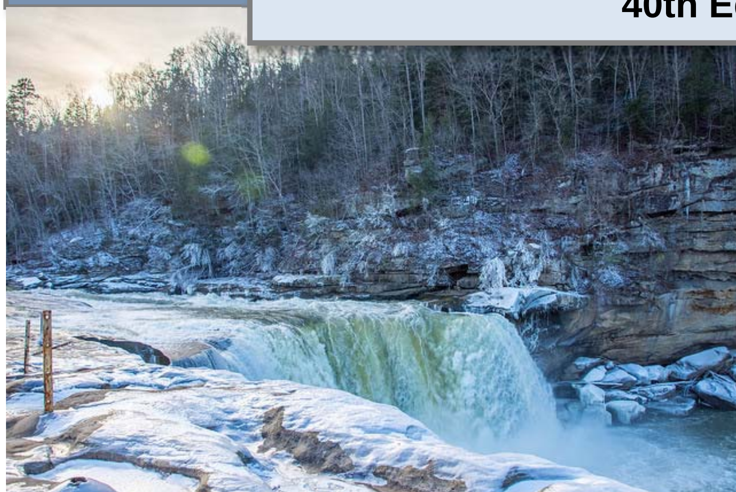
COMMONWEALTH OF KENTUCKY

KENTUCKY ASSET/LIABILITY COMMISSION

SEMI-ANNUAL REPORT

For the period ending December 31, 2016

40th Edition



Matthew G. Bevin
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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/

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INTRODUCTION

The Kentucky Asset/Liability Commission ("ALCo" or the "Commission") presents its fortieth 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 July 1, 2016 through December 31, 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

- On December 14, 2016, the Federal Reserve Board of Governors voted unanimously to raise the target range for the federal funds rate 0.25% to 0.50% - 0.75%.
- The unemployment rate continued the trend lower ending 2016 at 4.7% from 4.9% in June and 5.0% in December 2015.
- The annual rate of economic growth as measured by GDP grew during the second half of 2016. The seasonally adjusted rate for the third and fourth quarter was 3.5% and 1.9%, respectively.
- Inflation remained muted for 2016 with the core rate (ex-energy and food) ending the year at 2.2%.

On the state level

- General Fund receipts totaled $5,239.5 million for the first six month of Fiscal Year (FY) 2017, a 3.3% increase compared to the same timeframe in FY 2016.
- Road Fund receipts totaled $742.5 million for the first six months of FY 2017, a slight increase compared to the $742.3 million receipts over the same timeframe in FY 2016.
- Kentucky's seasonally adjusted unemployment rate stood at 4.8% at the end of December 2016, down from 5.3% one year ago.
- Implementation of bond authorizations from prior-year sessions of the General Assembly continued.

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Market Overview

The year of Money Market Reform, 2016, was a much talked about and debated regulatory change whose final chapter closed October 14, 2016, resulting in a complete reversal of the money market landscape. Over the course of 2016 Government and Prime fund assets diverged by $1.8 trillion, with Prime fund assets eventually falling to $376 billion while Government funds rose to $2.2 trillion. Despite the exodus from Prime funds, total Money Market fund assets remained relatively stable in 2016, averaging $2.7 trillion.

The economy continues to show resilience, even seven years into a recovery. There are several positive trends: GDP, the employment situation continues to steadily improve and stock prices are at record levels. Markets recovered from the initial shock of "Brexit"—the UK's decision via referendum to exit the European Union— mid-year with little economic effect, so far. By late 2016, market sentiment had quickly shifted from an overly pessimistic outlook of cyclically weak stagnation toward an overly optimistic expectation of growth acceleration as the election results boosted hopes for a pro-growth change in economic policy. A pro-growth policy could cause the Fed to act more quickly than previously expected because of inflation and due to this change, Treasury markets experienced their worst month since 2009 in November as rates rose.

Gross Domestic Product (GDP)

The Bureau of Economic Analysis released the second estimate of the fourth quarter 2016 real GDP, a seasonally adjusted annualized rate of 1.9%. This figure is down from the surprising 3.5% annualized growth of the prior quarter. The fourth quarter results confirmed that although the GDP growth rate has improved recently, economic growth remains relatively sluggish. The increase in real GDP reflected an increase in consumer spending, private inventory investment, residential investment, business investment and government spending. Prices of goods and services purchased increased 1.9% in the fourth quarter after increasing 1.5% in the third quarter. Excluding volatile energy and food, prices rose 1.5% after increasing 1.7%. For the year 2016, real GDP increased 1.6%, compared with 2.6% in 2015.

Employment

The labor market turned in a solid performance at the end of 2016 with Nonfarm Payrolls increasing 156,000 in December following a 204,000 rise in November. However, the jobless rate ticked up to 4.7% as the labor force participation rate grew from 62.6% to 62.7%. Wages are showing their fastest gains since the last recession ended. Average hourly earnings gained 2.9% over the 12 months ended in December, the most since June 2009, following a 2.5% gain in November. The consensus among economists is that job growth should continue at the current pace for the next several quarters.

Fed Policy

The Federal Open Market Committee (FOMC) ended the July, September and November meeting standing pat on interest rate policy, maintaining a target range of 0.25% to 0.50% for the fed funds rate. At the September meeting, there were more dissents from the hawkish segment of the FOMC, who are eager to raise rates.

As had been widely anticipated, the FOMC ended its December meeting by raising the target range for the fed funds rate by 25 basis points (bps), to 0.50%-0.75%. In addition to the rate increase, the committee signaled additional hikes over the next year, with the median expectation of committee members being three rate increases in 2017. The FOMC's estimate of the long-run equilibrium fed funds rate was raised from 2.875% to 3%. The expected increase in fiscal programs coming from the Trump administration should finally provide long awaited relief for monetary policy, and it is possible that even

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more hikes will be considered once the impact of such policies becomes clear.

Interest Rates

The anticipation of a hike in the fed funds rate, an improving economic outlook, and record-high stock prices were a few of the key drivers of the prices of fixed income securities. However, unlike the lead-up to prior FOMC meetings, there was little doubt that the committee would vote to raise rates, as economic data and the employment situation were strong enough to allow the FOMC to follow through on its well-known desire to take the next step in normalizing rates. Against the backdrop of these factors, which also included the run-up to the election, yields trended higher, accelerating their rise once the election results became known.

The yield curve steepened, as yields on short-term securities did not rise as fast as those in the intermediate to long-term end of the spectrum. By the end of the year, the yield on the benchmark 10-year U.S. Treasury note rose substantially, to 2.45%, from 1.47% on June 30.

Yield changes along the maturity spectrum were affected primarily by the run-up to the FOMC's eventual decision to raise the fed funds rate, a continued improvement in domestic economic data, and the perceived impact of the Trump administration's pro-growth economic policies. Yields at the shortest end of the yield curve rose in line with the 25 bps fed fund increase, but yields in the intermediate segment of the curve climbed as much as 90 bps. The yield on the 3-month U.S. Treasury bill settled at 0.50% at the end of the year, up about 24 bps from mid-year June 30. The yield on the 5-year U.S. Treasury note ended the year at 1.93%, compared to 1.00% on June 30. At the same time, the yield on the 30-year U.S. Treasury bond also moved higher, ending the period at 3.07%, compared to its beginning level of 2.28%.

Equities

Equity markets quickly shrugged off the Brexit referendum that occurred late in the second quarter. After plunging several percentage points following the announcement that the U.K. would be exiting the European Union, stock prices reversed course at the beginning of July, resuming their previous uptrend and carrying the S&P 500 to a record high. The S&P 500 Index finished third quarter 2016 with a gain of 3.9%.

Equity markets powered higher in the fourth quarter, establishing record highs, as investors focused on the heightened expectations of a new presidential administration and cheered having greater clarity as to interest rate policy. Stock prices were soft for the first month of the quarter, with broad market indices declining almost 4% through the first week of November. However, the election results brought a sharp change of course for the market, as stocks rallied about 8% from their pre-election lows. The S&P 500 Index finished the quarter with a gain of 3.8%, ending the year with a total return of 12.0%.

Outlook

The U.S. economic outlook has changed with the election of Donald Trump as President, initially evidenced by the reactions of both the equity and fixed income markets. The perceived pro-growth policies of President Trump encouraged equity investors, who have driven stock prices up by almost 8% since the election. At the same time, the attendant potential for higher inflation further cautioned fixed income investors. The Trump administration and the Republican-held Congress has indicated an intention to make significant changes to immigration and trade policy, tax law, government spending, and regulation. How all of this plays out is uncertain at this point. Many economists believe that although tax cuts may not be as

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large as promised during the campaign, reductions to personal and corporate taxes could amount to about $1 trillion over the next decade. In addition, government spending on defense, infrastructure, and veterans seems likely to increase substantially. Whereas the combination of lower taxes and increased spending should provide a boost to economic growth, the consensus among economists is that long-run equilibrium real GDP growth is not likely to significantly exceed 2% annually. Several potential risks are also on the horizon, including the potential for further disintegration of the European Union following 2016's Brexit, a hard landing by China's economy, escalation in aggression by Russia and increased terrorism.

