2008, Series B, 0.00%, 8/01/36 <sup>(b)</sup>	3,750	1,921,012
	<i>Par</i>	
<i>Security</i>	<i>(000)</i>	<i>Value</i>
<b>California (continued)</b>		
Rio Hondo Community College District California, GO, CAB, Election of 2004, Series C, 0.00%, 8/01/38 <sup>(b)</sup>	\$ 5,000	\$ 2,355,950
San Diego California Community College District, GO, CAB, Election of 2006 <sup>(b)</sup> : 0.00%, 8/01/31	2,145	1,216,108
0.00%, 8/01/32	2,680	1,422,866
San Diego California Unified School District, GO, CAB, Election of 2008 <sup>(b)</sup> : Series C, 0.00%, 7/01/38	1,600	774,832
Series G, 0.00%, 7/01/34	650	307,879
Series G, 0.00%, 7/01/35	690	306,857
Series G, 0.00%, 7/01/36	1,035	432,185
Series G, 0.00%, 7/01/37	690	270,632
San Diego California Unified School District, GO, Refunding, Series R-1 <sup>(b)</sup> : 0.00%, 7/01/30	5,000	3,433,550
0.00%, 7/01/31	1,280	845,274
San Marcos Unified School District, GO, Election of 2010, Series A: 5.00%, 8/01/34	700	783,230
5.00%, 8/01/38	600	670,644
Walnut Valley Unified School District, GO, CAB, Election of 2007, Series B, 0.00%, 8/01/36 <sup>(b)</sup>	5,500	2,669,920
West Basin Municipal Water District California, COP, Refunding, Series B (AGC), 5.00%, 8/01/18 <sup>(a)</sup>	5,035	5,182,928
		50,274,306
<b>Colorado 0.6%</b>		
Regional Transportation District, COP, Refunding, Series A, 5.38%, 6/01/31	2,000	2,175,760
<b>District of Columbia 1.5%</b>		
District of Columbia Ballpark Revenue, RB, Series B-1 (NPFGC), 5.00%, 2/01/31	5,360	5,458,892
<b>Florida 12.7%</b>		
City of Gainesville Florida Utilities System Revenue, RB, Series A, 5.00%, 10/01/37 <sup>(d)</sup>	355	419,418
County of Brevard Florida Health Facilities Authority, Refunding RB, Health First, Inc. Project, 5.00%, 4/01/39	1,600	1,759,264
County of Broward Florida Water & Sewer Utility, Refunding RB, Series A, 5.25%, 10/01/18 <sup>(a)</sup>	850	882,139
	1,450	1,576,121

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County of Highlands Florida Health Facilities Authority, RB, Adventist Health System/Sunbelt, Series B, 6.00%, 11/15/37		
County of Hillsborough Florida Aviation Authority, RB, Series A, AMT (AGC), 5.38%, 10/01/33	4,050	4,185,837
County of Lee Florida, Refunding ARB, Series A, AMT: 5.63%, 10/01/26	960	1,086,624
5.38%, 10/01/32	3,160	3,509,085
County of Miami-Dade Florida, GO, Building Better Communities Program, Series B-1, 5.75%, 7/01/18 <sup>(a)</sup>	1,400	1,443,778
County of Miami-Dade Florida, RB, Seaport: Department, Series A, 6.00%, 10/01/38	2,025	2,416,027
Department, Series B, AMT, 6.25%, 10/01/38	415	492,771
Department, Series B, AMT, 6.00%, 10/01/42	660	765,382
Series B, AMT, 6.00%, 10/01/30	640	754,707
County of Miami-Dade Florida Aviation, Refunding ARB, AMT, 5.00%, 10/01/34	190	215,211
County of Miami-Dade Florida Educational Facilities Authority, RB, University of Miami, Series A, 5.00%, 4/01/40	2,995	3,371,382
County of Miami-Dade Florida Health Facilities Authority, Refunding RB, Nicklaus Children s Hospital Project, 5.00%, 8/01/42	605	685,889

SCHEDULES OF INVESTMENTS

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## Schedule of Investments (continued)

## BlackRock MuniEnhanced Fund, Inc. (MEN)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Florida (continued)</b>		
County of Miami-Dade Florida School Board Foundation, Inc., COP, Series B (AGC), 5.00%, 5/01/18 <sup>(a)</sup>	\$ 10,000	\$ 10,193,400
County of Orange Florida Health Facilities Authority, Refunding RB, Presbyterian Retirement Communities Project:		
5.00%, 8/01/41	560	617,742
5.00%, 8/01/47	1,620	1,779,878
County of Palm Beach Florida Solid Waste Authority, Refunding RB, Series B:		
5.00%, 10/01/21 <sup>(a)</sup>	30	34,087
5.00%, 10/01/31	1,970	2,210,360
County of Sarasota Florida Public Hospital District, RB, Sarasota Memorial Hospital Project, Series A, 5.63%, 7/01/39	275	290,048
Florida Ports Financing Commission, Refunding RB, State Transportation Trust Fund, Series B, AMT:		
5.13%, 6/01/27	2,000	2,244,360
5.38%, 10/01/29	1,050	1,196,779
Greater Orlando Aviation Authority, ARB, Priority Sub-Series A, AMT, 4.00%, 10/01/47	2,880	2,958,307
		45,088,596
<b>Georgia 3.1%</b>		
County of Gainesville Georgia & Hall Hospital Authority, Refunding RB, Northeast Georgia Health System, Inc. Project, Series A, 5.50%, 8/15/54	500	585,995
Municipal Electric Authority of Georgia, Refunding RB, Series EE (AMBAC), 7.00%, 1/01/25	7,475	9,875,671
Private Colleges & Universities Authority, RB, Savannah College of Art & Design:		
5.00%, 4/01/33	140	156,197
5.00%, 4/01/44	380	413,618
		11,031,481
<b>Illinois 16.3%</b>		
City of Chicago Illinois O Hare International Airport, ARB, Senior Lien, Series D, 5.25%, 1/01/42	2,900	3,404,049
City of Chicago Illinois O Hare International Airport, GARB:		
3rd Lien, Series A, 5.75%, 1/01/21 <sup>(a)</sup>	4,290	4,876,915
3rd Lien, Series A, 5.75%, 1/01/39	820	922,123
Senior Lien, Series D, AMT, 5.00%, 1/01/42	230	258,757
City of Chicago Illinois Transit Authority, RB:		
5.25%, 12/01/49	900	995,616
Sales Tax Receipts, 5.25%, 12/01/36	595	642,005
County of Cook Illinois Forest Preserve District, GO, Refunding, Limited Tax Project, Series B, 5.00%, 12/15/37	45	47,795
Illinois Finance Authority, RB, Carle Foundation, Series A: 5.75%, 8/15/34	650	732,648



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6.00%, 8/15/41	1,000	1,131,140
Illinois Finance Authority, Refunding RB, Silver Cross Hospital & Medical Centers, Series C:		
4.13%, 8/15/37	740	753,039
5.00%, 8/15/44	350	374,647
Illinois Sports Facilities Authority, RB, State Tax Supported (AMBAC), 5.50%, 6/15/30	10,490	10,513,078
Illinois State Toll Highway Authority, RB, Series B, 5.00%, 1/01/37	2,785	3,179,077
Kane McHenry Cook & De Kalb Counties Unit School District No. 300, GO, Refunding, 5.25%, 1/01/33	9,145	10,389,177
Metropolitan Pier & Exposition Authority, RB, CAB, McCormick Place Expansion Project, Series A (NPFGC) <sup>(b)</sup> :		
0.00%, 12/15/26	5,000	3,643,750
0.00%, 12/15/33	9,950	5,188,925
	<i>Par</i>	<i>Value</i>
<i>Security</i>	<i>(000)</i>	
<b>Illinois (continued)</b>		
Metropolitan Pier & Exposition Authority, Refunding RB, CAB, McCormick Place Expansion Project, Series B (AGM), 0.00%, 6/15/44 <sup>(b)</sup>	\$ 3,450	\$ 1,114,591
Railsplitter Tobacco Settlement Authority, RB, 6.00%, 6/01/28	675	760,604
Regional Transportation Authority, RB, Series A (AMBAC), 7.20%, 11/01/20	3,565	3,880,502
State of Illinois, GO:		
5.25%, 2/01/33	830	888,689
5.50%, 7/01/33	820	889,954
5.25%, 2/01/34	830	886,324
5.50%, 7/01/38	445	476,644
State of Illinois Toll Highway Authority, Refunding RB, Series B, 5.50%, 1/01/18 <sup>(a)</sup>	1,875	1,888,744
		57,838,793
<b>Indiana 1.2%</b>		
Indiana Finance Authority, RB, Series A:		
CWA Authority Project, 1st Lien, 5.25%, 10/01/38	1,100	1,245,453
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/44	515	554,356
Indiana Health & Educational Facilities Financing Authority, Refunding RB, Ascension Senior Credit Group, 5.00%, 11/15/46	700	790,104
Indianapolis Local Public Improvement Bond Bank, Refunding RB, Waterworks Project, Series A (AGC):		
5.25%, 1/01/19 <sup>(a)</sup>	115	120,557
5.25%, 1/01/29	485	508,668
State of Indiana Finance Authority, RB, Private Activity Bond, Ohio River Bridges, Series A, AMT, 5.00%, 7/01/40	890	961,334
		4,180,472
<b>Iowa 2.9%</b>		
Iowa Finance Authority, RB, Iowa Health Care Facilities, Series A (AGC), 5.63%, 8/15/19 <sup>(a)</sup>	5,725	6,176,531
Iowa Student Loan Liquidity Corp., RB, Senior Series A-2, AMT:		
5.60%, 12/01/26	1,855	1,989,728
5.70%, 12/01/27	835	890,494
5.80%, 12/01/29	570	606,486
5.85%, 12/01/30	595	633,443

		10,296,682
<b>Louisiana 1.5%</b>		
City of New Orleans Louisiana Aviation Board, ARB, Series B, AMT, 5.00%, 1/01/40	2,795	3,118,493
City of Shreveport Louisiana Water & Sewer Revenue, RB, Series A (AGM), 5.00%, 12/01/41	855	986,687
Louisiana Public Facilities Authority, Refunding RB, Christus Health, Series B (AGC), 6.50%, 7/01/30	1,250	1,317,125
		5,422,305
<b>Maine 0.2%</b>		
Maine State Housing Authority, RB, Series D-1, 3.65%, 11/15/42	645	634,828
<b>Massachusetts 2.6%</b>		
Commonwealth of Massachusetts, GOL, Consolidated Loan, Series D, 4.00%, 2/01/47	10	10,392
Massachusetts Development Finance Agency, RB, Emerson College Issue, Series A, 5.00%, 1/01/47	2,090	2,337,351
Massachusetts HFA, Refunding RB, AMT:		
Series A, 4.45%, 12/01/42	795	829,583
Series C, 5.35%, 12/01/42	640	678,797
Massachusetts Port Authority, Refunding ARB, Series B, AMT, 4.00%, 7/01/46	3,620	3,732,256

## Schedule of Investments (continued)

## BlackRock MuniEnhanced Fund, Inc. (MEN)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Massachusetts (continued)</b>		
Massachusetts School Building Authority, RB, Dedicated Sales Tax, Senior Series A, 5.00%, 5/15/43	\$ 1,280	\$ 1,455,104
		9,043,483
<b>Michigan 2.7%</b>		
City of Detroit Michigan Sewage Disposal System, Refunding RB, 2nd Lien, Series E (BHAC), 5.75%, 7/01/18 <sup>(a)</sup>	2,500	2,577,325
City of Detroit Michigan Water Supply System Revenue, RB, 2nd Lien, Series B (AGM), 6.25%, 7/01/19 <sup>(a)</sup>	400	433,516
City of Lansing Michigan, RB, Board of Water & Light Utilities System, Series A, 5.50%, 7/01/41	1,700	1,923,312
Michigan Finance Authority, Refunding RB: Henry Ford Health System, 3.25%, 11/15/42	480	439,037
Trinity Health Credit Group, 5.00%, 12/01/21 <sup>(a)</sup>	20	22,812
Michigan State Hospital Finance Authority, Refunding RB, Ascension Senior Credit Group, 4.00%, 11/15/47	600	616,032
Royal Oak Hospital Finance Authority, Refunding RB, Beaumont Health Credit Group, Series D, 5.00%, 9/01/39	1,040	1,147,931
State of Michigan Building Authority, Refunding RB, Facilities Program: Series I-A, 5.38%, 10/15/36	145	164,929
Series I-A, 5.38%, 10/15/41	700	794,773
Series II-A (AGM), 5.25%, 10/15/36	900	1,019,421
Western Michigan University, Refunding RB, General, University and College Improvements (AGM), 5.00%, 11/15/39	380	430,186
		9,569,274
<b>Minnesota 0.7%</b>		
City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series B (AGC): 6.50%, 11/15/18 <sup>(a)</sup>	385	406,441
6.50%, 11/15/38	2,115	2,222,632
		2,629,073
<b>Nebraska 1.8%</b>		
Central Plains Energy Project Nebraska, RB, Gas Project No. 3: 5.00%, 9/01/32	5,010	5,523,625
5.25%, 9/01/37	750	828,525
		6,352,150
<b>Nevada 1.6%</b>		
City of Las Vegas Nevada, GO, Limited Tax, Performing Arts Center, 6.00%, 4/01/19 <sup>(a)</sup>	850	907,894
County of Clark Nevada, ARB, Las Vegas-McCarran International Airport, Series A: 5.25%, 7/01/42	500	538,540

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(AGM), 5.25%, 7/01/39	3,800	4,102,214
		5,548,648
<b>New Jersey 8.6%</b>		
New Jersey EDA, RB:		
Goethals Bridge Replacement Project, AMT, Private Activity Bond, 5.38%, 1/01/43	895	996,189
Goethals Bridge Replacement Project, AMT, Private Activity Bond, 5.13%, 1/01/34	685	759,014
School Facilities Construction (AGC), 6.00%, 12/15/18 <sup>(a)</sup>	1,975	2,083,941
School Facilities Construction (AGC), 6.00%, 12/15/18 <sup>(a)</sup>	25	26,379
Series WW, 5.25%, 6/15/33	155	171,469
Series WW, 5.00%, 6/15/34	205	222,122
Series WW, 5.00%, 6/15/36	925	994,634
Series WW, 5.25%, 6/15/40	265	287,464
New Jersey EDA, Refunding RB:		
Series B, 5.50%, 6/15/30	5,360	6,258,926
Sub Series A, 4.00%, 7/01/32	1,270	1,278,052
	<i>Par</i>	
	(000)	<i>Value</i>
<i>Security</i>		
<b>New Jersey (continued)</b>		
New Jersey Higher Education Student Assistance Authority, Refunding RB, Series 1, AMT:		
5.50%, 12/01/26	\$ 375	\$ 409,991
5.75%, 12/01/27	2,415	2,653,602
New Jersey Housing & Mortgage Finance Agency, Refunding RB, M/F Housing, Series 2, AMT, 4.35%, 11/01/33	970	1,024,960
New Jersey Transportation Trust Fund Authority, RB:		
Transportation Program, Series AA, 5.25%, 6/15/33	1,490	1,619,541
Transportation Program, Series AA, 5.00%, 6/15/38	1,885	2,017,346
Transportation System, Series A, 5.50%, 6/15/41	3,150	3,387,825
Transportation System, Series AA, 5.50%, 6/15/39	1,150	1,249,854
Transportation System, Series B, 5.50%, 6/15/31	1,000	1,095,900
Transportation System, Series B, 5.00%, 6/15/42	520	541,070
Transportation System, Series D, 5.00%, 6/15/32	735	793,337
New Jersey Turnpike Authority, Refunding RB, Series B, 4.00%, 1/01/37	2,310	2,471,261
		30,342,877
<b>New York 8.0%</b>		
City of New York, GO, Series B-1, 4.00%, 10/01/41	2,710	2,873,928
City of New York New York Municipal Water Finance Authority, Refunding RB, Second General Resolution, Fiscal 2012, Series BB, 5.25%, 6/15/44	1,425	1,618,116
City of New York New York Transitional Finance Authority, BARB, Fiscal 2009, Series S-4, 5.50%, 1/15/33	1,600	1,683,664
City of New York New York Transitional Finance Authority, RB, Fiscal 2009, Series S-4, 5.50%, 1/15/34	2,750	2,893,797
City of New York New York Transitional Finance Authority, Refunding RB, Future Tax Secured, Series B, 5.00%, 11/01/32	1,480	1,713,041
Hudson Yards Infrastructure Corp., RB, Senior, Fiscal 2012:		
5.75%, 2/15/21 <sup>(a)</sup>	420	480,656
5.75%, 2/15/47	280	318,979
Hudson Yards Infrastructure Corp., Refunding RB, 2nd Indenture, Series A, 5.00%, 2/15/39	625	730,044

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Metropolitan Transportation Authority, RB, Series C:		
6.50%, 11/15/18 <sup>(a)</sup>	2,985	3,152,190
6.50%, 11/15/18 <sup>(a)</sup>	245	258,722
6.50%, 11/15/28	770	813,952
New York City Transitional Finance Authority Future Tax Secured Revenue, RB, Sub-Series B-1, 4.00%, 8/01/42	2,600	2,763,930
New York Transportation Development Corp., ARB, LaGuardia Airport Terminal B Redevelopment Project, Series A, AMT, 5.25%, 1/01/50	2,715	3,009,550
Port Authority of New York & New Jersey, Refunding ARB, Consolidated, 206th Series, AMT, 5.00%, 11/15/37	600	699,924
State of New York Dormitory Authority, RB: Sales Tax, Group C, Series A, 4.00%, 3/15/47	1,530	1,614,395
Series B, 5.75%, 3/15/19 <sup>(a)</sup>	1,200	1,275,792
State of New York HFA, RB, Affordable Housing, M/F Housing, Series B, AMT, 5.30%, 11/01/37	2,500	2,503,075
		28,403,755
<b>Ohio 1.6%</b>		
County of Lucas Ohio, Refunding RB, Promedica Healthcare, Series A, 6.50%, 11/15/37	530	631,108
State of Ohio Turnpike Commission, RB, CAB, Junior Lien, Infrastructure Projects, Series A-2, 0.00%, 2/15/37 <sup>(b)</sup>	10,000	5,082,600
		5,713,708
<b>Oregon 1.3%</b>		
Counties of Washington & Multnomah Oregon School District No. 48J Beaverton, GO, Convertible CAB, Series D, 5.00%, 6/15/36 <sup>(c)</sup>	835	946,698

SCHEDULES OF INVESTMENTS

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## Schedule of Investments (continued)

## BlackRock MuniEnhanced Fund, Inc. (MEN)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Oregon (continued)</b>		
County of Clackamas Oregon Community College District, GO, Convertible Deferred Interest Bonds, Series A, 5.00%, 6/15/40 <sup>(c)</sup>	\$ 440	\$ 450,274
County of Clackamas Oregon School District No. 12 North Clackamas, GO, CAB, Series A, 0.00%, 6/15/38 <sup>(b)</sup>	995	433,561
State of Oregon Housing & Community Services Department, RB, Series D, 3.45%, 1/01/38	2,840	2,828,470
		4,659,003
<b>Pennsylvania 7.4%</b>		
Commonwealth Financing Authority, RB, Series B, 5.00%, 6/01/42	1,600	1,746,704
County of Berks Industrial Development Authority, Refunding RB, Tower Health Project, 4.00%, 11/01/47	1,855	1,862,606
Pennsylvania Economic Development Financing Authority, RB:		
Pennsylvania Bridge Finco LP, 5.00%, 12/31/38	1,305	1,461,496
Pennsylvania Bridge Finco LP, AMT, 5.00%, 12/31/34	7,290	8,251,915
Pennsylvania Rapid Bridge Replacement Project, AMT, 5.00%, 6/30/42	1,035	1,147,639
Pennsylvania Higher Educational Facilities Authority, Refunding RB, Thomas Jefferson University, Series A, 5.25%, 9/01/50	2,330	2,634,927
Pennsylvania Turnpike Commission, RB:		
Series A, 5.00%, 12/01/38	620	707,897
Series A-1, 5.00%, 12/01/41	2,385	2,701,012
Series B, 5.00%, 12/01/40	935	1,065,404
Series C, 5.50%, 12/01/33	555	651,792
Sub-Series B-1, 5.00%, 6/01/42	1,750	1,974,210
Subordinate, Special Motor License Fund, 6.00%, 12/01/20 <sup>(a)</sup>	575	657,093
Pennsylvania Turnpike Commission, Refunding RB, Series A-1, 5.00%, 12/01/40	765	868,589
Philadelphia School District, GO, Series E <sup>(a)</sup> :		
6.00%, 9/01/18	5	5,201
6.00%, 9/01/18	395	411,017
		26,147,502
<b>Rhode Island 1.2%</b>		
Rhode Island Commerce Corp., RB, Airport Corp., Series D, 5.00%, 7/01/41	355	398,008
Tobacco Settlement Financing Corp., Refunding RB, Series B:		
4.50%, 6/01/45	1,055	1,056,983
5.00%, 6/01/50	2,630	2,713,582
		4,168,573
<b>South Carolina 4.9%</b>		
South Carolina Jobs EDA, Refunding RB, Palmetto Health, Series A (AGM), 6.50%, 8/01/39	115	132,662
South Carolina Public Service Authority, Refunding RB, Series A <sup>(a)</sup> :		

