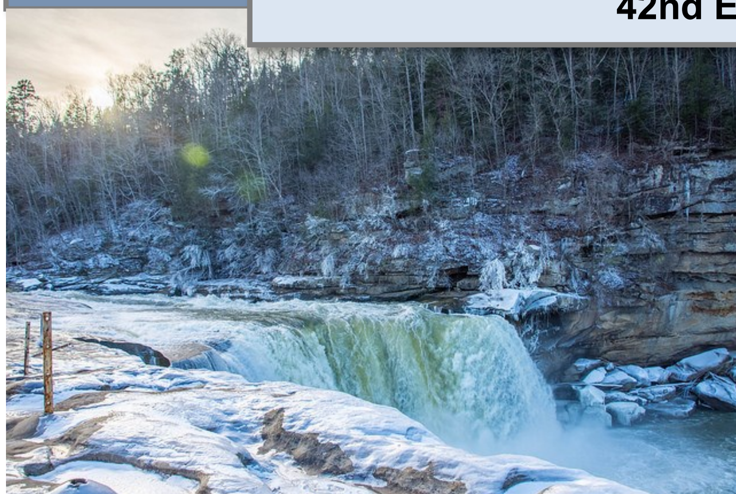
COMMONWEALTH OF KENTUCKY

KENTUCKY ASSET/LIABILITY COMMISSION

SEMI-ANNUAL REPORT

For the period ending December 31, 2017

42nd Edition



Matthew G. Bevin, Governor, Commonwealth of Kentucky

William M. Landrum III, Secretary, Finance and Administration Cabinet

Ryan Barrow, Executive Director, Office of Financial Management

Kentucky
UNBRIDLED SPIRIT

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 42nd 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, 2017 through December 31, 2017.

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 13, 2017, the Federal Reserve Board of Governors voted (7 voted For and 2 voted Against) to raise the target range for the federal funds rate by 0.25% to a range of 1.25% - 1.50%.

- The unemployment rate continued the downward trend ending 2017 at 4.1% from 4.3% in June and 4.7% in December 2016.

- The annual rate of economic growth as measured by GDP grew during the second half of 2017. The seasonally adjusted rate for the third and fourth quarter was 3.2% and 2.6%, respectively.

- Inflation remained muted for 2017 with the core rate (ex-energy and food) ending the year at 1.8%.

On the state level

- General Fund receipts totaled $5.4 billion for the first six month of Fiscal Year (FY) 2018, a 3.1% increase compared to the same time frame in FY 2017.

- On December 15, 2017 the Consensus Forecasting Group (CFG) revised the official FY 2018 General Fund Forecast to $10,718,400,000 which is $156.0 million lower than the FY 2018 enacted estimate. This official revision was followed by General Fund Reduction Order 18-01 which reduced enacted General Fund appropriations by $158.0 million. The additional $2.0 million reduction over the revenue shortfall was related to dedicated revenue. Revenues will need to grow 1.5% for the last six months of the fiscal year to meet the official revised estimate.

- Road Fund receipts totaled $739.5 million for the first six months of FY 2018, which is a 0.4% decrease from the same timeframe in FY 2017.

- At the December 15th CFG meeting, the official FY 2018 Road fund forecast was revised to $1,503.3 million. This represents a $25.1 million increase over the enacted FY 2018 estimate. The official revised estimate calls for a 0.3% decline for the fiscal year and receipts can decline 0.2% over the remainder of the fiscal year and still meet that estimate.

- Kentucky's seasonally adjusted unemployment rate stood at 4.4% at the end of December 2017, down from 4.8% one year ago.

- Large unfunded pension liabilities continue to put financial and rating stress on the Commonwealth.

- Implementation of bond authorizations from prior-year sessions of the General Assembly continued. Bond issues for the period are discussed later in the report.

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Market Overview

The US economy remains quite strong with its upward trend intact. Despite various headwinds in the form of political infighting and geopolitical tensions, economic data in many segments remains on a solid trajectory. The Bureau of Economic Analysis reported third-quarter 2017 gross domestic product (GDP) growth of 3.2% and fourth-quarter 2017 GDP growth, while lower, still registered a healthy 2.6%. The employment situation also made gains, with an average of approximately 181,000 jobs added each month for 2017. At the same time, the unemployment rate continued its trend downward, ending the year at 4.1% compared to 4.7% in December 2016. In the last meeting of the year, the Federal Open Market Committee (FOMC) raised the federal funds rate target by 25 basis points to a range of 1.25% - 1.50%. Economists expect multiple increases in 2018 as the economy encounters wage pressures. The FOMC also began the process of gradually normalizing its balance sheet in October by not replacing maturing securities in the portfolio.

Gross Domestic Product (GDP)

The Bureau of Economic Analysis (BEA) released the third quarter 2017 real GDP growth rate, a seasonally adjusted annualized rate of 3.2%, up from the second quarter's 3.1% annualized growth. For fourth quarter 2017, BEA reported an annualized rate of 2.6%, resulting in a year over year GDP growth rate for 2017 of 2.5%. The consensus among economists is that the economy continues to expand, but some of the underlying components suggest that the expansion is nearer to the end than the beginning. Consumer spending slowed but was offset by an increase in inventories, fixed investment, and trade. Inflation began to tick higher in the second half of the year, with the Consumer Price Index (CPI) rising 2.1%. However, if the volatile food and energy component is removed, CPI was a touch lower at 1.7%. Economists are generally of the opinion that with the economy nearing full employment, wage pressure should begin to pick up.

Employment

The employment situation remained strong during the last half of the year. Employers, on average, added 179,000 jobs during the six months ending in December. The highly watched three-month moving average rose to 216,000 from 164,000 in 2016. The unemployment rate in December was 4.1%, down slightly from 4.2 and 4.3% for third and second quarter, respectively.

Federal Reserve Policy

The Federal Open Market Committee (FOMC) ended the September meeting by announcing, in a widely expected move, that it would be moving from a posture of quantitative easing to one of quantitative tightening. The process of reducing its balance sheet would begin in October, with a cap on maturing Treasuries rolling off the balance sheet initially set at $6 billion per month, and the cap on mortgage securities set at $4 billion per month. The FOMC kept interest rate policy unchanged, with the federal funds rate target range remaining at 1.00% - 1.25%.

After the December meeting, the FOMC announced an increase in the federal funds rate target range by 25 basis points to a range of 1.25% to 1.50%. The most significant change to the statement accompanying the rate increase was acknowledgement that inflation had declined. Incoming Federal Reserve (Fed) chairman, Jay Powell stated, "It is very important for inflation to achieve its 2% target, and the FOMC is increasingly concerned that it has yet to attain that level this far into the expansion." The FOMC is data dependent, and although the expectation is that one rate increase per quarter will occur in 2018, it's possible that if inflation does not begin to pick up, there will be a pause in the tightening regime.

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Interest Rates

Fixed income securities' prices and yields were affected by a variety of factors: the FOMC's decision to raise short-term interest rates at its December meeting, Congress' passage of tax reform, solid improvement in economic data, and a continued rise in stock prices. The tax reform package was perhaps the headline event of the second half of the year, with many economists predicting that the reduction in corporate and individual tax rates will give a meaningful boost to the economy over the short and intermediate horizons. However, one implication of the tax cut is that the economy could be in greater peril of overheating, meaning the FOMC will likely exercise greater vigilance when evaluating future rate increases. If wage pressure materializes relatively soon, as many expect, the FOMC will react quickly to raise rates. It is within this context that yields generally rose during the last half of the year.

The Treasury yield curve's shape flattened over the six months ending in December with yields on short- to intermediate-term maturities climbing, while those on long-term issues declined. By the end of the year, the yield on the benchmark 10-year U.S. Treasury Note was modestly higher, ending at 2.41%, compared to 2.31% on June 30.

Although many of the same themes from the third quarter carried through to the fourth, the passage of the tax reform package perhaps had the most significant impact. At the beginning of the quarter, analysts gave it little chance of passing so quickly, but Republicans came together to ensure the year did not end without a legislative win. The trend in yields was higher throughout the quarter, but not especially volatile; the yield on the 10-year Treasury Note traded within a 22 basis point range. In addition to the passage of the tax reform package, other factors contributing to the yield changes were the FOMC's decision to raise short-term interest rates and to move ahead with reducing the size of its balance sheet. As mentioned above, yields at the shortest end of the yield curve (up to one year) were generally about 37 to 51 basis points higher, while those on the longer end were lower by about 10 basis points. The yield on the 3-month Treasury Bill settled at 1.38% at the end of the year, up about 37 basis points from the end of June. The yield on the 5-year Treasury Note ended the year at 2.21%, compared to 1.89% as of June 30, and as mentioned above, the yield on the 10-year Treasury Note inched up to 2.41% from 2.31% over the same period. At the same time, the yield on the 30-year Treasury Bond fell slightly, ending the period at 2.74%, compared to its June 30 level of 2.84%.

Equities

Equity markets racked up another six months of solid gains, benefiting from anticipation of the tax reform package, an uptick in corporate profitability, and a steadily growing economy. The S&P 500 Index finished the six months ending in December with a total return of 11.4%, and advanced 21.8% for the full year. The S&P 500 has now posted positive returns in every quarter except one in the past five years. The last negative return in a calendar quarter occurred in the third quarter of 2015.

