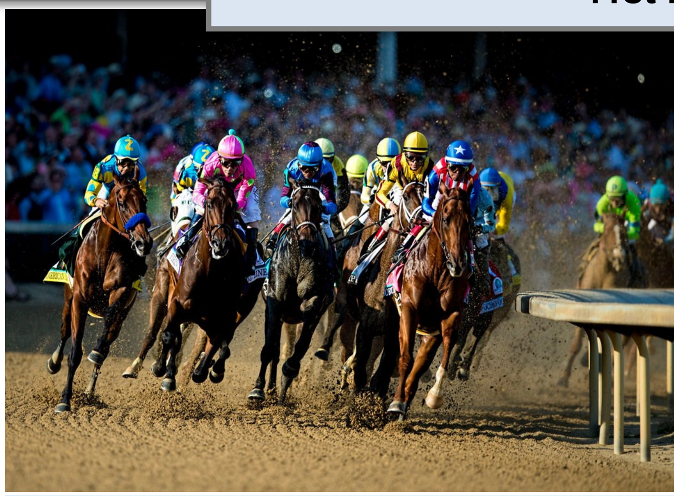
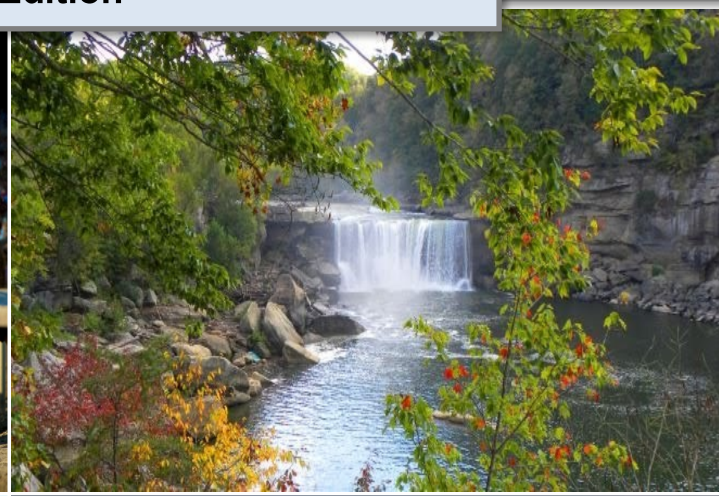
COMMONWEALTH OF KENTUCKY

KENTUCKY ASSET/LIABILITY COMMISSION

SEMI-ANNUAL REPORT

For the period ending June 30, 2017

41st 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/

Table of Contents

INTRODUCTION

The Kentucky Asset/Liability Commission ("ALCo" or the "Commission") presents its 41st semi-annual report to the Capital Projects and Bond Oversight Committee and the Interim Joint Committee on Appropriations and Revenue pursuant to KRS 56.863 (11) for the period beginning January 1, 2017 through June 30, 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. Finally, the report makes available current valuations of 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

- The annual rate of economic growth as measured by GDP recovered during the second quarter of 2017. The seasonally adjusted rate for the first and second quarter was 1.4% and 2.6%, respectively.

- Equities continued to reach new highs during the first half of 2017. The S&P 500 index total return was just over 8% for the six months ending June 30, 2017.

- On March 15, 2017 and June 14, 2017 the Federal Reserve Board of Governors voted to raise the target range for the federal funds rate 0.25% each time to 1.00% and 1.25%.

- Nonfarm payrolls averaged 180,000 per month over the first six months of the year with the unemployment rate continuing the trend downward ending June at 4.4% from 4.7% in December and 4.9% in June 2016.

- Inflation has begun to trend lower with June Consumer Price Index (CPI) reporting 1.6% compared to the December 2016 report of 2.2%.

On the state level

- General Fund receipts totaled $10.48 billion for Fiscal Year (FY) 2017. General Fund receipts increased 1.3% for FY 2017 over the same period in 2016. General Fund receipts for FY 2017 were $138.5 million, or 1.3% less than the official revenue estimate which projected 2.7% growth. In May 2017, Cabinet Secretaries and other Agency heads were directed to reduce spending by one percent to accommodate the shortfall.

- Road Fund receipts for FY 2017 totaled $1.5 billion. Road Fund receipts increased 1.7% for FY 2017 over the same period in FY 2016. Road Fund receipts for FY 2017 were $51.1 million, or 3.5%, more than the official revenue estimate.