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5.50%, 1/01/19	80	84,097
5.50%, 1/01/19	920	967,113
South Carolina Transportation Infrastructure Bank, RB, Series A, 5.25%, 10/01/19 <sup>(a)</sup>	3,000	3,228,570
State of South Carolina Ports Authority, RB, AMT, 5.25%, 7/01/50	2,330	2,601,911
State of South Carolina Public Service Authority, RB, Santee Cooper:		
Series A, 5.50%, 12/01/54	6,225	7,025,037
Series E, 5.50%, 12/01/53	745	837,231
State of South Carolina Public Service Authority, Refunding RB, Santee Cooper, Series B, 5.00%, 12/01/38	2,080	2,292,576
		17,169,197
	<i>Par</i>	
<i>Security</i>	<i>(000)</i>	<i>Value</i>
<b>South Dakota 0.9%</b>		
South Dakota Health & Educational Facilities Authority, Refunding RB, Avera Health Issue, 4.00%, 7/01/42	\$ 3,000	\$ 3,048,030
<b>Tennessee 2.1%</b>		
Metropolitan Government of Nashville & Davidson County Health & Educational Facilities Board, Refunding RB, Vanderbilt University, Series B, 5.50%, 10/01/19 <sup>(a)</sup>	5,000	5,409,500
Tennessee Housing Development Agency, RB:		
3.60%, 7/01/42	550	549,626
3.65%, 7/01/47	1,470	1,466,781
		7,425,907
<b>Texas 14.4%</b>		
City of Houston Texas Combined Utility System Revenue, Refunding RB, Combined 1st Lien, Series A (AGC):		
5.38%, 5/15/19 <sup>(a)</sup>	1,280	1,361,498
6.00%, 5/15/19 <sup>(a)</sup>	1,990	2,135,568
6.00%, 11/15/35	110	118,450
5.38%, 11/15/38	70	74,115
City of San Antonio Texas Electric & Gas Revenue, RB, Junior Lien, 5.00%, 2/01/38	575	652,522
County of Midland Texas Fresh Water Supply District No. 1, RB, CAB, City of Midland Project, Series A, 0.00%, 9/15/36 <sup>(b)</sup>	2,130	982,399
County of Tarrant Texas Cultural Education Facilities Finance Corp., Refunding RB, Cook Children's Medical Center, 5.25%, 12/01/39	750	847,342
Dallas-Fort Worth International Airport, ARB, Joint Improvement, AMT:		
Series D, 5.00%, 11/01/38	1,975	2,189,485
Series D, 5.00%, 11/01/42	1,500	1,656,240
Series H, 5.00%, 11/01/32	3,000	3,347,760
Dallas-Fort Worth International Airport, Refunding ARB, Series F, 5.25%, 11/01/33	975	1,145,410
Grand Parkway Transportation Corp., RB, Convertible CAB, Series B, 5.80%, 10/01/46 <sup>(c)</sup>	2,095	1,953,399
Leander ISD, GO, Refunding, CAB, Series D (PSF-GTD), 0.00%, 8/15/38 <sup>(b)</sup>	3,420	1,411,605
North Texas Tollway Authority, Refunding RB:		
1st Tier System (NPFGC), 5.75%, 1/01/18 <sup>(a)</sup>	600	604,644
1st Tier System (NPFGC), 5.75%, 1/01/40	195	196,509
1st Tier System, Series A, 6.00%, 1/01/19 <sup>(a)</sup>	2,270	2,396,598
1st Tier System, Series A, 6.00%, 1/01/28	525	554,594
1st Tier System, Series K-2 (AGC), 6.00%, 1/01/19 <sup>(a)</sup>	4,015	4,241,326
1st Tier System, Series S (NPFGC), 5.75%, 1/01/18 <sup>(a)</sup>	805	811,231

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1st Tier, Series K-1 (AGC), 5.75%, 1/01/19 <sup>(a)</sup>	3,800	4,003,262
1st Tier-Series A, 5.00%, 1/01/43 <sup>(d)</sup>	2,490	2,876,174
San Antonio Public Facilities Corp., Refunding RB, Convention Center Refinancing & Expansion Project, CAB <sup>(b)</sup> :		
0.00%, 9/15/35	4,990	2,242,905
0.00%, 9/15/36	11,525	4,876,227
0.00%, 9/15/37	8,245	3,279,284
Texas Municipal Gas Acquisition & Supply Corp. III, RB, Natural Gas Utility Improvements:		
5.00%, 12/15/31	1,190	1,330,884
5.00%, 12/15/32	705	785,955
Texas Private Activity Bond Surface Transportation Corp., RB, Senior Lien, AMT, Blueridge Transportation Group, 5.00%, 12/31/45	1,275	1,399,287
Texas Transportation Commission, Refunding RB, Central Texas Turnpike System, 1st Tier, Series A, 5.00%, 8/15/41	3,080	3,416,398
		50,891,071



## Schedule of Investments (continued)

## BlackRock MuniEnhanced Fund, Inc. (MEN)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Utah 1.9%</b>		
Salt Lake City Corp. Airport Revenue, RB, Series A, AMT, 5.00%, 7/01/42	\$ 1,240	\$ 1,427,562
Utah Transit Authority, RB, Series A (AGM), 5.00%, 6/15/18 <sup>(a)</sup>	5,000	5,121,550
		6,549,112
<b>Virginia 0.1%</b>		
County of Fairfax Virginia IDA, Refunding RB, Health Care-Inova Health: 5.50%, 5/15/19 <sup>(a)</sup>	125	133,196
5.50%, 5/15/35	225	238,935
		372,131
<b>Washington 1.4%</b>		
Port of Seattle Washington, ARB, Intermediate Lien, Series C, AMT, 5.00%, 5/01/42	715	824,116
Port of Seattle Washington, RB, Series C, AMT, 5.00%, 4/01/40	1,015	1,130,822
Washington Health Care Facilities Authority, RB, Providence Health & Services, Series A: 5.00%, 10/01/39	525	555,980
5.25%, 10/01/39	625	666,756
Washington Health Care Facilities Authority, Refunding RB, Multicare Health System, Series B, 4.00%, 8/15/41 <sup>(d)</sup>	1,835	1,879,958
		5,057,632
<b>Wisconsin 2.0%</b>		
Public Finance Authority, RB, KU Campus Development Corp., Central District Development Project, 5.00%, 3/01/46	645	724,271
State of Wisconsin Health & Educational Facilities Authority, RB: Ascension Health Senior Credit Group, Series E, 5.00%, 11/15/33	1,375	1,471,841
Marshfield Clinic Health System, Inc. Series C, 4.00%, 2/15/42	2,810	2,827,225
State of Wisconsin Health & Educational Facilities Authority, Refunding RB, Froedtert Health, Inc. Obligated Group, 4.00%, 4/01/39	1,900	1,955,651
		6,978,988
<b>Total Municipal Bonds 122.6%</b>		433,864,166
<b>Municipal Bonds Transferred to Tender Option Bond Trusts<sup>(e)</sup></b>		
<b>Arizona 0.4%</b>		
Phoenix Civic Improvement Corp., Refunding RB, Junior Lien, Series A, 5.00%, 7/01/19 <sup>(a)</sup>	1,200	1,275,822
<b>California 2.3%</b>		
Bay Area California Toll Authority, Refunding RB, San Francisco Bay Area, Series D-1,	3,827	4,031,129

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4.00%, 4/01/47 <sup>(f)</sup>		
County of San Diego Water Authority Financing Corp., COP, Refunding, Series A (AGM) <sup>(a)</sup> :		
5.00%, 5/01/18	466	475,391
5.00%, 5/01/18	2,344	2,390,135
San Diego Community College District, GO, Election of 2002, 5.25%, 8/01/19 <sup>(a)</sup>	404	432,670
University of California, RB, Series O, 5.75%, 5/15/19 <sup>(a)</sup>	840	899,068
		8,228,393
<b>Colorado 2.3%</b>		
Colorado Health Facilities Authority, Refunding RB, Catholic Health Initiative, Series A:		
5.50%, 7/01/34 <sup>(f)</sup>	900	946,044
5.00%, 2/01/41	7,000	7,299,600
		8,245,644
	<i>Par</i>	
<i>Security</i>	<i>(000)</i>	<i>Value</i>
<b>Connecticut 0.4%</b>		
State of Connecticut Health & Educational Facility Authority, Refunding RB, Trinity Health Credit Group, 5.00%, 12/01/45	\$ 1,381	\$ 1,560,319
<b>District of Columbia 1.7%</b>		
District of Columbia, RB, Series A, 5.50%, 12/01/30 <sup>(f)</sup>	1,004	1,090,314
District of Columbia Water & Sewer Authority, Refunding RB, Series A, 6.00%, 10/01/18 <sup>(a)(f)</sup>	1,779	1,856,871
Metropolitan Washington Airports Authority, Refunding ARB, Airport System, Series A, AMT, 5.00%, 10/01/30	2,530	2,870,740
		5,817,925
<b>Florida 3.9%</b>		
County of Miami-Dade Florida, Refunding RB, Transit System Sales Surtax, 5.00%, 7/01/42	4,480	5,054,829
County of Miami-Dade Florida Water & Sewer System, RB, (AGM), 5.00%, 10/01/39	4,620	5,036,926
County of Orange Florida School Board, COP, Series A (AGC), 5.50%, 02/01/18 <sup>(a)</sup>	3,544	3,806,492
		13,898,247
<b>Illinois 3.2%</b>		
State of Illinois, RB, Build Illinois, Series B, 5.25%, 6/15/19 <sup>(a)(f)</sup>	4,399	4,684,742
State of Illinois Toll Highway Authority, RB:		
Series A, 5.00%, 1/01/38	2,138	2,381,389
Series A, 5.00%, 1/01/40	2,730	3,102,016
Series B, 5.00%, 1/01/40	1,050	1,189,439
		11,357,586
<b>Kansas 1.6%</b>		
County of Wyandotte Unified School District No. 500 Kansas City, GO, Improvement, Series A, 5.50%, 9/01/47	4,723	5,723,768
<b>Maryland 0.9%</b>		
City of Baltimore Maryland, RB, Water Projects, Series A, 5.00%, 7/01/41	2,808	3,245,956

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**Massachusetts 0.5%**

Commonwealth of Massachusetts, GO, Series A, 5.00%, 3/01/46	1,461	1,671,956
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**Michigan 3.2%**

State of Michigan Finance Authority, RB, Beumont Health Credit Group, Series A, 5.00%, 11/01/44	1,970	2,195,370
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State of Michigan Finance Authority, Refunding RB, Trinity Health Credit Group, 5.00%, 12/01/39	7,530	8,292,940
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State of Michigan Building Authority, Refunding RB, Facilities Program, Series I, 5.00%, 10/15/45	870	989,768
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11,478,078

**Nevada 4.2%**

City of Las Vegas Nevada, GO, Limited Tax, Performing Arts Center, 6.00%, 4/01/19 <sup>(a)(f)</sup>	3,778	4,029,956
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County of Clark Nevada Water Reclamation District, GO, Series B <sup>(a)</sup> : 5.50%, 7/01/19	4,499	4,817,449
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5.75%, 7/01/19	1,829	1,966,455
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Las Vegas Valley Water District, GO, Refunding Water Improvement, Series A, 5.00%, 6/01/46	3,460	4,009,396
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14,823,256

**New Jersey 0.8%**

County of Hudson New Jersey Improvement Authority, RB, Hudson County Vocational-Technical Schools Project, 5.25%, 5/01/51	800	922,458
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New Jersey Transportation Trust Fund Authority, RB, Transportation System, Series B, 5.25%, 6/15/36 <sup>(f)</sup>	1,840	1,956,432
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2,878,890

## Schedule of Investments (continued)

## BlackRock MuniEnhanced Fund, Inc. (MEN)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>New York 6.5%</b>		
City of New York New York Water & Sewer System, RB, Fiscal 2009, Series A: 5.75%, 6/15/18 <sup>(a)</sup>	\$ 290	\$ 298,094
5.75%, 6/15/40	969	996,840
City of New York New York Water & Sewer System, Refunding RB, 2nd General Resolution, Fiscal 2013, Series CC, 5.00%, 6/15/47	5,680	6,464,608
Metropolitan Transportation Authority, RB, Sub-Series D-1, 5.25%, 11/15/44	3,470	4,059,883
Metropolitan Transportation Authority, Refunding RB, Series C-1, 5.25%, 11/15/56	1,500	1,753,613
New York City Transitional Finance Authority Future Tax Secured Revenue, RB, Future Tax, Sub-Series A-3, 5.00%, 8/01/40 <sup>(f)</sup>	3,059	3,586,106
New York City Water & Sewer System, RB, 2nd General Resolution, Series DD, 5.00%, 6/15/35	1,665	1,939,053
Port Authority of New York & New Jersey, Refunding ARB, Consolidated, 198th Series, 5.25%, 11/15/56	2,241	2,631,132
Triborough Bridge & Tunnel Authority, GRB, Series A-2, 5.25%, 11/15/34 <sup>(f)</sup>	1,300	1,356,647
		23,085,976
<b>Ohio 1.1%</b>		
Northeast Ohio Regional Sewer District, Refunding RB, 4.00%, 11/15/43	2,912	3,107,685
State of Ohio, RB, Cleveland Health Clinic, Series B, 5.50%, 1/01/34	580	609,006
		3,716,691
<b>Pennsylvania 0.3%</b>		
County of Westmoreland Municipal Authority, Refunding RB (BAM), 5.00%, 8/15/42	900	1,026,803
<b>South Carolina 1.5%</b>		
County of Tarrant Texas Cultural Education Facilities Finance Corp., Refunding RB, Texas Health Resources System, Series A, 5.00%, 2/15/41	3,440	3,942,025
South Carolina Public Service Authority, Refunding RB, Series A <sup>(a)(f)</sup> : 5.50%, 1/01/19	102	106,718
5.50%, 1/01/19	1,175	1,233,956
		5,282,699
<b>Washington 1.0%</b>		
Washington Health Care Facilities Authority, Refunding RB, Seattle Children's Hospital, Series B, 5.00%, 10/01/38	2,880	3,430,627
<i>Security</i>	<i>Shares/Par (000)</i>	<i>Value</i>
<b>Wisconsin 1.0%</b>		
Wisconsin Health & Educational Facilities Authority, Refunding RB: Froedtert & Community Health, Inc., Series C, 5.25%, 4/01/19 <sup>(a)(f)</sup>	\$ 1,430	\$ 1,510,921
Froedtert Health, Inc., Series A, 5.00%, 4/01/42	1,980	2,140,221

			3,651,142
<b>Total Municipal Bonds Transferred to Tender Option Bond Trusts</b>	<b>36.8%</b>		130,399,778
<b>Total Long-Term Investments</b>	<b>159.4%</b>		
(Cost \$521,863,363)			564,263,944
<b>Short-Term Securities</b>	<b>1.5%</b>		
BlackRock Liquidity Funds, MuniCash, Institutional Class, 0.74% <sup>(g)(h)</sup>		5,203,622	5,205,183
<b>Total Short-Term Securities</b>	<b>1.5%</b>		
(Cost \$5,205,183)			5,205,183
<b>Total Investments</b>	<b>160.9%</b>		
(Cost \$527,068,546)			569,469,127
<b>Other Assets Less Liabilities</b>	<b>0.3%</b>		1,195,869
<b>Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable</b>	<b>(21.0)%</b>		(74,518,577)
<b>VRDP Shares at Liquidation Value, Net of Deferred Offering Costs</b>	<b>(40.2)%</b>		(142,264,647)
<b>Net Assets Applicable to Common Shares</b>	<b>100.0%</b>		\$ 353,881,772

- (a) U.S. 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.
- (b) Zero-coupon bond.
- (c) Step-up bond that pays an initial coupon rate for the first period and then a higher coupon rate for the following periods. Rate as of period end.
- (d) When-issued security.
- (e) Represent bonds transferred to a TOB Trust in exchange of cash and residual certificates received by the Fund. These bonds serve as collateral in a secured borrowing. See Note 4 of the Notes to Financial Statements for details.
- (f) All or a portion of security is subject to a recourse agreement. The aggregate maximum potential amount the Fund could ultimately be required to pay under the agreements, which expire between May 7, 2018 to August 1, 2025 is \$15,995,433. See Note 4 of the Notes to Financial Statements for details.
- (g) Annualized 7-day yield as of period end.
- (h) During the six months ended October 31, 2017, investments in issuers considered to be an affiliate of the Fund for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

Affiliate	Shares Held at 04/30/17	Net Activity	Shares Held at 10/31/17	Value at 10/31/17	Change in Net Unrealized Appreciation		
					Income	Gain	Depreciation
BlackRock Liquidity Funds, MuniCash, Institutional Class	1,790,782	3,412,840	5,203,622	\$ 5,205,183	\$ 11,110	\$ 785	\$ (217)

(a) Includes net capital gain distributions, if applicable.

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

October 31, 2017 (Unaudited)

**Derivative Financial Instruments Outstanding as of Period End****Futures Contracts**

<i>Description</i>	<i>Number of Contracts</i>	<i>Expiration Date</i>	<i>Notional Amount (000)</i>	<i>Value/ Unrealized Appreciation (Depreciation)</i>
<b>Short Contracts</b>				
10-Year U.S. Treasury Note	(58)	12/19/17	\$ 7,246	\$ 109,380
Long U.S. Treasury Bond	(64)	12/19/17	9,758	194,620
Ultra Long U.S. Treasury Bond	(13)	12/19/17	2,142	46,487
5-Year U.S. Treasury Note	(28)	12/29/17	3,281	31,418
				\$ 381,905

**Derivative Financial Instruments Categorized by Risk Exposure**

As of period end, the fair values of derivative financial instruments located in the Statements of Assets and Liabilities were as follows:

<b>Liabilities</b>	<b>Commodity Contracts</b>	<b>Credit Contracts</b>	<b>Equity Contracts</b>	<b>Foreign Currency Exchange Contracts</b>	<b>Interest Rate Contracts</b>	<b>Other Contracts</b>	<b>Total</b>
<b>Derivative Financial Instruments</b>							
Futures contracts							
Net unrealized appreciation <sup>(a)</sup>	\$	\$	\$	\$	\$ 381,905	\$	\$ 381,905

<sup>(a)</sup> Includes cumulative appreciation (depreciation) on futures contracts, if any, as reported in the Schedule of Investments. Only current day's variation margin is reported within the Statements of Assets and Liabilities. For the six months ended October 31, 2017, the effect of derivative financial instruments in the Statements of Operations was as follows:

	<i>Commodity Contracts</i>	<i>Credit Contracts</i>	<i>Equity Contracts</i>	<i>Foreign Currency Exchange Contracts</i>	<i>Interest Rate Contracts</i>	<i>Other Contracts</i>	<i>Total</i>
<b>Net Realized Gain (Loss) from:</b>							
Futures contracts	\$	\$	\$	\$	\$ (681,361)	\$	\$ (681,361)
<b>Net Change in Unrealized Appreciation (Depreciation) on:</b>							
Futures contracts	\$	\$	\$	\$	\$ 853,033	\$	\$ 853,033

**Average Quarterly Balances of Outstanding Derivative Financial Instruments**

Futures contracts:

Average notional value of contracts short \$ 24,293,727

For more information about the Trust's investment risks regarding derivative financial instruments, refer to the Notes to Financial Statements.



