BLACKROCK MUNIYIELD QUALITY FUND III, INC. Form N-CSR October 01, 2015

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SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEMENT

INVESTMENT COMPANIES

Investment Company Act file number: 811-06540

Name of Fund: BlackRock MuniYield Quality Fund III, Inc. (MYI)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock MuniYield

Quality Fund III, Inc., 55 East 52nd Street, New York, NY 10055

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

Date of fiscal year end: 07/31/2015

Date of reporting period: 07/31/2015

Item 1 Report to Stockholders

JULY 31, 2015

ANNUAL REPORT

BlackRock MuniHoldings Quality Fund II, Inc. (MUE) BlackRock MuniYield California Quality Fund, Inc. (MCA) BlackRock MuniYield Michigan Quality Fund II, Inc. (MYM) BlackRock MuniYield New York Quality Fund, Inc. (MYN) BlackRock MuniYield Quality Fund III, Inc. (MYI)

Not FDIC Insured May Lose Value No Bank Guarantee

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The Markets in Review

Dear Shareholder,

Diverging monetary policies and shifting economic outlooks between regions were the broader themes underlying market conditions during the 12-month period ended July 31, 2015. The period began with investors caught between the forces of low interest rates and an improving U.S. economy, high asset valuations, oil price instability and lingering geopolitical risks in Ukraine and the Middle East. As U.S. growth picked up considerably in the fourth quarter of 2014, the broader global economy showed signs of slowing. Investors favored the stability of U.S. assets despite uncertainty as to when the Federal Reserve (the Fed) would raise short-term interest rates. International markets continued to struggle even as the European Central Bank and the Bank of Japan eased monetary policy. Oil prices plummeted in late 2014 due to a global supply-and-demand imbalance, sparking a sell-off in energy-related assets and putting stress on emerging markets. Fixed income investors piled into U.S. Treasuries as their persistently low yields had become attractive as compared to the even lower yields on international sovereign debt.

Equity markets reversed in early 2015, with international markets outperforming the United States as global risks abated. Investors had held high expectations for the U.S. economy, but a harsh winter and west coast port strike brought disappointing first-quarter data and high valuations took their toll on U.S. stocks, while bond yields fell to extreme lows. (Bond prices rise as yields fall.) In contrast, economic reports in Europe and Asia easily beat investors very low expectations, and accommodative policies from central banks in those regions helped international equities rebound. Oil prices stabilized, providing some relief for emerging market stocks, although a stronger U.S. dollar continued to be a headwind for the asset class.

U.S. economic data regained momentum in the second quarter, helping U.S. stocks resume an upward path, although meaningful strength in the labor market underscored the likelihood that the Fed would raise short-term rates before the end of 2015 and bond yields moved swiftly higher. The month of June brought a sharp, but temporary, sell-off across most asset classes as Greece s long-brewing debt troubles came to an impasse and investors feared the consequences should Greece leave the eurozone. Adding to global worries was a massive correction in Chinese equity prices despite policymakers attempts to stabilize the market. As these concerns abated in the later part of July, developed markets rebounded with the help of solid corporate earnings. Emerging markets, however, continued to slide as Chinese equities remained highly volatile and growth estimates for many emerging economies were revised lower. Bond markets moved back into positive territory as softer estimates for global growth and the return of falling commodity prices caused yields to move lower.

At BlackRock, we believe investors need to think globally, extend their scope across a broad array of asset classes and be prepared to move freely as market conditions change over time. We encourage you to talk with your financial advisor and visit 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 July 31, 2015

	6-month	12-month
U.S. large cap equities	6.55%	11.21%
(S&P 500 [®] Index)		

U.S. small cap equities (Russell 2000 [®] Index)	6.98	12.03
International equities	7.19	(0.28)
(MSCI Europe, Australasia,		
Far East Index)		
Emerging market equities	(4.76)	(13.38)
(MSCI Emerging Markets Index)		
3-month Treasury bills	0.00	0.01
(BofA Merrill Lynch	0.00	0.01
3-Month U.S. Treasury		
Bill Index)		
U.S. Treasury securities	(3.64)	5.32
(BofA Merrill Lynch		
10-Year U.S. Treasury Index)		
U.S. investment-grade bonds	(1.47)	2.82
(Barclays U.S.		
Aggregate Bond Index)		
Tax-exempt municipal	(0.97)	3.50
bonds (S&P Municipal		
Bond Index)	1.07	0.37
U.S. high yield bonds	1.27	0.37
(Barclays U.S. Corporate High Yield 2% Issuer		
Capped Index)		
capped index)		