Outlook

The consensus among economists is that the recently passed tax reform package is likely to provide a significant short- to intermediate-term boost to the economy. The $1.5 trillion, 10-year tax cut will benefit corporations significantly, which will see a permanent reduction in their tax rate. Individual tax cuts will expire in 10 years (unless Congress eventually makes them permanent), reducing the long-term impact of the changes. Economists expect the tax cuts to act like fiscal stimulus, increasing GDP growth by as much as 0.5% per year. However, the Congressional Budget Office expects a $1.5 trillion increase in the deficit and some

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economists see the federal deficit moving from 3.7% of GDP in fiscal 2018 to 5% of GDP in 2019 because of the tax bill. A fear among analysts is that annual growth increasing to 3% at a time when the economy is at or very near full employment may result in overheating. Although wage growth pressure has not been an issue so far, that may change with the impact of the tax changes and the Fed may be forced to raise rates more quickly than it had previously anticipated. Market analysts have been raising estimates for corporate earnings for 2018, but it is quite possible that the market has already discounted higher earnings. Housing prices are likely to suffer with the tax changes, as caps on deduction of mortgage interest and property taxes are estimated to have a 4% negative impact on home prices. Analysts expect the Trump administration to try to secure bipartisan legislative achievements in 2018, with a massive infrastructure proposal at the top of the slate. The risks to the generally positive economic outlook continue to include geopolitical tensions with North Korea and Iran as well as the potential for monetary policy missteps by the Fed. In addition, despite the lack of obvious bubbles, most market watchers expect stock prices to be more volatile in 2018 than in 2017, as valuations are more extended, and volatility remains near multiyear lows.

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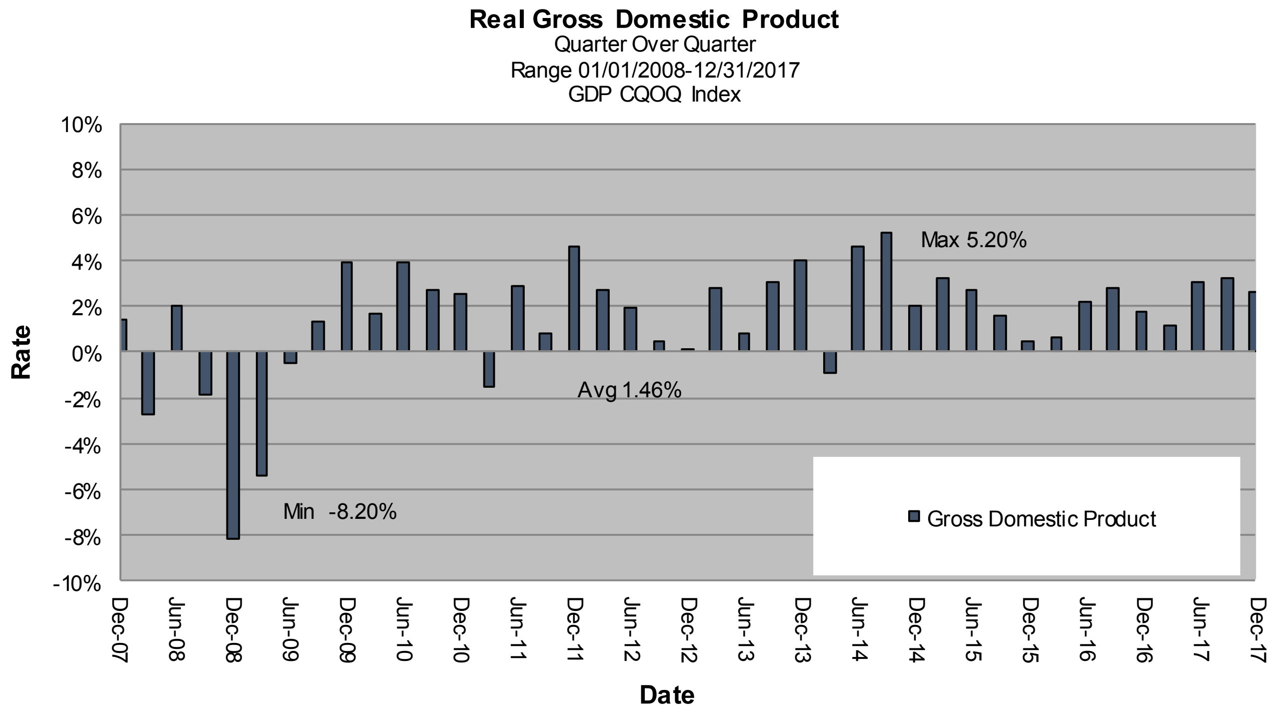
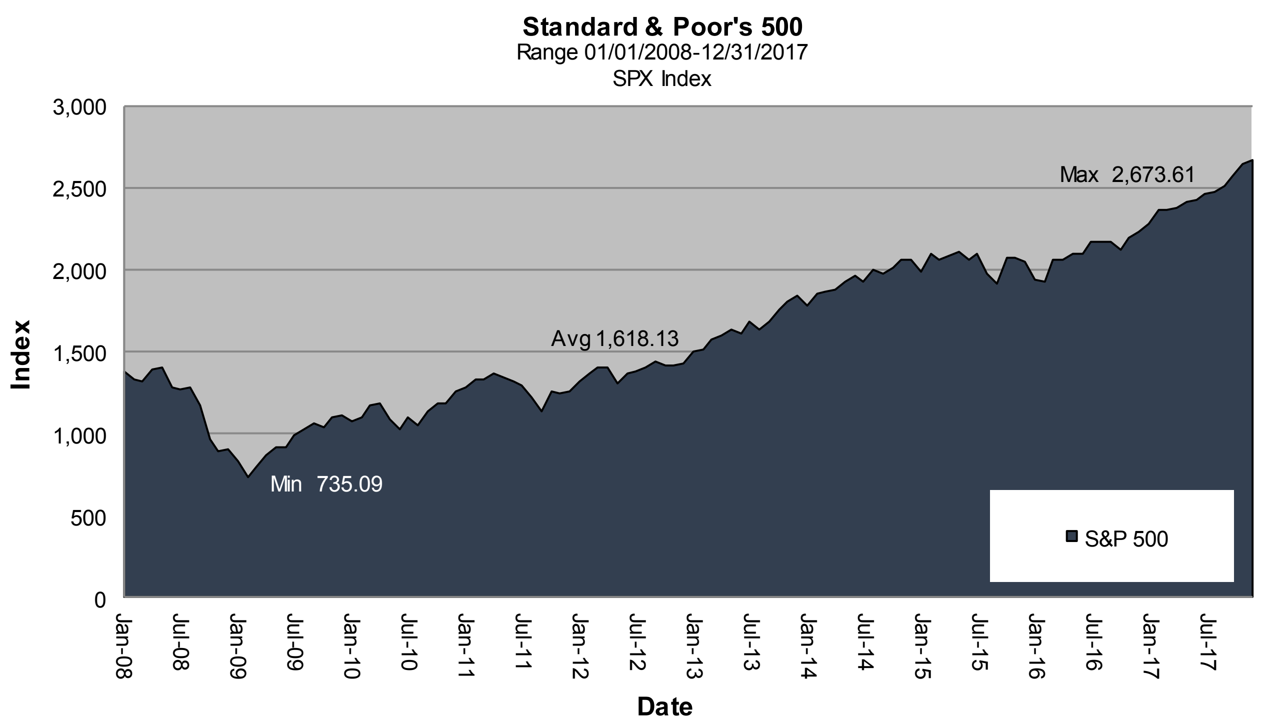
Real Gross Domestic Product & Standard & Poor's 500





