Semi-Annual Report of the Kentucky Asset/Liability Commission

39th edition

For the period ending June 30, 2016

Matt Bevin
Governor
Commonwealth of Kentucky

William M. Landrum III
Secretary
Finance and Administration Cabinet

Ryan Barrow
Executive Director
Office of Financial Management

An electronic copy of this report

may be viewed at:

http://finance.ky.gov/services/ofm/Pages/semi-annualreports.aspx

The Commonwealth's Comprehensive Annual Financial Report (CAFR)

may be viewed at:

http://finance.ky.gov/services/statewideacct/Pages/ReportsandPublications.aspx

The Municipal Securities Rulemaking Board (MSRB)

Electronic Municipal Market Access (EMMA)

website is located at:

http://emma.msrb.org/

Table of Contents

INTRODUCTION

The Kentucky Asset/Liability Commission ("ALCo" or the "Commission") presents its thirty-ninth semi-annual report to the Capital Projects and Bond Oversight Committee and the Interim Joint Committee on Appropriations and Revenue pursuant to KRS 56.863 (11) for the period beginning January 1, 2016 through June 30, 2016.

Provided in the report is the current structure of the Commonwealth's investment and debt portfolios and the strategy used to reduce both the impact of variable revenue receipts on the budget of the Commonwealth and fluctuating interest rates on the interest-sensitive assets and interest-sensitive liabilities of the Commonwealth. Additionally, an analysis of the Commonwealth's outstanding debt is provided as well as a description of all financial agreements entered into during the reporting period. And finally, the report makes available a summary of gains and losses associated with outstanding financial agreements.

Several factors on both the state and national level had an impact on activity during the reporting period. The most significant factors were:

On the national level

- Economic growth slowed to 1.15% annualized during the six months ended June 30, 2016.
- The unemployment rate is holding steady at 4.9% as roughly 170,000 new jobs were created each month so far in 2016.
- The inflation rate has remained low with most measures showing prices rising between 1.0 and 1.5%.
- On June 23, 2016, the United Kingdom voted in favor of Brexit, leaving the European Union.
- The Federal Reserve continues to hold the fed funds rate at the range of 0.25% to 0.50%.

On the state level

- General Fund receipts totaled $10.3389 billion for Fiscal Year (FY) 2016. General Fund receipts increased 3.7% for FY 2016 over the same period in 2015. General Fund receipts for FY 2016 were $49.0 million, or 0.5%, more than the official revenue estimate which projected 3.2% growth.
- Road Fund receipts for FY 2016 totaled $1.4825 billion. Road Fund receipts decreased 2.9% for FY 2016 over the same period in FY 2015. Road Fund receipts for Fiscal Year 2016 were $36.6 million, or 2.5 percent, more than the official revenue estimate.
- Kentucky's seasonally adjusted unemployment rate stood at 5.0% at the end of June 2016, down from 5.1% one year ago.
- Implementation of bond authorizations from prior-year sessions of the General Assembly continued.
- The 2016 Regular Session of the General Assembly delivered House Bill 303 (Executive Branch Budget other than Transportation Cabinet) and House Bill 304 (Kentucky Transportation Cabinet Budget) to the Governor on April 15, 2016. Together, the bills authorize bond financing for projects totaling a net amount of $1.251 billion to support various capital initiatives of the Commonwealth.

INVESTMENT MANAGEMENT

Market Overview

On December 16, 2015, the Federal Open Market Committee of the Federal Reserve Board raised short term interest rates for the first time since the financial crisis. As noted in the December 2015 ALCo report, the Fed indicated this was the first move in a gradual series of tightenings expected to return the Fed Funds rate to nearly 4% in 2018. But the US economy slowed causing the Fed to continually delay the second step towards rate normalization. This continues a pattern over the last several years in which the Fed projects successive rate increases starting with their next meeting, but fails to follow through.

The Federal Reserve bases its decisions primarily on its economic forecasts. Monetary policy works with a time delay. A decision today will affect the wider economy between 6 months to a year in the future. This forces the Fed into a paradigm of relying heavily on the forecast while using current data to verify the accuracy of the forecast. However, the actual data has consistently shown less strength than the underlying forecast. For example, in the Fed's December 2015 statement, they expected that "economic activity will continue to expand at a moderate pace" meaning that real GDP growth will average between 2% and 3% for the next year to year and a half. A few weeks later, 4th quarter 2015 GDP growth was announced as 0.9% while the 1st quarter of 2016 was 0.8%, well below the economic forecast.

Part of the challenge with the forecast is the change in trend of participation in the work force. From the end of World War II until the year 2000, the percentage of the population either having or seeking a job generally increased as more women entered the workforce and the baby boom generation reached middle age (*see top chart on page 9*). Since 2000, this trend has completely reversed with the rate of descent increasing following the financial crisis. While a number of theories have been proposed to explain this, none are convincing.

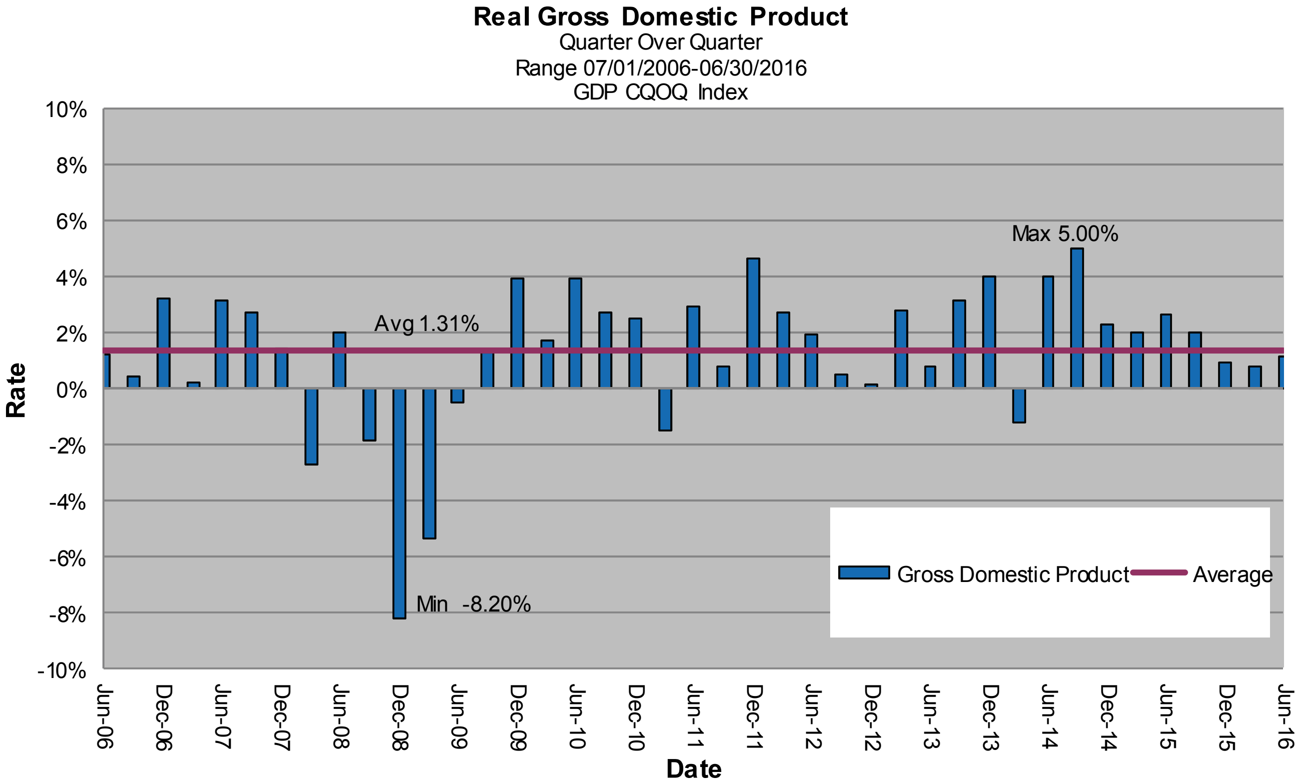
The unemployment rate has fallen to 4.9% as of June 2016 (*see top chart on page 8*) which is consistent with a growing economy and accelerating inflation, if monetary policy was still accommodative. Economic growth dropped to 1.15% (annualized) during the previous six months, while inflation, as measured by year over year growth in CPI (*see bottom chart on page 8*) has averaged about 1.0%. All this is occurring while the Fed is maintaining short interest rates near historic lows and holding over $4 trillion in securities on its balance sheet. These actual results are showing weaker economic growth and lower inflation than the Fed's forecast.

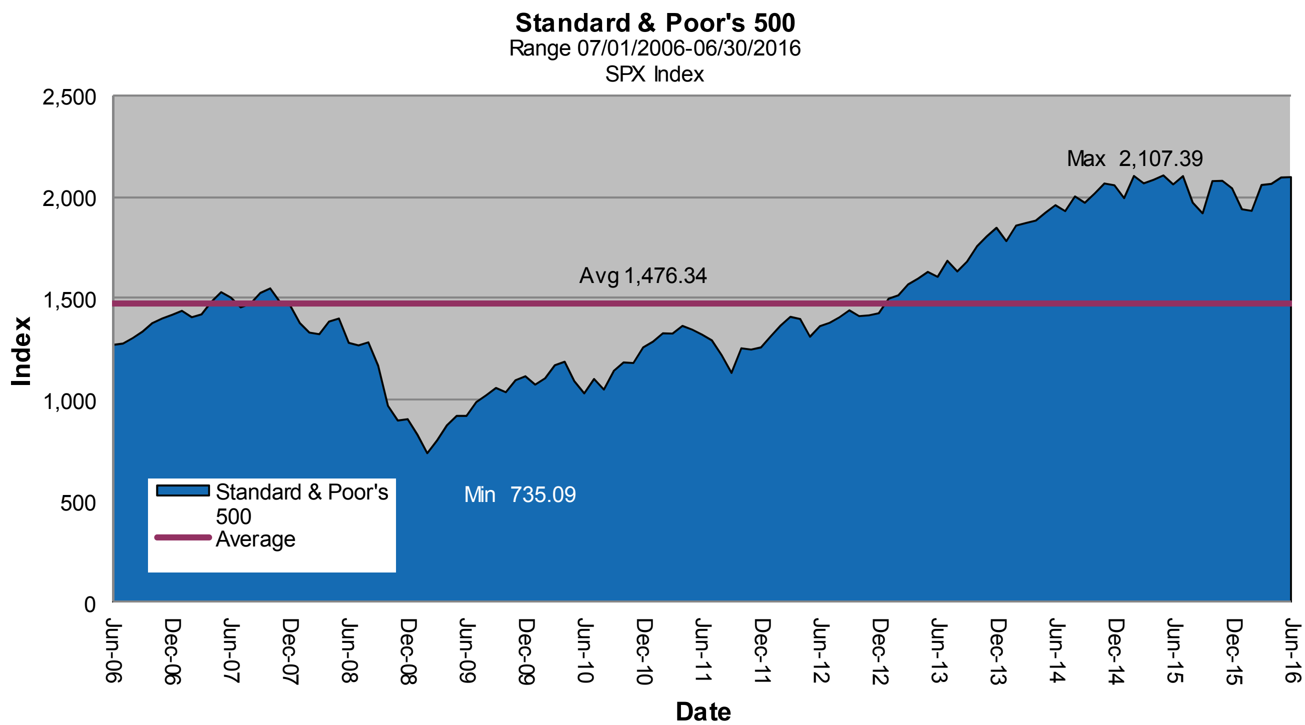
Another deviation from historic norms is productivity growth (*see bottom chart on page 9*). Productivity measures the amount of total output for a given amount of labor input. One way to measure this is Gross Domestic Product divided by total hours worked. While this statistic tends to be noisy, the trend is clearly down as the 2nd quarter print was -0.6% (not annualized). Over the long term, the only way to improve the average standard of living is through increasing productivity. Productivity growth has averaged 0.5% for the decade beginning 2010, well below the 2.7% average the previous decade.

The bottom line is that the Federal Reserve wants to normalize short term interest rates in order to provide flexibility in the future. While there are some indications that the economy is returning to a state closer to the pre-financial crisis period, such as the uptick in hourly wage growth from about 2.0% to 2.5%, the overall outlook remains relatively slow growth with low inflation. If the next 6 months to a year show tightening in the labor market, demonstrated by increased wage growth beginning to bleed into more broad based inflation, the Fed should be able to "normalize" interest rates.