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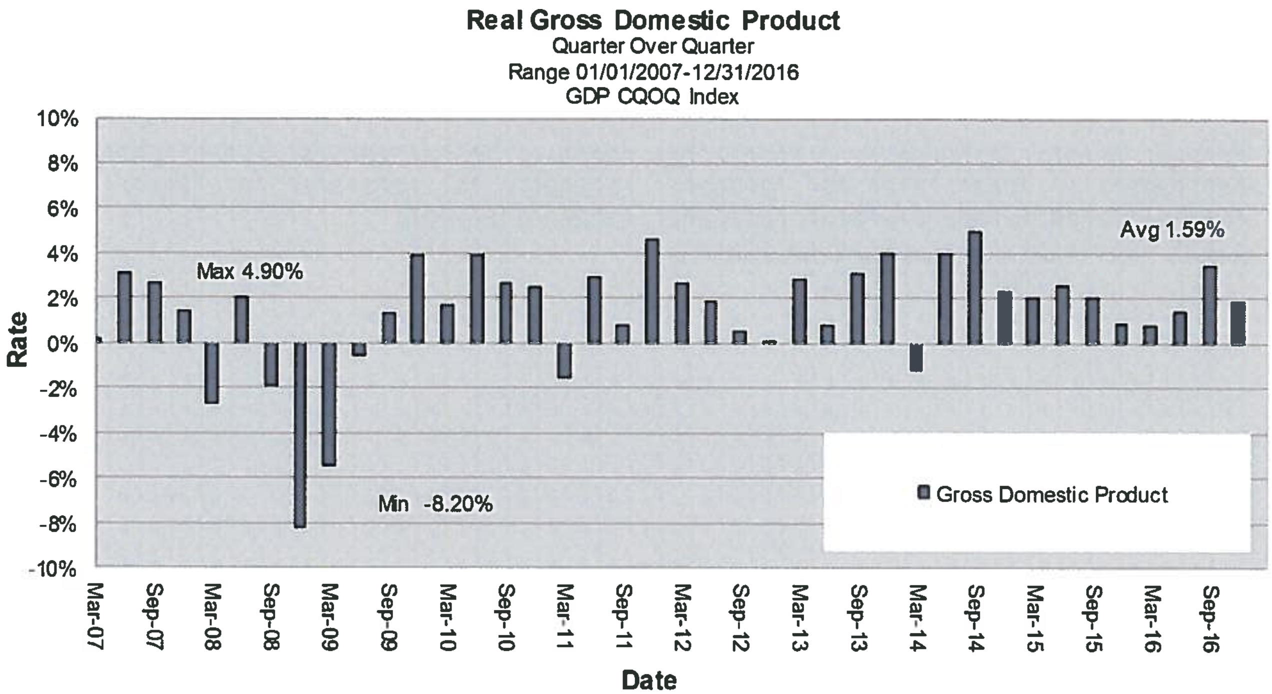
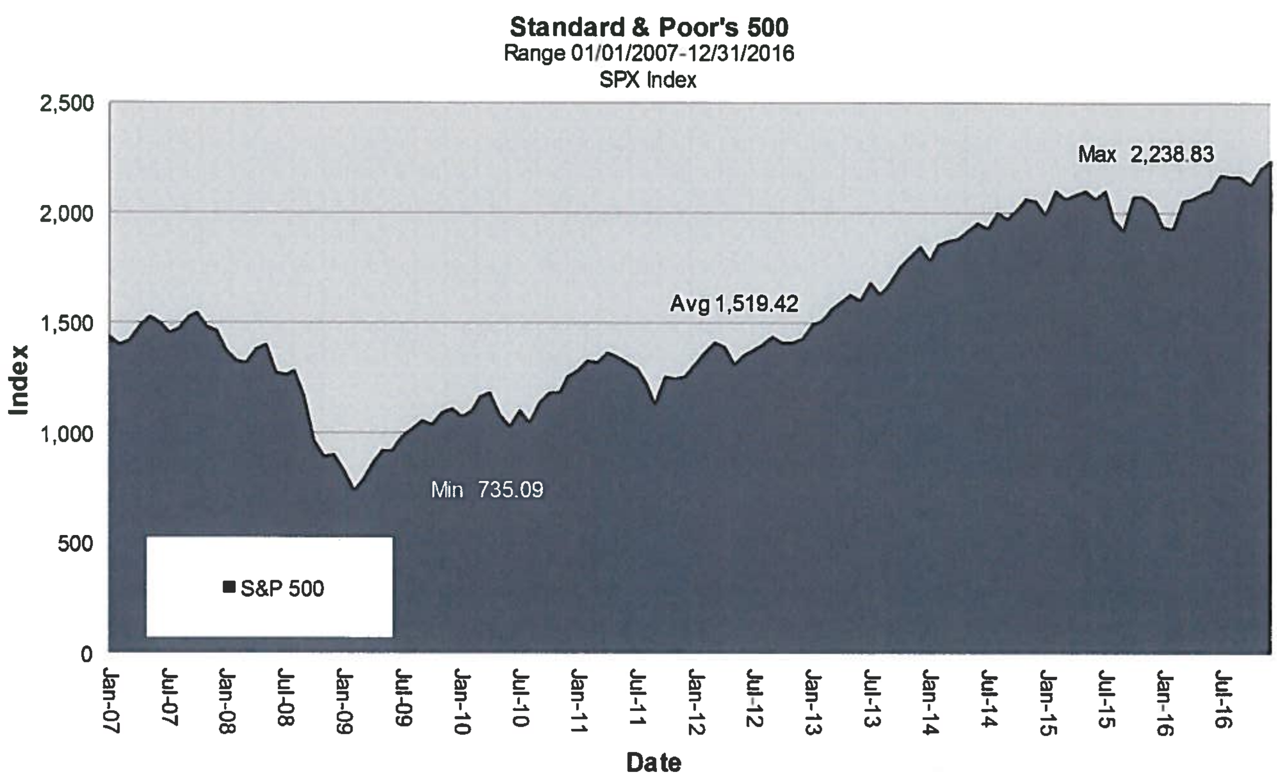
Real Gross Domestic Product & Standard & Poor's 500