Schedule of Investments (continued)

**BlackRock MuniEnhanced Fund, Inc. (MEN)**

October 31, 2017 (Unaudited)

**Fair Value Hierarchy as of Period End**

Various inputs are used in determining the fair value of investments and derivative financial instruments. For information about the Fund's policy regarding valuation of investments and derivative financial instruments, refer to the Notes to Financial Statements.

The following tables summarize the Fund's investments and derivative financial instruments categorized in the disclosure hierarchy:

	<i>Level 1</i>	<i>Level 2</i>	<i>Level 3</i>	<i>Total</i>
Assets:				
Investments:				
Long-Term Investments <sup>(a)</sup>	\$	\$ 564,263,944	\$	\$ 564,263,944
Short-Term Securities	5,205,183			5,205,183
	\$ 5,205,183	\$ 564,263,944	\$	\$ 569,469,127
Derivative Financial Instruments <sup>(b)</sup>				
Assets:				
Interest rate contracts	\$ 381,905	\$	\$	\$ 381,905

<sup>(a)</sup> See above Schedule of Investments for values in each state or political subdivision.

<sup>(b)</sup> Derivative financial instruments are futures contracts which are valued at the unrealized appreciation (depreciation) on the instrument.

The Fund may hold assets and/or liabilities in which the fair value approximates the carrying amount for financial statement purposes. As of period end, such assets and/or liabilities are categorized within the disclosure hierarchy as follows:

	<i>Level 1</i>	<i>Level 2</i>	<i>Level 3</i>	<i>Total</i>
Liabilities:				
TOB Trust Certificates	\$	\$ (74,326,061)	\$	\$ (74,326,061)
VRDP Shares at Liquidation Value		(142,500,000)		(142,500,000)
	\$	\$ (216,826,061)	\$	\$ (216,826,061)

During the six months ended October 31, 2017, there were no transfers between levels.

See notes to financial statements.



## Schedule of Investments

## BlackRock MuniHoldings Fund, Inc. (MHD)

October 31, 2017  
(Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Municipal Bonds</b>		
<b>Alabama 2.0%</b>		
County of Jefferson Alabama Sewer, Refunding RB:		
Senior Lien, Series A (AGM), 5.00%, 10/01/44	\$ 570	\$ 633,333
Senior Lien, Series A (AGM), 5.25%, 10/01/48	1,090	1,223,786
Sub-Lien, Series D, 6.00%, 10/01/42	1,000	1,166,680
Sub-Lien, Series D, 7.00%, 10/01/51	1,545	1,898,249
		4,922,048
<b>Arizona 2.7%</b>		
City of Phoenix Arizona IDA, RB, Legacy Traditional Schools Projects, Series A, 5.00%, 7/01/46 <sup>(a)</sup>		
	1,230	1,277,232
Salt Verde Financial Corp., RB, Senior:		
5.00%, 12/01/32	2,000	2,417,260
5.00%, 12/01/37	2,360	2,875,141
		6,569,633
<b>California 11.5%</b>		
California Health Facilities Financing Authority, RB:		
St. Joseph Health System, Series A, 5.75%, 7/01/39	1,530	1,641,812
Sutter Health, Series B, 6.00%, 8/15/42	2,200	2,474,230
California Health Facilities Financing Authority, Refunding RB, St. Joseph Health System, Series A, 5.00%, 7/01/33		
	875	999,766
California Municipal Finance Authority, RB, Senior, Caritas Affordable Housing, Inc. Projects, S/F Housing, Series A:		
5.25%, 8/15/39	105	115,794
5.25%, 8/15/49	265	290,231
California Municipal Finance Authority, Refunding RB, Community Medical Centers, Series A, 5.00%, 2/01/42		
	165	184,262
California Pollution Control Financing Authority, RB, Poseidon Resources (Channel Side) LP Desalination Project, AMT, 5.00%, 11/21/45 <sup>(a)</sup>		
	1,025	1,104,294
California Statewide Communities Development Authority, RB, Series A:		
John Muir Health, 5.13%, 7/01/39	1,510	1,603,711
Loma Linda University Medical Center, 5.00%, 12/01/46 <sup>(a)</sup>	330	354,156
City of Los Angeles California Department of Airports, Refunding ARB, Los Angeles International Airport, Series A, 5.25%, 5/15/39		
	555	589,549
City of Stockton California Public Financing Authority, RB, Delta Water Supply Project, Series A, 6.25%, 10/01/38		
	255	312,923
Golden State Tobacco Securitization Corp., Refunding RB, Asset-Backed, Senior Series A-1, 5.75%, 6/01/47		
	1,650	1,649,950
Montebello Unified School District, GO, CAB (NPFGC), 0.00%, 8/01/22 <sup>(b)</sup>	2,405	2,206,804

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San Diego Unified School District California, GO, CAB, Election of 2008, Series A, 0.00%, 7/01/29 <sup>(b)</sup>	3,475	2,495,189
State of California, GO, Various Purposes, 6.50%, 4/01/33	8,370	9,008,464
State of California Public Works Board, LRB, Various Capital Projects: Series I, 5.00%, 11/01/38	550	631,417
Sub-Series I-1, 6.38%, 11/01/19 <sup>(c)</sup>	820	906,248
Tobacco Securitization Authority of Southern California, Refunding RB, Tobacco Settlement, Asset-Backed, Senior Series A-1, 4.75%, 6/01/25	1,250	1,250,762
		27,819,562
<b>Colorado 2.2%</b>		
Colorado Educational & Cultural Facilities Authority, RB, Charter School, Colorado Springs, 5.50%, 7/01/40	1,455	1,527,954
Regional Transportation District, COP, Refunding, Series A, 5.38%, 6/01/31	710	772,395
Regional Transportation District, RB, Denver Transit Partners Eagle P3 Project, 6.00%, 1/15/34	1,425	1,567,072
University of Colorado, RB, Series A, 5.38%, 6/01/19 <sup>(c)</sup>	1,250	1,332,675
		5,200,096
	<i>Par</i>	
	<i>(000)</i>	<i>Value</i>
<i>Security</i>		
<b>Delaware 1.8%</b>		
County of Sussex Delaware, RB, NRG Energy, Inc., Indian River Power LLC Project, 6.00%, 10/01/40	\$ 790	\$ 836,626
Delaware Transportation Authority, RB, U.S. 301 Project, 5.00%, 6/01/55	840	945,857
State of Delaware EDA, RB, Exempt Facilities, Indian River Power LLC Project, 5.38%, 10/01/45	2,430	2,510,141
		4,292,624
<b>District of Columbia 4.8%</b>		
District of Columbia, Refunding RB, Georgetown University: 5.00%, 4/01/35	315	370,283
Issue, 5.00%, 4/01/42	365	423,177
District of Columbia, Tax Allocation Bonds, City Market at O Street Project, 5.13%, 6/01/41	1,520	1,678,886
Metropolitan Washington Airports Authority, Refunding ARB, Dulles Toll Road, CAB, 2nd Senior Lien, Series B (AGC), 0.00%, 10/01/35 <sup>(b)</sup>	13,485	7,004,648
Metropolitan Washington Airports Authority, Refunding RB, Dulles Toll Road, 1st Senior Lien, Series A: 5.00%, 10/01/39	505	535,654
5.25%, 10/01/44	1,470	1,563,815
		11,576,463
<b>Florida 4.7%</b>		
City of Clearwater Florida Water & Sewer Revenue, RB, Series A, 5.25%, 12/01/19 <sup>(c)</sup>	2,375	2,573,574
County of Broward Florida Water & Sewer Utility, Refunding RB, Series A, 5.25%, 10/01/18 <sup>(c)</sup>	750	778,357
County of Collier Florida Health Facilities Authority, Refunding RB, Series A, 5.00%, 5/01/45	960	1,068,960
County of Miami-Dade Florida Aviation, Refunding ARB, Miami International Airport, Series A-1, 5.38%, 10/01/41	2,620	2,899,659

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Mid-Bay Florida Bridge Authority, RB, Springing Lien, Series A, 7.25%, 10/01/21 <sup>(c)</sup>	2,095	2,550,306
Village Community Development District No.10, Special Assessment Bonds, 5.13%, 5/01/43	1,420	1,588,526
		11,459,382
<b>Georgia 1.5%</b>		
County of Gainesville Georgia & Hall Hospital Authority, Refunding RB, Northeast Georgia Health System, Inc. Project, Series A, 5.50%, 8/15/54	370	433,636
DeKalb Georgia Private Hospital Authority, Refunding RB, Children s Healthcare, 5.25%, 11/15/39	585	628,752
Metropolitan Atlanta Rapid Transit Authority, RB, Sales Tax, 3rd Indenture, Series A, 5.00%, 7/01/19 <sup>(c)</sup>	2,410	2,562,433
		3,624,821
<b>Hawaii 0.4%</b>		
State of Hawaii Harbor System, RB, Series A, 5.25%, 7/01/30	945	1,024,522
<b>Idaho 0.3%</b>		
Idaho Health Facilities Authority, RB, Trinity Health Credit Group, Series A, 5.00%, 12/01/46	540	612,106
<b>Illinois 15.8%</b>		
City of Chicago Illinois, GO, Project, Series A, 5.00%, 1/01/34	1,220	1,263,932
City of Chicago Illinois, GO, Refunding, Project, Series A: 5.25%, 1/01/32	2,195	2,329,905
5.00%, 1/01/35	2,000	2,101,500
City of Chicago Illinois, Special Assessment Bonds, Lake Shore East Project, 6.75%, 12/01/32	885	889,912

SCHEDULES OF INVESTMENTS

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Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Illinois (continued)</b>		
City of Chicago Illinois O Hare International Airport, GARB, 3rd Lien: Series A, 5.75%, 1/01/21 <sup>(c)</sup>	\$ 1,680	\$ 1,909,841
Series A, 5.75%, 1/01/39	320	359,853
Series C, 6.50%, 1/01/21 <sup>(c)</sup>	4,055	4,703,678
City of Chicago Illinois Transit Authority, RB, Sales Tax Receipts, 5.25%, 12/01/40	730	783,334
City of Chicago Illinois Waterworks, Refunding RB, 2nd Lien Project, 5.00%, 11/01/42	1,000	1,063,980
County of Cook Illinois Community College District No. 508, GO, City College of Chicago, 5.50%, 12/01/38	560	598,998
Illinois Finance Authority, Refunding RB: Central Dupage Health, Series B, 5.50%, 11/01/39	1,115	1,201,647
Presence Health Network, Series C, 4.00%, 2/15/41	1,035	1,049,386
Metropolitan Pier & Exposition Authority, Refunding RB, McCormick Place Expansion Project: CAB, Series B (AGM), 0.00%, 6/15/47 <sup>(b)</sup>	13,220	3,727,776
Series B (AGM), 5.00%, 6/15/50	3,070	3,252,911
Series B-2, 5.00%, 6/15/50	1,740	1,748,804
Railsplitter Tobacco Settlement Authority, RB: 5.50%, 6/01/23	315	356,287
6.00%, 6/01/28	800	901,456
State of Illinois, GO: 5.00%, 2/01/39	1,100	1,144,165
Series A, 5.00%, 4/01/38	2,625	2,730,814
State of Illinois, RB, Build Illinois, Series B, 5.25%, 6/15/19 <sup>(c)</sup>	440	468,930
State of Illinois Toll Highway Authority, RB: Senior, Series C, 5.00%, 1/01/36	1,870	2,126,190
Senior, Series C, 5.00%, 1/01/37	2,000	2,271,240
Series A, 5.00%, 1/01/38	415	462,613
University of Illinois, RB, Auxiliary Facilities System, Series A, 5.00%, 4/01/44	705	770,339
		38,217,491
<b>Indiana 4.3%</b>		
City of Valparaiso Indiana, RB, Exempt Facilities, Pratt Paper LLC Project, AMT: 6.75%, 1/01/34	560	663,158
7.00%, 1/01/44	1,355	1,612,504
Indiana Finance Authority, RB, Series A: CWA Authority Project, 1st Lien, 5.25%, 10/01/38	2,275	2,575,823
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/44	310	333,690
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/48	1,030	1,105,427
	290	314,151

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Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.25%, 1/01/51		
Sisters of St. Francis Health Services, 5.25%, 11/01/39	585	627,179
Indiana Finance Authority, Refunding RB, Parkview Health System, Series A: 5.75%, 5/01/19 <sup>(c)</sup>	1,065	1,135,375
5.75%, 5/01/31	235	249,467
Indiana Municipal Power Agency, RB, Series B, 6.00%, 1/01/19 <sup>(c)</sup>	775	819,159
Indianapolis Local Public Improvement Bond Bank, RB, Series A, 5.00%, 1/15/40	880	992,165
		10,428,098
<b>Iowa 1.8%</b>		
Iowa Finance Authority, Refunding RB, Midwestern Disaster Area, Iowa Fertilizer Co. Project:		
5.00%, 12/01/19	330	341,992
5.50%, 12/01/22	1,630	1,669,104
5.25%, 12/01/25	320	341,033
5.88%, 12/01/26 <sup>(a)</sup>	285	302,536
	<i>Par</i>	
<i>Security</i>	<i>(000)</i>	<i>Value</i>
<b>Iowa (continued)</b>		
Iowa Student Loan Liquidity Corp., Refunding RB, Student Loan, Senior Series A-1, AMT, 5.15%, 12/01/22	\$ 655	\$ 692,571
Iowa Tobacco Settlement Authority, Refunding RB, Asset-Backed, Series C, 5.63%, 6/01/46	980	984,165
		4,331,401
<b>Kansas 0.7%</b>		
Kansas Development Finance Authority, Refunding RB, Adventist Health, Series C, 5.75%, 11/15/38	1,520	1,651,860
<b>Kentucky 0.6%</b>		
Kentucky Economic Development Finance Authority, RB, Catholic Health Initiatives, Series A, 5.25%, 1/01/45	705	757,275
Kentucky Public Transportation Infrastructure Authority, RB, Downtown Crossing Project, Convertible CAB, 1st Tier, Series C, 0.00%, 7/01/43 <sup>(d)</sup>	865	755,794
		1,513,069
<b>Louisiana 3.4%</b>		
East Baton Rouge Sewerage Commission, RB, Series A, 5.25%, 2/01/19 <sup>(c)</sup>	570	599,064
Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Westlake Chemical Corp. Project, 6.75%, 11/01/32	3,500	3,500,000
New Orleans Aviation Board, RB, Passenger Facility Charge, Series A, 5.25%, 1/01/41	430	455,211
Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A: 5.50%, 5/15/30	700	756,847
5.25%, 5/15/31	600	651,474
5.25%, 5/15/32	765	837,820
5.25%, 5/15/33	830	901,305
5.25%, 5/15/35	350	380,762
		8,082,483
<b>Maine 0.1%</b>		

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<b>Maine Health &amp; Higher Educational Facilities Authority, RB, Series A:</b>		
5.00%, 7/01/19 <sup>(c)</sup>	65	69,056
5.00%, 7/01/39	145	151,934
		220,990
<b>Maryland 1.2%</b>		
Maryland EDC, RB, Transportation Facilities Project, Series A, 5.75%, 6/01/35	300	319,716
Maryland EDC, Refunding RB, CNX Marine Terminals, Inc., 5.75%, 9/01/25	530	559,791
Maryland Health & Higher Educational Facilities Authority, RB, Trinity Health Credit Group, Series 2017, 5.00%, 12/01/46	305	349,500
Maryland Health & Higher Educational Facilities Authority, Refunding RB, Charlestown Community Project, 6.25%, 1/01/21 <sup>(c)</sup>	1,520	1,751,420
		2,980,427
<b>Massachusetts 2.0%</b>		
Commonwealth of Massachusetts, GO, Series E, 3.00%, 4/01/44	1,860	1,679,617
Massachusetts Development Finance Agency, Refunding RB:		
Boston University, Series P, 5.45%, 5/15/59	1,165	1,401,845
Covanta Energy Project, Series C, AMT, 5.25%, 11/01/42 <sup>(a)</sup>	1,575	1,576,055
Massachusetts Health & Educational Facilities Authority, Refunding RB, Partners Healthcare System, Series J1, 5.00%, 7/01/39	255	268,204
		4,925,721



## Schedule of Investments (continued)

## BlackRock MuniHoldings Fund, Inc. (MHD)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Michigan 3.5%</b>		
City of Detroit Michigan Sewage Disposal System, Refunding RB, Senior Lien, Series A, 5.25%, 7/01/39	\$ 3,085	\$ 3,420,309
Kalamazoo Hospital Finance Authority, Refunding RB, Bronson Methodist Hospital: 5.50%, 5/15/20 <sup>(c)</sup>	530	585,215
5.50%, 5/15/36	425	461,023
Michigan Finance Authority, Refunding RB:		
Detroit Water & Sewage Department Project, Senior Lien, Series C-1, 5.00%, 7/01/44	630	685,295
Henry Ford Health System, 4.00%, 11/15/46	1,040	1,061,382
Michigan State Hospital Finance Authority, Refunding RB, Henry Ford Health System, 5.75%, 11/15/19 <sup>(c)</sup>	2,105	2,298,408
		8,511,632
<b>Minnesota 0.9%</b>		
City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series A, 6.75%, 11/15/18 <sup>(c)</sup>	2,135	2,259,385
<b>Mississippi 0.3%</b>		
University of Southern Mississippi, RB, Campus Facilities Improvements Project, 5.38%, 9/01/19 <sup>(c)</sup>	675	726,374
<b>Missouri 0.2%</b>		
Bi-State Development Agency of the Missouri-Illinois Metropolitan District, Refunding RB, Combined Lien, Series A, 5.00%, 10/01/44	175	198,925
State of Missouri Health & Educational Facilities Authority, Refunding RB, St. Louis College of Pharmacy Project, 5.50%, 5/01/43	175	191,084
		390,009
<b>Nebraska 1.0%</b>		
Central Plains Energy Project Nebraska, RB, Gas Project No. 3, 5.25%, 9/01/37	575	635,202
County of Sarpy Nebraska Hospital Authority No. 1, Refunding RB, Nebraska Medicine, 4.00%, 5/15/51	1,755	1,810,160
		2,445,362
<b>New Hampshire 1.4%</b>		
New Hampshire Health & Education Facilities Authority, Refunding RB, Dartmouth-Hitchcock, 6.00%, 8/01/38	3,035	3,284,720
<b>New Jersey 6.7%</b>		
Casino Reinvestment Development Authority, Refunding RB: 5.25%, 11/01/39	735	770,471
5.25%, 11/01/44	1,095	1,142,490
County of Essex New Jersey Improvement Authority, RB, AMT, 5.25%, 7/01/45 <sup>(a)</sup>	775	778,759