INVESTMENT MANAGEMENT

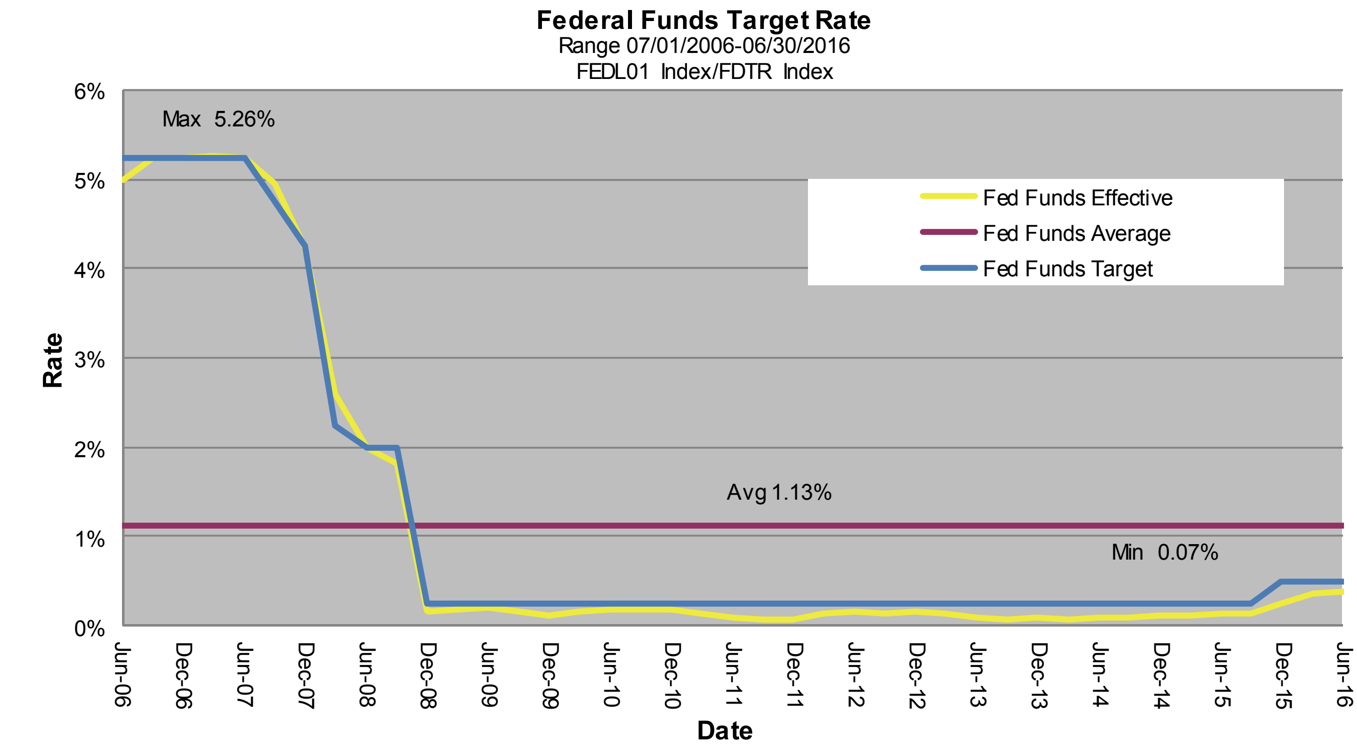
Real Gross Domestic Product & Standard & Poor's 500

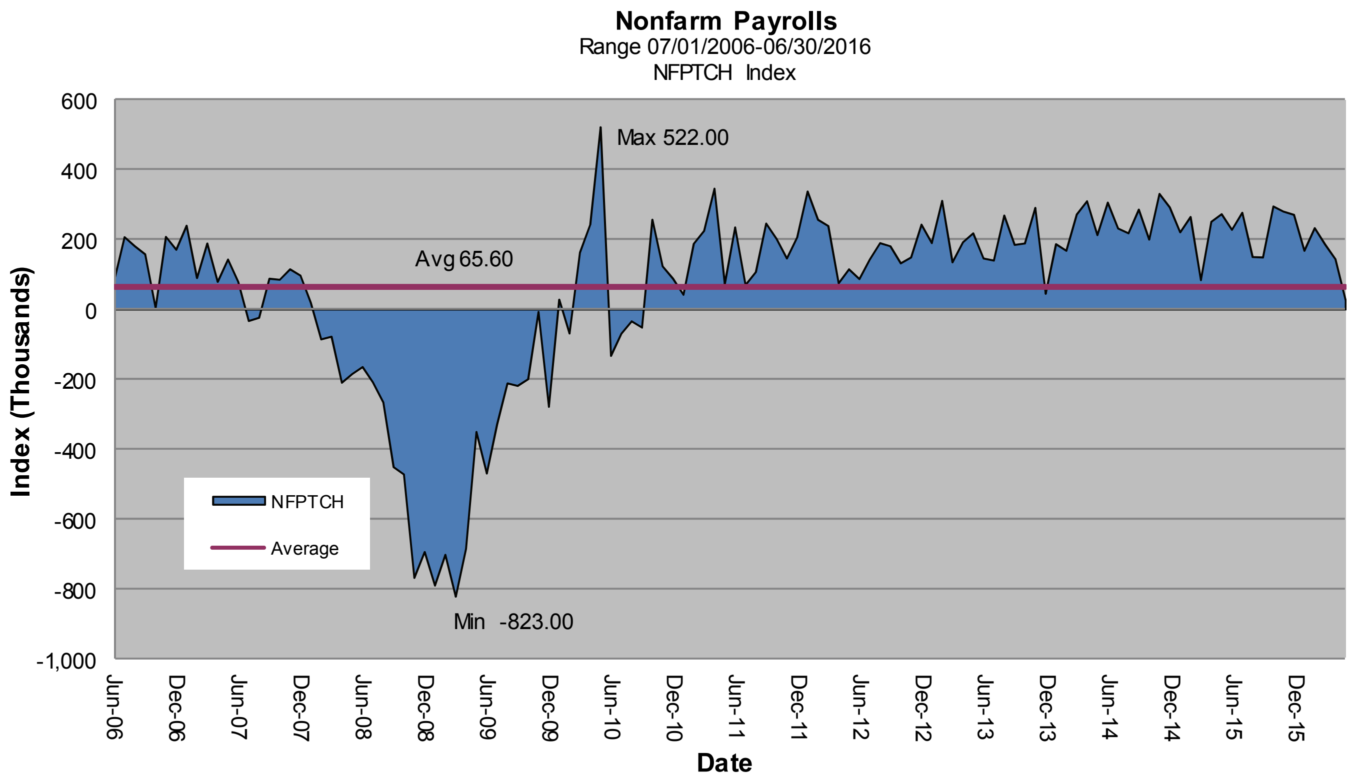




INVESTMENT MANAGEMENT

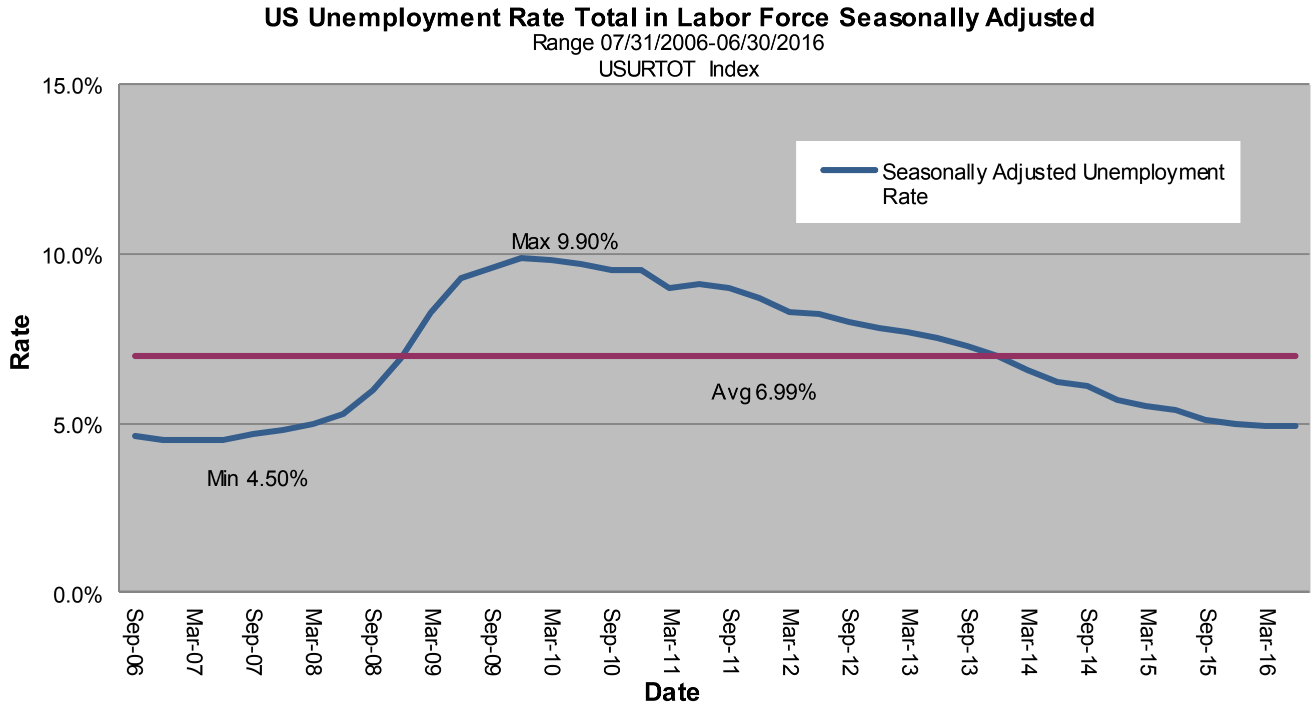
Federal Funds Target Rate & NonFarm Payrolls