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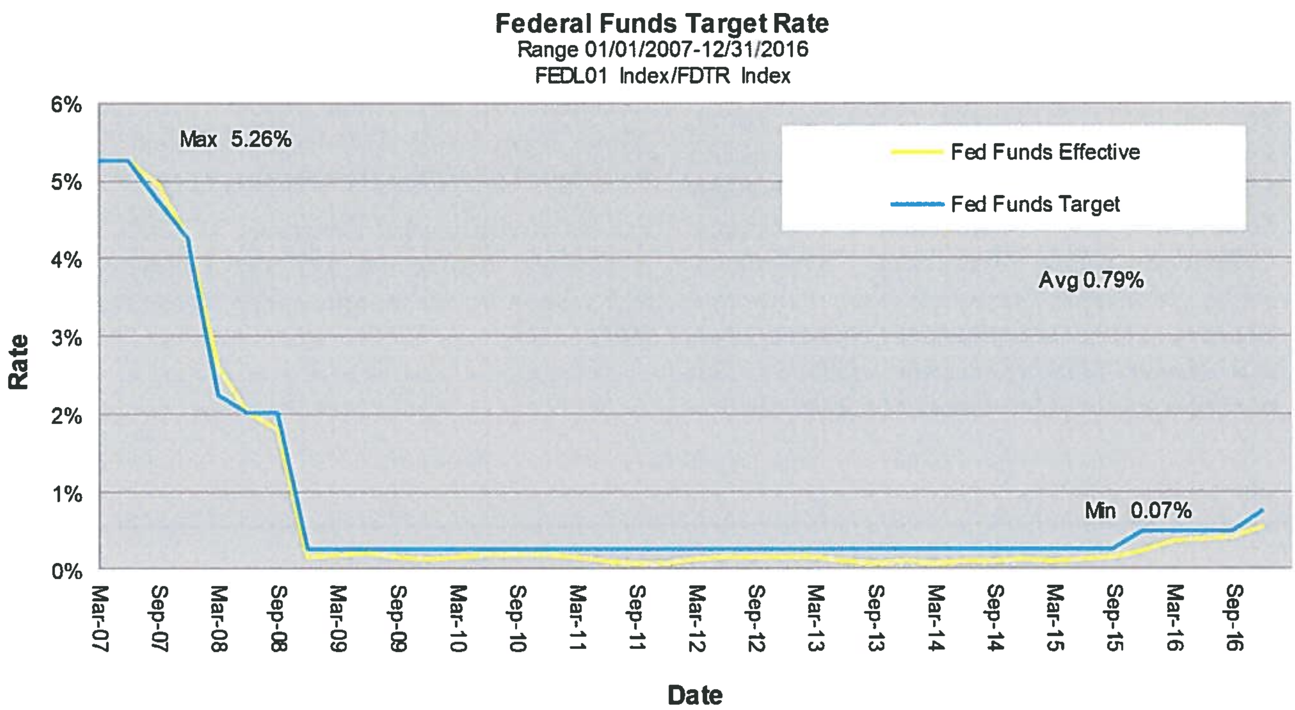
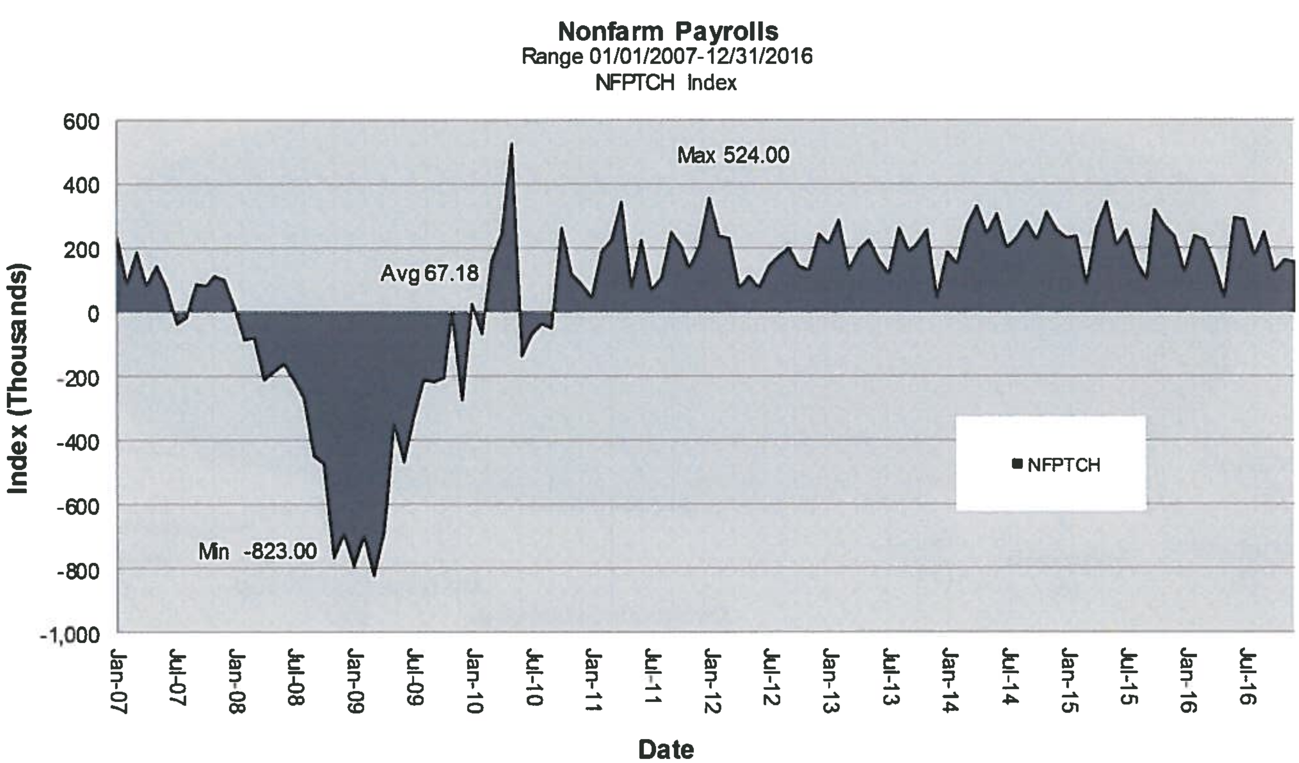
Federal Funds Target Rate & NonFarm Payrolls





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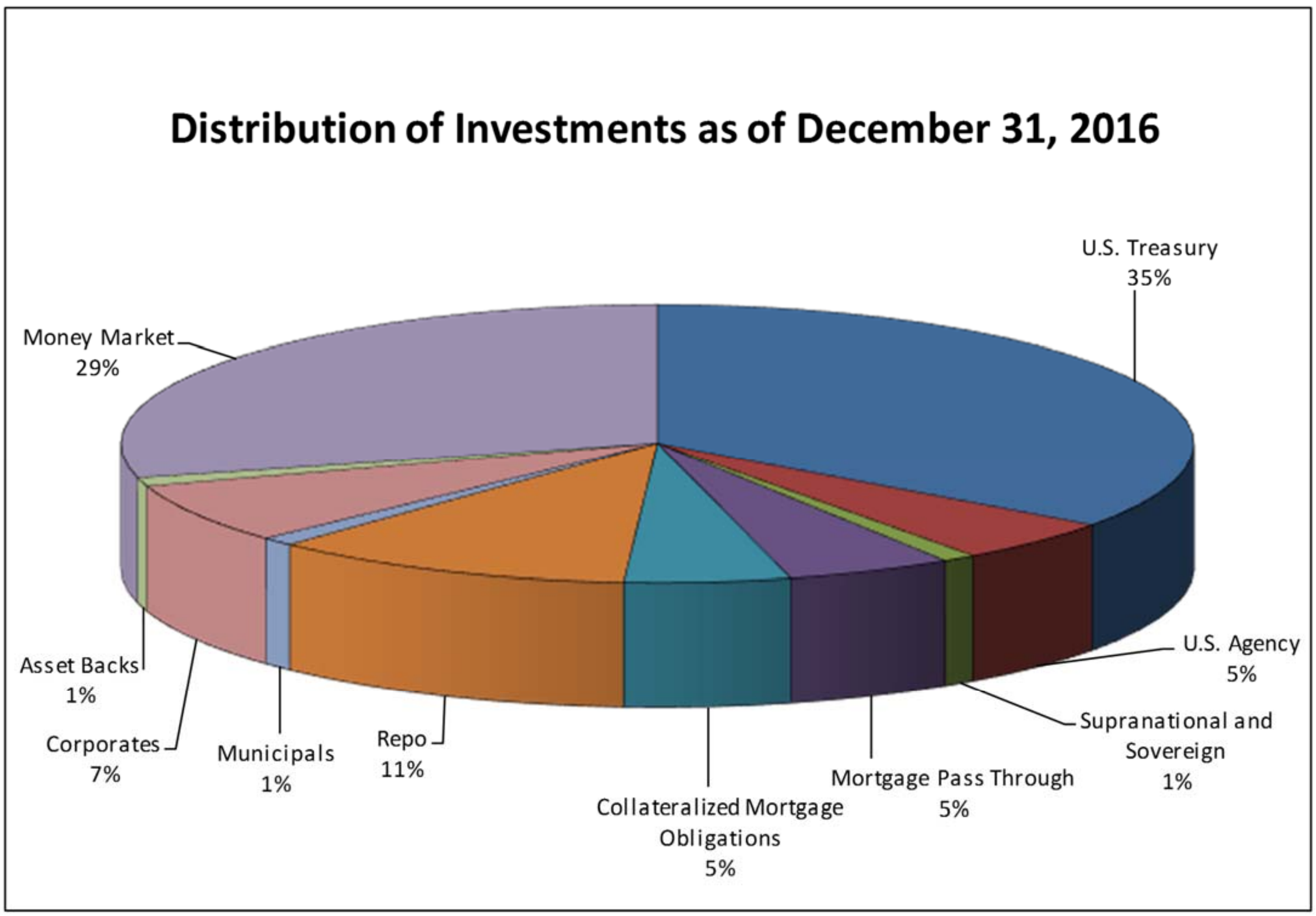
Portfolio Management

For six months ended December 31, 2016, the Commonwealth's investment portfolio was approximately $3.9 billion. The portfolio was invested in U. S. Treasury Securities (35%), U.S. Agency Securities (5%), Supranational and Sovereign (1%), Mortgage Pass-Through Securities (5%), Collateralized Mortgage Obligations (5%), Repurchase Agreements (11%), Municipal Securities (1%), Corporate Securities (7%), Asset-Backed Securities (1%), and Money Market Securities (29%). The portfolio as of December 31, 2016, had a market yield of 0.97% and an effective duration of 0.78 years.

The total portfolio is broken down into three investment pools. The pool balances as of December 31, 2016 were negative $3.9 million (Short Term Pool), $1.6 billion (Limited Term Pool) and $2.3 billion (Intermediate Term Pool).

For six months ended December 31, 2016, total investment income was $472,086 compared to $2.8 million for six months ended December 31, 2015.