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New Jersey EDA, RB, Continental Airlines, Inc. Project, AMT: 5.13%, 9/15/23	1,410	1,552,368
5.25%, 9/15/29	1,365	1,494,497
New Jersey EDA, Refunding, Special Assessment Bonds, Kapkowski Road Landfill Project, 5.75%, 4/01/31	1,550	1,740,960
New Jersey State Turnpike Authority, RB: Series A, 5.00%, 1/01/43	1,925	2,148,127
Series E, 5.00%, 1/01/45	1,875	2,111,194
New Jersey Transportation Trust Fund Authority, RB: Transportation Program, Series AA, 5.00%, 6/15/44	315	334,464
Transportation Program, Series AA, 5.00%, 6/15/44	580	611,291
Transportation System, Series A, 5.50%, 6/15/41	1,575	1,693,912
Transportation System, Series B, 5.25%, 6/15/36	1,705	1,812,705
		16,191,238
<b>New York 7.5%</b>		
City of New York New York Transitional Finance Authority Future Tax Secured, RB, Fiscal 2012, Sub-Series E-1, 5.00%, 2/01/42	310	346,338
	<i>Par</i>	
<i>Security</i>	<i>(000)</i>	<i>Value</i>
<b>New York (continued)</b>		
Counties of New York Tobacco Trust IV, Refunding RB, Settlement Pass-Through Turbo, Series A, 6.25%, 6/01/41 <sup>(a)</sup>	\$ 1,300	\$ 1,345,175
County of Dutchess New York Industrial Development Agency, Refunding RB, Bard College Civic Facility, Series A-1, 5.00%, 8/01/46	1,800	1,482,624
County of Westchester New York Healthcare Corp., RB, Senior Lien, Series A, 5.00%, 11/01/44	233	251,218
Erie Tobacco Asset Securitization Corp., Refunding RB, Asset-Backed, Series A, 5.00%, 6/01/45	1,405	1,378,136
Hudson Yards Infrastructure Corp., Refunding RB, Series A, 5.00%, 2/15/39	680	794,288
Long Island Power Authority, Refunding RB, Electric System, Series A, 5.75%, 4/01/39	1,450	1,531,881
Metropolitan Transportation Authority, RB, Series B, 5.25%, 11/15/38	1,715	1,999,999
Metropolitan Transportation Authority, Refunding RB, Dedicated Tax Fund, Series B, 5.00%, 11/15/19 <sup>(c)</sup>	1,740	1,874,798
Metropolitan Transportation Authority Hudson Rail Yards Trust Obligations, Refunding RB, Series A, 5.00%, 11/15/56	765	858,766
New York Liberty Development Corp., Refunding RB: 2nd Priority, Bank of America Tower at One Bryant Park Project, Class 3, 6.38%, 7/15/49	850	913,869
3 World Trade Center Project, Class 1, 5.00%, 11/15/44 <sup>(a)</sup>	2,275	2,472,857
3 World Trade Center Project, Class 2, 5.15%, 11/15/34 <sup>(a)</sup>	245	270,820
3 World Trade Center Project, Class 2, 5.38%, 11/15/40 <sup>(a)</sup>	605	673,202
Port Authority of New York & New Jersey, ARB, Special Project, JFK International Air Terminal LLC Project, Series 8: 6.00%, 12/01/36	900	1,002,294
6.00%, 12/01/42	875	970,042
		18,166,307

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**North Carolina 0.6%**

North Carolina Medical Care Commission, RB, Health Care Facilities, Duke University Health System, Series A, 5.00%, 6/01/19 <sup>(c)</sup>	970	1,028,472
North Carolina Medical Care Commission, Refunding RB, 1st Mortgage, Retirement Facilities Whitestone Project, Series A, 7.75%, 3/01/41	415	457,869
		1,486,341

**Ohio 1.6%**

Buckeye Tobacco Settlement Financing Authority, RB, Asset-Backed, Senior Turbo Term, Series A-2, 5.88%, 6/01/47	2,570	2,406,059
County of Franklin Ohio, RB: Health Care Facilities Improvement, OPRS Communities Obligation Group, Series A, 6.13%, 7/01/40	470	521,357
Trinity Health Credit Group, Series 2017, 5.00%, 12/01/46	290	328,724
State of Ohio, RB, Portsmouth Bypass Project, AMT, 5.00%, 6/30/53	580	637,994
		3,894,134

**Pennsylvania 3.1%**

City of Philadelphia Pennsylvania Hospitals & Higher Education Facilities Authority, RB, Temple University Health System, Series A, 5.63%, 7/01/42	460	505,945
Pennsylvania Economic Development Financing Authority, RB: American Water Co. Project, 6.20%, 4/01/39	2,520	2,684,304

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>Pennsylvania (continued)</b>		
Pennsylvania Economic Development Financing Authority, RB (continued):		
Pennsylvania Rapid Bridge Replacement Project, AMT, 5.00%, 6/30/42	\$ 2,015	\$ 2,234,293
Pennsylvania Economic Development Financing Authority, Refunding RB, National Gypsum Co., AMT, 5.50%, 11/01/44	1,105	1,170,703
Pennsylvania Turnpike Commission, RB, Series A, 5.00%, 12/01/44	795	900,067
		7,495,312
<b>Puerto Rico 1.1%</b>		
Children s Trust Fund, Refunding RB, Tobacco Settlement Asset-Backed Bonds:		
5.50%, 5/15/39	1,345	1,320,010
5.63%, 5/15/43	1,280	1,254,093
		2,574,103
<b>Rhode Island 2.2%</b>		
Tobacco Settlement Financing Corp., Refunding RB:		
Series A, 5.00%, 6/01/35	580	625,054
Series B, 4.50%, 6/01/45	1,900	1,903,572
Series B, 5.00%, 6/01/50	2,605	2,687,787
		5,216,413
<b>South Carolina 3.6%</b>		
State of South Carolina Ports Authority, ARB:		
5.25%, 7/01/40	2,285	2,474,792
AMT, 5.25%, 7/01/55	925	1,032,948
State of South Carolina Public Service Authority, RB, Santee Cooper, Series A, 5.50%, 12/01/54	2,385	2,691,520
State of South Carolina Public Service Authority, Refunding RB, Series E, 5.25%, 12/01/55	2,260	2,551,472
		8,750,732
<b>Tennessee 0.7%</b>		
City of Chattanooga Health Educational & Housing Facility Board, RB, Catholic Health Initiatives, Series A, 5.25%, 1/01/45		
	980	1,052,667
Metropolitan Government of Nashville & Davidson County Health & Educational Facilities Board, RB, Vanderbilt University Medical Center, Series A, 5.00%, 7/01/40	495	556,355
		1,609,022
<b>Texas 5.6%</b>		
Central Texas Regional Mobility Authority, Refunding RB:		
Senior Lien, 6.25%, 1/01/21 <sup>(c)</sup>	1,480	1,707,831
Sub-Lien, 5.00%, 1/01/33	250	276,138
City of Austin Texas Airport System, ARB, AMT, 5.00%, 11/15/39	440	491,300
City of Austin Texas Electric Utility Revenue, Refunding RB, Series A, 5.00%, 11/15/37	1,500	1,675,650

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City of Dallas Texas Waterworks & Sewer System Revenue, Refunding RB, 5.00%, 10/01/20 <sup>(c)</sup>	485	535,411
City of Houston Texas Airport System, Refunding ARB, Senior Lien, Series A, 5.50%, 7/01/39	1,070	1,100,827
County of Harris Texas Cultural Education Facilities Finance Corp., RB, 1st Mortgage, Brazos Presbyterian Homes, Inc. Project, Series B, 7.00%, 1/01/23 <sup>(c)</sup>	325	410,904
County of Harris Texas Health Facilities Development Corp., Refunding RB, Memorial Hermann Healthcare System, Series B, 7.25%, 12/01/18 <sup>(c)</sup>	1,910	2,035,162
La Vernia Higher Education Finance Corp., RB, Kipp, Inc., Series A, 6.38%, 8/15/19 <sup>(c)</sup>	450	490,180
North Texas Tollway Authority, RB, CAB, Special Project System, Series B, 0.00%, 9/01/31 <sup>(b)(c)</sup>	1,400	620,172
	<i>Par</i>	<i>Value</i>
<i>Security</i>	<i>(000)</i>	
<b>Texas (continued)</b>		
Texas Private Activity Bond Surface Transportation Corp., RB, Senior Lien: LBJ Infrastructure Group LLC, 7.00%, 6/30/40	\$ 2,000	\$ 2,257,260
NTE Mobility Partners LLC, North Tarrant Express Managed Lanes Project, 6.88%, 12/31/39	1,700	1,885,300
		13,486,135
<b>Utah 0.3%</b>		
Salt Lake City Corp. Airport Revenue, ARB, Series A, AMT, 5.00%, 7/01/47	665	762,010
<b>Virginia 1.8%</b>		
County of Hanover Virginia EDA, Refunding RB, Covenant Woods, Series A: 5.00%, 7/01/42	625	647,281
Residential Care Facility, 5.00%, 7/01/47	970	1,002,088
Virginia Small Business Financing Authority, RB, Senior Lien, Elizabeth River Crossings OpCo LLC Project, AMT: 5.25%, 1/01/32	550	606,738
6.00%, 1/01/37	1,830	2,068,906
		4,325,013
<b>Washington 3.7%</b>		
Central Puget Sound Regional Transit Authority, RB, Series A (AGM), 5.00%, 11/01/17 <sup>(c)</sup>	1,340	1,340,000
Grant County Public Utility District No. 2, Refunding RB, Series A, 5.00%, 1/01/43	1,555	1,759,405
Port of Seattle Washington, ARB, Intermediate Lien, Series C, AMT, 5.00%, 5/01/42	1,085	1,250,582
Port of Seattle Washington, RB, Series C, AMT, 5.00%, 4/01/40	540	601,619
State of Washington, GO, Series D, 5.00%, 2/01/42	1,890	2,196,501
Washington Health Care Facilities Authority, RB, Catholic Health Initiatives, Series A, 5.75%, 1/01/45	1,625	1,792,229
		8,940,336
<b>Wisconsin 3.5%</b>		
State of Wisconsin, Refunding RB, Series A, 6.00%, 5/01/19 <sup>(c)</sup>	4,980	5,339,058
State of Wisconsin Health & Educational Facilities Authority, RB, Ascension Health Senior Credit Group, Series E, 5.00%, 11/15/33	1,710	1,830,435
Wisconsin Health & Educational Facilities Authority, Refunding RB, Medical College of Wisconsin, Inc., 4.00%, 12/01/46	1,305	1,344,816

		8,514,309
<b>Wyoming 0.1%</b>		
Wyoming Municipal Power Agency, Inc., RB, Series A, 5.00%, 1/01/19 <sup>(c)</sup>	210	219,419
<b>Total Municipal Bonds 111.2%</b>		268,701,103
<b>Municipal Bonds Transferred to Tender Option Bond Trusts<sup>(e)</sup></b>		
<b>Alabama 0.5%</b>		
Auburn University, Refunding RB, Series A, 4.00%, 6/01/41	1,220	1,281,476
<b>California 9.0%</b>		
Bay Area Toll Authority, Refunding RB, San Francisco Bay Area: Series F-1, 5.63%, 4/01/44 <sup>(c)</sup>	2,271	2,416,091
Toll Bridge Subordinate, 4.00%, 4/01/42 <sup>(f)</sup>	2,257	2,388,936
California Educational Facilities Authority, RB, University of Southern California, Series B, 5.25%, 10/01/18 <sup>(c)(f)</sup>	1,845	1,914,661
City & County of San Francisco California Public Utilities Commission Water Revenue, RB, Series B, 5.00%, 11/01/19 <sup>(c)</sup>	6,600	7,105,802

## Schedule of Investments (continued)

## BlackRock MuniHoldings Fund, Inc. (MHD)

October 31, 2017 (Unaudited)

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
<b>California (continued)</b>		
City of Los Angeles California Department of Airports, Refunding ARB, Los Angeles International Airport, Senior Series A, 5.00%, 5/15/40	\$ 4,121	\$ 4,471,320
Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment District No.2 Bonds, 5.00%, 10/01/47	2,250	2,596,639
San Diego Community College District, GO, Election of 2002, 5.25%, 8/01/19 <sup>(c)</sup>	748	801,241
		21,694,690
<b>Colorado 3.6%</b>		
Colorado Health Facilities Authority, RB, Catholic Health <sup>(c)</sup> : Series C-3 (AGM), 5.10%, 4/29/18	2,580	2,630,723
Series C-7 (AGM), 5.00%, 5/01/18	1,650	1,681,928
Colorado Health Facilities Authority, Refunding RB, Catholic Health Initiative, Series A, 5.50%, 7/01/34 <sup>(f)</sup>	1,490	1,566,228
County of Adams Colorado, COP, Refunding, 4.00%, 12/01/45	2,700	2,806,866
		8,685,745
<b>Florida 1.8%</b>		
County of Miami-Dade Florida Water & Sewer System Revenue, RB, 5.00%, 10/01/34	3,939	4,308,481
<b>Georgia 1.0%</b>		
Private Colleges & Universities Authority, Refunding RB, Emory University, Series C, 5.00%, 9/01/18 <sup>(c)</sup>	2,259	2,331,315
<b>Massachusetts 2.1%</b>		
Massachusetts School Building Authority, RB, Series B, 5.00%, 10/15/41	4,502	5,047,761
<b>New Hampshire 0.6%</b>		
New Hampshire Health and Education Facilities Authority Act, RB, Doartmouth College Issue, 5.25%, 6/01/19 <sup>(c)(f)</sup>	1,410	1,498,301
<b>New York 9.1%</b>		
City of New York New York Water & Sewer System, Refunding RB, 2nd General Resolution, Series FF-2, 5.50%, 6/15/40	1,110	1,185,698
Hudson Yards Infrastructure Corp., RB, Series A, 5.75%, 2/15/47 <sup>(f)</sup>	1,110	1,261,212
Metropolitan Transportation Authority, Refunding RB, Series C-1, 5.25%, 11/15/56	3,240	3,787,804
New York Liberty Development Corp., RB, 1 World Trade Center Port Authority Consolidated Bonds, 5.25%, 12/15/43	7,440	8,387,028
New York Liberty Development Corp., Refunding RB, World Trade Center Project, 5.75%, 11/15/51 <sup>(f)</sup>	4,460	5,129,064
Port Authority of New York & New Jersey, Refunding ARB, 194th Series, 5.25%, 10/15/55	1,860	2,153,663

			21,904,469
<b>North Carolina 1.3%</b>			
North Carolina Capital Facilities Finance Agency, Refunding RB:			
Duke University, Series B, 5.00%, 10/01/55	1,830		2,082,412
Wake Forest University, 5.00%, 1/01/19 <sup>(c)</sup>	1,080		1,127,833
			3,210,245
<b>Ohio 4.2%</b>			
State of Ohio, Refunding RB, Cleveland Clinic Health, Series A, 5.50%, 1/01/19 <sup>(c)</sup>	9,644		10,120,942
<b>Pennsylvania 0.8%</b>			
Pennsylvania Turnpike Commission, RB, Sub-Series A, 5.50%, 12/01/42	1,695		1,992,388
		<i>Shares/Par</i>	
<i>Security</i>		<i>(000)</i>	<i>Value</i>
<b>Texas 6.1%</b>			
City of San Antonio Texas Electric & Gas Systems Revenue, RB, Electric & Gas Systems, Junior Lien, 5.00%, 2/01/43	\$ 1,720	\$	1,938,883
County of Harris Metropolitan Transit Authority, RB, Series A, 5.00%, 11/01/41	2,350		2,621,754
County of Harris Texas, RB, Senior Lien Toll Road, Series A <sup>(f)</sup> : 5.00%, 8/15/19 <sup>(c)</sup>	2,620		2,778,017
5.00%, 8/15/38	2,004		2,124,943
University of Texas System, Refunding RB, Financing System, Series B, 5.00%, 8/15/43	2,041		2,319,023
University of Texas, Permanent University Fund, Refunding RB, Series B, 4.00%, 7/01/41	2,720		2,904,661
			14,687,281
<b>Utah 1.1%</b>			
City of Riverton Utah, RB, IHC Health Services, Inc., 5.00%, 8/15/41	2,519		2,653,843
<b>Virginia 2.5%</b>			
University of Virginia, Refunding RB, General, 5.00%, 6/01/18 <sup>(c)</sup>	3,749		3,830,530
Virginia Small Business Financing Authority, Refunding RB, Sentara Healthcare, 5.00%, 11/01/40	2,095		2,242,721
			6,073,251
<b>Wisconsin 1.7%</b>			
Wisconsin Health & Educational Facilities Authority, Refunding RB, Froedtert & Community Health, Inc., Series C, 5.25%, 4/01/19 <sup>(c)(f)</sup>	3,959		4,184,089
<b>Total Municipal Bonds Transferred to Tender Option Bond Trusts 45.4%</b>			109,674,277
<b>Total Long-Term Investments 156.6%</b> <b>(Cost \$348,801,863)</b>			378,375,380
<b>Short-Term Securities 2.4%</b>			
BlackRock Liquidity Funds, MuniCash, Institutional Class, 0.74% <sup>(g)(h)</sup>	5,852,278		5,854,033



<b>Total Short-Term Securities</b>	<b>2.4%</b>	
<b>(Cost \$5,854,033)</b>		5,854,033
<b>Total Investments</b>	<b>159.0%</b>	
<b>(Cost \$354,655,896)</b>		384,229,413
<b>Other Assets Less Liabilities</b>	<b>1.8%</b>	4,381,014
<b>Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable</b>	<b>(26.2)%</b>	(63,281,688)
<b>VMTP Shares, at Liquidation Value</b>	<b>(34.6)%</b>	(83,700,000)
<b>Net Assets Applicable to Common Shares</b>	<b>100.0%</b>	\$ 241,628,739

- (a) Security exempt from registration pursuant to Rule 144A under the Securities Act of 1933, as amended. These securities may be resold in transactions exempt from registration to qualified institutional investors.
- (b) Zero-coupon bond.
- (c) U.S. 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.
- (d) Step-up bond that pays an initial coupon rate for the first period and then a higher coupon rate for the following periods. Rate as of period end.
- (e) Represent bonds transferred to a TOB Trust in exchange of cash and residual certificates received by the Fund. These bonds serve as collateral in a secured borrowing. See Note 4 of the Notes to Financial Statements for details.
- (f) All or a portion of security is subject to a recourse agreement. The aggregate maximum potential amount the Fund could ultimately be required to pay under the agreements, which expire between May 7, 2018 to February 15, 2031, is \$13,416,511. See Note 4 of the Notes to Financial Statements for details.
- (g) Annualized 7-day yield as of period end.

## Schedule of Investments (continued)

## BlackRock MuniHoldings Fund, Inc. (MHD)

October 31, 2017 (Unaudited)

(h) During the six months ended October 31, 2017, investments in issuers considered to be an affiliate of the Fund for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

<i>Affiliate</i>	<i>Shares Held at 04/30/17</i>	<i>Net Activity</i>	<i>Shares Held at 10/31/17</i>	<i>Value at 10/31/17</i>	<i>Income</i>	<i>Realized Gain</i>	<i>Change in Net Unrealized Appreciation (Depreciation)</i>
BlackRock Liquidity Funds, MuniCash, Institutional Class	575,572	5,276,706	5,852,278	\$ 5,854,033	\$ 14,769	\$ 472	\$ (57)

(a) Includes net capital gains distributions, if applicable.

**Derivative Financial Instruments Outstanding as of Period End****Futures Contracts**

<i>Description</i>	<i>Number of Contracts</i>	<i>Expiration Date</i>	<i>Notional Amount (000)</i>	<i>Value/ Unrealized Appreciation (Depreciation)</i>
Short Contracts				
10-Year U.S. Treasury Note	(30)	12/19/17	\$ 3,748	\$ 59,018
Long U.S. Treasury Bond	(39)	12/19/17	5,946	121,546
Ultra Long U.S. Treasury Bond	(20)	12/19/17	3,296	71,858
5-Year U.S. Treasury Note	(43)	12/29/17	5,039	45,680
				\$ 298,102

**Derivative Financial Instruments Categorized by Risk Exposure**

As of period end, the fair values of derivative financial instruments located in the Statements of Assets and Liabilities were as follows:

<i>Commodity Contracts</i>	<i>Credit Contracts</i>	<i>Equity Contracts</i>	<i>Foreign Currency Exchange Contracts</i>	<i>Interest Rate Contracts</i>	<i>Other Contracts</i>	<i>Total</i>
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**Assets Derivative Financial  
Instruments**

Futures contracts

Net unrealized appreciation <sup>(a)</sup>	\$	\$	\$	\$	\$ 298,102	\$	\$ 298,102
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<sup>(a)</sup> Includes cumulative appreciation (depreciation) on futures contracts, if any, as reported in the Schedule of Investments. Only current day's variation margin is reported within the Statements of Assets and Liabilities. For the six months ended October 31, 2017, the effect of derivative financial instruments in the Statements of Operation was as follows:

	<i>Commodity Contracts</i>	<i>Credit Contracts</i>	<i>Equity Contracts</i>	<i>Foreign Currency Exchange Contracts</i>	<i>Interest Rate Contracts</i>	<i>Other Contracts</i>	<i>Total</i>
<b>Net Realized Gain (Loss) from:</b>							
Futures contracts	\$	\$	\$	\$	\$ (439,239)	\$	\$ (439,239)
<b>Net Change in Unrealized Appreciation (Depreciation) on:</b>							
Futures contracts	\$	\$	\$	\$	\$ 536,468	\$	\$ 536,468

**Average Quarterly Balances of Outstanding Derivative Financial Instruments**

Futures contracts:

Average notional value of contracts short \$ 16,674,801

For more information about the Fund's investment risks regarding derivative financial instruments, refer to the Notes to Financial Statements.