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 July 31, 2015 Municipal Market Conditions

Municipal bonds generated positive performance for the period, thanks to a favorable supply-and-demand environment and declining interest rates in the earlier half. (Bond prices rise as rates fall.) Interest rates moved lower in 2014 even as the U.S. Federal Reserve (the Fed) curtailed its open-market bond purchases. This, coupled with reassurance from the Fed that short-term rates would remain low for a considerable amount of time, resulted in strong demand for fixed income investments in 2014, with municipal bonds being one of the stronger performing sectors for the year. This trend continued into the beginning of 2015 until rate volatility ultimately increased in February as a result of uneven U.S. economic data and widening central bank divergence, i.e., rate cuts outside the United States while the Fed poised for normalizing U.S. rates. During the 12 months ended July 31, 2015, municipal bond funds garnered net inflows of approximately \$24 billion (based on data from the Investment Company Institute).

For the same 12-month period, total new issuance remained relatively strong from a historical perspective at \$406 billion (considerably higher than the \$306 billion issued in the prior 12-month period). A noteworthy portion of new supply during this period was attributable to refinancing activity (roughly 60%) as issuers took advantage of low interest rates and a flatter yield curve to reduce their borrowing costs.

S&P Municipal Bond Index Total Returns as of July 31, 2015 6 months: (0.97)% 12 months: 3.50%

A Closer Look at Yields

From July 31, 2014 to July 31, 2015, yields on AAA-rated 30-year municipal bonds declined by 18 basis points (bp) from 3.30% to 3.12%, while 10-year rates fell by 7 bps from 2.26% to 2.19% and 5-year rates increased 8 bps from 1.22% to 1.30% (as measured by Thomson Municipal Market Data). Overall, the municipal yield curve remained relatively steep over the 12-month period even as the spread between 2- and 30-year maturities flattened by 49 bps and the spread between 2- and 10-year maturities flattened by 38 bps.

During the same time period, U.S. Treasury rates fell by 38 bps on 30-year bonds, 35 bps on 10-year bonds and 21 bps in 5-years. Accordingly, tax-exempt municipal bonds underperformed Treasuries across the yield curve, most notably in the intermediate part of the curve as a result of increased supply and tempered demand. In absolute terms, positive performance of muni 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 had become scarce. More broadly, municipal bonds benefited from the greater appeal of tax-exempt investing in light of the higher tax rates implemented in 2014. 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. The four largest states 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 remain imperative amid uncertainty in a modestly improving economic environment.

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.

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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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 they utilize 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, the Funds 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 the Funds with the proceeds from leverage earn income based on longer-term interest rates. In this case, the Funds financing cost of leverage is significantly lower than the income earned on the Funds longer-term investments acquired from 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 its leverage arrangement 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 a Fund s intended leveraging strategy will be successful.

Leverage also generally causes greater changes in the Funds NAVs, market prices and dividend rates than comparable portfolios without leverage. In a declining market, leverage is likely to cause a greater decline in the net asset value and market price of a Fund s Common Shares than if the Funds were not leveraged. In addition, the Funds may be required to sell portfolio securities at inopportune times or at distressed values in order to comply with regulatory requirements applicable to the use of leverage or as required by the terms of leverage instruments, which may cause the Funds 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. The Funds incur expenses in connection with the use of leverage, all of which are borne by Common Shareholders and may reduce income to the Common Shares. 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 advisor 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), 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 the Funds obligations under the TOB Trust (including accrued interest), a TOB Trust is not considered a senior security and is not subject to the foregoing limitations and requirements under the 1940 Act.

Derivative Financial Instruments

The Funds may invest in various derivative financial instruments. Derivative financial instruments are used to obtain exposure to a security, index and/or market without owning or taking physical custody of securities 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. Derivative financial instruments also 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 derivative financial instrument. The Funds ability to use a derivative financial instrument successfully depends on the investment advisor s ability to predict pertinent market movements accurately, which cannot be assured. The use of derivative financial 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 are discussed in detail in the Notes to Financial Statements.

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Fund Summary as of July 31, 2015

BlackRock MuniHoldings Quality Fund II, Inc.