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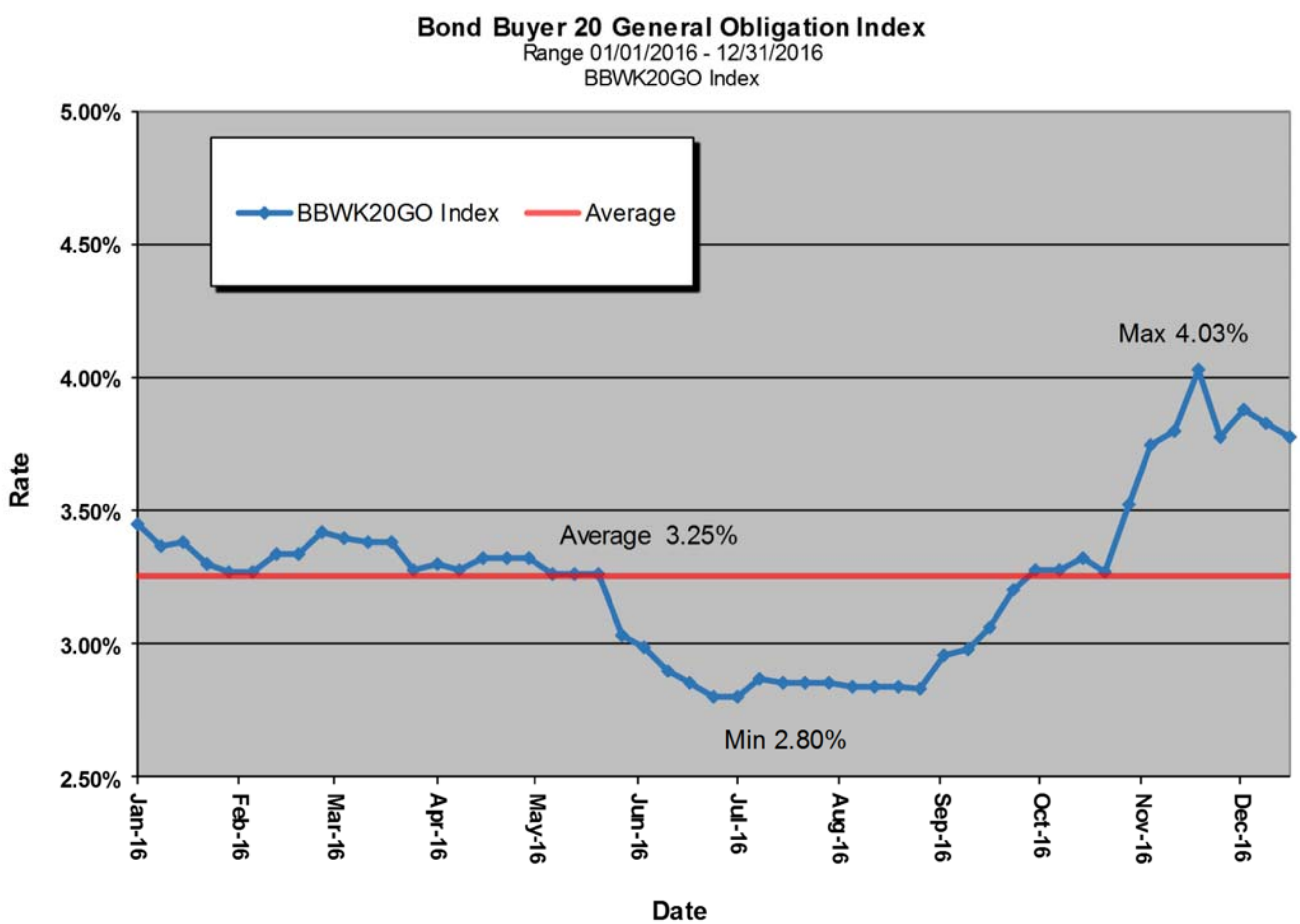
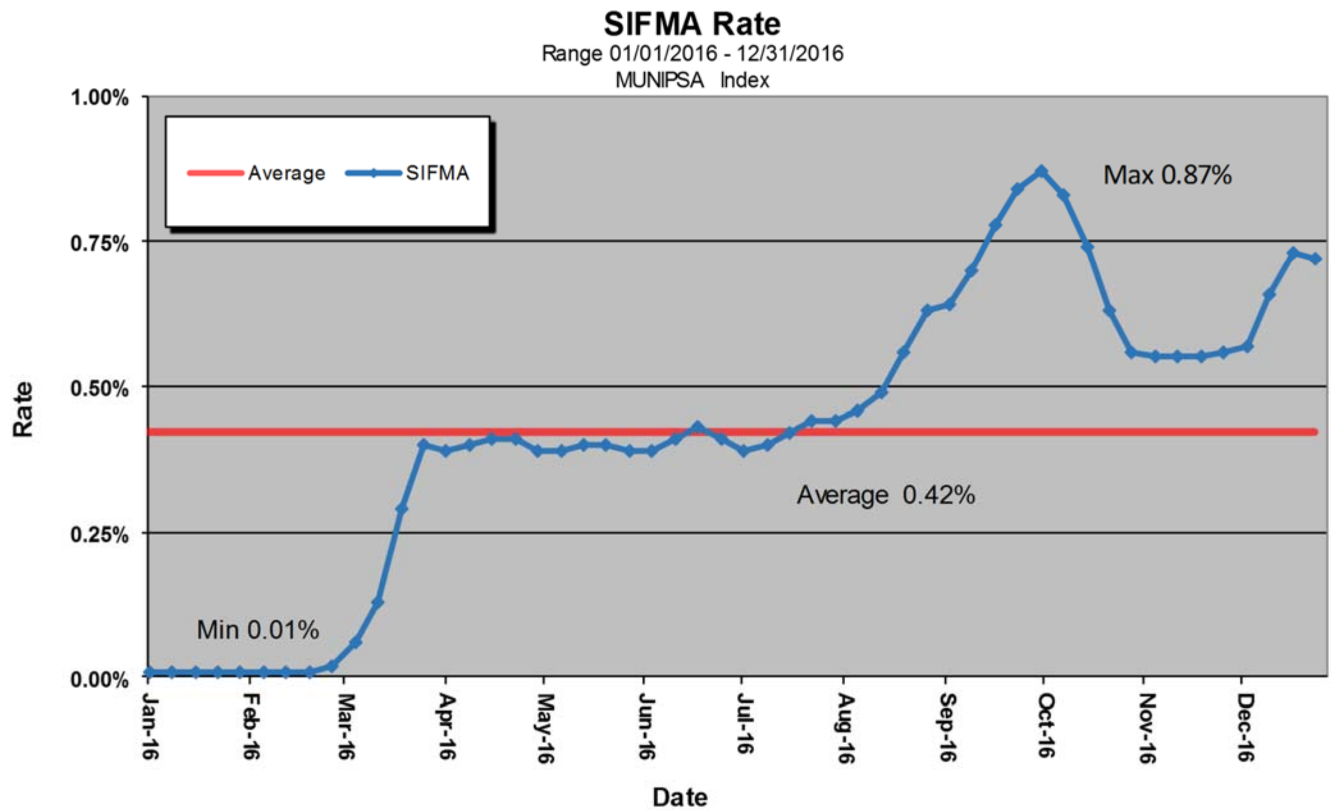
Tax-Exempt Interest Rates and Relationships

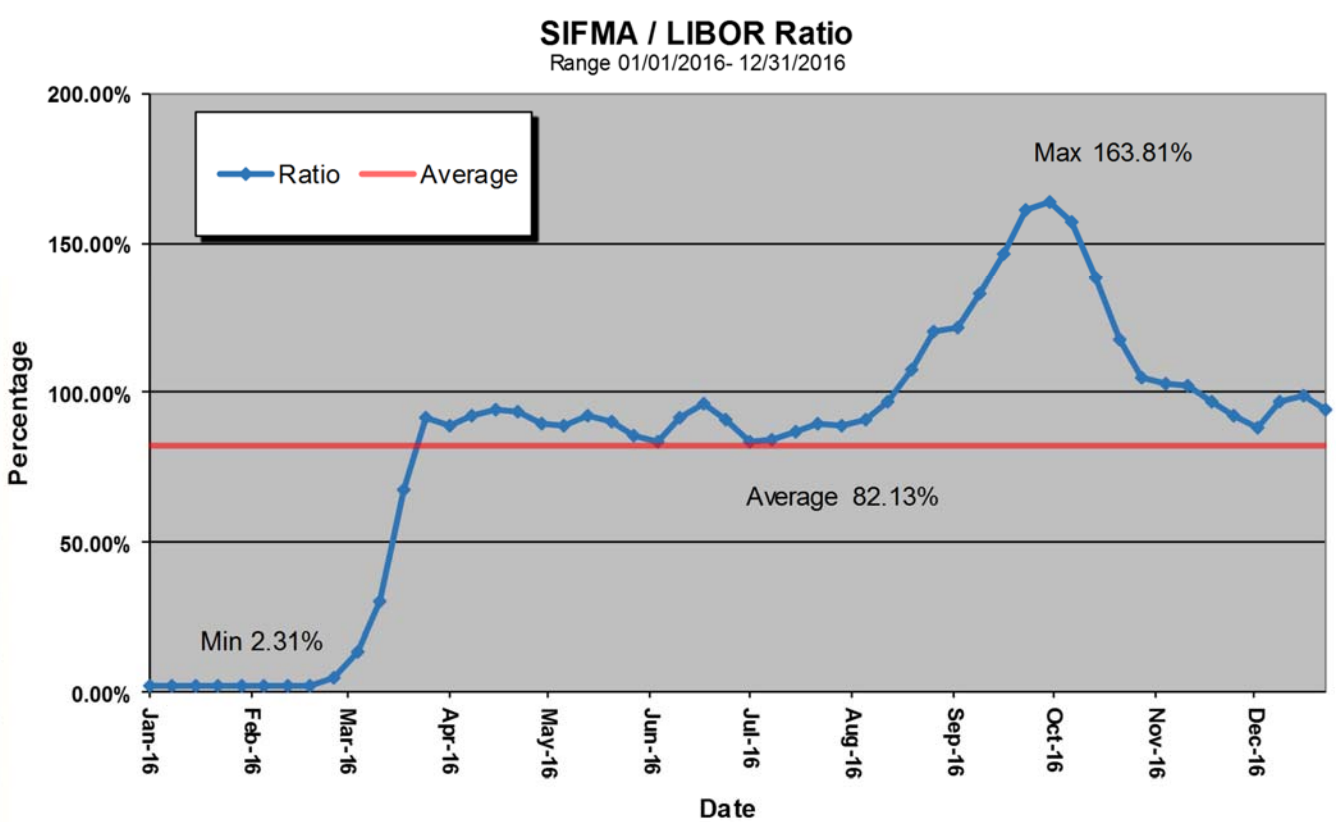
The Bond Buyer 20 General Obligation Index averaged 3.25% for Calendar Year 2016. The high was 4.03% at the beginning of December and the low was 2.80% in July.

The Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Index averaged 0.42% for Calendar Year 2016. The high was 0.87% in October; the low was 0.01% throughout January and February. The 30-day USD London Interbank Offered Rate (LIBOR) averaged 0.499% for Calendar Year 2016. The high was 0.772% at the end of December and the low was 0.4238% in January. During the Calendar Year, SIFMA traded at a high of 163.81% of the 30-day LIBOR at the end of September, at a low of 2.31% in February, and at an average of 82.13%.



SIFMA & SIFMA/LIBOR Ratio





CREDIT MANAGEMENT

Credit: 2016 Recap and 2017 Outlook

Corporate credit spreads finished 2016 sharply tighter than where they started the year. In U.S. markets, Investment Grade (IG) corporates Option Adjusted Spread (OAS) ended 40 bps points tighter on the year and 94 bps points tighter from the wides in mid-February. As a result, excess returns were 471 bps, marking the best annual performance for the asset class since 2012 and entirely offsetting the previous two years' negative excess returns. Total returns were slightly higher at 6.1% as yields declined 26 bps to 3.3%.

IG cyclicality was in full swing in 2016 as higher beta outperformed lower beta, credit curves flattened meaningfully and commodity-weighted sectors dominated excess returns. Across the rating spectrum, BBBs outperformed as credit spreads narrowed 76 bps. Meanwhile, AA and A spreads tightened 15 bps and 20 bps, respectively. From a duration standpoint, long-end credit outperformed as spreads ended the year 60 bps tighter, followed by intermediates which tightened 45 bps. Front-end credit lagged but spreads still tightened 15 bps.

By most accounts and measures, corporate America is in the late stage of the credit cycle. Aggregate corporate leverage is at a cyclical high (and rising) and, by some measures at an all-time high. However, policy intervention, both monetary and fiscal, has the ability to extend the cycle. If fiscal policy can help stoke economic growth and boost corporate earnings, then another late-cycle extension is distinctly possible. A sharp uptick in nominal economic growth could materially improve the credit quality of many companies as higher sales and profits reduce the need to ramp up leverage and offer the prospect of some modest deleveraging. Conversely, tighter monetary policy, a stronger USD and higher U.S. Treasury yields all exert considerable pressure on companies exposed to already-stressed global financial conditions. Economists continue to expect about 2% U.S. real growth next year. That said, the borrowing needs of corporate America are likely to remain elevated next year.

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.

Default Monitoring

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 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

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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 second half of 2016, MUFG Securities Americas Inc. was added and bilateral repurchase agreement counterparties Healthcare of Ontario Pension Plan, Invesco Mortgage REIT, Navy Federal Credit Union, Protective Life Insurance Co. and Wedbush Securities Inc. were removed. The Approved List as of December 2016 is found in Appendix A.

DEBT MANAGEMENT

Debt Update

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. The Governor 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.

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. The Governor 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 authorizations 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. The Governor 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, and all of the Road Fund authorizations listed above have been permanently financed.

The 2016 Regular Session of the General Assembly delivered House Bill 303 (Executive Branch Budget other than the 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. The Governor 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 various capital initiatives of the Common-

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wealth 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. No additional Road Fund supported authorizations were appropriated. A portion of the Agency Restricted Fund authorizations listed have been permanently financed.

The balance of prior bond authorizations of the General Assembly dating from 2004 through 2016 totals $2,154.02 million. Of these prior authorizations, $1,155.93 million is General Fund supported, $846.09 million is Agency Restricted Fund supported, $92.50 million is supported by Road Fund appropriations and $59.50 million is Federal Highway Trust Fund supported.

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

State Property and Buildings Commission
Summary of Authorized but Unissued Debt by Fund Type
as of December 31, 2016

Legislative Session (Year)	General Fund (millions)	Agency Fund (millions)	Road Fund (millions)	Federal Highway Trust Fund (millions)	TOTAL (millions)
2010 and prior	$ 43.94	$ 17.50	$80.00	$59.50	$ 200.94
2012	11.90	0.00	12.50	0.00	24.40
2014	517.10	161.34	0.00	0.00	678.44
2016	582.99	667.25	0.00	0.00	1,250.24
TOTAL	$1,155.93	$846.09	$92.50	$59.50	$2,154.02

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 Commission or Kentucky Asset/Liability Commission ("ALCo") bonds and notes.

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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 unfunded liabilities have continued to put downward pressure on the Commonwealth's credit ratings.

During the reporting period, the ratings below were either affirmed or remained unchanged from previous reporting periods.

The ratings at December 31, 2016:

	Moody's	S & P	Fitch
General Obligation (Issuer Credit Rating)	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+

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Tax and Revenue Anticipation Notes (TRAN)

There were no General Fund TRANs issued for Fiscal Year 2017. As in the previous seven 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
2017	NA	NA

($ in millions)

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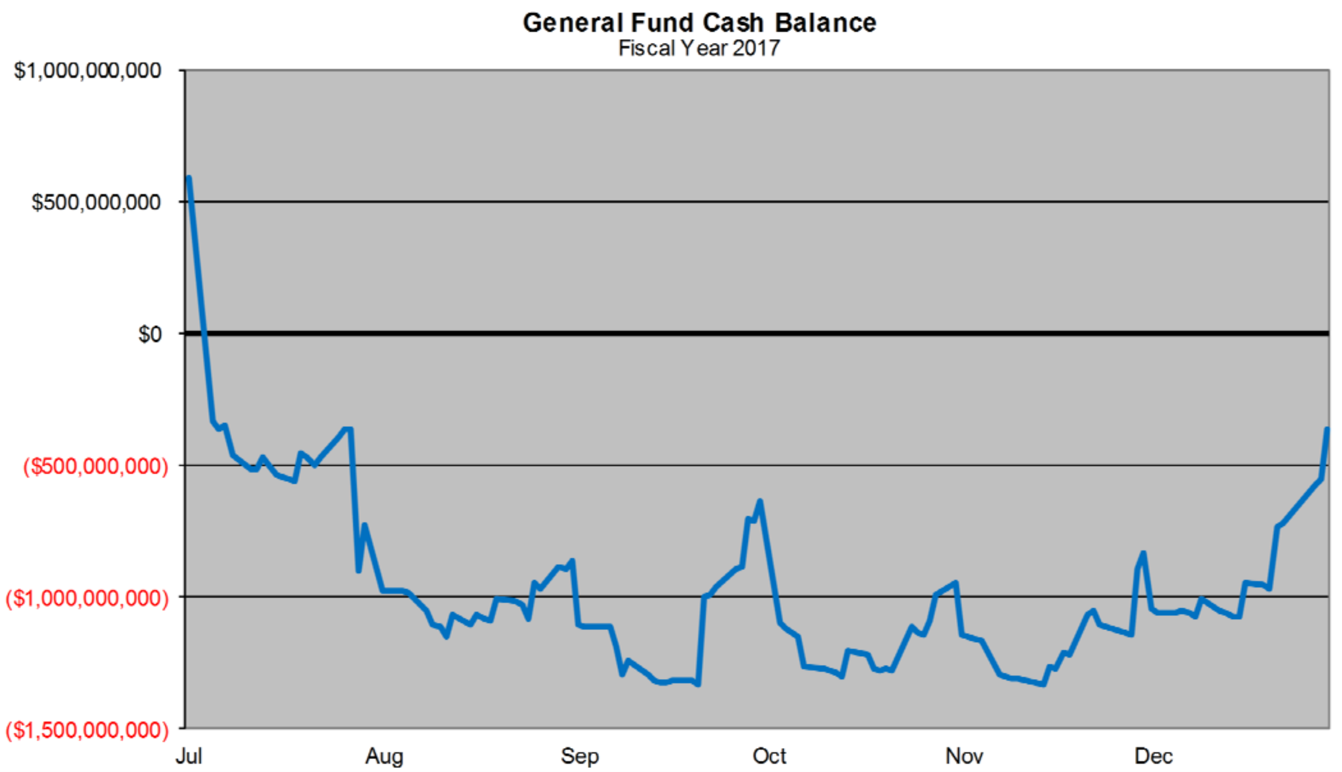