Schedule of Investments (continued)

**BlackRock MuniHoldings Fund, Inc. (MHD)**

October 31, 2017 (Unaudited)

**Fair Value Hierarchy as of Period End**

Various inputs are used in determining the fair value of investments and derivative financial instruments. For information about the Fund's policy regarding valuation of investments and derivative financial instruments, refer to the Notes to Financial Statements.

The following tables summarize the Fund's investments and derivative financial instruments categorized in the disclosure hierarchy:

	<i>Level 1</i>	<i>Level 2</i>	<i>Level 3</i>	<i>Total</i>
Assets:				
Investments:				
Long-Term Investments <sup>(a)</sup>	\$	\$ 378,375,380	\$	\$ 378,375,380
Short-Term Securities	5,854,033			5,854,033
	\$ 5,854,033	\$ 378,375,380	\$	\$ 384,229,413
Derivative Financial Instruments <sup>(b)</sup>				
Assets:				
Interest rate contracts	\$ 298,102	\$	\$	\$ 298,102

<sup>(a)</sup> See above Schedule of Investments for values in each state or political subdivision.

<sup>(b)</sup> Derivative financial instruments are futures contracts, which are valued at the unrealized appreciation (depreciation) on the instrument.

The Fund may hold assets and/or liabilities in which the fair value approximates the carrying amount for financial statement purposes. As of period end, such assets and/or liabilities are categorized within the disclosure hierarchy as follows:

<i>Level 1</i>	<i>Level 2</i>	<i>Level 3</i>
\$ (63,115,775)		\$
(83,700,000)		\$
\$ (146,815,775)		\$

normal;">

1,674	73,443	74,995
2,060	74,038	75,841

The accompanying notes are an integral part of these Consolidated Statements of Income.

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MANHATTAN ASSOCIATES, INC. AND SUBSIDIARIES

Consolidated Statements of Comprehensive Income

(in thousands)

	Year Ended December 31,		
	2016	2015	2014
Net income	\$124,234	\$103,475	\$82,000
Foreign currency translation adjustment	(3,588 )	(2,283 )	(2,241 )
Comprehensive income	\$120,646	\$101,192	\$79,759

The accompanying notes are an integral part of these Consolidated Statements of Comprehensive Income.

## MANHATTAN ASSOCIATES, INC. AND SUBSIDIARIES

## Consolidated Balance Sheets

(in thousands, except share and per share data)

	December 31,	
	2016	2015
<b>ASSETS</b>		
Current Assets:		
Cash and cash equivalents	\$95,615	\$118,416
Short-term investments	-	10,344
Accounts receivable, net of allowance of \$3,595 and \$7,031 in 2016 and 2015, respectively	100,285	97,379
Prepaid expenses	10,181	9,224
Other current assets	937	1,548
Total current assets	207,018	236,911
Property and equipment, net	19,019	21,176
Goodwill, net	62,228	62,233
Deferred income taxes	2,867	4,648
Other assets	6,008	7,275
Total assets	\$297,140	\$332,243
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$12,052	\$11,219
Accrued compensation and benefits	20,700	29,284
Accrued and other liabilities	12,510	13,853
Deferred revenue	63,457	68,757
Income taxes payable	8,924	4,072
Total current liabilities	117,643	127,185
Deferred rent, long-term	2,932	3,811
Deferred income taxes	53	35
Other non-current liabilities	7,146	5,720
Shareholders' equity:		
Preferred stock, no par value; 20,000,000 shares authorized, no shares issued or		
outstanding in 2016 and 2015	-	-
Common stock, \$.01 par value; 200,000,000 shares authorized; 70,233,955 and		
72,766,383 shares issued and outstanding at December 31, 2016 and		
December 31, 2015, respectively	702	728
Retained earnings	184,558	207,070
Accumulated other comprehensive loss	(15,894 )	(12,306 )
Total shareholders' equity	169,366	195,492

Total liabilities and shareholders' equity	\$297,140	\$332,243
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The accompanying notes are an integral part of these Consolidated Balance Sheets.



## MANHATTAN ASSOCIATES, INC. AND SUBSIDIARIES

## Consolidated Statements of Cash Flows

(in thousands)

	Year Ended December 31,		
	2016	2015	2014
<b>Operating activities:</b>			
Net income	\$124,234	\$103,475	\$82,000
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	9,090	7,764	6,377
Equity-based compensation	15,934	14,528	9,671
Loss (Gain) on disposal of equipment	30	(30 )	(13 )
Tax benefit of stock awards exercised/vested	5,209	9,170	8,640
Excess tax benefits from equity-based compensation	(5,214 )	(9,147 )	(8,562 )
Deferred income taxes	1,797	1,532	(1,705 )
Unrealized foreign currency (gain) loss	(393 )	49	(624 )
Changes in operating assets and liabilities:			
Accounts receivable, net	(4,358 )	(12,223 )	(16,758 )
Other assets	299	(1,427 )	(5,198 )
Accounts payable, accrued and other liabilities	(9,261 )	(1,592 )	13,519
Income taxes	6,129	(2,271 )	338
Deferred revenue	(4,150 )	10,325	6,477
Net cash provided by operating activities	139,346	120,153	94,162
<b>Investing activities:</b>			
Purchases of property and equipment	(6,843 )	(11,492 )	(9,415 )
Purchases of short-term investments	-	(15,385 )	(14,644 )
Maturities of short-term investments	10,201	13,334	14,165
Payment in connection with acquisition	-	-	(2,773 )
Net cash provided by (used in) investing activities	3,358	(13,543 )	(12,667 )
<b>Financing activities:</b>			
Purchase of common stock	(167,933)	(112,138)	(99,204 )
Proceeds from issuance of common stock from options exercised	18	717	1,571
Excess tax benefits from equity-based compensation	5,214	9,147	8,562
Net cash used in financing activities	(162,701)	(102,274)	(89,071 )
Foreign currency impact on cash	(2,804 )	(1,628 )	(1,091 )
Net change in cash and cash equivalents	(22,801 )	2,708	(8,667 )
Cash and cash equivalents at beginning of period	118,416	115,708	124,375
Cash and cash equivalents at end of period	\$95,615	\$118,416	\$115,708
<b>Supplemental disclosures of cash flow information:</b>			
Cash paid for taxes	\$58,684	\$50,902	\$38,674

The accompanying notes are an integral part of these Consolidated Statements of Cash Flows.

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## MANHATTAN ASSOCIATES, INC. AND SUBSIDIARIES

## Consolidated Statements of Shareholders' Equity

(in thousands, except share data)

	Common Stock		Additional	Retained	Accumulated	Total
	Shares	Amount	Paid-In Capital	Earnings	Other Comprehensive Income (Loss)	Shareholders' Equity
Balance, December 31, 2013	76,374,180	\$ 764	\$ -	\$ 188,604	\$ (7,782)	\$ 181,586
Repurchase of common stock	(2,868,630)	(29)	(19,876)	(79,299)	-	(99,204)
Stock option exercises	286,456	3	1,568	-	-	1,571
Restricted stock units issuance/shares cancellation	312,058	3	(3)	-	-	-
Equity-based compensation	-	-	9,671	-	-	9,671
Tax effects of equity-based compensation	-	-	8,640	-	-	8,640
Foreign currency translation adjustment	-	-	-	-	(2,241)	(2,241)
Net income	-	-	-	82,000	-	82,000
Balance, December 31, 2014	74,104,064	741	-	191,305	(10,023)	182,023
Repurchase of common stock	(1,947,432)	(19)	(24,409)	(87,710)	-	(112,138)
Stock option exercises	150,154	2	715	-	-	717
Restricted stock shares/units issuance	459,597	4	(4)	-	-	-
Equity-based compensation	-	-	14,528	-	-	14,528
Tax effects of equity-based compensation	-	-	9,170	-	-	9,170
Foreign currency translation adjustment	-	-	-	-	(2,283)	(2,283)
Net income	-	-	-	103,475	-	103,475
Balance, December 31, 2015	72,766,383	728	-	207,070	(12,306)	195,492
Repurchase of common stock	(2,988,627)	(30)	(21,157)	(146,746)	-	(167,933)
Stock option exercises	3,610	-	18	-	-	18
Restricted stock units issuance	452,589	4	(4)	-	-	-
Equity-based compensation	-	-	15,934	-	-	15,934
Tax effects of equity-based compensation	-	-	5,209	-	-	5,209
Foreign currency translation adjustment	-	-	-	-	(3,588)	(3,588)
Net income	-	-	-	124,234	-	124,234
Balance, December 31, 2016	70,233,955	\$ 702	\$ -	\$ 184,558	\$ (15,894)	\$ 169,366

The accompanying notes are an integral part of these Consolidated Statements of Shareholders' Equity.

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MANHATTAN ASSOCIATES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2016, 2015 and 2014

1. Organization, Consolidation and Summary of Significant Accounting Policies

Organization and Business

Manhattan Associates, Inc. (“Manhattan” or the “Company”) is a developer and provider of supply chain commerce solutions that help organizations optimize the effectiveness, efficiency, and strategic advantages of their supply chains. The Company’s solutions consist of software, services, and hardware, which coordinate people, workflows, assets, events, and tasks holistically across the functions linked in a supply chain from planning through execution. These solutions also help coordinate the actions, data exchange, and communication of participants in supply chain ecosystems, such as manufacturers, suppliers, distributors, trading partners, transportation providers, channels (such as catalogers, store retailers, and Web outlets), and consumers.

The Company’s operations are in North America, Europe (EMEA), and the Asia/Pacific (APAC) region. The European operations are conducted through the Company’s wholly-owned subsidiaries, Manhattan Associates Limited, Manhattan Associates Europe B.V., Manhattan France SARL, and Manhattan Associates GmbH, in the United Kingdom, the Netherlands, France, and Germany, respectively. The Company’s Asia/Pacific operations are conducted through its wholly-owned subsidiaries, Manhattan Associates Pty Ltd., Manhattan Associates KK, Manhattan Associates Software (Shanghai), Co. Ltd., Manhattan Associates Software Pte Ltd., and Manhattan Associates (India) Development Centre Private Limited in Australia, Japan, China, Singapore, and India, respectively. The Company occasionally sells its products and services in other countries, such as countries in Latin America, Eastern Europe, Middle East, and Asia, through its direct sales channel as well as various reseller channels.

Risks Associated with Single Business Line, Technological Advances, and Foreign Operations

The Company currently derives a substantial portion of its revenues from sales of its software and related services and hardware. The markets for supply chain commerce solutions are highly competitive, subject to rapid technological change, changing customer needs, frequent new product introductions, and evolving industry standards that may render existing products and services obsolete. As a result, the Company’s position in these markets could be eroded rapidly by unforeseen changes in customer requirements for application features, functions, and technologies. The Company’s growth and future operating results will depend, in part, upon its ability to enhance existing applications and develop and introduce new applications that meet changing customer requirements that respond to competitive products and that achieve market acceptance. Any factor adversely affecting the markets for supply chain commerce solutions could have an adverse effect on the Company’s business, financial condition, results of operations and operating cash flows.

The Company’s international business is subject to risks typical of an international business, including, but not limited to, differing economic conditions, changes in political climate, differing tax structures, other regulations and restrictions, and foreign exchange rate volatility. In addition, we have a large development center in Bangalore, India, that does not have a natural in-market revenue hedge to mitigate currency risk to our operating expense in

India. Fluctuations in the value of other currencies, particularly the Indian rupee, could significantly affect our revenues, expenses, operating profit and net income. The Company recognized a foreign exchange gain of \$0.6 million in 2016, and foreign exchange losses of \$0.1 million and \$0.4 million in 2015 and 2014, respectively. Foreign exchange rate transaction gains and losses are classified in “Other income (loss), net” on the Consolidated Statements of Income.

#### Increase of the Authorized Number of Shares of Common Stock

On May 15, 2014, the shareholders of the Company approved an amendment to the Company’s articles of incorporation to increase the authorized number of shares of common stock from 100,000,000 to 200,000,000. The amendment was effective on May 15, 2014. The Company retained the current par value of \$0.01 per share for all shares of common stock.

#### Principles of Consolidation and Foreign Currency Translation

The accompanying consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

The financial statements of foreign subsidiaries have been translated into United States dollars in accordance with the foreign currency matters topic in the Financial Accounting Standards Board’s (“FASB”) Accounting Standards Codification (the “Codification”). Revenues and expenses from international operations were denominated in the respective local currencies and translated using the average monthly exchange rates for the year. All balance sheet accounts have been translated using the exchange

rates in effect at the balance sheet date and the effect of changes in exchange rates from year to year are disclosed as a separate component of shareholders' equity and comprehensive income.

#### New Accounting Pronouncements

##### Revenue Recognition

In May 2014, the FASB issued ASU 2014-09, Revenue Recognition – Revenue from Contracts with Customers (Topic 606), which will replace substantially all current revenue recognition guidance once it becomes effective. The new standard provides accounting guidance for all revenue arising from contracts with customers and affects all entities that enter into contracts to provide goods or services to their customers unless the contracts are in the scope of other standards. The new standard is less prescriptive and may require software entities to use more judgment and estimates in the revenue recognition process than are required under existing revenue guidance.

In March 2016, the FASB issued ASU 2016-08, Revenue from Contracts with Customers (Topic 606) – Principal versus Agent Considerations, which clarifies the implementation guidance for principal versus agent considerations in ASU 2014-09. In April 2016, the FASB issued ASU 2016-10, Revenue from Contracts with Customers (Topic 606) – Identifying Performance Obligations and Licensing, which amends the guidance in ASU 2014-09 related to identifying performance obligations and accounting for licenses of intellectual property. In May 2016, the FASB issued ASU 2016-12, Revenue from Contracts with Customers (Topic 606) – Narrow-Scope Improvements and Practical Expedients, which clarifies the following aspects in ASU 2014-09: collectability, presentation of sales taxes and other similar taxes collected from customers, noncash considerations, contract modifications at transition, completed contracts at transition, and technical correction. We must adopt ASU 2016-08, ASU 2016-10 and ASU 2016-12 with ASU 2014-09, which is effective for annual and interim periods beginning after December 15, 2017.

The new revenue standard may be applied using either of the following transition methods: (1) a full retrospective approach reflecting the application of the standard in each prior reporting period with the option to elect certain practical expedients, or (2) a modified retrospective approach with the cumulative effect of initially adopting the standard recognized at the date of adoption (which includes additional footnote disclosures). We will adopt the standard in the first quarter of 2018 and preliminarily expect to use the modified prospective method. However, we are continuing to evaluate the impact of the standard, and our adoption method is subject to change. Currently, we are in the process of reviewing our historical contracts to quantify the impact that the adoption of the standard will have on specific performance obligations. We are also continuing to evaluate the impact of the standard on our recognition of costs related to obtaining customer contracts (namely sales commissions).

##### Balance Sheet Classification of Deferred Taxes

In November 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2015-17, Balance Sheet Classification of Deferred Taxes, to simplify the presentation of deferred income taxes. The ASU requires that all deferred tax assets and liabilities, along with any related valuation allowance, be classified as noncurrent on the balance sheet. The guidance does not change the existing requirement that only permits offsetting within a tax-paying component of an entity. This guidance is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods, but may be adopted earlier, and may be applied either prospectively or retrospectively. We adopted this guidance in the first three months ended March 31, 2016 reporting on a retrospective basis. Accordingly, we reclassified current deferred taxes to noncurrent on our December 31, 2015 consolidated balance sheet, which increased noncurrent deferred tax assets \$4.6 million and decreased noncurrent deferred tax liabilities \$5.7 million.

## Leases

In February 2016, the FASB issued ASU 2016-02, Leases, to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. Under the new guidance, a lessee will be required to recognize assets and liabilities for leases with lease terms of more than 12 months. Consistent with current GAAP, the recognition, measurement, and presentation of expenses and cash flows arising from a lease by a lessee primarily will depend on its classification as a finance or operating lease. However, unlike current GAAP—which requires only capital leases to be recognized on the balance sheet—the new ASU will require both types of leases to be recognized on the balance sheet. The ASU also will require disclosures to help investors and other financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. These disclosures include qualitative and quantitative requirements, providing additional information about the amounts recorded in the financial statements. For public companies, this guidance is effective for annual periods beginning after December 15, 2018, and interim periods within those annual periods, but may be adopted earlier. We are currently evaluating the impact that the adoption of this standard will have on our Consolidated Financial Statements.



## Stock Compensation

In March 2016, the FASB issued ASU 2016-09, Compensation – Stock Compensation: Improvements to Employee Share-Based Payment Accounting, to improve the accounting for employee share-based payments. Under the new guidance, companies will no longer record excess tax benefits and certain tax deficiencies in additional paid-in capital. Instead, all excess tax benefits and tax deficiencies should be recognized as income tax expense or benefit in the income statement, and additional paid-in capital pools will be eliminated. The guidance requires companies to present excess tax benefits as an operating activity on the statement of cash flows rather than as a financing activity. It also will allow an employer to repurchase more of an employee's shares than it can today for tax withholding purposes without triggering liability accounting and to make a policy election to account for forfeitures as they occur. The new guidance will require an employer to classify the cash paid to a tax authority when shares are withheld to satisfy its statutory income tax withholding obligation as a financing activity on its statement of cash flows. Companies will have to elect whether to account for forfeitures of share-based payments by (1) recognizing forfeitures of awards as they occur (e.g., when an award does not vest because the employee leaves the company) or (2) estimating the number of awards expected to be forfeited and adjusting the estimate when it is likely to change, as is currently required. For public companies, this guidance is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods, but may be adopted earlier. We are adopting this ASU in the first quarter of 2017. We plan to account for forfeitures as incurred upon adoption of this guidance. In each of the years ended December 31, 2016, 2015 and 2014, we have recorded excess tax benefits of \$5.2 million, \$9.1 million, and \$8.6 million as a component of additional paid in capital. In accordance with this ASU, comparable amounts for future periods related to the difference between the fair value of a restricted stock unit (RSU) on the grant date and the fair value of a RSU on the vest date will be recorded as a discrete benefit or expense to the current income tax provision in the period in which the RSU vests. A majority of the future amounts to be recorded would likely occur during the first quarter consistent with the vesting of a majority of RSU grants.

## Going Concern

In August 2014, the FASB issued ASU 2014-15, Presentation of Financial Statements – Going Concern. The new guidance requires management to evaluate whether there are conditions and events that raise substantial doubt about an entity's ability to continue as a going concern within one year after the financial statements are issued (or available to be issued when applicable). Management will be required to make this evaluation for both annual and interim reporting periods. When management identifies events or conditions that indicate that it is probable that the entity will be unable to meet its obligations as they become due, the standard allows management to consider the mitigating effect of its plans to determine whether substantial doubt is alleviated. Management will have to make certain disclosures if it concludes that substantial doubt exists or when its plans alleviate substantial doubt about the entity's ability to continue as a going concern. This guidance is effective for annual periods ending after December 15, 2016, and for annual periods and interim periods thereafter, but may be adopted earlier. We adopted this guidance during the three months period ended December 31, 2016. The adoption did not impact our financial statements.

## Summary of Significant Accounting Policies

### Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with original maturities of three months or less to be cash or cash equivalents.

### Concentrations of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash and cash equivalents, short- and long-term investments and accounts receivable. The Company maintains cash and cash equivalents and short- and long-term investments with various financial institutions. Amounts held are above the federally insured limit.