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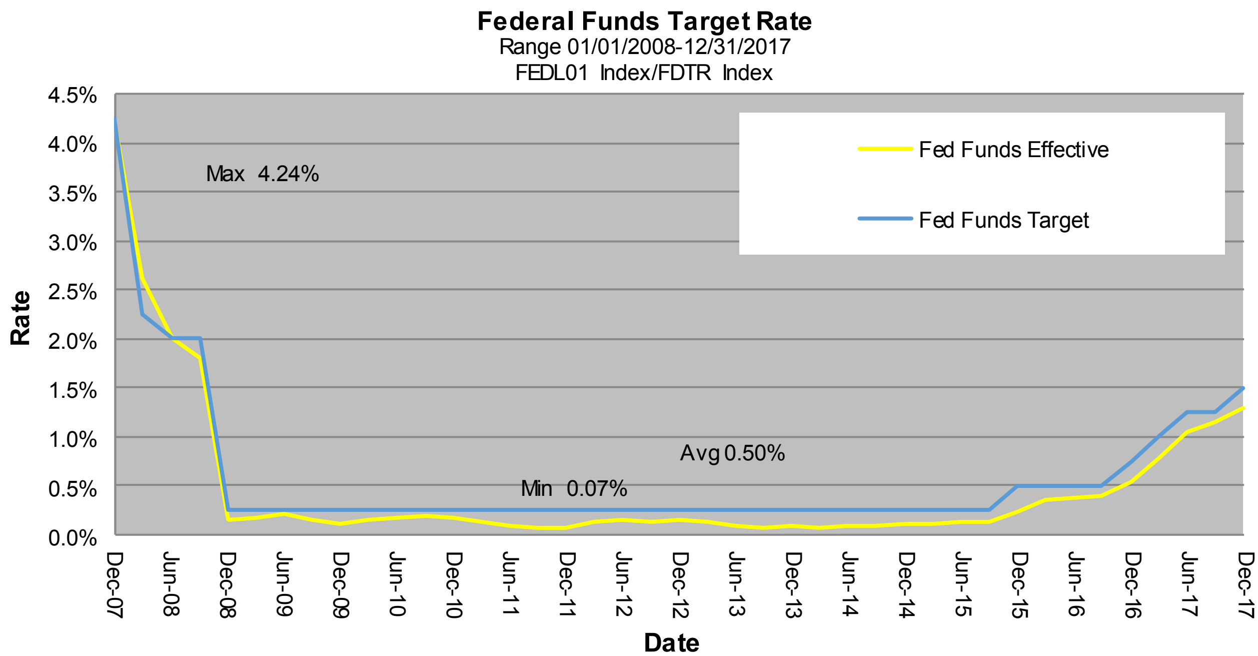
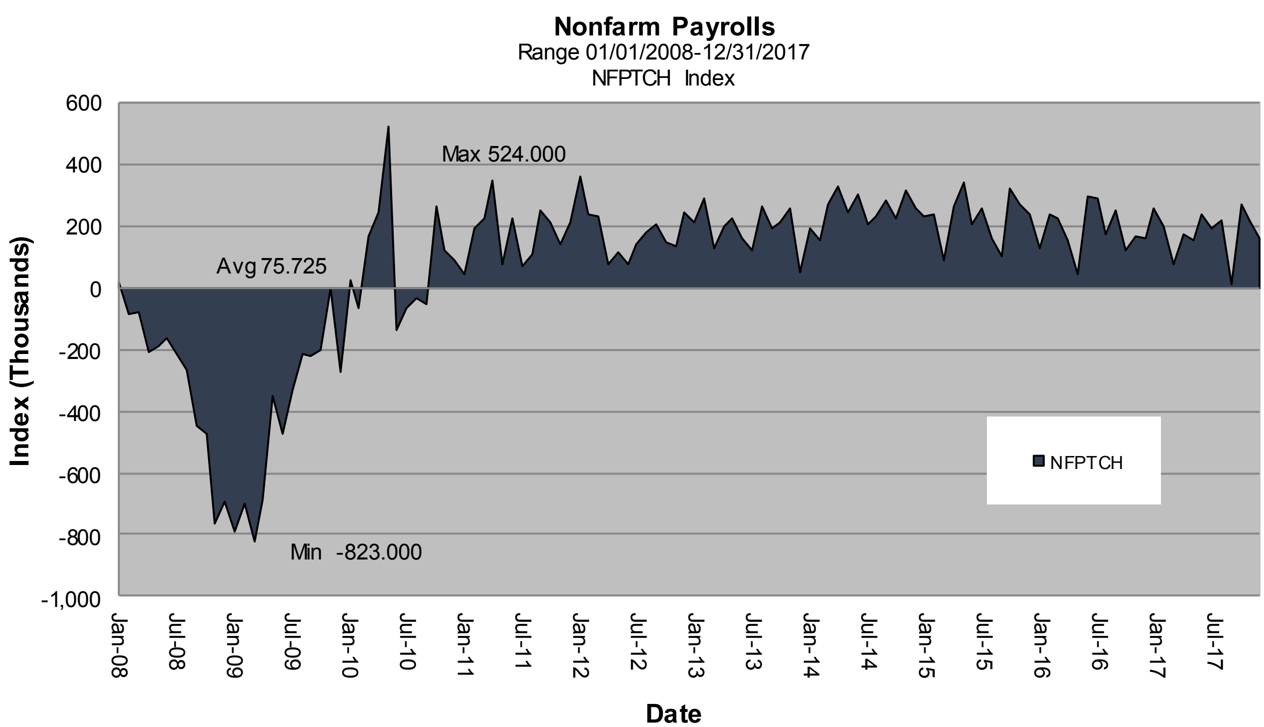
Federal Funds Target Rate & NonFarm Payrolls





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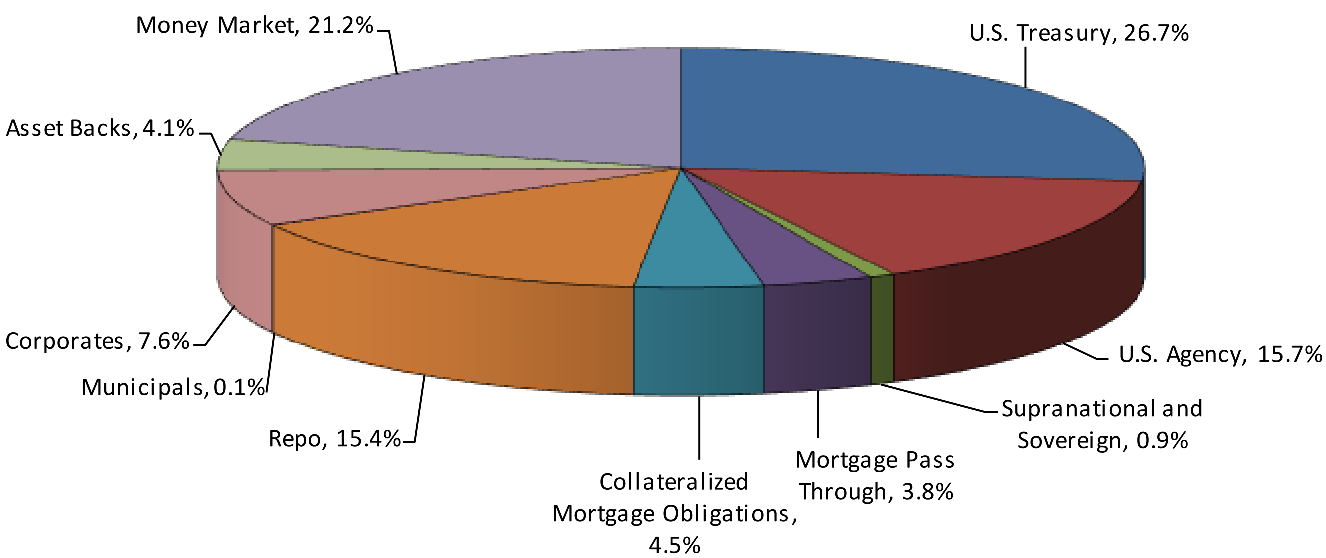
Portfolio Management

For six months ended December 31, 2017, the Commonwealth's investment portfolio was approximately $3.5 billion. The portfolio was invested in U. S. Treasury Securities (26.7%), U.S. Agency Securities (15.7%), Supranational and Sovereign (0.9%), Mortgage Pass-Through Securities (3.8%), Collateralized Mortgage Obligations (4.5%), Repurchase Agreements (15.4%), Municipal Securities (0.1%), Corporate Securities (7.6%), Asset-Backed Securities (4.1%), and Money Market Securities (21.2%). The portfolio had a market yield of 1.46% and an effective duration of 0.57 years.

The total portfolio is broken down into three investment pools. The pool balances as of December 31, 2017 were $27.9 million (Short Term Pool), $1.4 billion (Limited Term Pool) and $2.0 billion (Intermediate Term Pool).