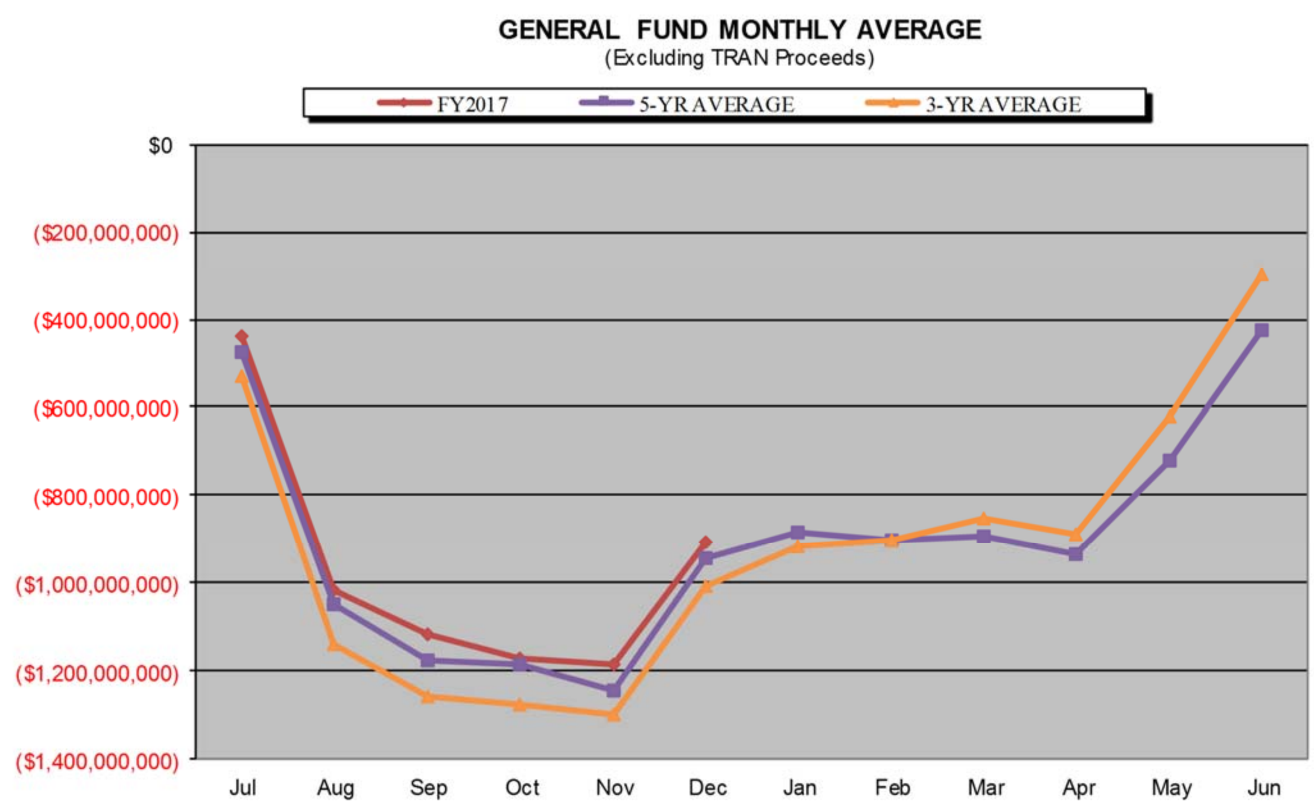

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Financial Agreements

As of December 31, 2016, ALCo had four financial agreements outstanding, with a net notional exposure amount of $184,970,000. 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.

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

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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 December 31, 2016 are presented in Appendix B.

Asset/Liability Model

General Fund

The total SPBC debt portfolio as of December 31, 2016 had $3.522 billion of bonds outstanding with a weighted average coupon of 5.06% and a weighted average life of 7.76 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%.

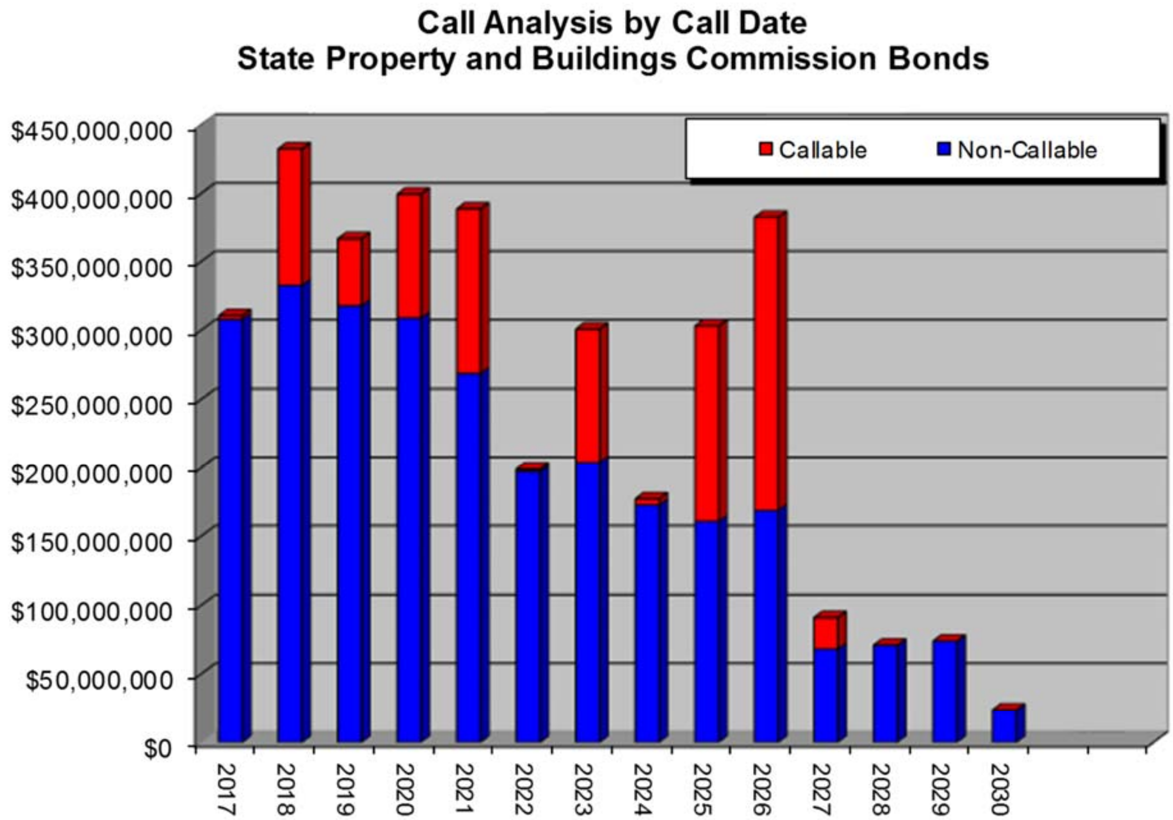
The SPBC debt structure has 49% of principal maturing in 5 years and 73% of principal maturing in 10 years. The ratios are above the rating agencies' proposed target of 27-30% due in 5 years and 55-60% maturing within 10 years, primarily influenced by debt restructuring and the minimal amount of long-term new money permanent financings within the last two years.