- Kentucky's seasonally adjusted unemployment rate stood at 5.1% at the end of June 2017, up from 5.0% one year ago.

- Large unfunded pension liabilities continue to put 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.

INVESTMENT MANAGEMENT

MARKET OVERVIEW

The US economy continues to be decent, not robust, and the expansion is now eight years old, making it the third-longest on record. In addition to the economy nearing full-employment levels, the broad-based and steady growth is supported by low energy prices, elevated consumer confidence, and stock prices hovering near record highs. While enthusiasm about the prospect of the Trump administration passing certain policies seems to have waned somewhat as a result of Washington's political climate, consumers and investors, nevertheless, have forged ahead.

Prime money market funds broke above 1.0% for the first time in almost 10 years during the first quarter on the heels of the Federal Open Market Committee (FOMC) fed fund hike. It is newsworthy considering the extremely low rate environment that funds have operated in since the financial crisis.

Gross Domestic Product (GDP)

The Bureau of Economic Analysis reported second quarter 2017 gross domestic product (GDP) of 2.6%, higher than the prior quarter's 1.4% reading. The results confirm that the slowdown at the start of 2017 was temporary and shows an economy growing in the first half at about 1.9% rate, near the expansion's 2.2% average pace through the end of 2016. Consumer spending led the rebound during the second quarter, helped by a steady job market and household finances boosted by stock and home-equity gains. Although wage pressures have begun to pick up slightly, the Consumer Price Index (CPI) number has fallen from a peak reading of 2.7% in February to 1.6% in June. The consensus among economists is for little risk of recession over the next several quarters, as few imbalances exist in the economy.

Employment

The economy added 222,000 new nonfarm payrolls in June, considerably stronger than the 178,000 expectation and followed an upwardly revised 152,000 increase during May, which was previously estimated to be a 138,000 gain. The two-month payroll net revision was strong at 47,000. This was the largest monthly increase since February (232,000), and brought the second quarter average to 194,000, which is stronger than the 166,000 in the first quarter. The unemployment rate in June was 4.4%, down from 4.7% in December 2016. As the job market continues to improve, employers may face increasing difficulty in filling positions.

Fed Policy

As consensus had expected, the Federal Open Market Committee (FOMC) ended its March and June meeting by raising the target range for the federal (fed) funds rate by 0.25% each time to 1.00% and 1.25%. In addition, the FOMC released an addendum to its Policy Normalization Principles and Plans, stating that it will begin reducing its balance sheet by $10 billion per month at some point this year, with many believing the reductions could begin in October. The FOMC will initially make the reduction by not reinvesting principal payments. In its statement, it indicated that inflation is currently running slightly below its 2% target, but that continued improvement in the economy will allow inflation to trend higher. The FOMC's median estimate for the long-term fed funds rate is 3%, suggesting that rate hikes will continue in conjunction with reducing its balance sheet.

Interest Rates

Fixed income securities' prices were affected by several important factors, including investor

INVESTMENT MANAGEMENT

anticipation of the FOMC's hike in the fed funds rate; an economy continuing on a modest uptrend; stock prices near record highs; and Washington's political environment. The FOMC left little doubt as to whether it would move to raise rates, but the added wrinkle at its June meeting was the decision to move ahead with reducing its balance sheet, beginning perhaps as soon as October. Although fairly material news, investors digested it smoothly, at least initially. However, bonds suffered steep losses in the last week of the second quarter, as investors realized that the combination of rate hikes and balance sheet reduction may mean that the long period of extremely accommodative monetary policy is ending.

The yield curve flattened, as yields on short-term securities rose, and those in the intermediate- to long-term end of the spectrum fell. The flattening was in large part a result of the FOMC's rate increase. By the end of June, the yield on the benchmark 10-year U.S. Treasury note was lower, ending the quarter at 2.31%, compared to 2.45% at the end of calendar year 2016.

The yield on the 10-year Treasury note traded within a 0.50% range. The primary factors contributing to the yield changes were the FOMC's decision to raise the fed funds rate for a second time this year; investor perception regarding the future of the Trump administration's policy agenda, including health care overhaul and tax reform. Yields at the shortest end of the yield curve (up to one year) rose in line with the 0.25% fed funds rate increase implemented in March and June, but maturities of longer than five years actually experienced a decline, resulting in a slightly flatter curve when compared to December 31. The yield on the 3-month Treasury Bill settled at 1.01% at the end of June, up about 0.51% from the end of December. The yield on the 5-year Treasury Note ended the quarter at 1.89%, compared to 1.93% on December 31, and as mentioned above, the yield on the 10-year Treasury Note fell to 2.31% from 2.45% over the same period. At the same time, the yield on the 30-year Treasury Bond also moved lower, ending the period at 2.84%, compared to 3.07% on December 31.