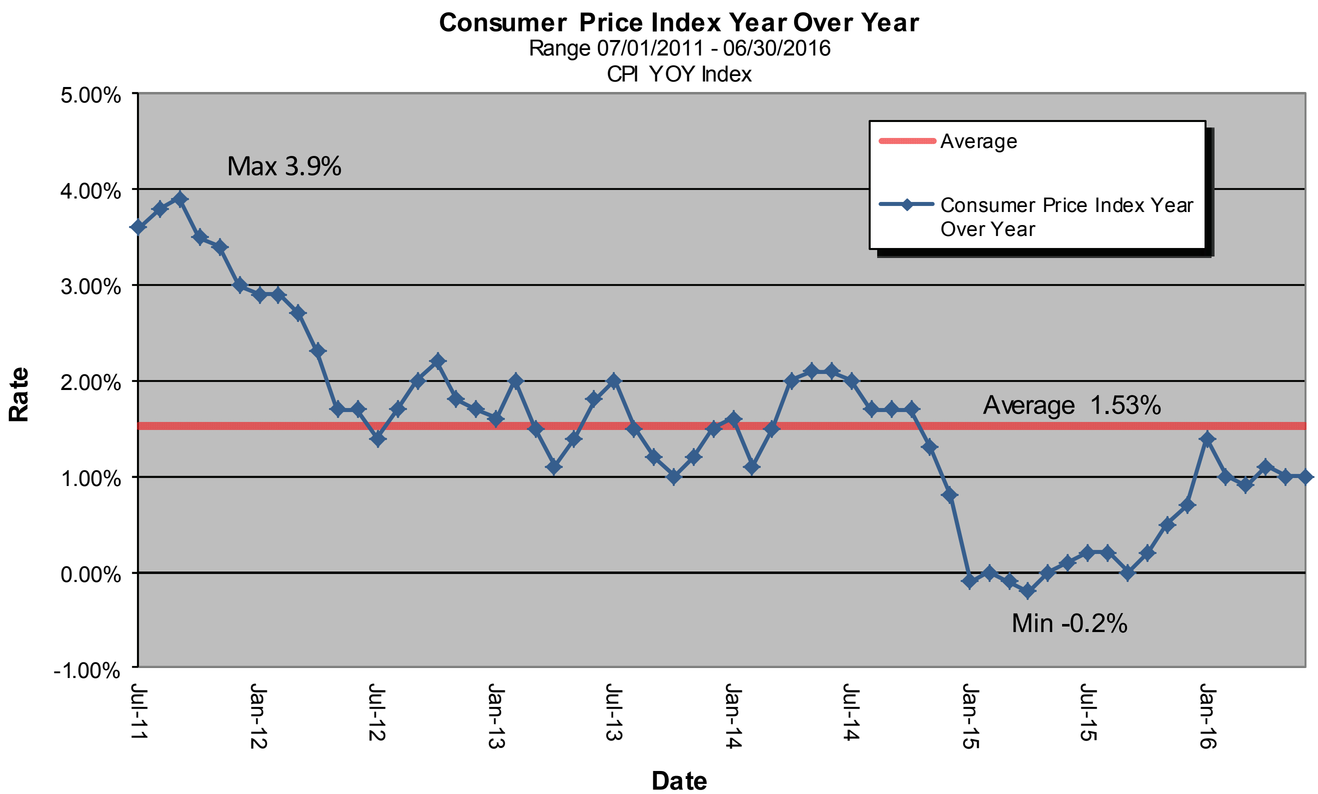




INVESTMENT MANAGEMENT

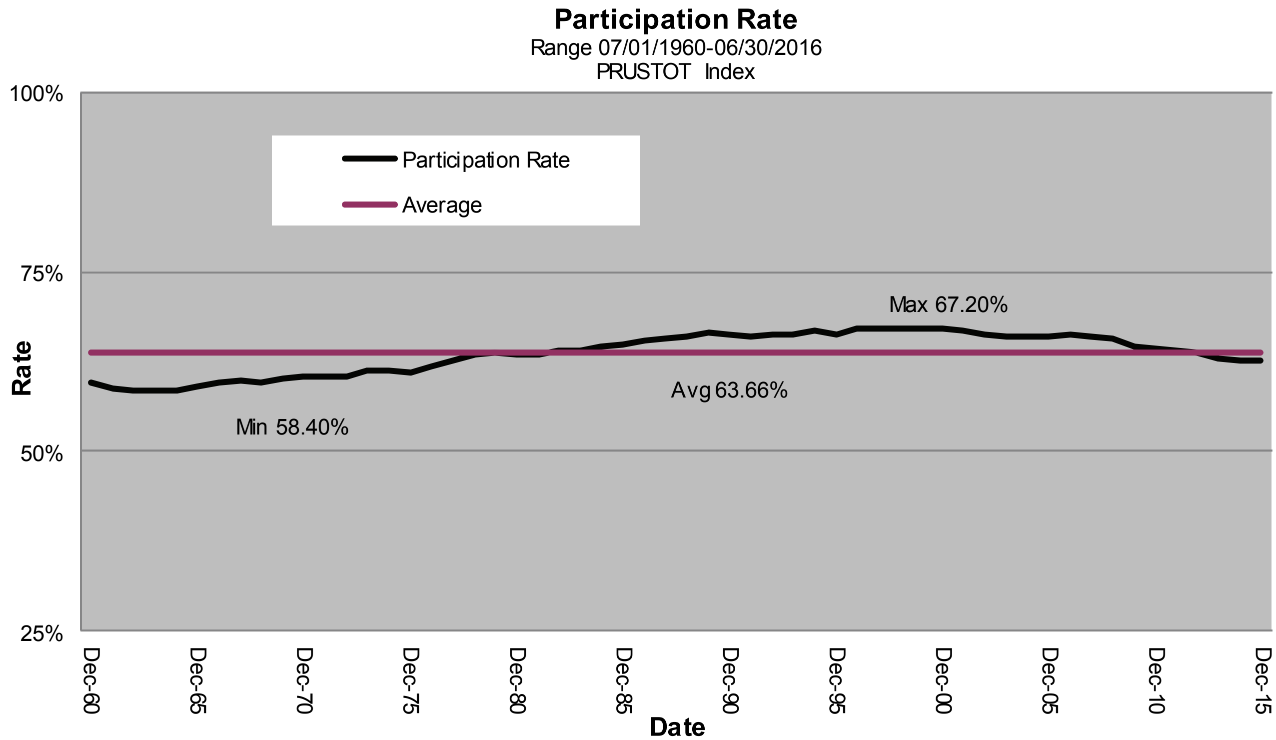
US Unemployment Rate & Consumer Price Index

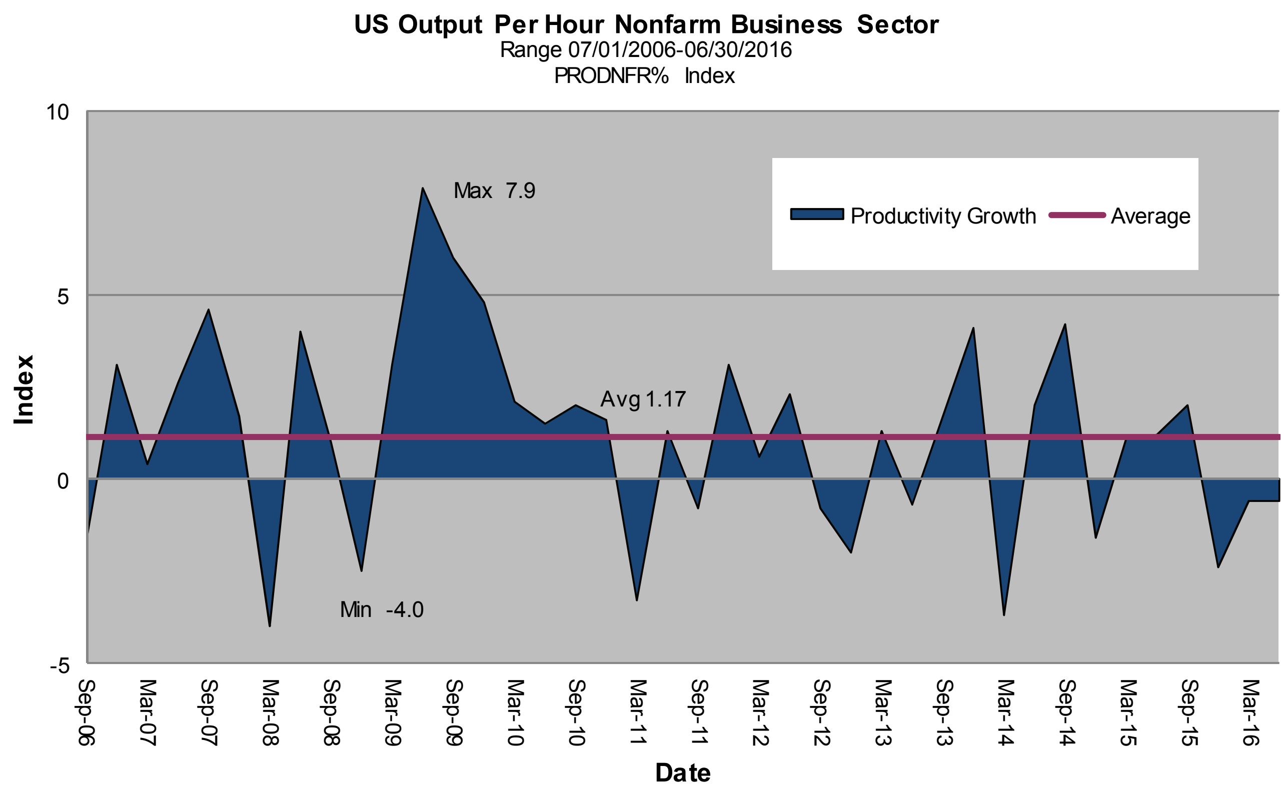




INVESTMENT MANAGEMENT

Participation Rate & US Output





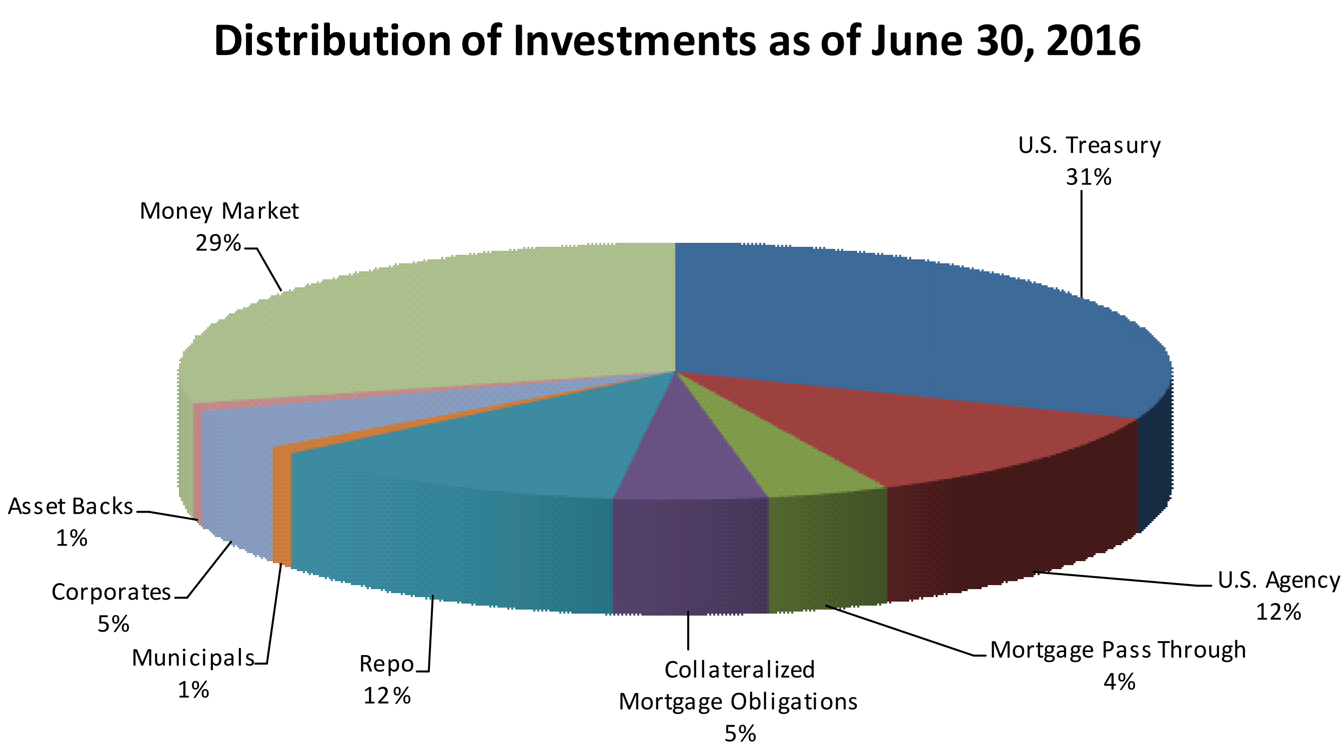
INVESTMENT MANAGEMENT

PORTFOLIO MANAGEMENT

For fiscal year 2016, the Commonwealth's investment portfolio averaged $3.7 billion. As of June 30, 2016, the portfolio was invested in U. S. Treasury Securities (31 percent), U. S. Agency Securities (12 percent), Mortgage Pass Through Securities (4 percent), Collateralized Mortgage Obligations (5 percent), Repurchase Agreements (12 percent), Municipal Securities (1 percent), Corporate Securities (5 percent), Asset-Backed Securities (1 percent), and Money Market Securities (29 percent). The portfolio had a market yield of 0.57 percent and an effective duration of 0.60 years.

The total portfolio is broken down into four investment pools. The pool balances as of June 30, 2016, were: $743 million (Short Term Pool), $1,444 million (Limited Term Pool), $2,437 million (Intermediate Term Pool), and $27 million (Bridges Pool).

For fiscal year 2016, total investment income was $25.3 million compared to $17.5 for fiscal year 2015.