Distribution of Investments as of December 31, 2017

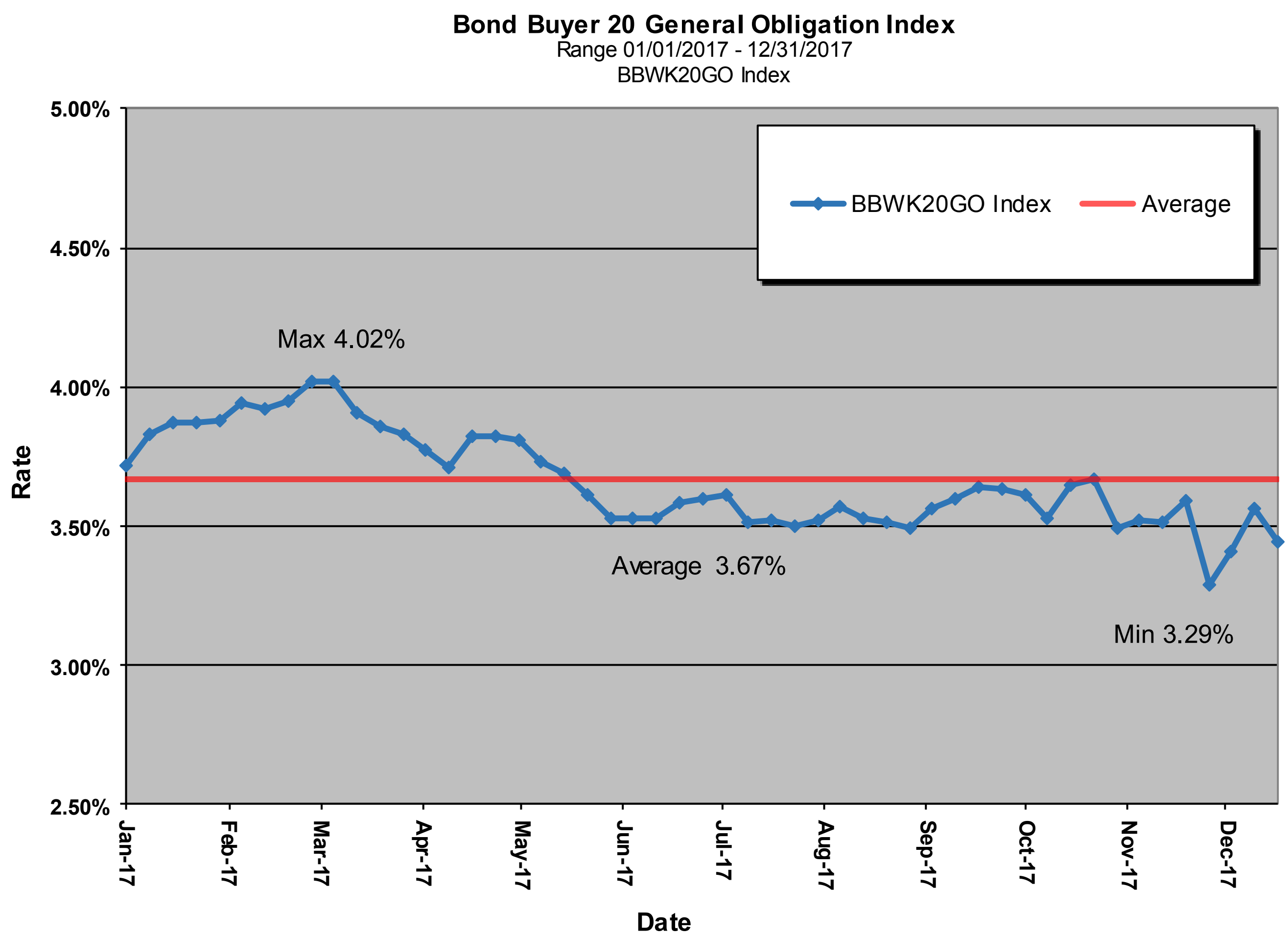


INVESTMENT MANAGEMENT

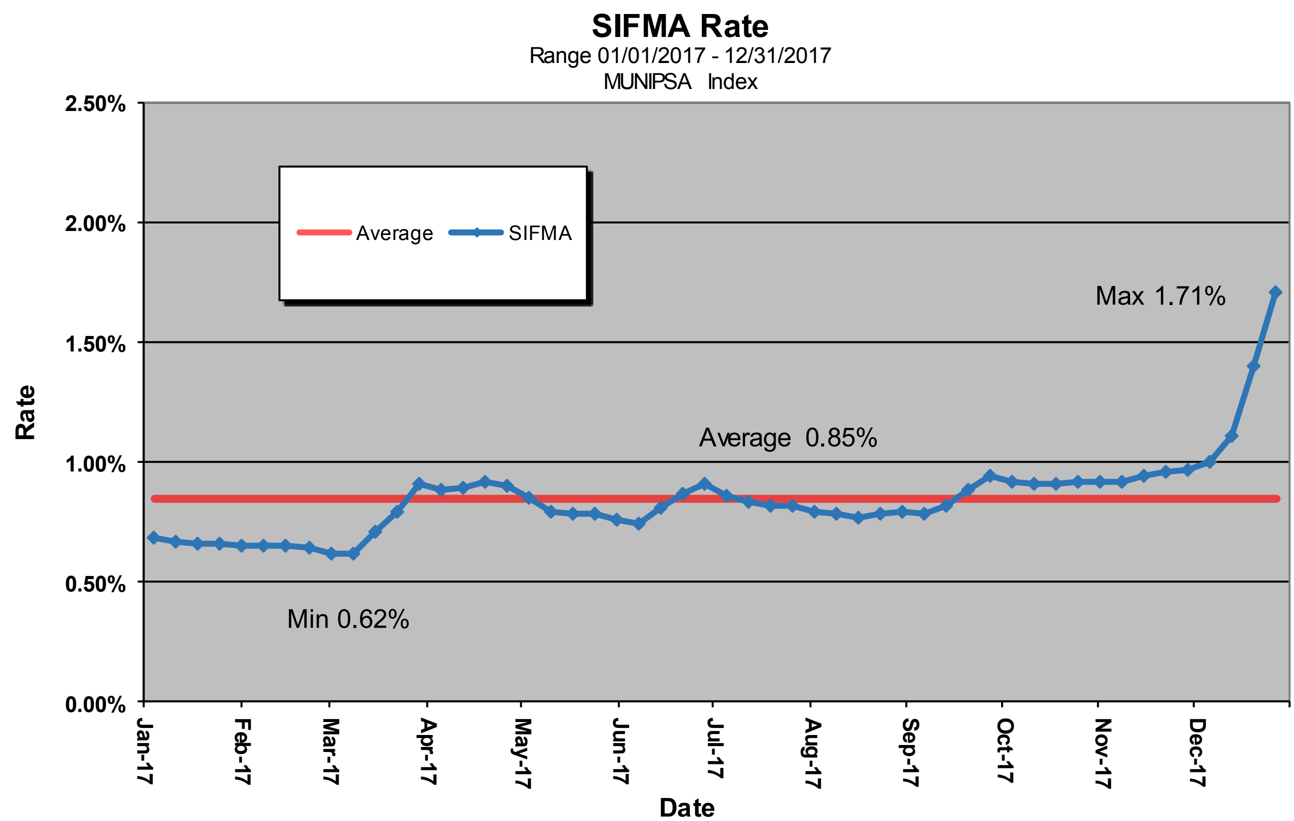
Tax-Exempt Interest Rates and Relationships

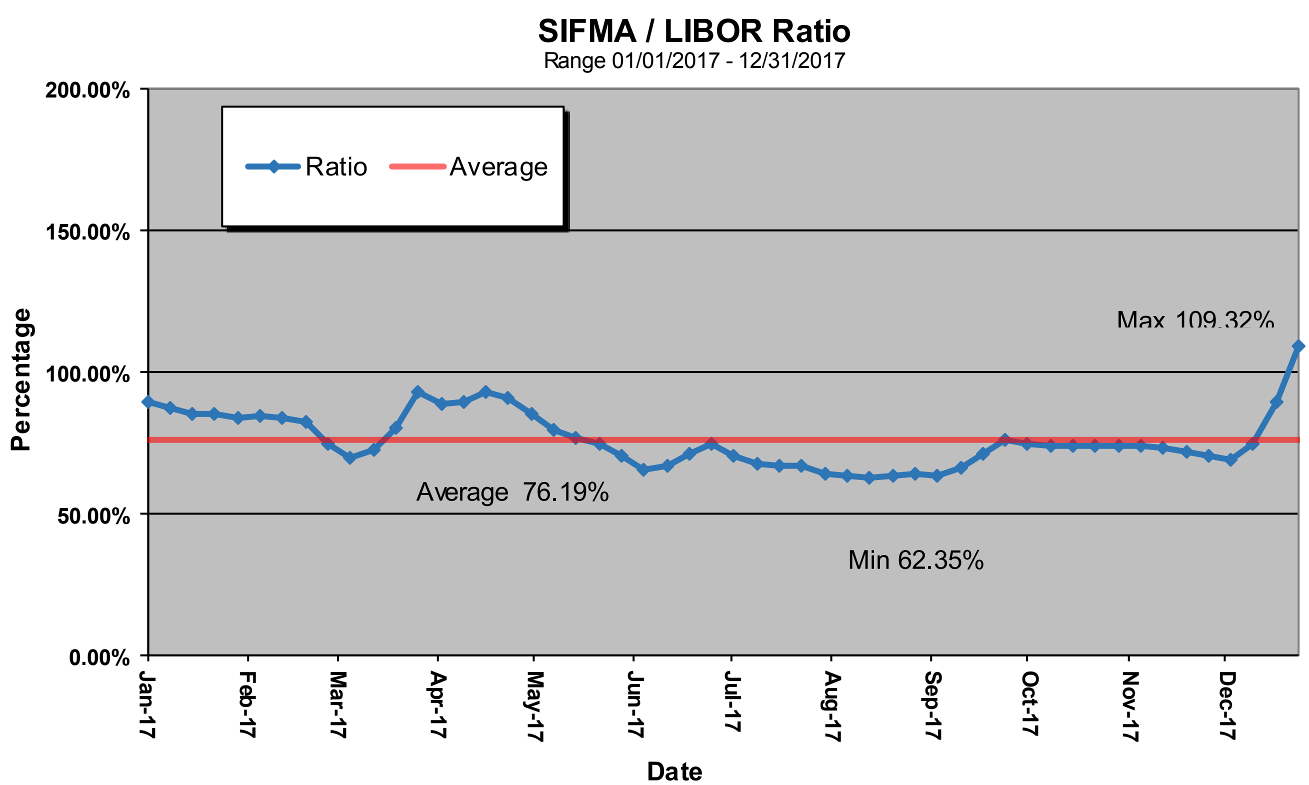
The Bond Buyer 20 General Obligation Index averaged 3.67% for Calendar Year 2017. The high was 4.02% in March and the low was 3.29% at the beginning of December.

The Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Index averaged 0.85% for Calendar Year 2017. The high was 1.71% in December; the low was 0.62% in March. The 30-day USD London Interbank Offered Rate (LIBOR) averaged 1.21% for Calendar Year 2017. The high was 1.56% at the end of December and the low was 0.76% in January. During the Calendar Year, SIFMA traded at a high of 109.32% of the 30-day LIBOR at the end of December, at a low of 62.35% in August, and at an average of 76.19%.



SIFMA & SIFMA/LIBOR Ratio





CREDIT MANAGEMENT

2017 Recap and 2018 Outlook

In 2017, the demand for corporate bonds considerably outstripped the supply. As a result, yields fell and spreads narrowed, which generated handsome total and excess returns for investors. The two-year trend of tightening corporate credit spreads in the US bond market continued throughout 2017 as Investment Grade (IG) corporates Option Adjusted Spread (OAS) ended the year 29 basis points (bps) tighter on the year. Total return for 2017 was 6.5% with excess returns of 377 bps.