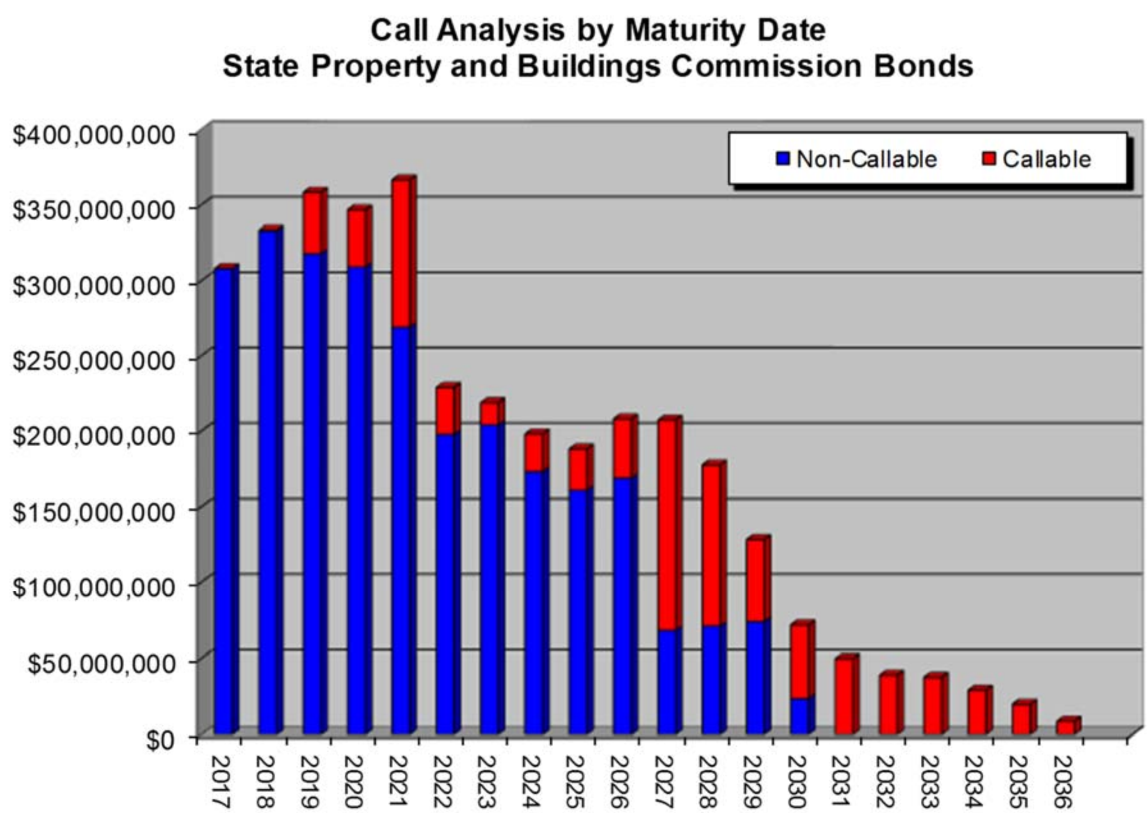
The General Fund had a maximum balance of $588.617 million year-to-date for Fiscal Year 2017 and a low of negative $1.339 billion on November 14, 2016.

The average and median balances were a negative $973.925 million and a negative $1.063 billion, 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 $657.439 million for Fiscal Year 2016. In addition, General Fund debt service of $11.258 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.

DEBT MANAGEMENT





DEBT MANAGEMENT

Road Fund

The Road Fund average daily cash balance for the first half of Fiscal Year 2017 was $214 million compared to $242 million for the first half of Fiscal Year 2016. The Road Fund cash was invested in the Intermediate Term Investment Pool which had a duration of 1.25 years as of December 31, 2016. The Road Fund earned a negative $0.151 million on a cash basis for the first half of Fiscal Year 2017 versus a positive $0.241 million for the first half of Fiscal Year 2016. The continued relatively low level of investable balances at certain times during the fiscal year limits the investment opportunities.

As of December 31, 2016, the Turnpike Authority of Kentucky (TAK) had $1.369 billion of bonds outstanding with a weighted average coupon of 4.82% and an average life of 7.48 years.

Road Fund debt service paid in Fiscal Year 2017 is expected to be $163.13 million, resulting in a net interest margin (investment income earned year-to-date less debt service paid) of negative $163.28 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.

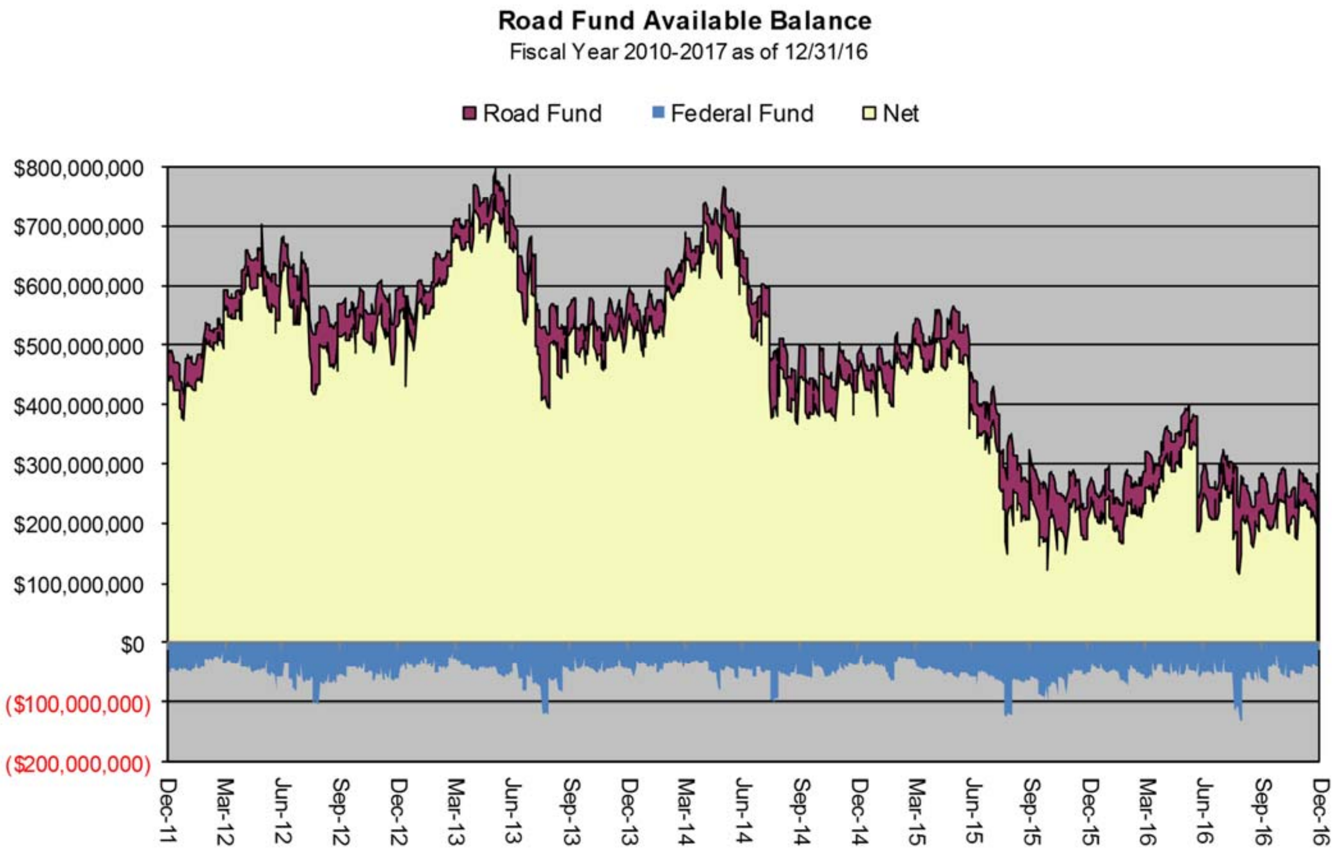
TAK 2016 Series B

On December 6, 2016, the Turnpike Authority of Kentucky (“TAK”) closed a $41,980,000 issuance of Economic Development Road Revenue Bonds (Revitalization Projects), 2016 Series B. The proceeds of the bonds were used to pay the costs of certain additions and improvements to the Kentucky Economic Development Road System (Revitalization Projects), and to pay for costs of issuance. The bond proceeds represented $45 million of a $400 million authorization by the 2010 Extraordinary Session of the General Assembly ($80 million remains authorized but unissued related to that 2010 authorization). The projects were highway projects approved within the Transportation Cabinet’s Six-Year Highway Plan.

The transaction was sold on a negotiated basis on November 16, 2016 with Morgan Stanley. acting as senior manager and Dinsmore & Shohl serving as bond counsel. Stites & Harbison, PLLC was underwriter’s counsel.

The 2016 Series B debt service was 20-year, level debt, tax-exempt financing with an All-In TIC of 3.511%, an average life of 11.521 years, a 10-year par call, and a final maturity of July 1, 2036. The bonds received ratings of Aa2/AA- from Moody’s, and S&P, respectively. A rating from Fitch Ratings was not requested by the issuer for this transaction.

DEBT MANAGEMENT



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.

Over the past seven 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 December 31, 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		Yes	Microsoft Corp		Yes
BB&T Corp		Yes	MUFG Securities Americas Inc.*	Yes	Yes
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	Royal Bank of Canada	Yes	Yes
Caterpillar Inc		Yes	Royal Dutch Shell PLC		Yes
Chevron Corp		Yes	State Street Corp		Yes
Cisco Systems Inc		Yes	Sumitomo Mitsui Trust Bank		Yes
Cooperatieve Rabobank		Yes	Swedbank AB		Yes
Costco Wholesale Corp		Yes	Texas Instruments Inc.		Yes
Deere & Co		Yes	Toronto-Dominion Bank/The		Yes
Exxon Mobil Corp		Yes	Total SA		Yes
General Electric Co		Yes	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	Walt Disney Co/The		Yes
Intel Corp		Yes	Wells Fargo & Co		Yes
Intl Business Machines Corp		Yes			

*Addition:
MUFG Securities Americas Inc.