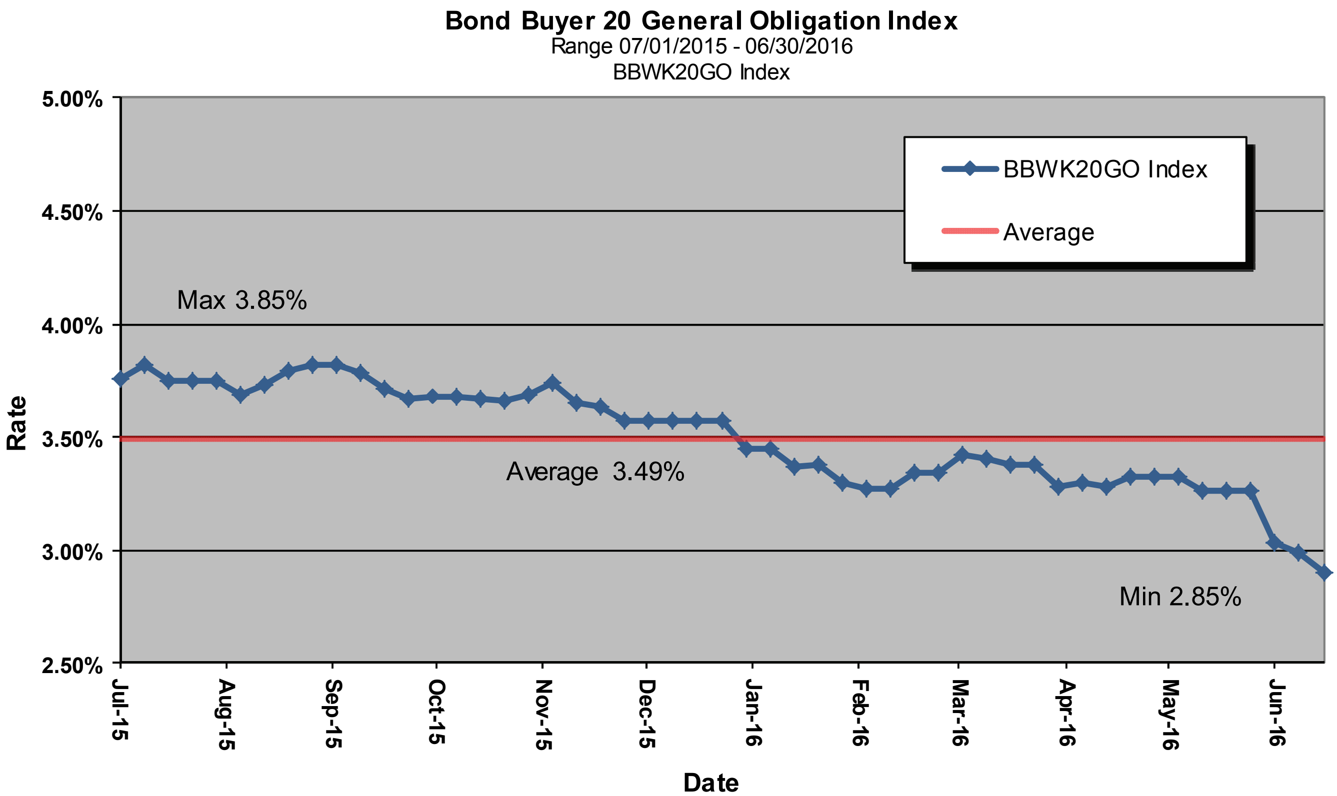


INVESTMENT MANAGEMENT

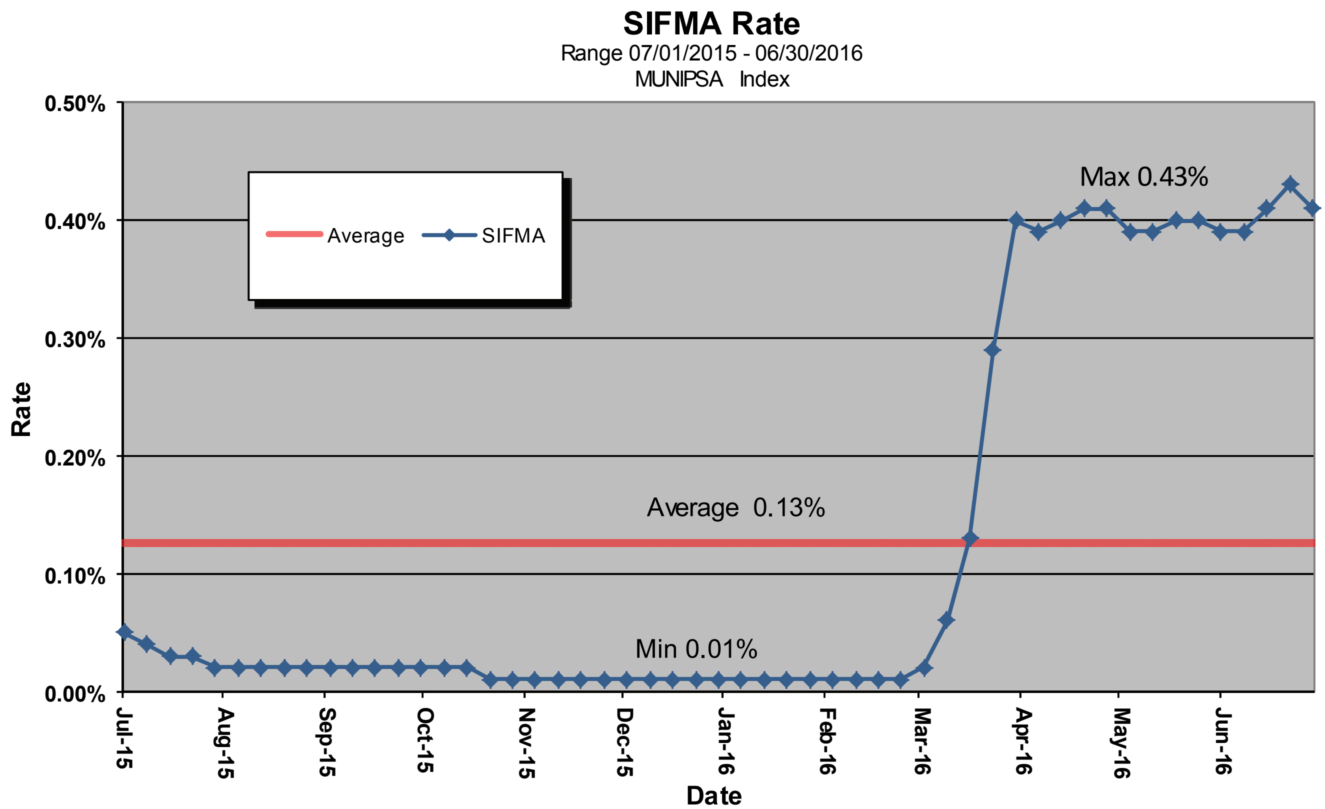
Tax-Exempt Interest Rates and Relationships

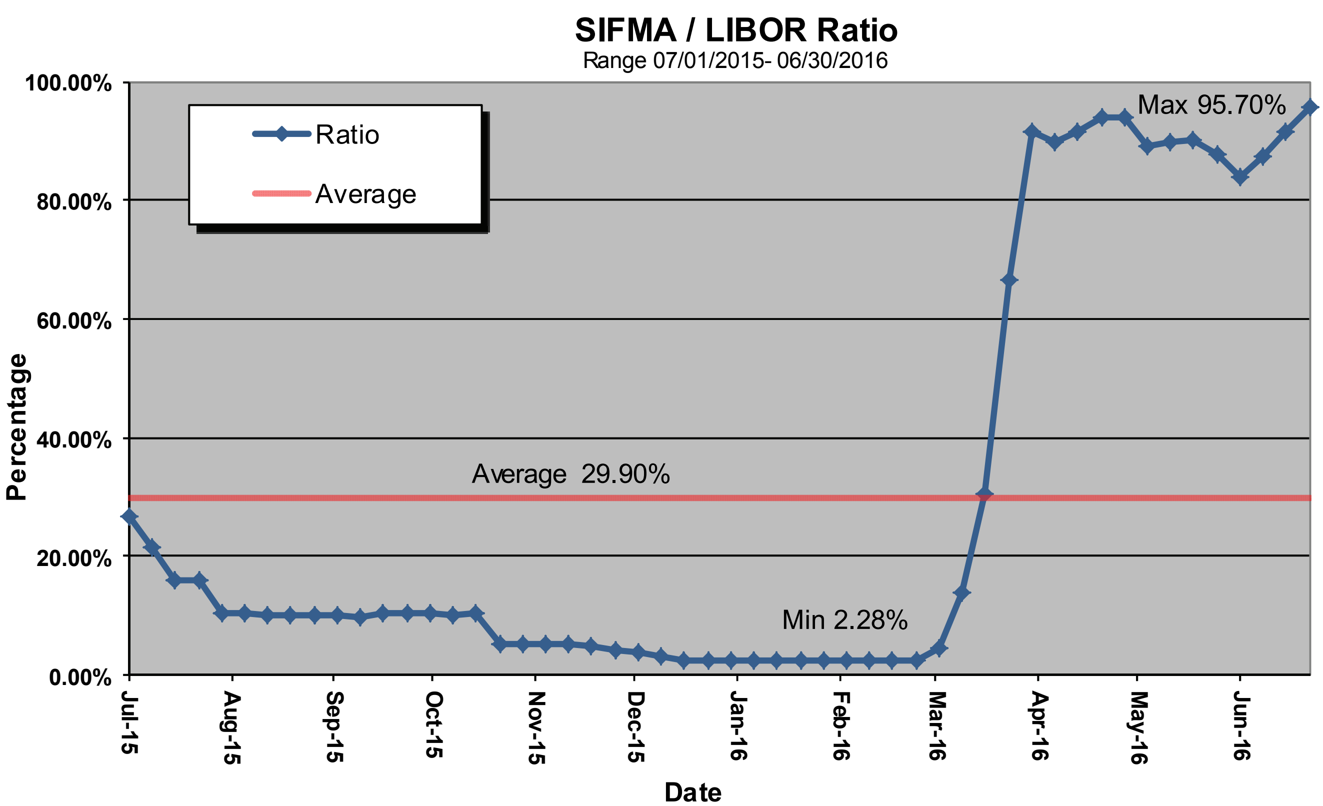
The Bond Buyer 20 General Obligation Index averaged 3.49% for Fiscal Year 2016. The high was 3.85% in July 2015 and the low was 2.85% in June 2016.

The Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Index averaged 0.13% for Fiscal Year 2016. The high was 0.43% in June 2016; the low was 0.01% from the middle of October 2015 through the end of February 2016. The 30-day USD London Interbank Offered Rate (LIBOR) averaged 0.33% for Fiscal Year 2016. The high was 0.47% in June 2016 and the low was 0.19% in July 2015. During the year, SIFMA traded at a high of 95.70% of the 30-day LIBOR at the end of June 2016, at a low of 2.28% in February 2016, and at an average of 29.90% for the Fiscal Year.



SIFMA & SIFMA/LIBOR Ratio





CREDIT MANAGEMENT

MID-YEAR REFLECTION

Investment Grade (IG) corporates generated an excess return of 124 basis points in the first half of 2016 with year-to-date total return for IG Corporates earning 7.56%. The higher credit quality (A-AAA) portions of the market underperformed BBBs as excess returns for A-rated credit was only 45 basis points, AA-rated 47 basis points and AAA-rated -39 basis points compared to BBBs posting 228 basis points in excess returns. Year-to-date total return for A-rated credit was 6.69%, AA-rated credit 6.45%, AAA-rates credit 7.87% and BBB-rated credit 8.72%.

At one time in Corporate America, a number of nonfinancial companies had AAA ratings from S&P. In 1980, 32 companies were in S&P's top-tier rating category but by March 2005, the number had decreased to six and only two AAA rated companies remain, Johnson & Johnson and Microsoft, since Exxon Mobil lost their AAA status in April. Eventually, there could only be one. In June, Microsoft announced they are buying LinkedIn and issuing debt to fund the purchase, causing Moody's to change Microsoft's Outlook to Negative from Stable reflecting a potential downgrade from Aaa in the future.

The ever-changing industry and business conditions, operating challenges and active investor base is continuing the trend away from financial conservatism. Many CEOs are faced with being acquired, losing market share or their competitive advantage if they don't adapt their business models to reflect the more competitive landscape, increasing global competition and new market entrants. Enhanced communications along with revolution in technologies have rendered old business models obsolete and made "staying put" out of the question.

Many CEOs have chosen to sacrifice their AAA ratings to pursue strategies which satisfy shareholders. Take, for example, Exxon Mobil. CEO Rex Tillerson told CNBC in March that he hoped to maintain a triple-A rating "because it's important to us reputationally." However, raising the dividend and buying back shares were higher priorities than keeping debt low enough to preserve their credit reputation. As mentioned earlier, S&P downgraded Exxon Mobil to AA+ from AAA in April. Cash rich Apple could earn a triple-A easily, but the AA+ it has currently reflects its choice to borrow to reward shareholders. Many companies today aspire to ratings in the BBB to A range, which they feel give them sufficient flexibility to manage the interests of creditors and shareholders alike. These factors will keep the AAA rating a rarity. (Watters, Thomas A. "Why 'AAA' Ratings in Corporate America Are Becoming A Thing of the Past." *Standard & Poor's Global Credit Portal.* S&P Global Market Intelligence, a division of S&P Global Inc., 10 May 2016.)

Credit Process

Our credit strategy invests in creditworthy corporate issuers having a long-term rating of A3/A-/A- or better as rated by Moody's, S&P or Fitch. The strategy focuses on adding value through a disciplined approach in the credit selection process. With independent research and prudent diversification with respect to industries and issuers, our goal is to deliver consistent longer term investment performance over U.S. Treasuries.

<u>Default Monitoring</u>

The Bloomberg credit risk model is our main tool for default monitoring. The default likelihood model is based on the Merton distance-to-default (DD) measure, along with additional economically and statistically

CREDIT MANAGEMENT

relevant factors. Firms are assigned a default risk measure as a high-level summary of their credit health using an explicit mapping from default likelihood to default risk.

A daily report is generated using our approved list and their peers enabling us to track market activity in selected names including Credit Default Swaps (CDS).

Industry/Company Analysis

We use a combination top-down & bottom-up approach for investing. The top-down approach refers to understanding the current (and future) business cycle or the "big picture" of the economy and financial world in order to identify attractive industries. Once industries are identified, a bottom-up approach is implemented where we focus on specific company fundamentals, picking the strongest companies within a sector.

Fundamental analysis is then performed looking at competitive position, market share, operating history/trends, management strategy/execution and financial statement ratio analysis.

Approved List

Once analysis has been completed, the State Investment Commission approves the list on a quarterly basis.

For the first half of 2016, no changes were made to the approved list. Johnson and Johnson (JNJ) was the only new issue OFM was able to take advantage of during the first six months of the year. The issue is rated Aaa/AAA/AAA and was issued at 27 basis points over U.S. Treasuries in March. However, we did deploy some cash and bought Apple (Aa1/AA+/NR), Disney (A2/A/A) and Cisco (A1/AA-/NR) in the secondary markets during January at spreads of 39, 44 and 39 basis points over U.S. Treasuries, respectively. The Approved List as of June 22, 2016 may be found in Appendix A.