The Company's sales are primarily to companies located in the United States, Europe and Asia. The Company performs periodic credit evaluations of its customers' financial condition and does not require collateral. Accounts receivable are due principally from large U.S., European and Asia Pacific companies under stated contract terms. Accounts receivable, net as of December 31, 2016 for the Americas, EMEA, and APAC companies were \$81.5 million, \$15.0 million, and \$3.8 million, respectively. Accounts receivable, net as of December 31, 2015 for the Americas, EMEA, and APAC companies were \$79.5 million, \$12.7 million, and \$5.2 million, respectively. The Company's top five customers in aggregate accounted for 12%, 8%, and 10% of total revenue recognized for each of the years ended December 31, 2016, 2015 and 2014, respectively. No single customer accounted for more than 10% of revenue in the years ended December 31, 2016, 2015 and 2014 or for more than 10% of accounts receivable as of December 31, 2016 and 2015.

## Fair Value Measurement

The Company measures its investments based on a fair value hierarchy disclosure framework that prioritizes and ranks the level of market price observability used in measuring assets and liabilities at fair value. Market price observability is affected by a number of factors, including the type of asset or liability and their characteristics. This hierarchy prioritizes the inputs into three broad levels as follows:

Level 1—Quoted prices in active markets for identical instruments.

Level 2—Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets.

Level 3—Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

The Company's investments are categorized as available-for-sale securities and recorded at fair market value. Investments with maturities of 90 days or less from the date of purchase are classified as cash equivalents; investments with maturities of greater than 90 days from the date of purchase but less than one year are generally classified as short-term investments; and investments with maturities of one year or greater from the date of purchase are generally classified as long-term investments. Unrealized holding gains and losses are reflected as a net amount in a separate component of shareholders' equity until realized. For the purposes of computing realized gains and losses, cost is determined on a specific identification basis.

At December 31, 2016, the Company's cash and cash equivalents balances were \$51.4 million and \$44.2 million, respectively. Cash equivalents consist of highly liquid money market funds and certificates of deposit. At December 31, 2016, the Company has \$13.9 million in certificates of deposit in India, which are included in cash equivalents. The Company uses quoted prices from active markets that are classified at Level 1 as a highest level observable input in the disclosure hierarchy framework for all available-for-sale securities. At December 31, 2016, the Company has \$30.3 million in money market funds, which are classified as Level 1 and are included in cash and cash equivalents on the Consolidated Balance Sheet. The Company has no investments at December 31, 2016.

The carrying values of cash and cash equivalents, accounts receivable, accounts payable, and other financial instruments included in the accompanying Consolidated Balance Sheets approximate their fair values principally due to the short-term maturities of these instruments. Unrealized gains and losses on investments are included as a separate component of "Accumulated other comprehensive loss," net of any related tax effect, in the Consolidated Balance Sheets.

## Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. Significant estimates include the allowance for doubtful accounts, which is based upon an evaluation of historical amounts written-off, the customers' ability to pay, and general economic conditions; self-insurance accruals; impairment of goodwill; stock based compensation, which is based on the number of awards ultimately expected to vest; and the Company's effective income tax rate (including the impact of unrecognized tax benefits) and deferred tax assets, which are based upon the Company's expectations of future taxable income, allowable deductions, and projected tax credits. Actual results will differ from these estimates.

## Revenue Recognition

The Company's revenue consists of fees from the licensing and hosting of software (collectively included in "Software license" revenue in the Consolidated Statements of Income), fees from implementation and training services (collectively, "professional services") and customer support services and software enhancements (collectively with professional services revenue included in "Services" revenue in the Consolidated Statements of Income), and sales of hardware and other revenue, which consists of reimbursements of out-of-pocket expenses incurred in connection with our professional services (collectively included in "Hardware and other" revenue in the Consolidated Statements of Income). All revenue is recognized net of any related sales taxes.

The Company recognizes license revenue when the following criteria are met: (1) a signed contract is obtained covering all elements of the arrangement, (2) delivery of the product has occurred, (3) the license fee is fixed or determinable, and (4) collection is probable. Revenue recognition for software with multiple-element arrangements requires recognition of revenue using the “residual method” when (a) there is vendor-specific objective evidence (VSOE) of the fair values of all undelivered elements in a multiple-element arrangement that is not accounted for using long-term contract accounting, (b) VSOE of fair value does not exist for one or more of the delivered elements in the arrangement, and (c) all other applicable revenue-recognition criteria for software revenue recognition are satisfied. For those contracts that contain significant customization or modifications, license revenue is recognized using contract accounting.

The Company allocates revenue to customer support services and software enhancements and any other undelivered elements of the arrangement based on VSOE of fair value of each element, and such amounts are deferred until the applicable delivery criteria and other revenue recognition criteria have been met. The balance of the revenue, net of any discounts inherent in the arrangement, is recognized at the outset of the arrangement using the residual method as the product licenses are delivered. If the Company cannot objectively determine the fair value of each undelivered element based on the VSOE of fair value, the Company defers revenue recognition until all elements are delivered, all services have been performed, or until fair value can be objectively determined. The Company must apply judgment in determining all elements of the arrangement and in determining the VSOE of fair value for each element, considering the price charged for each product on a stand-alone basis or applicable renewal rates. For arrangements that include future software functionality deliverables, the Company accounts for these deliverables as a separate element of the arrangement. Because the Company does not sell these deliverables on a standalone basis, the Company is not able to establish VSOE of fair value of these deliverables. As a result, the Company defers all revenue under the arrangement until the future functionality has been delivered to the customer.

Payment terms for the Company’s software licenses vary. Each contract is evaluated individually to determine whether the fees in the contract are fixed or determinable and whether collectability is probable. Judgment is required in assessing the probability of collection, which is generally based on evaluation of customer-specific information, historical collection experience, and economic market conditions. If market conditions decline, or if the financial conditions of customers deteriorate, the Company may be unable to determine that collectability is probable, and the Company could be required to defer the recognition of revenue until the Company receives customer payments. The Company has an established history of collecting under the terms of its software license contracts without providing refunds or concessions to its customers. Therefore, the Company has determined that the presence of payment terms that extend beyond contract execution in a particular contract do not preclude the conclusion that the fees in the contract are fixed or determinable. Although infrequent, when payment terms in a contract extend beyond our standard terms or twelve months, the Company has determined that such fees are not fixed or determinable and recognizes revenue as payments become due provided that all other conditions for revenue recognition have been met.

The Company’s services revenue consists of fees generated from professional services and customer support and software enhancements related to the Company’s software products. Professional services include system planning, design, configuration, testing, and other software implementation support, and are not typically essential to the functionality of the software. Fees from professional services performed by the Company are separately priced and are generally billed on an hourly basis, and revenue is recognized as the services are performed. In certain situations, professional services are rendered under agreements in which billings are limited to contractual maximums or based upon a fixed fee for portions of or all of the engagement. Revenue related to fixed-fee-based contracts is recognized on a proportional performance basis based on the hours incurred on discrete projects within an overall services arrangement. The Company has determined that output measures, or services delivered, approximate the input measures associated with fixed-fee services arrangements. Project losses are provided for in their entirety in the period in which they become known. Revenue related to customer support services and software enhancements is generally paid in advance and recognized ratably over the term of the agreement, typically twelve months.

Hardware and other revenue is generated from the resale of a variety of hardware products, developed and manufactured by third parties, that are integrated with and complementary to the Company's software solutions. As part of a complete solution, the Company's customers periodically purchase hardware from the Company for use with the software licenses purchased from the Company. These products include computer hardware, radio frequency terminal networks, radio frequency identification (RFID) chip readers, bar code printers and scanners, and other peripherals. Hardware revenue is recognized upon shipment to the customer when title passes. The Company generally purchases hardware from the Company's vendors only after receiving an order from a customer. As a result, the Company generally does not maintain hardware inventory.

In accordance with the other presentation matters within the Revenue Recognition Topic of the Financial Accounting Standards Board's (FASB) Accounting Standards Codification (ASC), the Company recognizes amounts associated with reimbursements from customers for out-of-pocket expenses as revenue. Such amounts have been included in "Hardware and other" revenue in the Consolidated Statements of Income. The total amount of expense reimbursement recorded to revenue was \$18.3 million, \$20.2 million, and \$18.9 million for 2016, 2015 and 2014, respectively.

### Deferred Revenue

Deferred revenue represents amounts collected prior to having completed performance of professional services, customer support services and software enhancements, and significant remaining obligations under license agreements. The Company generally expects to complete such services or obligations within the next twelve months.

### Returns and Allowances

The Company has not experienced significant returns or warranty claims to date and, as a result, has not recorded a provision for the cost of returns and product warranty claims at December 31, 2016 or 2015.

The Company records an allowance for doubtful accounts based on the historical experience of write-offs and a detailed assessment of accounts receivable. Additions to the allowance for doubtful accounts generally represent a sales allowance on services revenue, which are recorded to operations as a reduction to services revenue. The total amounts charged to operations were \$4.9 million, \$7.1 million, and \$4.8 million for 2016, 2015 and 2014, respectively. In estimating the allowance for doubtful accounts, management considers the age of the accounts receivable, the Company's historical write-offs, and the creditworthiness of the customer, among other factors. Should any of these factors change, the estimates made by management will also change accordingly, which could affect the level of the Company's future allowances. Uncollectible accounts are written off when it is determined that the specific balance is not collectible.

### Property and Equipment

Property and equipment is recorded at cost and consists of furniture, computers, other office equipment, internal use software, and leasehold improvements. The Company depreciates the cost of furniture, computers, other office equipment, and internal use software on a straight-line basis over their estimated useful lives (three to five years for computer software, five years for office equipment, seven years for furniture and fixtures). Leasehold improvements are depreciated over the lesser of their useful lives or the term of the lease. Depreciation expense for property and equipment for the years ended December 31, 2016, 2015 and 2014 was approximately \$8.7 million, \$7.3 million, and \$6.2 million, respectively, and was included in "Depreciation and amortization" in the Consolidated Statements of Income.

Property and equipment, at cost, consist of the following (in thousands):

	December 31,	
	2016	2015
Office equipment	\$36,163	\$33,912
Computer software	6,431	18,809
Furniture and fixtures	4,698	4,100
Leasehold improvement	18,453	18,119
Property and equipment, gross	65,745	74,940
Less accumulated depreciation	(46,726)	(53,764)
Property and equipment, net	\$19,019	\$21,176

### Software Development Costs

Research and development expenses are charged to expense as incurred. For the years ended December 31, 2016, 2015 and 2014, the Company did not capitalize any internal research and development costs because the costs

incurred between the attainment of technological feasibility for the related software product through the date when the product was available for general release to customers have been insignificant.

The Company determines the amount of development costs capitalizable under the provisions of FASB Codification accounting for costs of computer software to be sold, leased, or marketed. Under this guidance, computer software development costs are charged to R&D expense until technological feasibility is established, after which remaining software production costs are capitalized. The Company has defined technological feasibility as the point in time at which the Company has a detailed program design or a working model of the related product, depending on the type of development efforts, and high-risk development issues have been resolved through end-to-end system testing.

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### Impairment of Long-Lived Assets

The Company reviews the values assigned to long-lived assets, including property and certain intangible assets, to determine whether events and circumstances have occurred which indicate that the remaining estimated useful lives may warrant revision or that the remaining balances may not be recoverable. In such reviews, undiscounted cash flows associated with these assets are compared with their carrying value to determine if a write-down to fair value is required. During 2016, 2015 and 2014, the Company did not recognize any impairment charges associated with its long-lived or intangible assets.

The evaluation of asset impairment requires management to make assumptions about future cash flows over the life of the asset being evaluated. These assumptions require significant judgment, and actual results may differ from assumed and estimated amounts.

### Goodwill and Impairment of Goodwill

#### Goodwill

Goodwill represents the excess of purchase price over fair value of net identified tangible and intangible assets and liabilities acquired. The Company does not amortize goodwill, but instead tests goodwill for impairment on at least an annual basis. Goodwill was \$62.2 million at the end of each of the years ended December 31, 2016 and 2015. Approximately \$36.0 million of the gross Goodwill balance is deductible for income tax purposes. To date, there have been no goodwill impairments.

#### Impairment of Goodwill

The Company evaluates the carrying value of goodwill annually as of December 31 and between annual evaluations if events occur or circumstances change that would more likely than not reduce the fair value of the reporting unit below its carrying amount. Such circumstances could include, but are not limited to, (1) a significant adverse change in legal factors or in business climate, (2) unanticipated competition, or (3) an adverse action or assessment by a regulator.

The Company applied the simplified goodwill impairment test for the fiscal year ended December 31, 2016, that permits companies to perform a qualitative assessment based on economic, industry and company-specific factors as the initial step in the annual goodwill impairment test for all or selected reporting units. Based on the results of the qualitative assessment, companies are only required to perform Step 1 of the annual impairment test for a reporting unit if the company concludes that it is not more likely than not that the unit's fair value is less than its carrying amount. To the extent the Company concludes it is more likely than not that a reporting unit's estimated fair value is less than its carrying amount, the two-step approach is applied. The first step would require a comparison of each reporting unit's fair value to the respective carrying value. If the carrying value exceeds the fair value, a second step is performed to measure the amount of impairment loss, if any. The Company did not identify any macroeconomic or industry conditions as of December 31, 2016, that would indicate the fair value of the reporting units were more likely than not to be less than their respective carrying values. If circumstances change or events occur to indicate it is more likely than not that the fair value of any reporting units have fallen below their carrying value, the Company would test such reporting unit for impairment. The Company performed its periodic review of its goodwill for impairment as of December 31, 2016 and 2015, and did not identify any impairment as a result of the review.

#### Guarantees and Indemnities

The Company accounts for guarantees in accordance with the guarantee accounting topic in the FASB Codification. Our customer contracts generally contain infringement indemnity provisions. Under those provisions, we generally

agree, subject to certain exceptions, to indemnify, defend, and hold harmless the customer in connection with third party claims against the customer alleging that the customer's use of our software products in compliance with their license infringe the third party's patent, copyright, or other intellectual property rights. Conditions to our obligations generally include that we are provided the right to control the defense of the claims and, in general, to control settlement negotiations. Those provisions generally provide also that, if the customer is prevented from using our software because of a third party infringement claim, our sole obligation (in addition to the indemnification, defense, and hold harmless obligation referred to above) is to, at our expense, (i) procure for the customer the right to continue to use the software, (ii) to replace or modify the product so that its use by the customer does not infringe, or, if either of the foregoing are not reasonably feasible, to terminate the customer contract and provide a refund of the unamortized portion of the customer's license fee (based on a five year amortization period). Our customer contracts sometimes also require us to indemnify, defend, and hold harmless the customer in connection with death, personal injury, or property damage claims made by third parties with respect to actions of our personnel or contractors. The indemnity obligations contained in our customer contracts generally have no specified expiration date and no specified monetary limitation on liability. We have not previously incurred costs to settle claims or pay awards under these indemnification obligations. We account for these indemnity obligations in accordance with FASB guidance on accounting for contingencies, and record a liability for these obligations when a loss is probable and reasonably estimable. We have not recorded any liabilities for these contracts as of December 31, 2016, or 2015.

In general, in our customer contracts, the Company warrants to its customers that its software products will perform in all material respects in accordance with the standard published specifications in effect at the time of delivery of the licensed products to the customer for six months after first use of the licensed products, but no more than 24 months after execution of the license agreement. Additionally, the Company warrants to its customers that services will be performed consistent with generally accepted industry standards or specific service levels through completion of the agreed upon services. If necessary, the Company will provide for the estimated cost of product and service warranties based on specific warranty claims and claim history. However, the Company has not incurred significant recurring expense under product or service warranties. As a result, the Company believes the estimated fair value of these agreements is nominal. Accordingly, the Company has no liabilities recorded for these agreements as of December 31, 2016 and 2015.

### Segment Information

The Company has three reportable segments: Americas, EMEA, and APAC as defined by FASB Codification topic for segment reporting. See Note 7 for discussion of the Company's reportable segments.

### Basic and Diluted Net Income Per Share

Basic net income per share is computed using net income divided by the weighted average number of shares of common stock outstanding ("Weighted Shares") for the period presented.

Diluted net income per share is computed using net income divided by Weighted Shares and the treasury stock method effect of common equivalent shares ("CESs") outstanding for each period presented. The following is a reconciliation of the shares used in the computation of net income per share for the years ended December 31, 2016, 2015 and 2014 (in thousands, except per share data):

	Year Ended December 31,		
	2016	2015	2014
	(in thousands, except per share data)		
Net income	\$124,234	\$103,475	\$82,000
Earnings per share:			
Basic	\$1.73	\$1.41	\$1.09
Effect of CESs	(0.01 )	(0.01 )	(0.01 )
Diluted	\$1.72	\$1.40	\$1.08
Weighted average number of shares:			
Basic	71,674	73,443	74,995
Effect of CESs	386	595	846
Diluted	72,060	74,038	75,841

The number of anti-dilutive CESs in 2016, 2015 and 2014 was immaterial. See Note 2 for further information on those securities.

### Accumulated Other Comprehensive Income

Comprehensive income includes net income and foreign currency translation adjustments that are excluded from net income and reflected in shareholders' equity. The entire accumulated other comprehensive income balance as of

December 31, 2016 and 2015 represents foreign currency translation adjustments.

#### Accounting for Income Taxes

We provide for the effect of income taxes on our financial position and results of operations in accordance with the Income Taxes Topic of the ASC. Under this accounting pronouncement, income tax expense is recognized for the amount of income taxes payable or refundable for the current year and for the change in net deferred tax assets or liabilities resulting from events that are recorded for financial reporting purposes in a different reporting period than recorded in the tax return. Management must make significant assumptions, judgments, and estimates to determine our current provision for income taxes and also our deferred tax assets and liabilities and any valuation allowance to be recorded against our net deferred tax asset.

Our judgments, assumptions, and estimates relative to the current provision for income tax take into account current tax laws, our interpretation of current tax laws, allowable deductions, projected tax credits, and possible outcomes of current and future audits

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conducted by foreign and domestic tax authorities. We do not recognize a tax benefit unless we conclude that it is more likely than not that the benefit will be sustained on audit by the taxing authority based solely on the technical merits of the associated tax position. If the recognition threshold is met, we recognize a tax benefit measured at the largest amount of the tax benefit that, in our judgment, is greater than 50 percent likely to be realized. Changes in tax law or our interpretation of tax laws and the resolution of current and future tax audits could significantly impact the amounts provided for income taxes in our financial position and results of operations. Our assumptions, judgments, and estimates relative to the value of our net deferred tax asset take into account predictions of the amount and category of future taxable income. Actual operating results and the underlying amount and category of income in future years could render our current assumptions, judgments, and estimates of recoverable net deferred taxes inaccurate, thus materially impacting our financial position and results of operations.

## Equity-Based Compensation

The Company accounts for equity-based compensation in accordance with ASC 718, Compensation – Stock Compensation. See Note 2 for further information.

## 2. Equity-Based Compensation

### Equity Based Compensation Plans

In May 2007, the Manhattan Associates, Inc. 2007 Stock Incentive Plan (the “2007 Plan”) was approved by the shareholders of the Company and subsequently amended in May 2009 and May 2011. The 2007 Plan provides for the grant of stock options, restricted stock, restricted stock units, and stock appreciation rights. Vesting conditions can be service-based or performance-based, or a combination of both.

As amended, a maximum of 30,000,000 shares are available for grant under the 2007 Plan. Each stock option or stock appreciation right granted is counted against the maximum share limitation as one share, and each share of restricted stock or restricted stock unit granted (including those that are service based or performance based) counts against the maximum share limitation as two shares. Options and stock appreciation rights cannot have a term exceeding seven years. As of December 31, 2016, there were 11,333,600 shares available for issuance under the amended 2007 Plan. The 2007 Plan is administered by the Compensation Committee of the Board of Directors. The committee has the authority to interpret the provisions thereof.