Removed:
Healthcare of Ontario Pension Plan(HOOP)
Invesco Mortgage REIT
Navy Federal Credit Union
Protective Life Insurance Co.
Wedbush Securities Inc.

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 December 31, 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
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	2,750,000	47,345,000	63,940,000	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 December 30, 2016 (negative indicates payment owed) by ALCo if terminated)	(74,540)	(6,039,242)	(4,632,904)	(10,639,698)
Interest Earnings (not applicable)				
Total	not applicable	not applicable	not applicable	not applicable

Swap Summary

As of December 30, 2016:

Total Notional Amount Executed		**Net Exposure Notional Amount**	
General Fund	Road Fund	General Fund	Road Fund
243,080,000	0	184,970,000	0

Total Notional Amount Executed by Counter Party

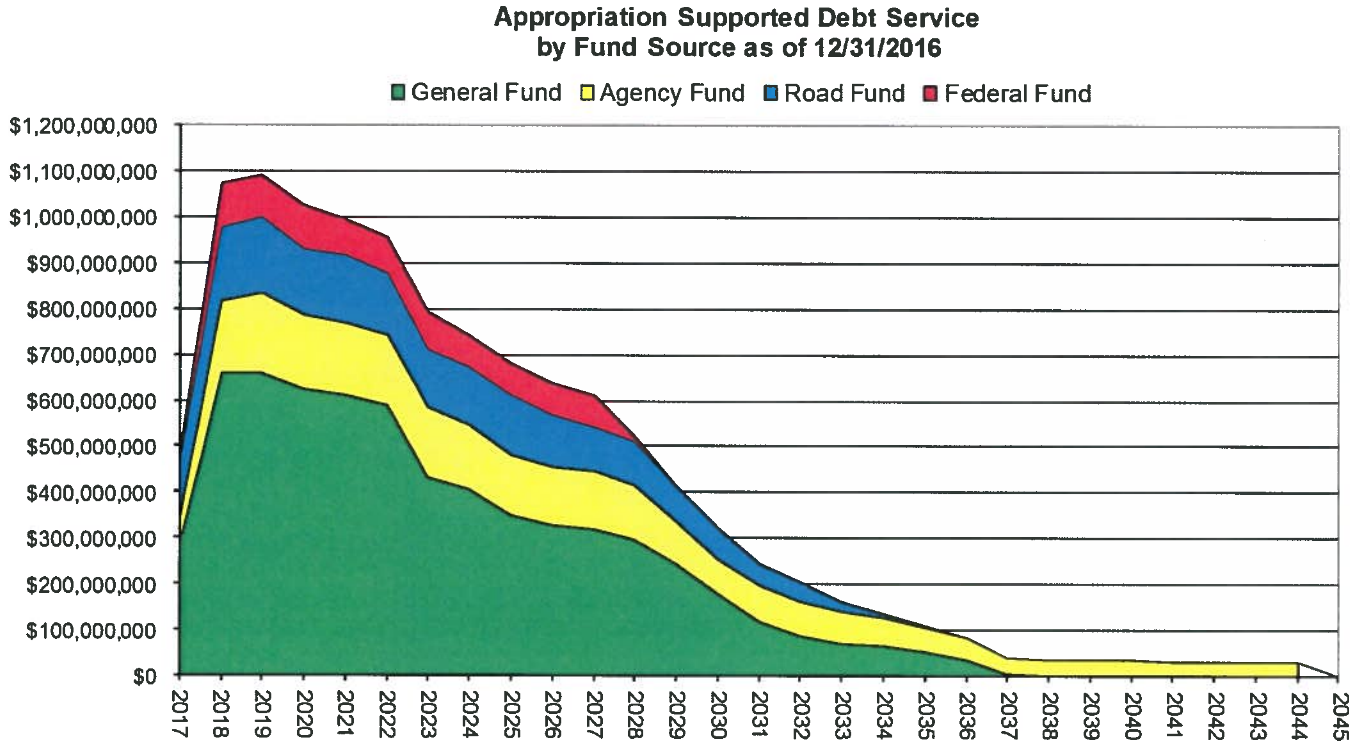
Deutsche Bank (assigned from Citibank on 2/14/2011)

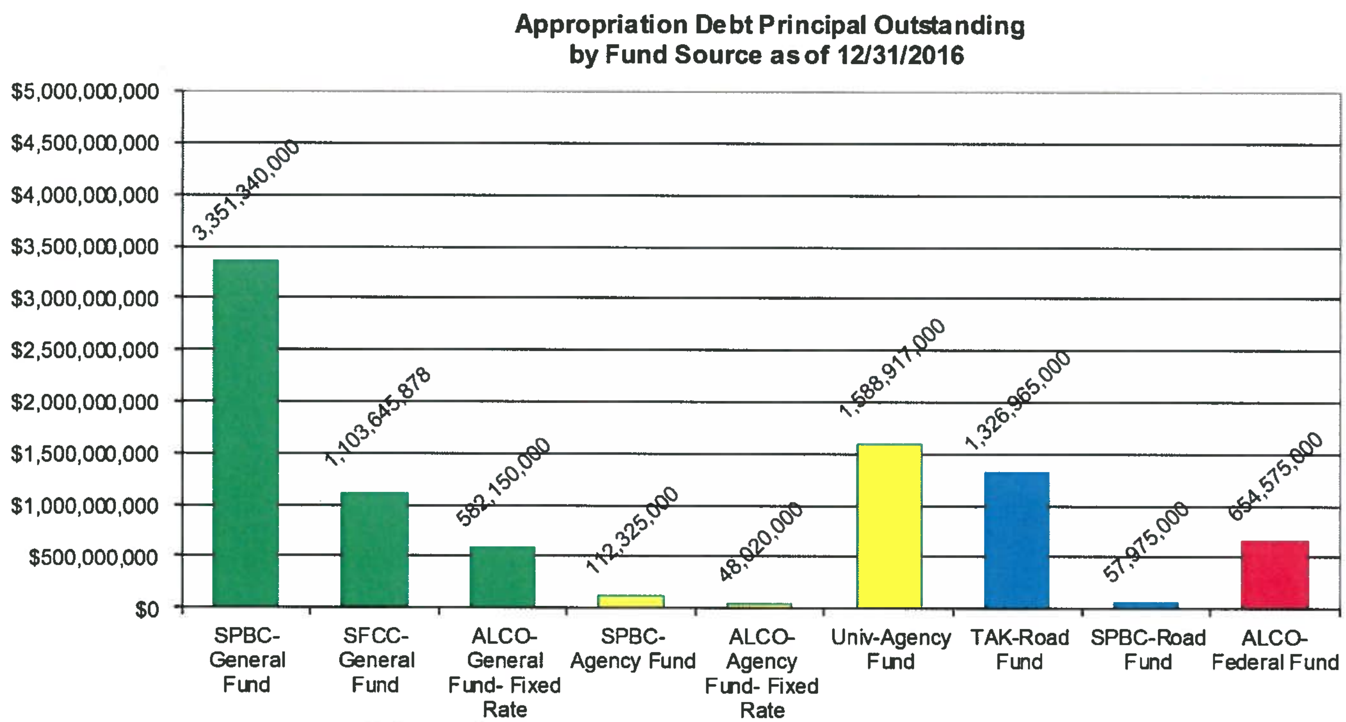
243,080,000

	Debt		**10 Percent Net Exposure**	
	General Fund	Road Fund	General Fund	Road Fund
Bonds Outstanding	3,933,490,000	1,384,940,000	393,349,000	138,494,000
Authorized but Unissued	1,155,928,700	92,500,000	115,592,870	9,250,000
Total	5,089,418,700	1,477,440,000	508,941,870	147,744,000

Investment Pool Balance		**10 Percent Investment Portfolio**	
Other Funds	Net Road Fund	Other Funds	Net Road Fund
3,903,628,095	244,168,958	390,362,809	24,416,896

APPENDIX C





*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 12/31/2016

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	$184,970,000
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**			**$582,150,000**
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	$31,285,000
2007 Series A-UK Gen Recpts		$77,905,000	11/2007	10/2017	$3,885,000
2007 Series B-UK Gen Recpts		$80,245,000	11/2007	10/2018	$6,255,000
	FUND TOTAL	**$235,730,000**			**$48,020,000**
Federal Hwy Trust Fund Project Notes					
2007 1st Series		$277,910,000	9/2007	9/2019	$106,545,000
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	$146,070,000
2015 1st Series		$106,850,000	10/2015	9/2027	$99,705,000
	FUND TOTAL	**$858,955,000**			**$654,575,000**
ALCo NOTES TOTAL		**$2,228,425,000**			**$1,284,745,000**

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Creating Financial Value for the Commonwealth