DEBT MANAGEMENT

The 2010 Extraordinary (Special) Session of the General Assembly delivered House Bill 1 (Executive Branch Budget other than Transportation Cabinet) and House Bill 3 (Kentucky Transportation Cabinet Budget) to the Governor on May 29, 2010, establishing an Executive Branch Budget for the biennium ending June 30, 2012. Governor Beshear took final action on the bills on June 4, 2010. Together, the bills authorized bond financing for projects totaling $1,980.2 million to support various capital initiatives of the Commonwealth. Of the total authorization, $507.4 million is General Fund supported, $515.3 million is Agency Restricted Fund supported, $522.5 million is supported by Road Fund appropriations and $435 million is Federal Highway Trust Fund supported through Grant Anticipation Revenue Vehicle Bonds designated for the US-68/KY-80 Lake Barkley and Kentucky Lake Bridges Project and the Louisville-Southern Indiana Ohio River Bridges Project. A portion of the General Fund, Agency Restricted Fund, Road Fund and Federal Highway Trust Fund authorizations have been permanently financed. At this time, the Commonwealth does not have plans to use the remaining authorization from the Federal Highway Trust Fund.

The 2012 Regular Session of the General Assembly delivered House Bill 265 (Executive Branch Budget other than Transportation Cabinet) to the Governor on March 30, 2012 and House Bill 2 (Kentucky Transportation Cabinet Budget) to the Governor on April 20, 2012, establishing an Executive Branch Budget for the biennium ending June 30, 2014. Governor Beshear took final action on House Bill 265 on April 13, 2012 and took final action on House Bill 2 on May 2, 2012. Together, the bills authorized bond financing for projects totaling $238.86 million to support various capital initiatives of the Commonwealth. Of the total authorization, $182.86 million is General Fund supported, $12.5 million is supported by Road Fund appropriations, and $43.5 million is Agency Restricted Fund supported. A portion of the General Fund authorization and the total Agency Restricted Fund authorization listed above have been permanently financed.

The 2014 Regular Session of the General Assembly delivered House Bill 235 (Executive Branch Budget other than Transportation Cabinet) to the Governor on March 31, 2014 and House Bill 236 (Kentucky Transportation Cabinet Budget) to the Governor on April 15, 2014, establishing an Executive Branch Budget for the biennium ending June 30, 2016. Governor Beshear took final action on House Bill 235 on April 11, 2014 and took final action on House Bill 236 on April 25, 2014. Together, the bills authorize bond financing for projects totaling a net amount of $1,364.05 million to support various capital initiatives of the Commonwealth due to $105 million in previously authorized debt that was de-authorized in House Bill 235. Of the total authorization, $742.77 million is General Fund supported, $721.28 million is supported by Agency Restricted Fund appropriations, and $5.0 million is Road Fund supported. A portion of the General Fund and Agency Restricted Fund authorizations and the total Road Fund authorization listed above have been permanently financed.

The 2016 Regular Session of the General Assembly delivered House Bill 303 (Executive Branch Budget other than Transportation Cabinet) and House Bill 304 (Kentucky Transportation Cabinet Budget) to the Governor on April 15, 2016, establishing an Executive Branch Budget for the biennium ending June 30, 2018. Governor Bevin took final action on House Bill 303 and House Bill 304 on April 27, 2016. Together, the bills authorize bond financing for projects totaling a net amount of $1,251.24 million to support

DEBT MANAGEMENT

various capital initiatives of the Commonwealth with $9.0 million of previously authorized debt de-authorized in House Bill 303. Of the total authorization, $582.99 million is General Fund supported and $677.25 million is supported by Agency Restricted Fund appropriations. There were no new Road Fund appropriations. The full appropriation is still authorized to be issued.

The balance of prior bond authorizations of the General Assembly dating from 2006 through 2016 totals $2,209.02 million. Of these prior authorizations, $1,155.93 million is General Fund supported, $856.09 million is Agency Restricted Fund supported, $137.5 million is supported by Road Fund appropriations and $59.50 million is Federal Highway Trust Fund supported. At this time, the Commonwealth does not have plans to use the remaining authorization from the Federal Highway Trust Fund.

The following table summarizes, in aggregate, the information in connection with authorized but unissued debt of the Commonwealth as described in this section.

Summary of Authorized but Unissued Debt by Fund Type
as of June 30, 2016

Legislative Session (Year)*	General Fund (millions)	Agency Fund (millions)	Road Fund (millions)	Federal Fund (millions)	TOTAL (millions)
2010 and prior	$43.94	$17.50	$125.00	$59.50	$245.94
2012	11.90		12.50		24.40
2014	517.10	161.34			678.44
2016	582.99	677.25			1,260.24
TOTAL	$1,155.93	$856.09	$137.50	$59.50	$2,209.02

*All authorizations from Legislative Session years 2013 and 2015 have been permanently financed.

The Kentucky General Assembly may authorize debt financing to support various capital initiatives of the Commonwealth in future sessions. Bonds may also be issued to refund outstanding State Property and Commission or Kentucky Asset/Liability Commission bonds and notes.

DEBT MANAGEMENT

Ratings Update

The rating agencies continually monitor the Commonwealth's budgetary policies and actual performance in areas such as revenue, the economy, pensions, and debt management. Pension obligation questions have continued to put pressure on the Commonwealth's credit ratings.

In March 2016, Standard & Poor's Ratings Services (S&P) lowered its issuer credit rating on the Kentucky Turnpike Authority's economic development road fund bonds to 'AA-' from 'AA'. The cause for the change was cited as S&P's view of escalating financial pressures tied to the state's long-term pension liability profile. They view the sustained lack of progress on pension funding as exerting pressure on all of the state's appropriation-backed debt, and therefore, lowered the rating on the road fund bonds to better align it with their view of the state's rating.

Except as discussed above, during the reporting period, the ratings below were either affirmed or remained unchanged from previous reporting periods.

The ratings picture at June 30, 2016 was:

	Moody's	S & P	Fitch
General Obligation Issuer Rating (no debt outstanding)	Aa2	A+	AA-
General Fund Appropriation Rating	Aa3	A	A+
Road Fund Appropriation Rating	Aa2	AA-	A+
Federal Highway Trust Fund Appropriation Rating	A2	AA	A+

DEBT MANAGEMENT

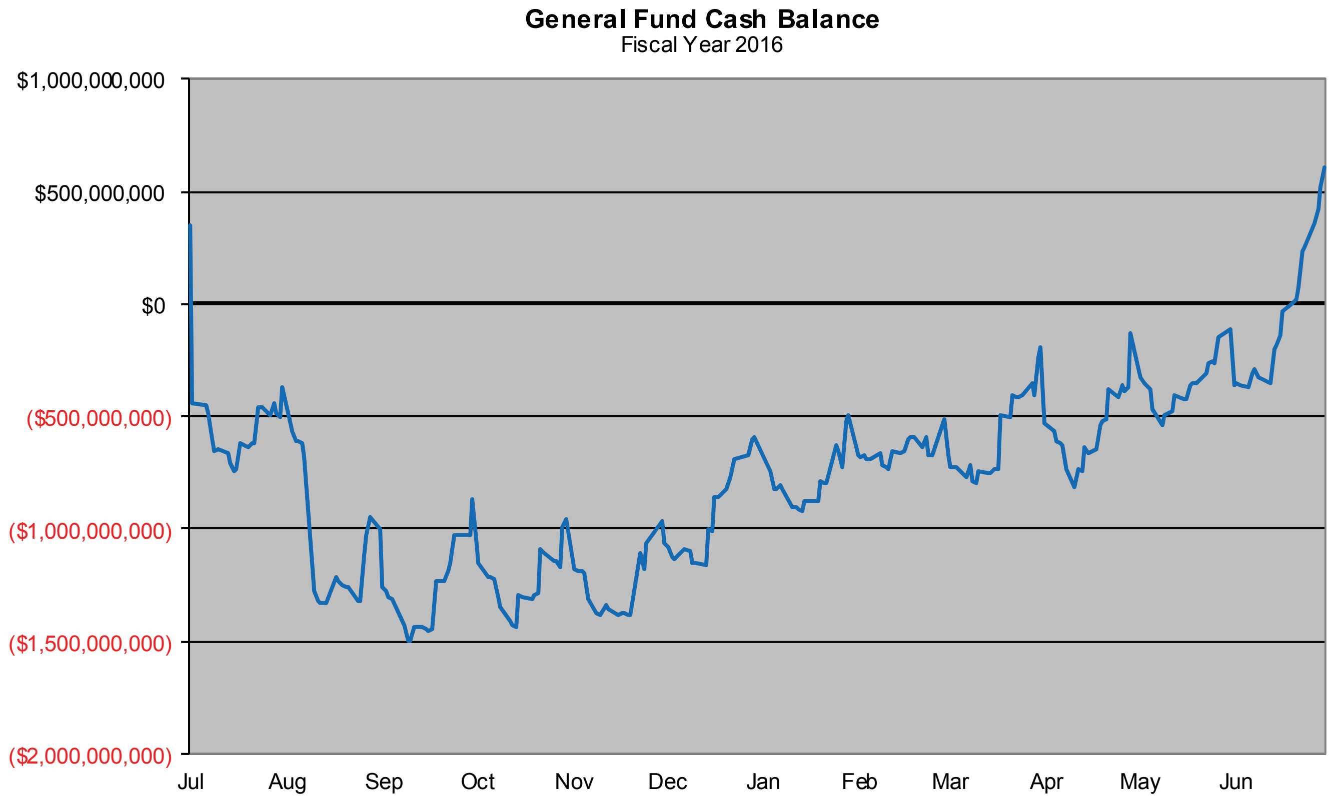
Tax and Revenue Anticipation Notes (TRAN)

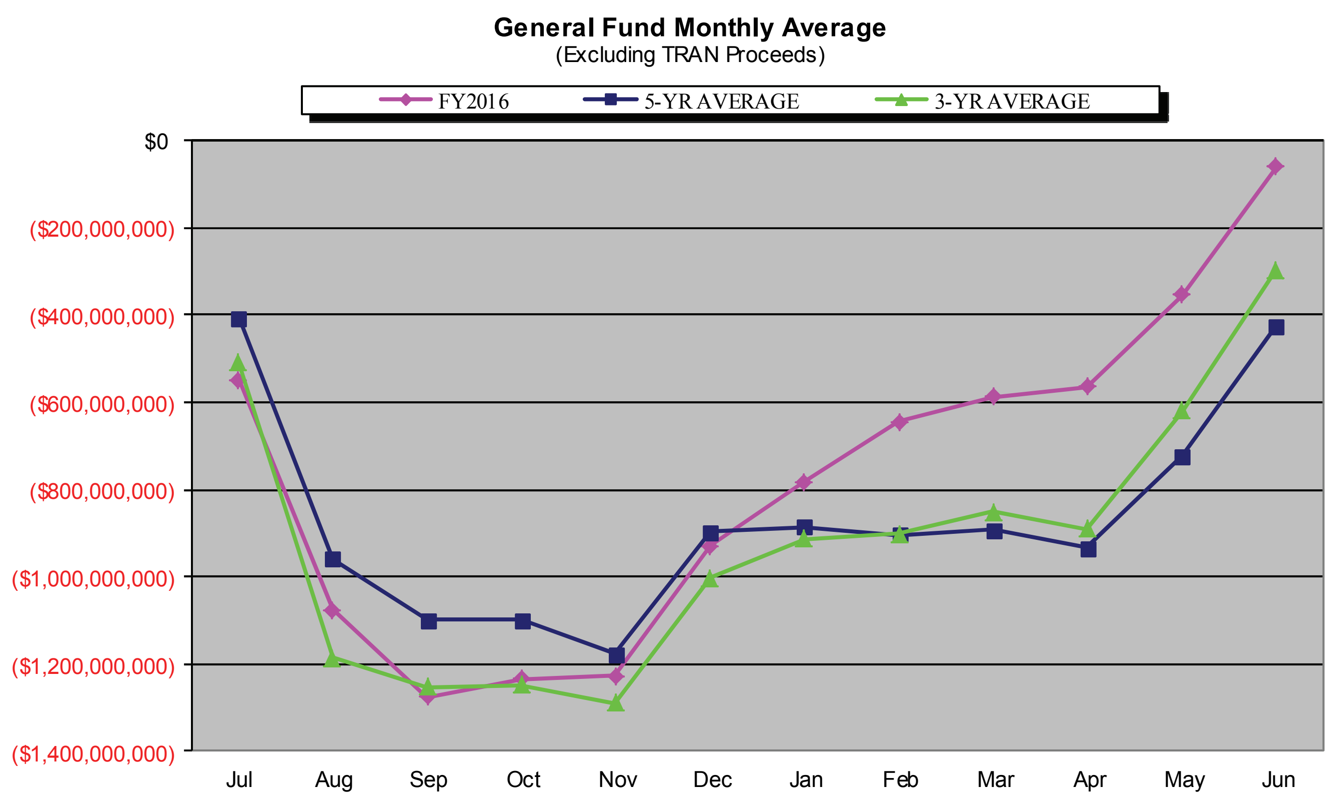
No General Fund TRAN was issued for Fiscal Year 2016. As in the previous six fiscal years, current reinvestment yields on TRAN proceeds would not be significantly higher than the cost of funds for a TRAN. At this time, borrowing internally from the state investment pools continues to be the most efficient and cost-effective way to provide short-term liquidity to the General Fund.