Record levels of corporate profits were seen in 2017, along with the fastest profit growth rate since 2011. Corporate leverage also reached a record high as companies continued to take advantage of low interest rates to add to their debt load. With the Federal Reserve expected to raise rates three times in 2018, the era of cheap corporate debt may be coming to an end. For 2018, the consensus average for GDP currently stands at 2.6%, with many economists predicting the long-awaited return of 3% annual growth. Such an acceleration of growth nine years into a bull market is virtually unprecedented, but it would allow companies to shore up their balance sheets as interest rates rise in tandem and taking on new debt becomes less attractive.

The most significant credit news of 2017 was the continuing struggles of General Electric, a long-time presence on the corporate approved list. GE's stock declined 45% in 2017, badly underperforming an equity market that saw robust gains all year long. All three major rating agencies slashed GE's rating in the latter part of the year, with the possibility of further downgrades in 2018 amid continuing news of declining profits and a possible break-up of the company. GE remains on the approved credit list as of December 2017, but additional downgrades could cause it to be removed.

Looking forward, the demand/supply imbalance should persist in early 2018, but could change over the course of the year as the U.S. government ramps up issuance to fund a ballooning deficit, the Federal Reserve continues to tighten monetary policy and winds down its balance sheet, and corporate America attempts to chase growth via debt-fueled mergers and acquisitions. Prices tend to fall much faster than they rise, and we could be approaching an inflection point in the credit, economic and monetary cycle.

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).

CREDIT MANAGEMENT

Industry/Company Analysis

We use a combination top-down and 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 second half of 2017, Cornell University, Natixis SA, Nestle Finance International, Praxair Inc, and Salvation Army Commercial Paper programs were added to the approved list. The Corporate Credits Approved list as of December 2017 is found in Appendix A.

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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 authorized 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 authorized 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 General Fund and Agency Restricted Fund authorizations listed have been permanently financed.

The 2017 Regular Session of the General Assembly delivered House Bill 13 and House Bill 482 to the Governor on March 30, 2017. House Bill 13 authorized a general fund bond supported project for the Kentucky Department of Veterans' Affairs for the financing of the Bowling Green Veterans Center totaling $10.5 million. House Bill 482 authorized a general fund bond supported project for the Kentucky Economic Development Finance Authority Loan Pool to support programs administered by the Kentucky Economic Development Finance Authority for the sole purpose of facilitating a private sector investment of not less than $1 billion in one or more locations in the Commonwealth. The Governor took final action on House Bill 13 and House Bill 482 on April 11, 2017. The $15 million General Fund authorization provided by House Bill 482 has been permanently financed, and the $10.5 million authorized by House Bill 13 remains authorized, but unissued.

The balance of prior bond authorizations of the General Assembly dating from 2006 through 2017 totals $1,178.11 million. Of these prior authorizations, $536.61 million is General Fund supported, $519.50 million is Agency Restricted Fund supported, $62.50 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, 2017

Legislative Session (Year)	General Fund (millions)	Agency Fund (millions)	Road Fund (millions)	Federal Highway Trust Fund (millions)	TOTAL (millions)
2010 and prior	$ 48.05	$ 17.50	$ 50.00	$59.50	$ 175.05
2012	20.18	-	12.50	-	32.68
2014	437.31	161.34	-	-	598.65
2016	370.57	405.66	-	-	776.23
2017	10.50	-	-	-	10.50
Bond Pool Proceeds	(350.00)	(65.00)	-	-	(415.00)
TOTAL	$536.61	$519.50	$62.50	$59.50	$1,178.11

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 from Moody's were downgraded as follows: General Obligation Issuer Implied Rating from Aa2 to Aa3, General Fund Appropriation Rating from Aa3 to A1, and Road Fund Appropriation Rating from Aa2 to Aa3. The remaining ratings below were either affirmed or unchanged from the previous reporting periods.

The ratings at December 31, 2017:

	Moody's	S & P	Fitch
General Obligation Issuer Implied Rating	Aa3	A+	AA-
General Fund Appropriation Rating	A1	A	A+
Road Fund Appropriation Rating	Aa3	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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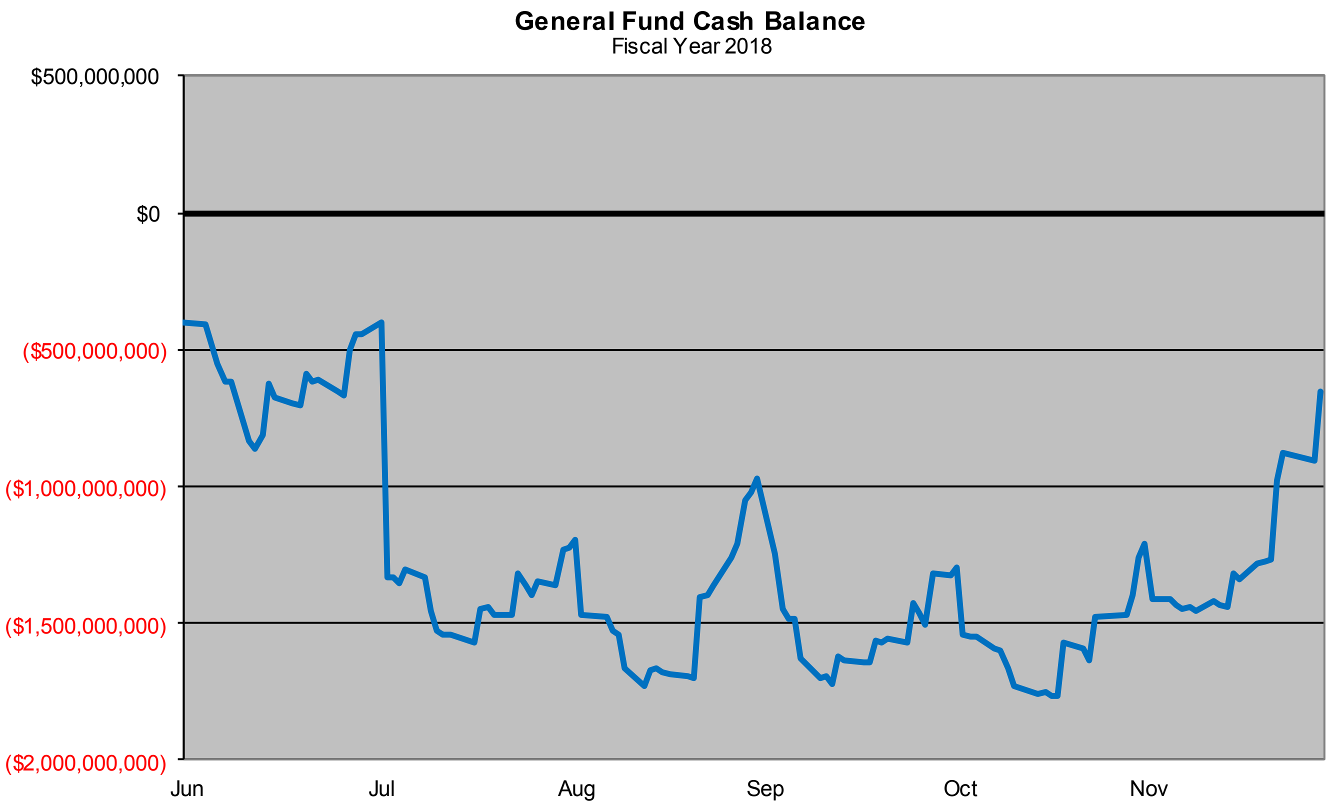