Fund Overview

BlackRock MuniHoldings Quality Fund II, Inc. s (MUE) (the Fund) investment objective is to provide shareholders with current income exempt from federal income taxes. The Fund seeks to achieve its investment objective by investing primarily in long-term, investment grade municipal obligations exempt from federal income taxes (except that the interest may be subject to the federal alternative minimum tax). Under normal market conditions, the Fund invests at least 80% of its assets in municipal obligations 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 New York Stock Exchange (NYSE)	MUE
Initial Offering Date	February 26, 1999
Yield on Closing Market Price as of July 31, 2015 (\$13.13) ¹	6.21%
Tax Equivalent Yield ²	10.97%
Current Monthly Distribution per Common Share ³	\$0.0680
Current Annualized Distribution per Common Share ³	\$0.8160
Economic Leverage as of July 31, 2015 ⁴	36%

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

- ² Tax equivalent yield assumes the maximum marginal 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.
- ³ The distribution rate is not constant and is subject to change.
- ⁴ 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 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 12 months ended July 31, 2015 were as follows:

	Returns Based On	
	Market Price	NAV ⁷
MUE ⁵	7.96%	6.84%
Lipper General & Insured Municipal Debt Funds (Leveraged) ⁶	6.90%	6.95%

⁵ All returns reflect reinvestment of dividends and/or distributions.

⁶ Average return.

⁷ The Fund s discount to NAV, which narrowed during the period, accounts for the difference between performance based on price and performance based on NAV.

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

Municipal bonds generally delivered gains during the 12-month period, with yields declining as prices rose. Long-term bonds outperformed short-term debt, due to a flattening of the yield curve. In this environment, the Fund s duration positioning contributed positively to performance. The Fund s longer dated holdings in the transportation, utilities, health and school district sectors experienced the best price performance on an absolute basis. Income in the form of coupon payments made up a meaningful portion of the Fund s total return for the period. In addition, the Fund s minimal cash balance and use of leverage allowed it to increase its income.

The Fund s use of U.S. Treasury futures contracts to manage interest rate risk had a slightly negative impact on performance given that bond yields declined during the reporting period.

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

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BlackRock MuniHoldings Quality Fund II, Inc.

Market Price and Net Asset Value Per Share Summary

	7/31/15	7/31/14	Change	High	Low
Market Price	\$ 13.13	\$ 12.94	1.47%	\$ 14.30	\$ 12.67
Net Asset Value	\$ 14.48	\$ 14.42	0.42%	\$ 15.17	\$ 14.29

Market Price and Net Asset Value History For the Past Five Years

Overview of the Fund s Total Investments*

Sector Allocation

	7/31/15	7/31/14
Transportation	37%	37%
County/City/Special District/School District	25	23
Utilities	14	17
Health	11	12
State	7	6
Education	2	2
Corporate	2	
Housing	1	1
Tobacco	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 advisor. These definitions may not apply for purposes of this report, which may combine such sector sub-classifications for reporting ease.

Credit Quality Allocation¹

	7/31/15	7/31/14
AAA/Aaa	6%	6%
AA/Aa	65	67
A	26	25
BBB/Baa	3	2
N/R	2	

¹ For financial reporting purposes, credit quality ratings shown above reflect the highest rating assigned by either Standard & Poor s (S&P) or Moody s Investors Service (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. ² Represents less than 1% of Fund s total investments.

Call/Maturity Schedule³

Calendar Year Ended December 31,	
2015	1%
2016	1
2017	1
2018	25
2019	15

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

* Excludes short-term securities.

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Fund Summary as of July 31, 2015

BlackRock MuniYield California Quality Fund, Inc.

Fund Overview

BlackRock MuniYield California Quality Fund, Inc. s (MCA) (the Fund) investment objective is to provide shareholders with as high a level of current income exempt from federal and California 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 obligations exempt from federal income taxes (except that the interest may be subject to the federal alternative minimum tax) and California income taxes. Under normal market conditions, the Fund invests primarily in long-term municipal obligations that are investment grade 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 NYSE	MCA
Initial Offering Date	October 30, 1992
Yield on Closing Market Price as of July 31, 2015 (\$14.71) ¹	5.96%
Tax Equivalent Yield ²	12.15%
Current Monthly Distribution per Common Share ³	\$0.0730
Current Annualized Distribution per Common Share ³	\$0.8760
Economic Leverage as of July 31, 2015 ⁴	38%

- ¹ Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.
- ² Tax equivalent yield assumes the maximum marginal federal and state tax rate of 50.93%, 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.
- ³ The distribution rate is not constant and is subject to change.
- ⁴ 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 accrued liabilities. For a discussion of leveraging techniques utilized by the Fund, please see The Benefits and Risks of Leveraging on page 5.

Performance