Fiscal Year	TRAN size	Economic Benefit
1998	200	3.2
1999	300	4.7
2000	400	7.3
2001	550	6.5
2002	650	4.3
2003	500	0.3
2004	NA	NA
2005	500	2.8
2006	600	6
2007	150	2.8
2008	350	5.9
2009	400	7.1
2010	NA	NA
2011	NA	NA
2012	NA	NA
2013	NA	NA
2014	NA	NA
2015	NA	NA
2016	NA	NA

($ in millions)

DEBT MANAGEMENT





DEBT MANAGEMENT

FINANCIAL AGREEMENTS

As of June 30, 2016, ALCo had four financial agreements outstanding, with a net notional exposure amount of $191,780,000. These financial agreements are described in the section below and the terms of these transactions are detailed in Appendix B. No additional financial agreements were executed during the reporting period.

General Fund – Floating Rate Note Hedges

In May, 2007, ALCo issued $243.08 million of Floating Rate Notes (FRNs) to permanently finance $100 million of General Fund bond supported projects and to advance refund certain outstanding SPBC bonds for present value savings. The transaction entailed ALCo issuing four FRNs, each paying a rate of interest indexed to 3-Month LIBOR plus a fixed spread. Integrated into the transaction were four separate interest rate swaps which perfectly hedge the floating rates on the FRNs and lock in a fixed rate payable by ALCo on the transaction. The terms of the four interest rate swaps exactly match the notional amount, interest rate, and amortization schedule of the four FRNs and allowed ALCo to elect "super-integrated" tax status on the transaction, whereby it receives similar tax treatment as a fixed rate bond issue under IRS rules.

Under the FRN transaction, the Notes and interest rate swaps were each insured under separate policies by FGIC, which maintained an Aaa/AAA credit rating at the time from Moody's and S&P. Under the terms of the original interest rate swaps, the counterparty (Citibank) could optionally terminate the agreements if the insurer's claims paying rating fell below an A3/A- level. Subsequent to the transaction, FGIC was downgraded multiple times by the credit rating agencies and currently are no longer rated. In December 2008, MBIA (rated A2 by Moody's at the time) reinsured FGIC's municipal insurance portfolio providing additional coverage on the transaction. However, MBIA Insurance Corporation's credit rating was also subsequently downgraded on multiple occasions and is currently rated B3/B by Moody's and S&P. In February of 2009, MBIA established a new U.S. public finance financial guaranty insurance company known as National Guaranty Public Finance Corporation (National). National, at no additional charge, provided reinsurance on the FRNs and related swaps. However, on December 22, 2010, S&P downgraded National from A to BBB leaving both of National's claims paying ratings below the required A3/A- level (National is currently rated A3 by Moody's).

In early 2011, ALCo spent considerable time working with Citibank and other parties analyzing a variety of remedies that would prevent the potential early termination of the interest rate swaps. After much consideration, ALCo determined the preferred remedy was one offered by Citibank whereby the remaining notional amount of each interest rate swap would be assigned to a new counterparty under the existing financial terms and at no cost to ALCo or the Commonwealth. On February 14, 2011, ALCo, Citibank and the new counterparty, Deutsche Bank AG, executed the assignment of the remaining notional balances of each swap to Deutsche Bank. The terms of the new interest rate swaps with Deutsche Bank were identical to the original swaps, with two exceptions; 1) the new swaps were not insured and there were no insurer provisions contained in the new agreements, and 2) the credit rating triggers under the automatic termination provisions were now symmetrical for both counterparties (ALCo and Deutsche Bank) at A3/A-. Under the original swaps, ALCo's credit rating triggers were Baa2/BBB, but rating recalibrations by the rating agencies, whereby municipal issuers are now rated on the same scale as corporations and other debt issuing entities, have facilitated the need for equal credit rating triggers for both parties. On July 10, 2014, the credit rating triggers were lowered to Baa3/BBB- for both counterparties. On January 25, 2016, Moody's downgraded Deutsche Bank from A3 to Baa1 reflecting changes in Germany's insolvency legislation which will take effect in

DEBT MANAGEMENT

January 2017. The changes result in protection from the subordination of certain senior unsecured debt obligations relative to other senior liabilities, including deposits. Moody's downgraded Deutsche Bank once again on May 23, 2016 from Baa1 to Baa2 reflecting "the increased execution challenges Deutsche Bank faces in achieving its strategic plan." Even with two downgrades, Deutsche Bank continues to be in compliance with the swap agreement credit rating threshold of not falling below Baa3. ALCo continues to monitor the credit of our counterparty for compliance with terms of the agreement.

Details related to the interest rate swaps as of June 30, 2016 are presented in Appendix B.

ASSET/LIABILITY MODEL

General Fund

The total SPBC debt portfolio as of June 30, 2016 had $3.747 billion of bonds outstanding with a weighted average coupon of 5.04 percent and a weighted average life of 7.3 years. The average coupon reflects an amount of taxable bonds issued under the Build America Bond Program during 2009 and 2010 as well as continued investor preference for tax-exempt callable premium bonds in the current market at a yield lower than par or discount coupon bonds. The $844.175 million callable portion had a weighted average coupon of 4.96 percent.

The SPBC debt structure has 42 percent of principal maturing in 5 years and 69 percent of principal maturing in 10 years. The ratios are above the rating agencies' proposed target of 27-30 percent due in 5 years and 55-60 percent maturing within 10 years, primarily influenced by debt restructuring and the minimal amount of long-term new money permanent financings within the last two years.

The General Fund had a high balance of $608.79 million at the end of Fiscal Year 2016 and a low of negative $1.503 billion on September 10, 2015.

The average and median balances were a negative $761.85 million and a negative $726.37 million, respectively. Since the General Fund continued to have a negative available cash balance for the fiscal year to date, there is little, if anything, that can be done from an asset management point of view beyond current actions.

From a liability management perspective, total General Fund debt service, net of credits was $701.25 million for Fiscal Year 2015. In addition, General Fund debt service of $11.26 million was provided for the Eastern State Hospital financing that was issued through the Lexington-Fayette Urban County Government in 2011. Net interest margin will continue to be negative due to low cash balances versus outstanding fixed rate debt, low level of interest rates, and the callability of the debt portfolio.

SPBC Project 112

In the first quarter of the calendar year, SPBC issued $117,165,000 Revenue Bonds, Project No. 112 Series A and $561,870,000 Revenue Refunding Bonds, Project No. 112 Series B, for a total General Fund offering of $679,035,000.

The Project No. 112 Series A transaction provided permanent financing for $132.5 million of a General Fund supported capital project for the construction of a Research Building at the University of Kentucky, as authorized by the Commonwealth of Kentucky General Assembly in House Bill 298 during the 2015 Regular Session. The Project No. 112 Series B transaction refunded certain outstanding SPBC bonds for present value savings, with both transactions also paying respective costs of issuance.

The SPBC Project No. 112 bonds received ratings of Aa3, A, and A+ from Moody's Investors Service, Inc., Standard & Poor's Ratings Services, and Fitch Ratings, respectively. All rating actions had a stable outlook.

DEBT MANAGEMENT

The SPBC 112 transaction took advantage of the market's low rate environment and achieved an All-In True Interest Cost of 2.79% with an average life of 9.272 years to provide $54,724,028.61 in net present value savings for the Commonwealth. All bonds were sold on a tax-exempt basis via negotiated sale with Citigroup serving as senior managing underwriter and Dinsmore and Shohl, LLP as bond counsel. The transaction closed on March 23, 2016.

Agency Fund

SPBC Project 113

On June 2, 2016, SPBC closed $10,850,000 of Agency Fund Revenue Refunding Bonds, Project No. 113, on behalf of the Kentucky River Authority. The bonds refunded certain outstanding SPBC Agency Fund Revenue Bonds, Project No. 91, which were originally issued to fund the construction of Dam 9 near Lexington, Kentucky.

The SPBC Project No. 113 transaction achieved an attractive All-In True Interest Cost of 2.18% and provided the Kentucky River Authority with a net present value savings of $1,766,201.

The bonds were sold on a tax-exempt basis via competitive sale with Hilltop Securities Inc. serving as financial advisor and Dinsmore and Shohl LLP as bond counsel. The transaction received ratings of A1/A/A+ from Moody's, S&P, and Fitch, respectively.

SPBC Project 114

In the final month of the fiscal year, SPBC issued SPBC Agency Fund Revenue Bonds, Project No. 114, in a single series for total offering of $44,555,000.

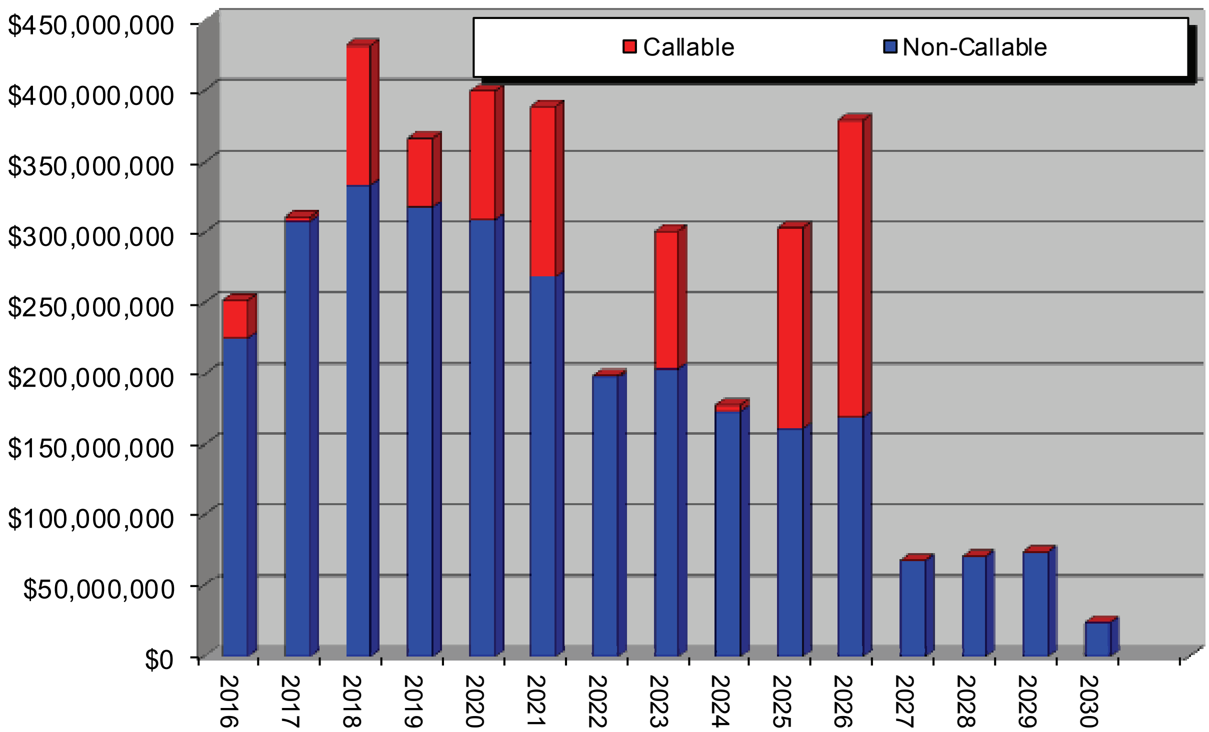
The Project No. 114 transaction provided permanent financing for $50,250,000 to support phase one of a long range series of Agency Fund supported capital projects, commonly and collectively referred to as the Kentucky Community and Technical College System BuildSmart Initiative. The total project amount of $194 million was authorized by Commonwealth of Kentucky General Assembly in House Bill 235 of the 2014 Regular Session, with $145.5 million to come in the form of Agency Fund bonds and the remaining $48.5 million to come from the agency in the form of private and matched funds. The legislation required the Kentucky Community and Technical College System to establish a mandatory student fee to pay debt service on the bonds. The bonds also paid for costs of issuing the bonds.

The SPBC Project No. 114 bonds received ratings of Aa3, A, and A+ from Moody's Investors Service, Inc., Standard & Poor's Ratings Services, and Fitch Ratings, respectively. All rating actions had a stable outlook.