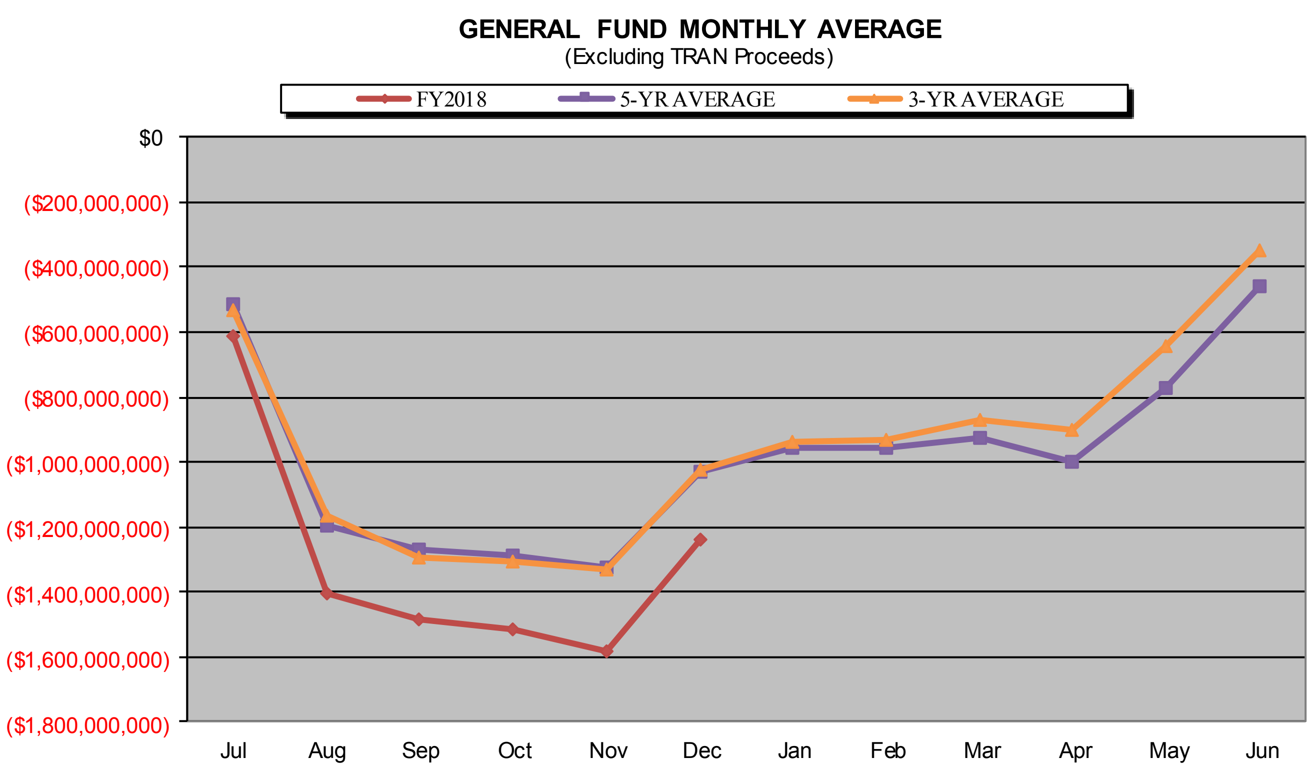

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Financial Agreements

As of December 31, 2017, ALCo had three financial agreements outstanding, with a net notional exposure amount of $166,965,000. These financial agreements are described in the section below and the terms of these transactions are detailed in Appendix B. No additional derative 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 State Property and Buildings Commission (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 Caa1 by Moody's and is no longer rated by 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

DEBT MANAGEMENT

Baa3/BBB- for both counterparties to align the rating triggers to the industry standard. On January 25, 2016, Moody's downgraded Deutsche Bank from A3 to Baa1 reflecting changes in Germany's insolvency legislation which took effect in January 2017. The changes resulted 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, 2017 are presented in Appendix B.

DEBT MANAGEMENT

Asset/Liability Model

General Fund

The total SPBC debt portfolio as of December 31, 2017 had $3.753 billion of bonds outstanding with a weighted average coupon of 5.05% and a weighted average life of 7.18 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 $1.025 billion callable portion had a weighted average coupon of 4.94%.

The SPBC debt structure has 47% of principal maturing in 5 years and 72% 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 $271.931 million year-to-date for Fiscal Year 2018 and a low of negative $1.768 billion on November 15, 2017.

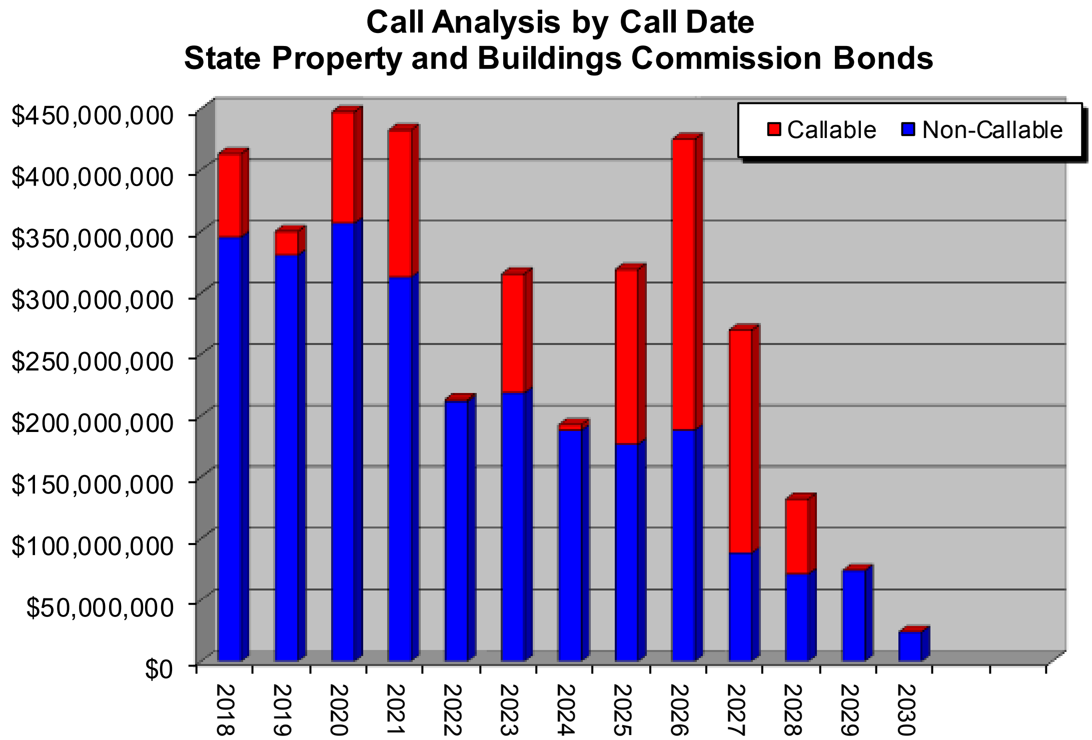
The average and median balances were a negative $1.311 billion and a negative $1.429 billion, respectively. Since the General Fund continued to have a negative available cash balance for the fiscal year-to-date, there is little, if anything, that can be done from an asset management point of view beyond current actions.

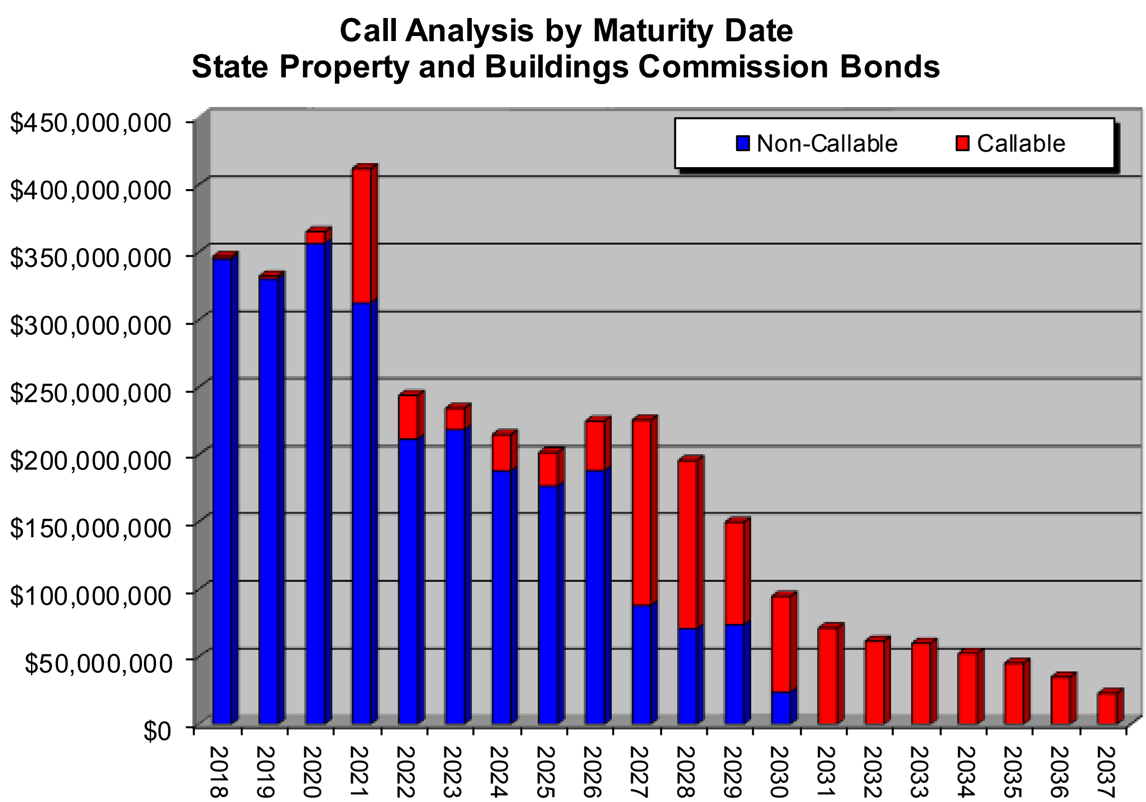
From a liability management perspective, total General Fund debt service, net of credits is expected to be $628.815 million for Fiscal Year 2018. In addition, General Fund debt service of $11.261 million was provided for the Eastern State Hospital financing that was issued through the Lexington-Fayette 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 117

On August 14, 2017, SPBC priced a $234,925,000 bond transaction which provided permanent financing for approximately $115 million of General Fund supported capital projects and refunded $128,565,000 of certain outstanding bonds. SPBC Project No. 117 consisted of $15,085,000 Revenue Bonds, Federally Taxable Series A, $91,280,000 Revenue Bonds Tax-Exempt Series B, $49,530,000 Revenue Refunding Bonds, Federally Taxable Series C, and $79,030,000 Refunding Bonds, Tax-Exempt, Series D. The transaction achieved an All-In True Interest Cost of 3.164%, and a net present value savings of $8,114,229.70 (or 6.31% savings from the refunded bonds). The issued bonds contained both taxable and tax-exempt components, and were sold via negotiated sale with Citigroup serving as senior manager and Morgan Stanley serving as Senior Co-Manager. Dinsmore & Shohl served as bond counsel and Stites & Harbison, PLLC served as underwriter's counsel. The bonds received ratings of A1 from Moody's and A+ from Fitch. S&P was not used to rate this transaction. SPBC 117 closed on August 31, 2017.