The restricted stock awards contain vesting provisions that are 50% service based and 50% performance based for employee awards and 100% service based for non-employee members of the Board of Directors (“Outside Directors”). The employee awards have a four year vesting period, with the performance portion tied to annual revenue and earnings per share targets. The awards to Outside Directors have a one year vesting period. The Company recognizes compensation cost for service-based restricted awards with graded vesting on a straight-line basis over the entire vesting period, with the amount of compensation cost recognized at any date at least equal to the portion of the grant-date value of the award that is vested at that date. For its performance-based restricted stock awards with graded vesting, the Company recognizes compensation cost on an accelerated basis applying straight-line expensing for each separately vesting portion of each award.

In January 2012, in order to simplify equity grant administration, the Company changed its practice of granting restricted stock in favor of granting restricted stock units, or RSUs, which convert to the Company’s common stock

upon vesting. There is no material difference between the grant of restricted stock and the grant of RSUs to either the Company or the recipients receiving the grants; however, in contrast to the granting of restricted stock, no stock will actually be issued under the granting of RSUs until the units vest. The Company does not currently grant stock options.

Restricted Stock Unit Awards

A summary of changes in unvested units of restricted stock for the year ended December 31, 2016 are as follows:

	Number of Units	Grant Date Fair Value
Outstanding at January 1, 2016	1,205,533	\$34.09
Granted	421,250	55.35
Vested	(471,037)	26.29
Forfeited	(126,516)	42.15
Outstanding at December 31, 2016	1,029,230	\$45.38

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The Company recorded equity-based compensation related to restricted stock and RSUs (collectively “restricted stock awards”) of \$15.9 million, \$14.5 million, and \$9.7 million during the years ended December 31, 2016, 2015 and 2014, respectively. The total fair value of restricted stock awards vested during the years ended December 31, 2016, 2015 and 2014, based on market value at the vesting dates was \$26.0 million, \$31.2 million, and \$23.9 million, respectively. As of December 31, 2016, unrecognized compensation cost related to unvested restricted stock awards totaled \$23.6 million and is expected to be recognized over a weighted average period of approximately 2.5 years.

Included in the RSU grants for the year ended December 31, 2016 are 143,204 units that have performance-based vesting criteria. As noted above, the performance criteria are tied to the Company’s 2016 financial performance. As of December 31, 2016, the associated equity-based compensation expense has been recognized for the portion of the award attributable to the 2016 performance criteria.

### 3. Income Taxes

The Company is subject to future federal, state, and foreign income taxes and has recorded net deferred tax assets on the Consolidated Balance Sheets at December 31, 2016 and 2015. Deferred tax assets and liabilities are determined based on the difference between the financial accounting and tax bases of assets and liabilities. Significant components of the Company’s deferred tax assets and liabilities as of December 31, 2016 and 2015 are as follows (in thousands):

	December 31,	
	2016	2015
Deferred tax assets:		
Accounts receivable	\$ 1,034	\$ 2,455
Accrued liabilities	5,747	7,671
Equity-based compensation	5,535	4,304
Capitalized costs	861	1,207
Accrued sales taxes	439	348
Deferred rent	939	1,344
State tax credits	4,650	4,339
Foreign subsidiary net operating losses	212	386
Valuation allowance	(4,031 )	(4,916 )
Other	805	695
	16,191	17,833
Deferred tax liabilities:		
Intangible assets	11,056	10,457
Depreciation	2,321	2,763
	13,377	13,220
Net deferred tax assets	\$ 2,814	\$ 4,613

The components of income from domestic and foreign operations before income tax expense for the years ended December 31, 2016, 2015 and 2014 are as follows (in thousands):

Year Ended December 31,

	2016	2015	2014
Domestic	\$ 186,234	\$ 152,040	\$ 118,448
Foreign	9,873	10,801	9,550
Total	\$ 196,107	\$ 162,841	\$ 127,998

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The components of the income tax provision for the years ended December 31, 2016, 2015 and 2014 are as follows (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Current:			
Federal	\$56,053	\$47,195	\$37,076
State	8,204	6,308	5,593
Foreign	5,819	4,331	5,034
	70,076	57,834	47,703
Deferred:			
Federal	2,086	1,252	(1,490)
State	(268)	(300)	(375)
Foreign	(21)	580	160
	1,797	1,532	(1,705)
Total	\$71,873	\$59,366	\$45,998

The income tax benefits related to the exercise of stock options were approximately \$0.1 million, \$2.7 million, and \$3.1 million for the years ended December 31, 2016, 2015 and 2014, respectively.

As a result of losses in foreign locations, the Company has net operating loss carry-forwards (“NOLs”) of approximately \$0.9 million available to offset future income. Approximately \$0.8 million of the NOLs expire in 2018 to 2025 and the remainder does not expire. The Company has established a valuation allowance for substantially all of these NOLs because the ability to utilize them is not more likely than not.

The Company has tax credit carry-forwards of approximately \$7.2 million available to offset future state tax. These tax credit carry-forwards expire in 2017 to 2026. These credits represent a deferred tax asset of \$4.7 million after consideration of the federal benefit of state tax deductions. A valuation allowance of \$2.6 million has been established for these credits because the ability to use them is not more likely than not.

Deferred taxes are not provided for temporary differences of approximately \$44.0 million, \$41.0 million, and \$35.7 million as of December 31, 2016, 2015 and 2014, respectively, representing earnings of non-U.S. subsidiaries that are intended to be permanently reinvested. Those earnings are considered to be indefinitely reinvested; accordingly, no provision for U.S. federal and state income taxes has been provided thereon. Upon repatriation of those earnings, in the form of dividends or otherwise, the Company would be subject to both U.S. income taxes (subject to adjustment for foreign tax credits) and withholding taxes payable to various foreign countries. It is impractical to calculate the tax impact until such repatriation occurs.

The following is a summary of the items that cause recorded income taxes to differ from taxes computed using the statutory federal income tax rate for the years ended December 31, 2016, 2015 and 2014:

	Year Ended December 31,		
	2016	2015	2014
Statutory federal income tax rate	35.0%	35.0%	35.0%

Effect of:

State income tax, net of federal benefit	2.7	2.5	2.7
State credit carryforwards	(0.2 )	(0.3 )	0.1
U.S. federal R&D tax credit	(0.7 )	(0.7 )	(0.9 )
Foreign operations	(0.2 )	(0.4 )	(0.4 )
Tax contingencies	0.6	0.5	(0.4 )
Other permanent differences	(0.5 )	(0.1 )	0.1
Change in valuation allowance	(0.1 )	-	(0.3 )
Income taxes	36.6%	36.5%	35.9%

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A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	December 31,		
	2016	2015	2014
Unrecognized tax benefits at January 1,	\$(5,789)	\$(4,455)	\$(5,122)
Gross amount of increases in unrecognized tax benefits as a			
result of tax positions taken during a prior period	(756 )	(1,687)	(18 )
Gross amount of decreases in unrecognized tax benefits as a			
result of tax positions taken during a prior period	270	292	508
Gross amount of increases in unrecognized tax benefits as a			
result of tax positions taken during the current period	(791 )	-	(481 )
Reductions to unrecognized tax benefits as a result of a lapse of			
the applicable statute of limitations	128	61	658
Unrecognized tax benefits at December 31,	\$(6,938)	\$(5,789)	\$(4,455)

The Company's unrecognized tax benefits totaled \$6.9 million and \$5.8 million as of December 31, 2016 and 2015, respectively. Included in these amounts are unrecognized tax benefits totaling \$5.1 million and \$4.0 million as of December 31, 2016 and 2015, respectively, which, if recognized, would affect the effective tax rate.

The Company recognizes potential accrued interest and penalties related to unrecognized tax benefits within its global operations in income tax expense. For the years ended December 31, 2016, 2015 and 2014, the Company recognized \$0.3 million, \$0.2 million, and \$0.1 million, respectively, of expense for the potential payment of interest and penalties. Accrued interest and penalties were \$1.5 million and \$1.3 million for the years ended December 31, 2016 and 2015. The Company conducts business globally and, as a result, files income tax returns in the United State federal jurisdiction and in many state and foreign jurisdictions. The Company is generally no longer subject to U.S. federal, state, and local, or non-US income tax examinations for the years before 2012. Due to the expiration of statutes of limitations in multiple jurisdictions globally during 2017, the Company anticipates it is reasonably possible that unrecognized tax benefits may decrease by \$0.6 million.

#### 4. Shareholders' Equity

During 2016, 2015 and 2014, the Company purchased 2,821,488, 1,721,457, and 2,620,118 shares of the Company's common stock for \$158.4 million, \$101.6 million, and \$91.1 million, respectively, through open market transactions as part of a publicly-announced share repurchase program. In January 2017, our Board of Directors authorized the Company to repurchase up to an aggregate of \$50 million of the Company's common stock.

## 5. Commitments and Contingencies

## Leases

Rents charged to expense were \$6.8 million, \$6.3 million, and \$6.3 million for the years ended December 31, 2016, 2015 and 2014, respectively. In 2014, the Company amended its Atlanta headquarters lease to obtain additional space and extend the lease term. As part of such lease agreement, the Company will receive reimbursement of \$1.3 million from the landlord in 2018 for leasehold improvements. The entire cash rent obligation is being amortized to expense on a straight line basis over the lease term.

Aggregate future minimum lease payments under noncancellable operating leases as of December 31, 2016 are as follows (in thousands):

Year Ending December 31,	
2017	\$7,756
2018	6,856
2019	5,416
2020	4,707
2021	4,647
Thereafter	16,506
<b>Total minimum payments required</b>	<b>\$45,888</b>

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There are no future minimum lease payments under capital leases as of December 31, 2016.

#### Legal and Other Matters

From time to time, the Company may be involved in litigation relating to claims arising out of its ordinary course of business, and occasionally legal proceeding not in the ordinary course. Many of the Company's installations involve products that are critical to the operations of its clients' businesses. Any failure in a Company product could result in a claim for substantial damages against the Company, regardless of the Company's responsibility for such failure. Although the Company attempts to limit contractually its liability for damages arising from product failures or negligent acts or omissions, there can be no assurance that the limitations of liability set forth in its contracts will be enforceable in all instances. The Company is not currently a party to any ordinary course legal proceeding or other legal proceedings the result of which it believes is likely to have a material adverse impact upon its business, financial position, results of operations, or cash flows. The Company expenses legal costs associated with loss contingencies as such legal costs are incurred.

#### 6. Employee Benefit Plan

The Company sponsors the Manhattan Associates 401(k) Plan and Trust (the "401(k) Plan"), a qualified profit sharing plan with a 401(k) feature covering substantially all employees of the Company. Under the 401(k) Plan's deferred compensation arrangement, eligible employees who elect to participate in the 401(k) Plan may contribute up to 60% of eligible compensation up to \$18,000, as defined, to the 401(k) Plan. The Internal Revenue Service sets the eligible compensation limit at \$265,000 for 2016. Since 2012, the Company has provided a 50% matching contribution up to 6% of eligible compensation being contributed after the participant's first year of employment. During the years ended December 31, 2016, 2015 and 2014, the Company made matching contributions to the 401(k) Plan of \$4.0 million, \$4.0 million, and \$3.1 million, respectively.

#### 7. Reporting Segments

The Company manages the business by three geographic reportable segments: the Americas, EMEA, and APAC. All segments derive revenue from the sale and implementation of the Company's supply chain execution and planning solutions. The individual products sold by the segments are similar in nature and are all designed to help companies manage the effectiveness and efficiency of their supply chain. The Company uses the same accounting policies for each reportable segment. The chief executive officer and chief financial officer evaluate performance based on revenue and operating results for each segment.

The Americas segment charges royalty fees to the other segments based on software licenses sold by those reportable segments. The royalties, which totaled \$3.5 million, \$3.3 million, and \$3.0 million in 2016, 2015 and 2014, respectively, are included in cost of revenue for each segment with a corresponding reduction in America's cost of revenue. The revenues represented below are from external customers only. The geographical-based costs consist of costs of professional services personnel, direct sales and marketing expenses, cost of infrastructure to support the employees and customer base, billing and financial systems, management and general and administrative support.

There are certain corporate expenses included in the Americas segment that are not charged to the other segments, including research and development, certain marketing and general and administrative costs that support the global organization, and the amortization of acquired developed technology. Included in the Americas' costs are all research and development costs including the costs associated with the Company's India operations.

Amortization expense on intangible assets in 2016, 2015 and 2014 was immaterial.

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In accordance with the segment reporting topic of the FASB Codification, the Company has included a summary of financial information by reportable segment. The following table presents the revenues, expenses, and operating income by reportable segment for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	Year Ended December 31, 2016				2015			
	Americas	EMEA	APAC	Consolidated	Americas	EMEA	APAC	Consolidated
<b>Revenue:</b>								
Software license	\$71,134	\$9,187	\$4,675	\$ 84,996	\$65,307	\$9,566	\$3,742	\$ 78,615
Services	392,675	55,240	19,371	467,286	352,665	58,030	17,383	428,078
Hardware and other	49,775	1,855	645	52,275	46,504	2,480	694	49,678
Total revenue	513,584	66,282	24,691	604,557	464,476	70,076	21,819	556,371
<b>Costs and Expenses:</b>								
Cost of revenue	206,687	30,711	12,481	249,879	190,190	33,483	11,755	235,428
Operating expenses	133,637	12,983	4,661	151,281	133,511	13,781	4,441	151,733
Depreciation and amortization	8,313	528	249	9,090	6,952	502	310	7,764
Total costs and expenses	348,637	44,222	17,391	410,250	330,653	47,766	16,506	394,925
Operating income	\$164,947	\$22,060	\$7,300	\$ 194,307	\$133,823	\$22,310	\$5,313	\$ 161,446

	Year Ended December 31, 2014			
	Americas	EMEA	APAC	Consolidated
<b>Revenue:</b>				
Software license	\$59,502	\$7,505	\$4,576	\$ 71,583
Services	301,025	51,440	23,558	376,023
Hardware and other	41,437	1,910	1,151	44,498
Total revenue	401,964	60,855	29,285	492,104
<b>Costs and Expenses:</b>				
Cost of revenue	167,631	30,694	14,253	212,578
Operating expenses	126,570	14,557	4,898	146,025
Depreciation and amortization	5,827	291	259	6,377
Total costs and expenses	300,028	45,542	19,410	364,980
Operating income	\$101,936	\$15,313	\$9,875	\$ 127,124

The following table presents the goodwill, long-lived assets, and total assets by reporting segment as of December 31, 2016 and 2015 (in thousands):

	As of December 31, 2016				As of December 31, 2015			
	Americas	EMEA	APAC	Consolidated	Americas	EMEA	APAC	Consolidated
Goodwill, net	\$54,766	\$5,499	\$1,963	\$ 62,228	\$54,766	\$5,504	\$1,963	\$ 62,233
Long lived assets	22,488	1,923	616	25,027	25,313	2,398	740	28,451

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Total assets	260,478	27,688	8,974	297,140	294,738	28,790	8,715	332,243
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For the years ended December 31, 2016, 2015 and 2014, we derived revenue from sales to customers outside the United States of approximately \$144.8 million, \$131.3 million, and \$134.6 million, respectively. Our remaining revenue was derived from domestic sales.

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License revenues related to our warehouse and non-warehouse product groups for the years ended December 31, 2016, 2015 and 2014, are as follows (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Warehouse	\$48,311	\$50,097	\$40,084
Non-Warehouse	36,685	28,518	31,499
Total software license revenue	\$84,996	\$78,615	\$71,583

Our services revenue consists of fees generated from professional services, customer support services and software enhancements related to our software products for the years ended December 31, 2016, 2015 and 2014, are as follows (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Professional services	\$333,438	\$304,624	\$260,058
Customer support and software enhancements	133,848	123,454	115,965
Total services revenue	\$467,286	\$428,078	\$376,023

## 8. Subsequent Events

The Company evaluated all subsequent events that occurred after the date of the accompanying financial statements and determined that there were no events or transactions during this subsequent event reporting period which require recognition or disclosure in the Company's financial statements.

## 9. Quarterly Results of Operations (Unaudited)

Following is the quarterly results of operations of the Company for the years ended December 31, 2016 and 2015. The unaudited quarterly results have been prepared on substantially the same basis as the audited Consolidated Financial Statements.

	Quarter Ended							
	Mar 31, 2015	Jun 30, 2015	Sep 30, 2015	Dec 31, 2015	Mar 31, 2016	Jun 30, 2016	Sep 30, 2016	Dec 31, 2016
(In thousands, except per share data)								
Statements of Income								
Data:								
Revenue:								
Software license	\$19,314	\$19,758	\$19,130	\$20,413	\$20,607	\$20,631	\$21,633	\$22,125
Services	101,203	107,344	112,549	106,982	116,263	119,833	119,267	111,923
Hardware and other	13,006	12,007	10,625	14,040	12,990	14,428	11,313	13,544
Total revenue	133,523	139,109	142,304	141,435	149,860	154,892	152,213	147,592
Costs and expenses:								
Cost of license	2,906	2,137	2,305	2,590	3,152	2,283	2,966	2,419
Cost of services	44,784	46,464	46,682	46,419	51,904	48,393	49,436	47,742
Cost of hardware and other	10,547	10,163	9,109	11,322	9,757	11,841	9,276	10,710
Research and development	13,556	13,257	13,589	13,457	14,706	13,458	13,389	13,183
Sales and marketing	11,847	11,889	10,904	13,975	12,588	12,015	10,003	13,617
General and administrative	11,238	11,927	14,058	12,036	12,448	12,368	11,225	12,281
Depreciation and amortization	1,781	1,898	1,977	2,108	2,206	2,266	2,334	2,284
Total costs and expenses	96,659	97,735	98,624	101,907	106,761	102,624	98,629	102,236
Operating income	36,864	41,374	43,680	39,528	43,099	52,268	53,584	45,356
Other income, net	262	359	604	170	520	654	210	416
Income before income taxes	37,126	41,733	44,284	39,698	43,619	52,922	53,794	45,772
Income tax provision	13,922	15,729	16,387	13,328	16,139	19,581	20,298	15,855
Net income	\$23,204	\$26,004	\$27,897	\$26,370	\$27,480	\$33,341	\$33,496	\$29,917
Basic earnings per share	\$0.31	\$0.35	\$0.38	\$0.36	\$0.38	\$0.46	\$0.47	\$0.42
Diluted earnings per share	\$0.31	\$0.35	\$0.38	\$0.36	\$0.38	\$0.46	\$0.47	\$0.42
Shares used in computing basic earnings per share	73,979	73,618	73,259	72,929	72,630	71,880	71,403	70,742
Shares used in computing diluted earnings per share	74,607	74,126	73,761	73,555	73,020	72,228	71,743	71,148

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Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure  
None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures designed to ensure that information required to be disclosed in reports filed under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

No system of controls, no matter how well designed and operated, can provide absolute assurance that the objectives of the system of controls are met, and no evaluation of controls can provide absolute assurance that the system of controls has operated effectively in all cases. Our disclosure controls and procedures, however, are designed to provide reasonable assurance that the objectives of disclosure controls and procedures are met.

As of the end of the period covered by this report, our Chief Executive Officer and Chief Financial Officer evaluated, with the participation of management, the effectiveness of our disclosure controls and procedures. Based on the evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective to provide reasonable assurance that the objectives of disclosure controls and procedures are met.

Management's Report on Internal Control over Financial Reporting

Management's assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2016, and the report of Ernst & Young LLP on the effectiveness of the Company's internal control over financial reporting are contained on pages 38 and 39 of this report.

Change in Internal Control over Financial Reporting

During the fourth quarter of 2016, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting, including any corrective actions with regard to material weaknesses.

Item 9B. Other Information

None.



PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item is incorporated by reference from the information contained in our Proxy Statement for the Annual Meeting of Shareholders expected to be filed with the SEC on or prior to April 19, 2017, under the captions “Election of Directors,” “Executive Officers,” “Section 16(a) Beneficial Ownership Reporting Compliance,” “Code of Ethics,” and “Board Committees.”

Item 11. Executive Compensation

The information required by this item is incorporated by reference from the relevant information contained in our Proxy Statement for the Annual Meeting of Shareholders expected to be filed with the SEC on or prior to April 19, 2017, under the captions “Director Compensation,” “Executive Compensation,” “Compensation Committee Interlocks and Insider Participation,” and “Compensation Committee Report.”