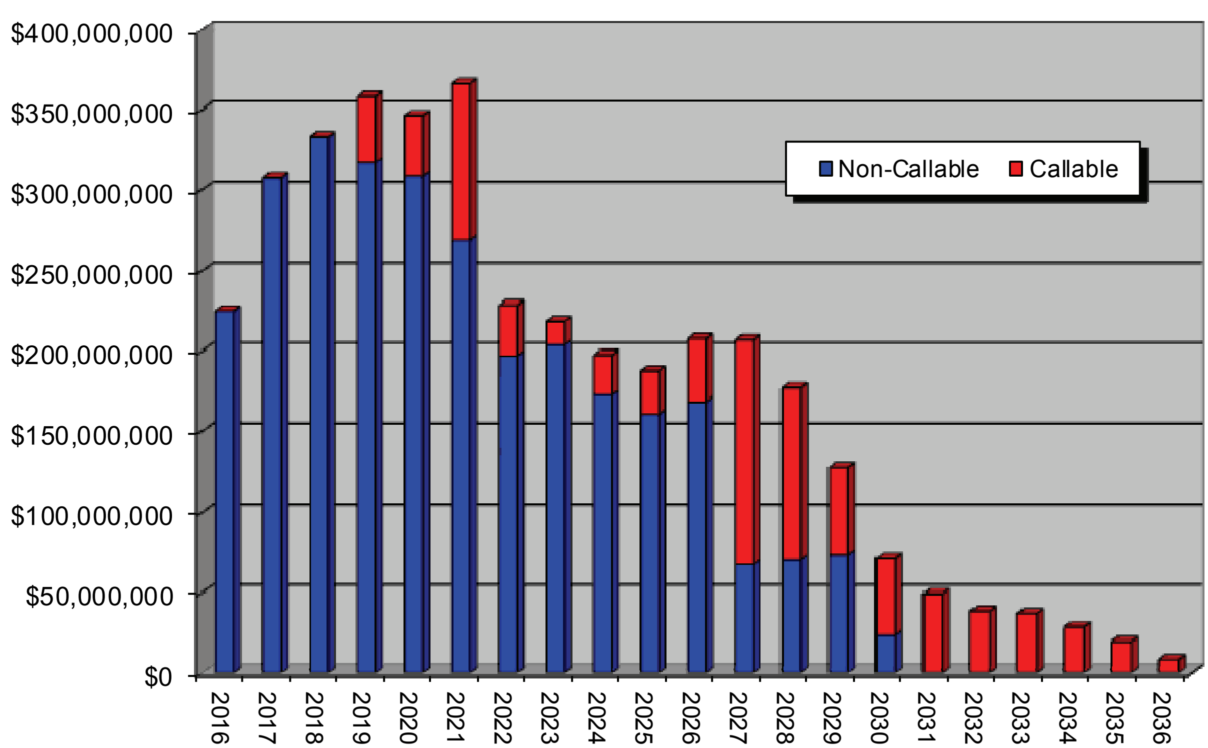
Similar to the SPBC transactions taking place earlier in the calendar year, this transaction took advantage of the market's low rate environment and achieved an All-In True Interest Cost of 3.02% with an average life of 11.037 years. The bonds were sold on a tax-exempt basis via negotiated sale with Citigroup serving as senior managing underwriter and Dinsmore and Shohl, LLP as bond counsel. The transaction closed on June 16, 2016.

DEBT MANAGEMENT

Call Analysis by Call Date
State Property and Buildings Commission Bonds



Call Analysis by Maturity Date
State Property and Buildings Commission Bonds



DEBT MANAGEMENT

Road Fund

The Road Fund average daily cash balance for Fiscal Year 2016 was $246.7 million compared to $453.2 million for Fiscal Year 2015. The Road Fund cash was invested in the Intermediate Term Investment Pool which had a duration of 1.10 years as of June 30, 2016. The Road Fund earned $2.4 million on a cash basis for Fiscal Year 2016 versus $2.9 million for Fiscal Year 2015. The continued relatively low level of investable balances at certain times during the fiscal year limits the investment opportunities.

As of June 30, 2016, the Turnpike Authority of Kentucky (TAK) had $1.416 billion of bonds outstanding with a weighted average coupon of 4.79 percent and an average life of 7.37 years.

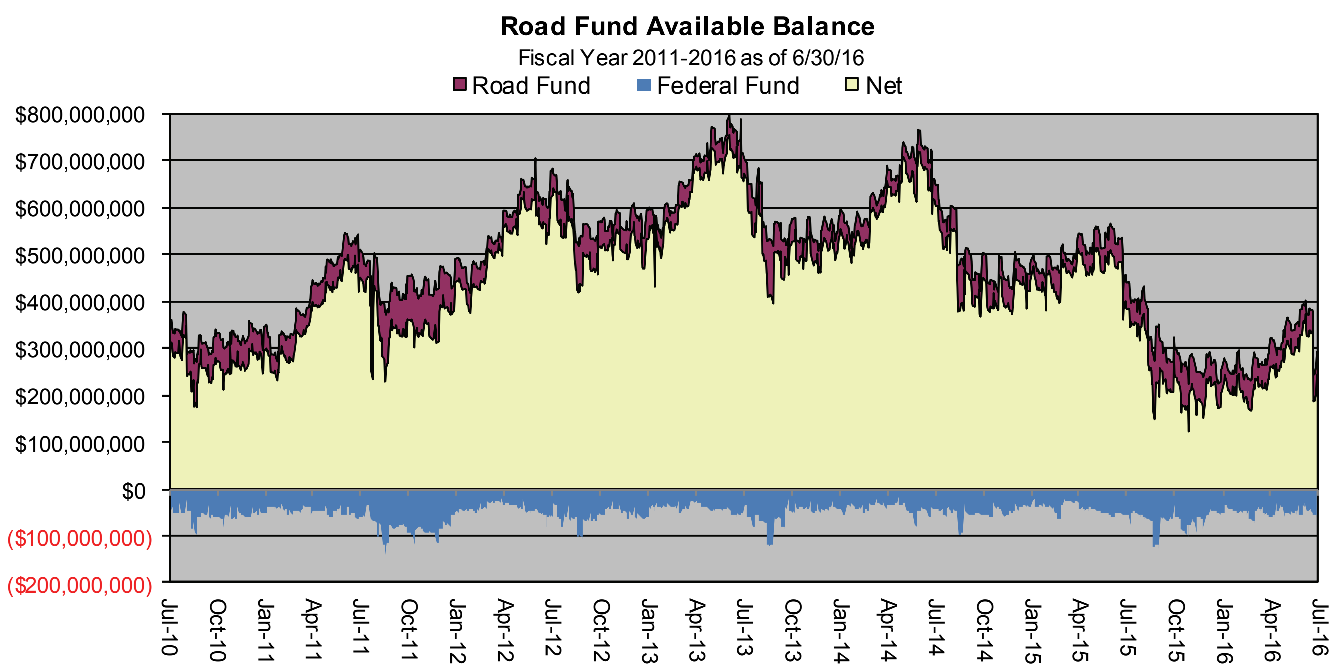
Road Fund debt service paid in Fiscal Year 2016 was $161.8 million, resulting in a net interest margin (investment income earned year-to-date less debt service paid) of negative $159.4 million. The negative amount stems from the level of investable balances and a general low level of interest rates on the investment side in addition to the limited callability of fixed rate obligations on the liability side.

TAK 2016 Series A

On April 7, 2016, the Turnpike Authority of Kentucky ("TAK") closed a $222,670,000 issuance of Economic Development Road Revenue Bonds (Revitalization Projects), 2016 Series A. The proceeds of the bonds advance refunded certain series of the Authority's Economic Development Road Revenue Bonds (Revitalization Projects), 2008 Series A and 2009 Series A for economic savings, and to pay for costs of issuance.

The transaction was sold on a negotiated basis on March 22, 2016 with Morgan Stanley acting as senior manager and Dinsmore & Shohl serving as bond counsel.

The 2016 Series A debt service was essentially a 10-year, level debt, tax-exempt financing with an All-In TIC of 2.46% and an average life of 8.39 years. The refunding yielded an 8.7% savings of refunded bonds which represented nearly $20.5 million in net present value savings. The bonds received ratings of Aa2/AA-/A+ from Moody's, S&P and Fitch, respectively.



SUMMARY

ALCo's approach to managing the Commonwealth's interest-sensitive assets and interest-sensitive liabilities has provided tremendous flexibility and savings in financing the Commonwealth's capital construction program.

Since its inception, ALCo has been instrumental in adding incremental returns on investment income to the Commonwealth's investment portfolio. ALCo has continued to manage General Fund intra-year cashflow deficits through its TRAN program when cost effective. Until Fiscal Year 2010, ALCo had issued a General Fund TRAN each fiscal year since 1998 (with the exception of FY 2004), providing millions of dollars of incremental gains for the General Fund over this time (see Debt Management TRAN section for details). In addition, ALCo's management approach to project funding has allowed the Commonwealth to take advantage of short-term yields and achieve millions of dollars in budgetary savings through debt service lapses and refundings.

Over the past six years, the high cost of acquiring credit/liquidity support for short-term borrowing programs when compared to the low cost of long-term financing favored long-term financing structures. However, ALCo does and will continue to analyze the cost effectiveness of potential interim financing options during near term.

As always, ALCo continues to analyze potential opportunities for savings and to evaluate new financing structures which offer the Commonwealth the ability to diversify risk within its portfolio while taking advantage of market demand for various new or unique products.

APPENDIX

APPENDIX A

Corporate Credits Approved For Purchase
As Of June 30, 2016

Company Name	Repurchase Agreements	Debt	Company Name	Repurchase Agreements	Debt
Apple Inc		Yes	Johnson & Johnson		Yes
Bank of America N.A.	Yes	No	JPMorgan Chase & Co	No	Yes
Bank of Montreal	Yes	Yes	Lloyds Bank PLC		Yes
Bank of Nova Scotia	Yes	Yes	Merck & Co. Inc.		Yes
Bank of Tokyo-Mitsubishi UFJ L		Yes	Microsoft Corp		Yes
BB&T Corp		Yes	Navy Federal Credit Union	Yes	No
Berkshire Hathaway Inc		Yes	Oracle Corp		Yes
BNP Paribas Securities Corp	Yes	Yes	PepsiCo Inc		Yes
BNY Mellon NA		Yes	Pfizer Inc		Yes
Boeing Co/The		Yes	PNC Bank NA		Yes
BP PLC		Yes	Procter & Gamble Co/The		Yes
Canadian Imperial Bank of Comm		Yes	Protective Life Insurance Co.	Yes	No
Caterpillar Inc		Yes	Royal Bank of Canada	Yes	Yes
Chevron Corp		Yes	Royal Dutch Shell PLC		Yes
Cisco Systems Inc		Yes	State Street Corp		Yes
Cooperatieve Centrale Raiffeis		Yes	Sumitomo Mitsui Trust Bank		Yes
Costco Wholesale Corp		Yes	Swedbank AB		Yes
Deere & Co		Yes	Texas Instruments Inc.		Yes
Exxon Mobil Corp		Yes	Toronto-Dominion Bank/The		Yes
General Electric Co		Yes	Total SA		Yes
Healthcare of Ontario Pension Plan (HOOPP)	Yes	No	Toyota Motor Corp		Yes
Honda Motor Co Ltd		Yes	UBS AG (U.S.)		Yes
Home Depot Inc		Yes	US Bank NA		Yes
HSBC Bank USA NA		Yes	Wal-Mart Stores Inc		Yes
IBRD - World Bank	Yes	Sov	Walt Disney Co/The		Yes
Intel Corp		Yes	Wedbush Securities Inc.	Yes	No
Intl Business Machines Corp		Yes	Wells Fargo & Co		Yes
Invesco Mortgage REIT	Yes	No			

*Addition:
None

Removed:
None

Any corporates held as of 3/11/2013 are grandfathered. The positions may be held until maturity but no additions may be made to the position.