DEBT MANAGEMENT





DEBT MANAGEMENT

Road Fund

The Road Fund average daily cash balance for the first half of Fiscal Year 2018 was $236 million compared to $214 million for the first half of Fiscal Year 2017. The Road Fund cash was invested in the Intermediate Term Investment Pool which had a duration of 0.94 years as of December 31, 2017. The Road Fund earned a positive $1.038 million on a cash basis for the first half of Fiscal Year 2018 versus a negative $0.151 million for the first half of Fiscal Year 2017. The continued relatively low level of investable balances at certain times during the fiscal year limits the investment opportunities.

As of December 31, 2017, the Turnpike Authority of Kentucky (TAK) had $1.301 billion of bonds outstanding with a weighted average coupon of 4.81% and an average life of 7.10 years.

Road Fund debt service paid in Fiscal Year 2018 is expected to be $133.69 million, resulting in a net interest margin (investment income earned year-to-date less debt service paid) of negative $132.65 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 2017 Series A & B

On August 2, 2017, the Turnpike Authority of Kentucky ("TAK") priced a $174,335,000 issuance of bonds. This issuance consisted of $27,415,000 Economic Development Road Revenue Bonds (Revitalization Projects), 2017 Series A; and $146,920,000 Economic Development Road Revenue Refunding Bonds (Revitalization Projects), 2017 Series B.

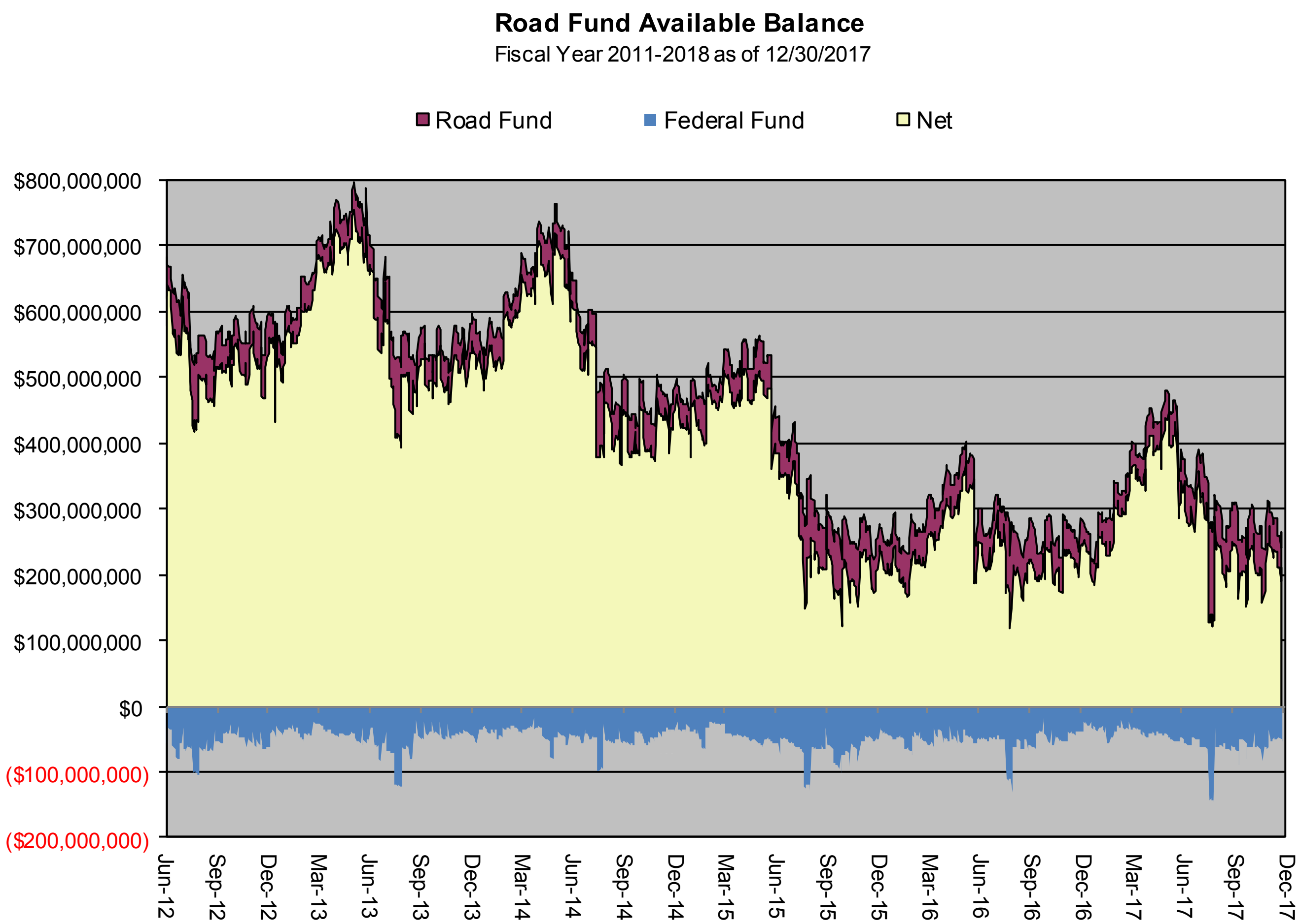
The proceeds of the Series A bonds were used to pay the costs of certain additions and improvements to the Kentucky Economic Development Road System (Revitalization Projects), and to pay for costs of issuance. The bond proceeds represented $30 million of a $400 million authorization by the 2010 Extraordinary Session of the General Assembly ($50 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 2017 Series A debt service was 20-year, level debt, tax-exempt financing with an All-In TIC of 3.245%, an average life of 13.206 years, a 10-year par call, and a final maturity of July 1, 2037.

The proceeds of the Series B bonds were used to partially advance refund certain maturities of the TAK Economic Development Road Revenue Bonds (Revitalization Projects), 2011 Series A, 2012 Series A, 2013 Series A, and to pay for certain costs of issuance. The 2017 Series B debt service was a tax-exempt financing with an All-In TIC of 2.333%, an average life of 8.326 years, and a final maturity of July 1, 2028. The refunding achieved a net present value savings of $7,824,929.51 which represented approximately 5.17% savings from the refunded bonds.

The transaction which was sold on a negotiated basis closed on August 23, 2017 with Morgan Stanley acting as senior manager and Dinsmore & Shohl serving as bond counsel. Stites & Harbison, PLLC was underwriter's counsel.

The bonds received ratings of Aa3/AA- from Moody's, and S&P, respectively. The decision was made to not use Fitch Ratings for this transaction.

DEBT MANAGEMENT



SUMMARY

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 19, 2017

Company Name	Repurchase Agreements	Debt	Company Name	Repurchase Agreements	Debt
Apple Inc		Yes	Merck & Co. Inc.		Yes
Bank of Montreal	Yes	Yes	Microsoft Corp		Yes
Bank of Nova Scotia	Yes	Yes	MUFG Securities Americas Inc.	Yes	No
Bank of Tokyo-Mitsubishi UFJ		Yes	Natixis SA/New York*		Yes
Berkshire Hathaway Inc		Yes	Nestle Finance International*		Yes
BNP Paribas Securities Corp	Yes	Yes	Oracle Corp		Yes
BNY Mellon NA		Yes	PepsiCo Inc		Yes
Boeing Co/The		Yes	Pfizer Inc		Yes
Canadian Imperial Bank of Comm		Yes	PNC Bank NA		Yes
Chevron Corp		Yes	Praxair Inc*		Yes
Cisco Systems Inc		Yes	Procter & Gamble Co/The		Yes
Cooperatieve Rabobank		Yes	Royal Bank of Canada	Yes	Yes
Cornell University*		No	Royal Dutch Shell PLC		Yes
Costco Wholesale Corp		Yes	Salvation Army*		No
Deere & Co		Yes	State Street Corp		Yes
Exxon Mobil Corp		Yes	Sumitomo Mitsui Trust Bank		Yes
General Electric Co		Yes	Swedbank AB		Yes
Guggenheim Securities, LLC	Yes	No	Texas Instruments Inc.		Yes
Honda Motor Co Ltd		Yes	Toronto-Dominion Bank/The		Yes
Home Depot Inc.		Yes	Total SA		Yes
HSBC Bank USA NA		Yes	Toyota Motor Corp		Yes
IBRD - World Bank		Yes	UBS AG (U.S.)		Yes
Intel Corp		Yes	US Bank NA		Yes
Intl Business Machines Corp		Yes	Wal-Mart Stores Inc		Yes
Johnson & Johnson		Yes	Walt Disney Co/The		Yes
Lloyds Bank PLC		Yes	Wells Fargo & Co		Yes

*Addition:

Cornell University

Natixis SA/NY

Nestle Finance International

Praxair Inc.