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters

The information required by this item is incorporated by reference from the relevant information contained in our Proxy Statement for the Annual Meeting of Shareholders expected to be filed with the SEC on or prior to April 19, 2017, under the caption “Security Ownership of Certain Beneficial Owners and Management.” The information required by this item with respect to the Company’s securities authorized for issuance under equity compensation plans is included in Part II, Item 5 of this Annual Report on Form 10-K and is incorporated by reference herein.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item is incorporated by reference from the relevant information contained in our Proxy Statement for the Annual Meeting of Shareholders expected to be filed with the SEC on or prior to April 19, 2017, under the captions “Related Party Transactions” and “Election of Directors.”

Item 14. Principal Accountant Fees and Services

The information required by this item is incorporated by reference from the relevant information contained in our Proxy Statement for the Annual Meeting of Shareholders expected to be filed with the SEC on or prior to April 19,

2017, under the caption "Ratification of Appointment of Independent Registered Public Accounting Firm."

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## PART IV

## Item 15. Exhibits and Financial Statement Schedules

## (a) 1. Financial Statements.

The response to this item is submitted as a separate section of this Form 10-K. See Item 8.

## 2. Financial Statement Schedule.

The following financial statement schedule is filed as a part of this report:

## SCHEDULE II

## MANHATTAN ASSOCIATES, INC. AND SUBSIDIARIES

## VALUATION AND QUALIFYING ACCOUNTS

(in thousands)

Classification:	Balance at Beginning of Period	Additions Charged to Operations	Net Deductions	Balance at End of Period
Allowance for Doubtful Accounts				
For the year ended:				
December 31, 2014	\$ 3,156	\$ 4,778	\$ 3,770	(a) \$ 4,164
December 31, 2015	\$ 4,164	\$ 7,130	\$ 4,263	(a) \$ 7,031
December 31, 2016	\$ 7,031	\$ 4,889	\$ 8,325	(a) \$ 3,595
Deferred Tax Asset Valuation Allowance				
For the year ended:				
December 31, 2014	\$ 6,188	\$ -	\$ 1,117	(b) \$ 5,071
December 31, 2015	\$ 5,071	\$ -	\$ 155	(b) \$ 4,916
December 31, 2016	\$ 4,916	\$ -	\$ 885	(b) \$ 4,031

(a) Represents write-offs of accounts, net of recoveries.

(b) Represents current year releases credited to expenses and current year reductions due to decreases in net deferred tax assets.

All other schedules are omitted because they are not required or the required information is shown in the consolidated financial statements or notes thereto.

## 3. Exhibits.



See (b) below.

(b) The exhibits listed below under “Exhibit Index” are filed with or incorporated by reference in this Report. Where such filing is made by incorporation by reference to a previously filed registration statement or report, such registration statement or report is identified in parentheses.

(c) See Item 15(a)(2).

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

MANHATTAN ASSOCIATES, INC.

By: /s/ Eddie Capel  
 Eddie Capel  
 President, Chief Executive Officer, and Director

Date: February 3, 2017

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

Signature	Title	Date
/s/ John J. Huntz, Jr. John J. Huntz, Jr.	Chairman of the Board	February 3, 2017
/s/ Eddie Capel Eddie Capel	President, Chief Executive Officer, and Director (Principal Executive Officer)	February 3, 2017
/s/ Dennis B. Story Dennis B. Story	Executive Vice President, Chief Financial Officer, and Treasurer (Principal Financial Officer)	February 3, 2017
/s/ Linda C. Pinne Linda C. Pinne	Senior Vice President, Global Corporate Controller, and Chief Accounting Officer (Principal Accounting Officer)	February 3, 2017
/s/ Brian J. Cassidy Brian J. Cassidy	Director	February 3, 2017
/s/ Edmond I. Eger III Edmond I. Eger III	Director	February 3, 2017
/s/ John H. Heyman John H. Heyman	Director	February 3, 2017

/s/ Thomas E.  
Noonan  
Thomas E. Noonan

Director

February 3,  
2017

/s/ Deepak  
Raghavan  
Deepak Raghavan

Director

February 3,  
2017

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EXHIBIT INDEX

The following exhibits are filed with this Report.

Exhibit Number	Description
3.1	Articles of Incorporation of the Registrant dated February 24, 1998 (Incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2014 (File No. 00023999), filed on July 29, 2014).
3.2	Amended Bylaws of the Registrant (As Amended Effective October 13, 2010) (Incorporated by reference to Exhibit 3.2 to the Company's Form 8-K (File No. 000-23999), filed on October 19, 2010).
4.1	Provisions of the Articles of Incorporation and Bylaws of the Registrant

defining rights of the holders of common stock of the Registrant (Incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1 (File No. 333-47095), filed on February 27, 1998).

4.2 Specimen Stock Certificate (Incorporated by reference to Exhibit 4.2 to the Company's Pre-Effective Amendment No. 1 to its Registration Statement on Form S-1 (File No. 333-47095), filed on April 2, 1998).

10.1(a) Lease Agreement by and between Wildwood Associates, a Georgia general partnership, and the Registrant dated September 24, 1997 (Incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-1 (File No. 333-47095),

filed on  
February 27,  
1998).

(b) First  
Amendment to  
Lease between  
Wildwood  
Associates, a  
Georgia general  
partnership, and  
the Registrant  
dated  
October 31, 1997  
(Incorporated by  
reference to  
Exhibit 10.2 to  
the Company's  
Registration  
Statement on  
Form S-1 (File  
No. 333-47095),  
filed on  
February 27,  
1998).

(c) Second  
Amendment to  
Lease  
Agreement  
between  
Wildwood  
Associates, a  
Georgia general  
partnership, and  
the Registrant,  
dated  
February 27,  
1998  
(Incorporated by  
reference to  
Exhibit 10.8 to  
the Company's  
Pre-Effective  
Amendment  
No. 1 to its  
Registration  
Statement on  
Form S-1 (File  
No. 333-47095),  
filed on April 2,

1998).

- (d) Third Amendment to Lease Agreement between Wildwood Associates and the Registrant, dated October 24, 2000 (Incorporated by reference to Exhibit 10.9 to the Company's Annual Report for the period ended December 31, 2000 (File No. 000-23999), filed on April 2, 2001).

- 10.2(a) Lease Agreement by and between Wildwood Associates, a Georgia general partnership, and the Registrant, dated June 25, 2001 (Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report for the period ended June 30, 2001 (File No. 000-23999), filed August 14, 2001).

- (b) First Amendment to Lease Agreement

between  
Wildwood  
Associates, and  
the Registrant,  
dated June 10,  
2002  
(Incorporated by  
reference to  
Exhibit 10.6 to  
the Company's  
Annual Report  
for the period  
ended  
December 31,  
2006 (File  
No. 000-23999),  
filed on  
March 14, 2007).

- (c) Second  
Amendment to  
Lease  
Agreement  
between 2300  
Windy Ridge  
Parkway  
Investors LLC,  
and the  
Registrant, dated  
February 27,  
2007  
(Incorporated by  
reference to  
Exhibit 10.7 to  
the Company's  
Annual Report  
for the period  
ended  
December 31,  
2006 (File  
No. 000-23999),  
filed on  
March 14, 2007).

- (d) Third  
Amendment to  
Lease  
Agreement  
between 2300  
Windy Ridge  
Parkway



Investors LLC,  
and the  
Registrant, dated  
June 14, 2007  
(Incorporated by  
reference to  
Exhibit 10.2(d)  
to the Company's  
Annual Report  
for the period  
ended  
December 31,  
2014 (File  
No. 000-23999),  
filed on  
February 5,  
2015).

- (e) Fourth  
Amendment to  
Lease  
Agreement  
between SP4  
2300 Windy  
Ridge LP, and  
the Registrant,  
dated August 14,  
2012  
(Incorporated by  
reference to  
Exhibit 10.2(e)  
to the Company's  
Annual Report  
for the period  
ended  
December 31,  
2014 (File  
No. 000-23999),  
filed on  
February 5,  
2015).

- (f) Fifth  
Amendment to  
Lease  
Agreement  
between 2300  
Windy Ridge  
LLC, and the  
Registrant, dated  
May 19, 2014

(Incorporated by reference to Exhibit 10.2(f) to the Company's Annual Report for the period ended December 31, 2014 (File No. 000-23999), filed on February 5, 2015).

- (g) Sixth Amendment to Lease Agreement between 2300 Windy Ridge LLC, and the Registrant, dated August 13, 2014 (Incorporated by reference to Exhibit 10.2(g) to the Company's Annual Report for the period ended December 31, 2014 (File No. 000-23999), filed on February 5, 2015).

Exhibit Number	Description
(h)	Seventh Amendment to Lease Agreement between 2300 Windy Ridge LLC and the Registrant, dated April 29, 2015 (Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 000-23999), filed on July 28, 2015).
10.3	Agreement to Build and Lease between Orchid Apartments Private Limited and Manhattan Associates India Development Centre Private Limited, executed on November 19, 2004 (Incorporated by reference to Exhibit 10.8 to the Company's Annual Report for the period ended December 31, 2004 (File No. 000-23999), filed on March 16, 2005).
10.4	Lease Agreement between IGE Energy Services (UK) Limited, Manhattan Associates Limited and Manhattan Associates, Inc., dated February 1, 2005 (Incorporated by reference to Exhibit 10.9 to the Company's Annual Report for the period ended December 31, 2004 (File No. 000-23999), filed on March 16, 2005).
10.5	Form of Director and Officer Indemnification Agreement (Incorporated by reference to Exhibit 10.2 to the Company's Form 8-K (File No. 000-23999) filed on April 4, 2014).
10.6*	Summary Plan Description of the Registrant's 401(k) Plan and Trust, effective January 1, 1995 (Incorporated by reference to Exhibit 10.4 to the Company's Registration Statement on Form S-1 (File No. 333-47095), filed on February 27, 1998).
10.7(a)*	Manhattan Associates, Inc. 1998 Stock Incentive Plan (Incorporated by reference to Exhibit 10.10 to the Company's Registration Statement on Form S-1 (File No. 333-47095), filed on February 27, 1998).
(b)*	First Amendment to the Manhattan Associates, Inc. 1998 Stock Incentive Plan (Incorporated by reference to Exhibit 10.22 to the Company's Annual Report for the period ended December 31, 1998 (File No. 000-23999), filed on March 31, 1999).
(c)*	Second Amendment to the Manhattan Associates, Inc. 1998 Stock Incentive Plan (Incorporated by reference to Exhibit 10.23 to the Company's Annual Report for the period ended December 31, 1998 (File No. 000-23999), filed on March 31, 1999).
(d)*	Third Amendment to the Manhattan Associates, Inc. 1998 Stock Incentive Plan (Incorporated by reference to Exhibit 10.24 to the Company's Annual Report for the period ended December 31, 1998 (File No. 000-23999), filed on March 31, 1999).
(e)*	Fourth Amendment to the Manhattan Associates, Inc. 1998 Stock Incentive Plan (Incorporated by reference to Exhibit 10.25 to the Company's Annual Report for the period ended December 31, 1999 (File No. 000-23999), filed on March 30, 2000).
(f)*	Fifth Amendment to the Manhattan Associates, Inc. 1998 Stock Incentive Plan (Incorporated by reference to Exhibit 4.8 to the Company's Form S-8 (File No. 333-68968), filed on September 5, 2001).
(g)*	Sixth Amendment to the Manhattan Associates, Inc. 1998 Stock Incentive Plan (Incorporated by reference to Annex A to the Company's Proxy Statement for its Annual Meeting held May 17, 2002 (File No. 000-23999), filed on April 24, 2002).

- (h)\* Amendment No. 7 to the Manhattan Associates, Inc. 1998 Stock Incentive Plan (Incorporated by reference to Exhibit 4.10 to the Company's Form S-8 (File No. 333-105913), filed on June 6, 2003).
- 10.8\* Form of Composite Stock Option Agreement (Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report for the period ended March 31, 2006 (File No. 000-23999), filed on May 4, 2006).
- 10.9(a)\* Executive Employment Agreement by and between the Registrant and Peter F. Sinisgalli, effective as of February 25, 2004 (Incorporated by reference to Exhibit 10.28 to the Company's Annual Report for the period ended December 31, 2003 (File No. 000-23999), filed on March 15, 2004).
- (b)\* Modification dated July 19, 2007 by and between the Company and Peter F. Sinisgalli to the Executive Employment Agreement dated February 25, 2004 (Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 000-23999), filed on July 24, 2007).
- 10.10\* Executive Employment Agreement by and between the Registrant and Peter F. Sinisgalli, effective as of April 13, 2012 (Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 000-23999), filed on December 23, 2011).

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Exhibit Number	Description
10.11*	Separation and Non-Competition Agreement by and between the Registrant and Peter F. Sinisgalli, effective as of February 25, 2004 (Incorporated by reference to Exhibit 10.29 to the Company's Annual Report for the period ended December 31, 2003 (File No. 000-23999), filed on March 15, 2004).
10.12(a)*	Form of Executive Employment Agreement (Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 000-23999) filed on April 4, 2013).
(b)*	Updated Schedule to Form of Executive Employment Agreement of Initial Salaries and Target Bonus Opportunities for Named Executive Officers (Incorporated by reference to Exhibit 10.1(b) to

the Company's  
Quarterly Report  
on Form 10-Q for  
the period ended  
June 30, 2013  
(File No.  
000-23999) filed  
on July 31, 2013).

10.13\* Executive  
Employment  
Agreement with  
Steven P. Smith  
(Incorporated by  
reference to  
Exhibit 10.3 to  
the Company's  
Quarterly Report  
on Form 10-Q for  
the period ended  
June 30, 2013  
(File No.  
000-23999) filed  
on July 31, 2013).

10.14 \* Form of  
Modification  
Agreement for  
Terms and  
Conditions for  
Stock Options.  
(Incorporated by  
reference to  
Exhibit 10.3 to  
the Company's  
Form 8-K (File  
No. 000-23999),  
filed on January  
2, 2009).

10.15 Form of License  
Agreement,  
Software  
Maintenance  
Agreement and  
Consulting  
Agreement  
(Incorporated by  
reference to  
Exhibit 10.18 to  
the Company's

- Pre-Effective  
Amendment  
No. 1 to its  
Registration  
Statement on  
Form S-1 (File  
No. 333-47095),  
filed on April 2,  
1998).
- 10.16 Form of Software  
License, Services  
and Maintenance  
Agreement  
(Incorporated by  
reference to  
Exhibit 10.21 to  
the Company's  
Annual Report for  
the period ended  
December 31,  
1998 (File  
No. 000-23999),  
filed on  
March 31, 1999).
- 10.17(a)\* 2007 Stock  
Incentive Plan, as  
amended by the  
First Amendment  
thereto  
(Incorporated by  
reference to  
Annex A to the  
Company's  
Definitive Proxy  
Statement related  
to its 2009  
Annual Meeting  
of Shareholders  
(File  
No. 000-23999)  
filed on April 20,  
2009).
- (b)\* Second  
amendment to  
2007 Stock  
Incentive Plan  
(Incorporated by  
reference to  
Annex A to the

- Company's  
Definitive Proxy  
Statement related  
to its 2011  
Annual Meeting  
of Shareholders  
(File  
No. 000-23999)  
filed on April 15,  
2011).
- 10.18\* Written Summary  
of Manhattan  
Associates, Inc.  
Annual Cash  
Incentive Plan  
(Incorporated by  
reference to  
Exhibit 10.47 to  
the Company's  
Annual Report for  
the period ended  
December 31,  
2009 (File  
No. 000-23999),  
filed on February  
19, 2010).
- 10.19\* Form of  
Manhattan  
Associates, Inc.  
Restricted Stock  
Award  
Agreement for  
Employees  
(Incorporated by  
reference to  
Exhibit 10.48 to  
the Company's  
Annual Report for  
the period ended  
December 31,  
2009 (File  
No. 000-23999),  
filed on February  
19, 2010).
- 10.20\* Form of  
Manhattan  
Associates, Inc.  
Restricted Stock  
Award



Agreement for  
Non-Employee  
Directors  
(Incorporated by  
reference to  
Exhibit 10.49 to  
the Company's  
Annual Report for  
the period ended  
December 31,  
2009 (File  
No. 000-23999),  
filed on February  
19, 2010).

10.21\* Form of  
Manhattan  
Associates, Inc.  
Restricted Stock  
Unit Award  
Agreement for  
Employees  
(Incorporated by  
reference to  
Exhibit 10.50 to  
the Company's  
Annual Report for  
the period ended  
December 31,  
2012 (File  
No. 000-23999),  
filed on February  
23, 2012).

10.22\* Form of  
Manhattan  
Associates, Inc.  
Restricted Stock  
Unit Award  
Agreement for  
Non-Employee  
Directors  
(Incorporated by  
reference to  
Exhibit 10.51 to  
the Company's  
Annual Report for  
the period ended  
December 31,  
2012 (File  
No. 000-23999),

filed on February  
23, 2012).

10.23\* Executive  
Employment  
Agreement by and  
between the  
Registrant and  
Bruce Richards,  
effective as of  
August 1, 2011  
(Incorporated by  
reference to  
Exhibit 10.51 to  
the Company's  
Annual Report for  
the period ended  
December 31,  
2012 (File  
No. 000-23999),  
filed on February  
23, 2012).

10.24\* Severance and  
Non-Competition  
Agreement by and  
between the  
Registrant and  
Bruce Richards,  
effective as of  
August 1, 2011  
(Incorporated by  
reference to  
Exhibit 10.51 to  
the Company's  
Annual Report for  
the period ended  
December 31,  
2012 (File  
No. 000-23999),  
filed on February  
23, 2012).

10.25\* Modification  
Agreement for  
Terms and  
Conditions for  
Stock Options by  
and between the  
Registrant and  
Eddie Capel,

effective as of  
June 4, 2007  
(Incorporated by  
reference to  
Exhibit 10.51 to  
the Company's  
Annual Report for  
the period ended  
December 31,  
2012 (File  
No. 000-23999),  
filed on February  
23, 2012).

Exhibit Number	Description
10.26*	Severance and Non-Competition Agreement by and between the Registrant and Eddie Capel, effective as of March 18, 2010 (Incorporated by reference to Exhibit 10.51 to the Company's Annual Report for the period ended December 31, 2012 (File No. 000-23999), filed on February 23, 2012).
10.27*	Settlement Agreement by and between the Registrant and Steven P. Smith, effective as of June 8, 2015 (Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 000-23999), filed on June 12, 2015).
10.28	2016 Annual Cash Bonus Plan (Incorporated by reference from Annex B to the Company's Definitive Proxy Statement for its 2016 Annual Meeting of Shareholders filed with the SEC on April 8, 2016 (SEC File No. 000-23999)).

- 10.29\* Executive Employment Agreement with Linda C. Pinne (Incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q (File No. 000-23999), filed on April 22, 2016).
- 10.30\* Indemnification Agreement with Linda C. Pinne (Incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q (File No. 000-23999), filed on April 22, 2016).
- 10.31\* Consulting Agreement, dated May 12, 2016, by and between the Registrant and Dan Lautenbach (Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 000-23999), filed on May 13, 2016).
- 10.32\* Executive Employment Letter Agreement, dated July 27, 2016, by and between the Registrant and Dennis Story (Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 000-23999), filed on August 1, 2016).

- 21.1 List of Subsidiaries.
- 23.1 Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
- 31.1 Certification of Principal Executive Officer pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 31.2 Certification of Principal Financial Officer pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 32\*\* Certification of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 101.INS XBRL Instance Document
- 101.SCH XBRL Taxonomy Extension Schema Document
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF XBRL Taxonomy  
Extension Definition  
Linkbase Document

101.LAB XBRL Taxonomy  
Extension Label  
Linkbase Document

101.PRE XBRL Taxonomy  
Extension  
Presentation  
Linkbase Document

\*Management contract or compensatory plan or agreement.

\*\*In accordance with Item 601(b)(32)(ii) of the SEC's Regulation S-K, this Exhibit is hereby furnished to the SEC as an accompanying document and is not deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that Section, nor shall it be deemed incorporated by reference into any filing under the Securities Act of 1933.