APPENDIX A

Securities Lending Agent Approved Counterparties

As Of June 22, 2016

Company Name	Securities Lending	REPO
Alaska USA Federal Credit Union	Yes	Yes
Alaska USA Trust Company	Yes	Yes
BMO Capital Markets Corp	Yes	No
Bank of Nova Scotia	Yes	No
Barclays Capital, Inc	Yes	Yes
BNP Paribas Prime Brokerage, Inc.	Yes	No
BNP Paribas Securities Corp.	Yes	No
Cantor Fitzgerald & Co.	Yes	Yes
Citigroup Global Markets Inc	Yes	Yes
Credit Suisse Securities (USA) LLC	Yes	Yes
CYS Investments, Inc.	Yes	Yes
Daiwa Capital Markets America Inc	Yes	Yes
Deutsche Bank Securities Inc.	Yes	Yes
Dynex Capital Inc.	Yes	Yes
Goldman Sachs and Company	Yes	Yes
Hatteras Financial Corp	Yes	Yes
HSBC Securities (USA) Inc	Yes	Yes
ING Financial Markets LLC	Yes	Yes
Jefferies LLC	Yes	Yes
JP Morgan Securities LLC	Yes	No
Merrill Lynch Pierce Fenner & Smith Inc	Yes	Yes
Mizuho Securities USA, Inc	Yes	Yes
Morgan Stanley & Co. LLC	Yes	Yes
Nomura Securities International Inc	Yes	Yes
Pershing LLC	Yes	Yes
Redwood Trust	Yes	Yes
RBC Capital Markets LLC	Yes	No
RBS Securities Inc.	Yes	Yes
SG Americas Securities LLC	Yes	Yes
Societe Generale	Yes	Yes
TD Securities (USA), Inc	Yes	Yes
Two Harbors Investment Corp	Yes	Yes
UBS Securities LLC	Yes	Yes
Wells Fargo Securities LLC	Yes	Yes

APPENDIX B

ALCo Financial Agreements	ALCo FRN Series A Hedge	ALCo FRN Series A Hedge	ALCo FRN Series B Hedge	ALCo FRN Series B Hedge
Fund Source	General Fund	General Fund	General Fund	General Fund
Hedge	2017 FRN	2027 FRN	2021 FRN	2025 FRN
Counter-Party	Deutsche Bank AG	Deutsche Bank AG	Deutsche Bank AG	Deutsche Bank AG
Long-Term Senior Debt Ratings *(Moody's / S&P /Fitch)*	Baa2/BBB+/A-	Baa2/BBB+/A-	Baa2/BBB+/A-	Baa2/BBB+/A-
Termination Trigger *(Moody's / S&P)*	Baa3/BBB-	Baa3/BBB-	Baa3/BBB-	Baa3/BBB-
Swap Type	Fixed Pay	Fixed Pay	Fixed Pay	Fixed Pay
Benchmark	67% 3M LIBOR + 40	67% 3M LIBOR + 53	67% 3M LIBOR + 52	67% 3M LIBOR + 55
Reset	Quarterly	Quarterly	Quarterly	Quarterly
Notional Amount	5,395,000	50,690,000	64,760,000	70,935,000
Amortize (yes/no)	yes	yes	yes	yes
Original Execution Date	5/16/2007	5/16/2007	5/16/2007	5/16/2007
Start Date	5/31/2007	5/31/2007	5/31/2007	5/31/2007
Assignment Date	2/14/2011	2/14/2011	2/14/2011	2/14/2011
Mandatory Early Termination				
End Date	11/1/2017	11/1/2027	11/1/2021	11/1/2025
Fixed Rate pay-(rec)	3.839%	4.066%	4.042%	4.125%
Day Count	30/360	30/360	30/360	30/360
Payment Dates	February 1, May 1, August 1, November 1			
Security Provisions	General Fund Debt Service Appropriations			
Current Market Valuation June 30, 2016 (negative indicates payment owed) by ALCo if terminated)	(127,353)	(8,527,396)	(6,343,347)	(15,022,924)
Interest Earnings (not applicable)				
Total	not applicable	not applicable	not applicable	not applicable

Swap Summary

As of June 30, 2016:

Total Notional Amount Executed		**Net Exposure Notional Amount**	
General Fund	Road Fund	General Fund	Road Fund
243,080,000	0	191,780,000	0

Total Notional Amount Executed by Counter Party

Deutsche Bank (assigned from Citibank on 2/14/2011)

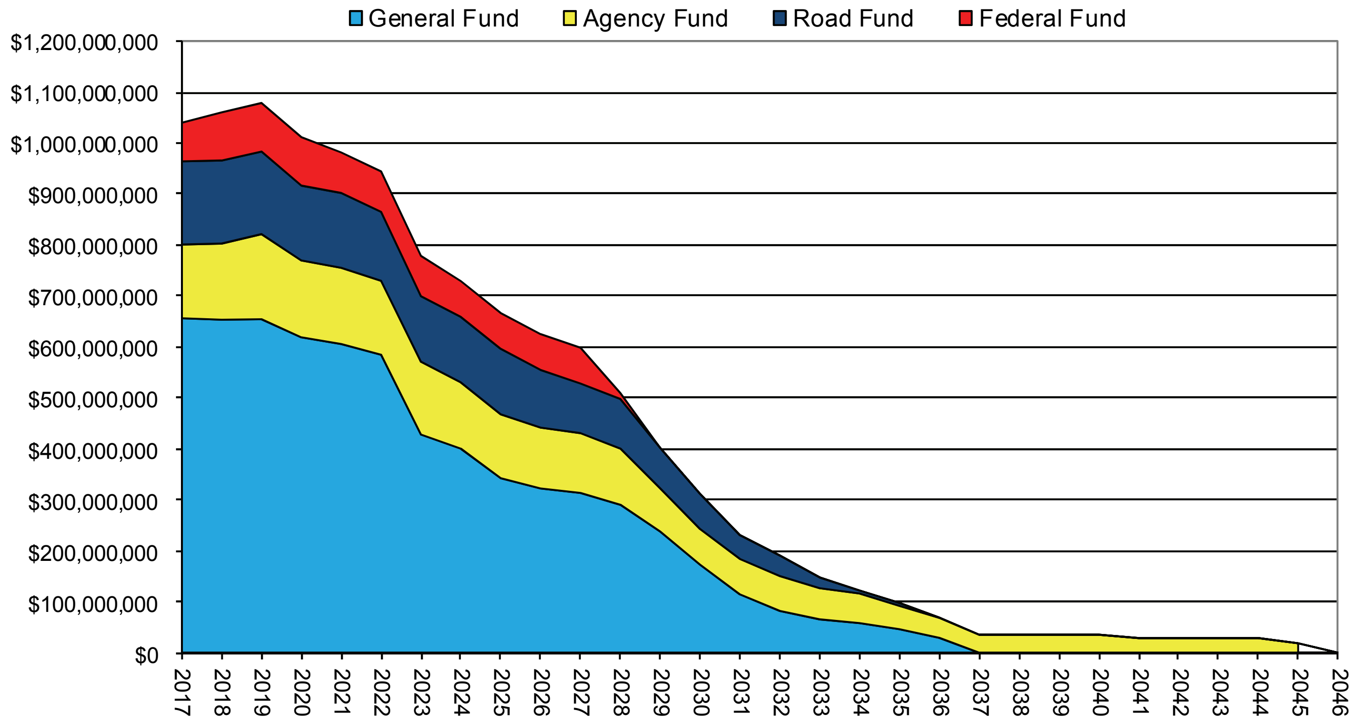
243,080,000

	Debt		**10 Percent Net Exposure**	
	General Fund	Road Fund	General Fund	Road Fund
Bonds Outstanding	4,155,470,000	1,390,740,000	415,547,000	139,074,00
Authorized but Unissued	1,155,928,700	137,500,000	115,592,870	13,750,000
Total	5,311,398,700	1,528,240,000	531,139,870	152,824,000

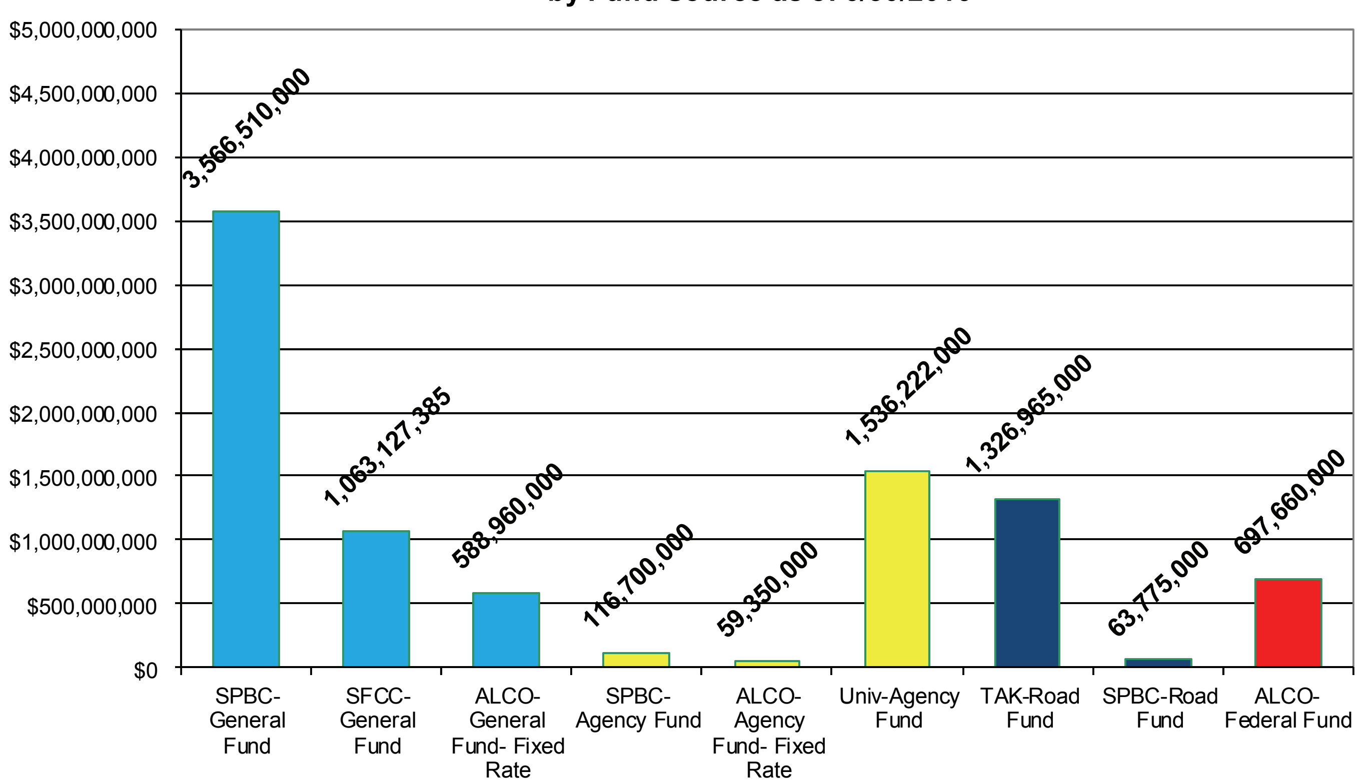
Investment Pool Balance		**10 Percent Investment Portfolio**	
Other Funds	Net Road Fund	Other Funds	Net Road Fund
4,624,920,897	244,380,929	462,492,090	24,438,093

APPENDIX C

Appropriation Supported Debt Service by Fund Source as of 6/30/2016



Appropriation Debt Principal Outstanding by Fund Source as of 6/30/2016



*This data does not include debt issued for judicial center projects and paid for by the Administrative Office of the Courts in the Court of Justice or debt issued by the Lexington -Fayette Urban County Government for the Eastern State Hospital.

APPENDIX D

COMMONWEALTH OF KENTUCKY
ASSET/LIABILITY COMMISSION
SCHEDULE OF NOTES OUTSTANDING
AS OF 06/30/2016

FUND TYPE SERIES TITLE		AMOUNT ISSUED	DATE OF ISSUE	MATURITY DATE	PRINCIPAL OUTSTANDING
General Fund Project & Funding Notes					
2007 A, B Series		$243,080,000	5/2007	11/2027	$191,780,000
2010 1st Series-KTRS Funding Notes		$467,555,000	8/2010	4/2020	$128,375,000
2011 1st Series-KTRS Funding Notes		$269,815,000	3/2011	4/2022	$158,855,000
2013 1st Series-KTRS Funding Notes		$153,290,000	2/2013	4/2023	$109,950,000
	FUND TOTAL	**$1,133,740,000**			**$588,960,000**
Agency Fund Project Notes					
2005 1st Series		$11,275,000	6/2005	6/2025	$6,595,000
2006 Series A-UK Gen Recpts		$66,305,000	10/2006	10/2022	$35,985,000
2007 Series A-UK Gen Recpts		$77,905,000	11/2007	10/2017	$7,580,000
2007 Series B-UK Gen Recpts		$80,245,000	11/2007	10/2018	$9,190,000
	FUND TOTAL	**$235,730,000**			**$59,350,000**
Federal Hwy Trust Fund Project Notes					
2007 1st Series		$277,910,000	9/2007	9/2019	$129,250,000
2010 1st Series		$89,710,000	3/2010	9/2022	$89,710,000
2013 1st Series		$212,545,000	8/2013	9/2025	$212,545,000
2014 1st Series		$171,940,000	3/2014	9/2026	$159,305,000
2015 1st Series		$106,850,000	10/2015	9/2027	$106,850,000
	FUND TOTAL	**$858,955,000**			**$697,660,000**
ALCo NOTES TOTAL		**$2,228,425,000**			**$1,345,970,000**

REPORT PREPARED BY:

OFFICE OF FINANCIAL MANAGEMENT

Commonwealth of Kentucky
702 Capital Ave Ste 76
Frankfort, KY 40601
Phone: 502-564-2924
Fax: 502-564-7416

Creating Financial Value for the Commonwealth

Cover Photos contributed by
Marcia Adams and Denise Pitts