Salvation Army

Removed:

APPENDIX A

Securities Lending Agent Approved Counterparties

As Of December 19, 2017

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/A-/A-	Baa2/A-/A-	Baa2/A-/A-	Baa2/A-/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	Expired 11/1/17	43,860,000	52,170,000	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 31, 2017 (negative indicates payment owed) by ALCo if terminated)	Expired 11/1/17	(4,835,389)	(2,808,444)	(8,843,996)
Interest Earnings (not applicable)				
Total	not applicable	not applicable	not applicable	not applicable

Swap Summary

As of December 31, 2017:

Total Notional Amount Executed

General Fund	Road Fund
243,080,000	0

Net Exposure Notional Amount

General Fund	Road Fund
166,965,000	0

Total Notional Amount Executed by Counter Party

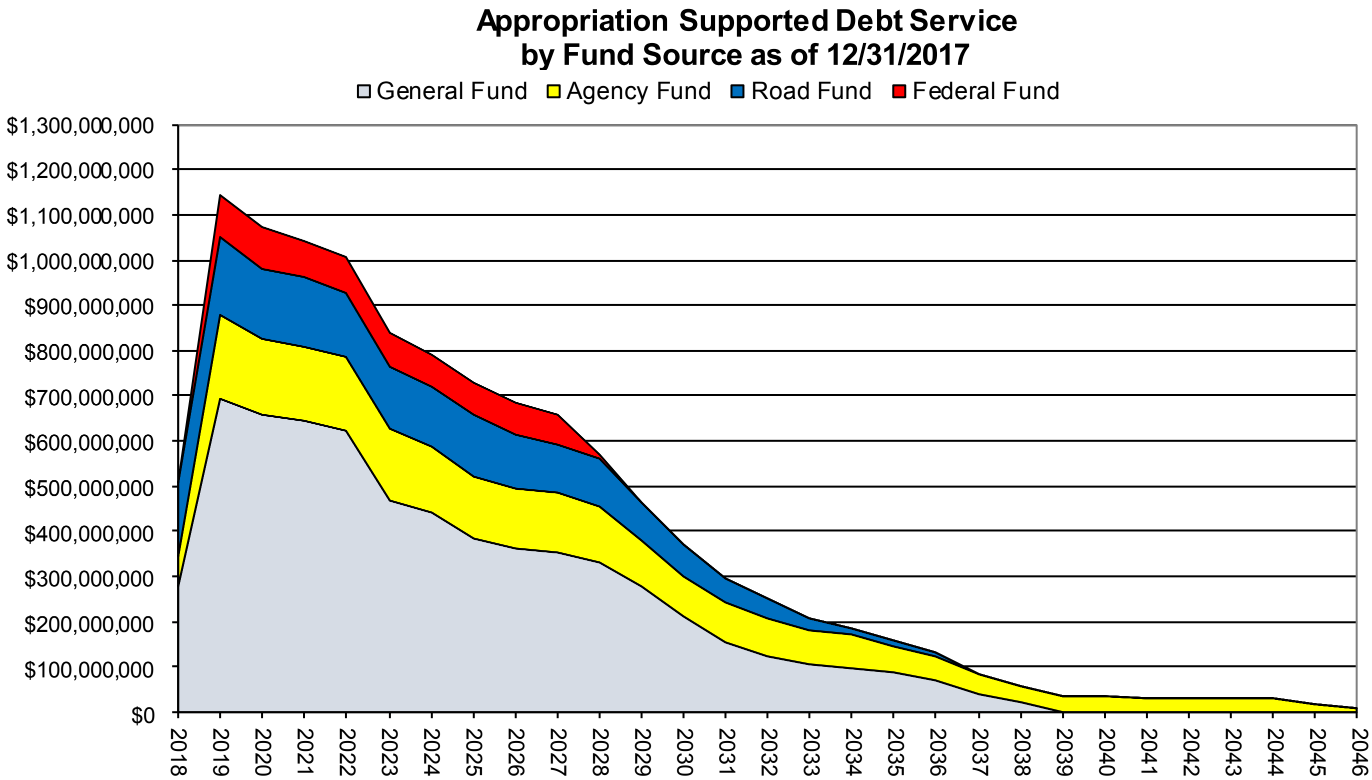
Deutsche Bank (assigned from Citibank on 2/14/2011)

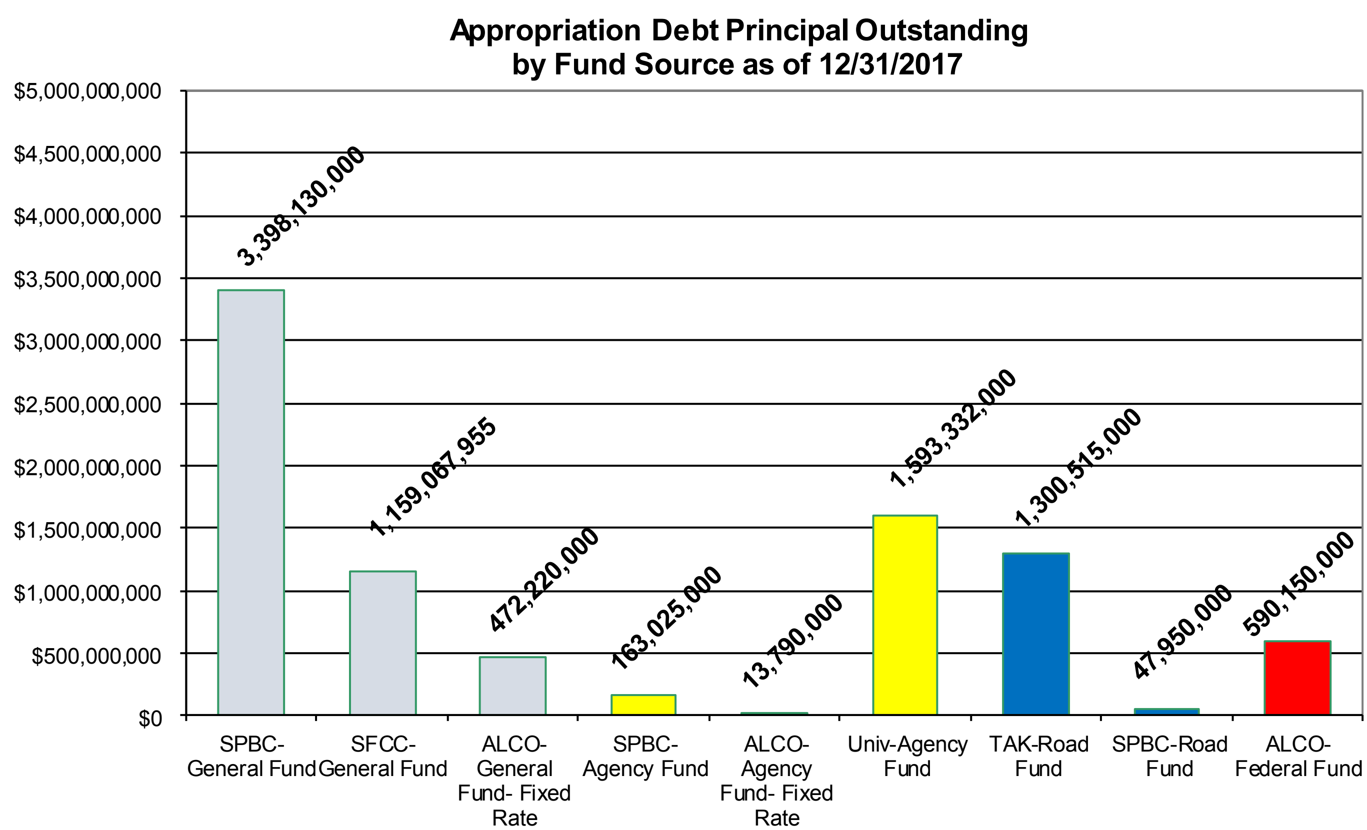
243,080,000

	Debt		10 Percent Net Exposure	
	General Fund	Road Fund	General Fund	Road Fund
Bonds Outstanding	3,870,350,000	1,348,465,000	387,035,000	134,846,500
Authorized but Unissued	536,610,000	62,500,000	53,661,000	6,250,000
Total	4,406,960,000	1,410,965,000	440,696,000	141,096,500

Investment Pool Balance		10 Percent Investment Portfolio	
Other Funds	Net Road Fund	Other Funds	Net Road Fund
3,516,846,757	210,148,735	351,684,676	21,014,873

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 12/31/2017

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	$166,965,000
2010 1st Series-KTRS Funding Notes		$467,555,000	8/2010	4/2020	$77,070,000
2011 1st Series-KTRS Funding Notes		$269,815,000	3/2011	4/2022	$133,055,000
2013 1st Series-KTRS Funding Notes		$153,290,000	2/2013	4/2023	$95,130,000
	FUND TOTAL	**$1,133,740,000**			**$472,220,000**
Agency Fund Project Notes					
2005 1st Series		$11,275,000	6/2005	6/2025	$6,000,000
2007 Series B-UK Gen Receipts		$80,245,000	11/2007	10/2018	$3,190,000
	FUND TOTAL	**$91,520,000**			**$9,190,000**
Federal Hwy Trust Fund Project Notes					
2007 1st Series		$277,910,000	9/2007	9/2019	$82,725,000
2010 1st Series		$89,710,000	3/2010	9/2022	$89,710,000
2013 1st Series		$212,545,000	8/2013	9/2025	$193,030,000
2014 1st Series		$171,940,000	3/2014	9/2026	$132,175,000
2015 1st Series		$106,850,000	10/2015	9/2027	$92,510,000
	FUND TOTAL	**$858,955,000**			**$590,150,000**
ALCo NOTES TOTAL		**$2,084,215,000**			**$1,071,560,000**

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Creating Financial Value for the Commonwealth

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