Equities

Equity markets continue to deliver robust gains, extending the rally that began just after last November's presidential election now dubbed the "Trump Rally". Gains were fueled by a mixture of a solid and stable domestic economy; clarity on the interest rate front; and continued investor optimism regarding the potential results of the Trump administration's policies. These and other factors combined to create a calm financial market environment, with the Chicago Board Options Exchange Volatility Index – better known as VIX – hovering at its lowest levels on record. Within this environment, the S&P 500 Index finished mid-year with a gain of 8% year-to-date.

Outlook

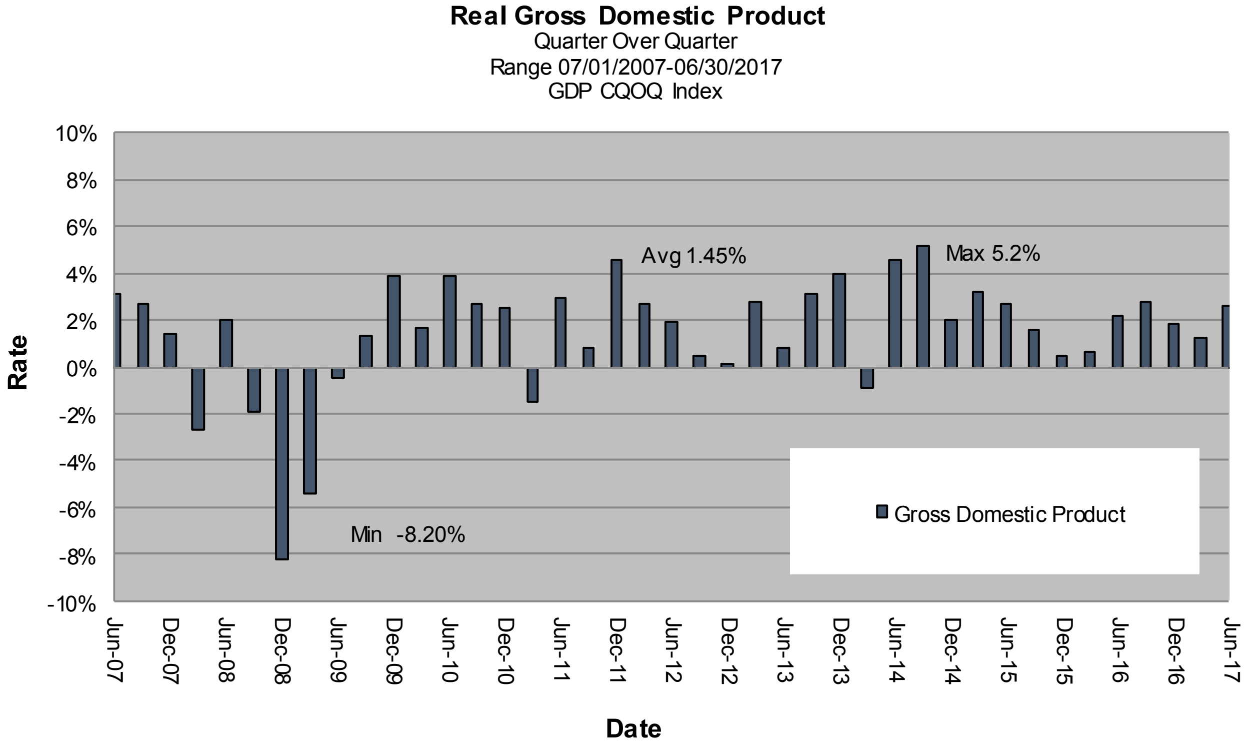
The US economic expansion is now eight years old, and is the third-longest on record, trailing only the expansions of the 1960s and 1990s. Because of the economy's currently stable underlying fundamentals and the lack of apparent speculative excesses, many economists believe that the prospects are good that the current expansion will eventually surpass the others in terms of duration. One of the benefits of having a steadily growing economy is declining equity market volatility over the past several years. However, a growing chorus of analysts cautions that with volatility near historic lows and valuations higher than long-term averages (although certainly not at bubble-

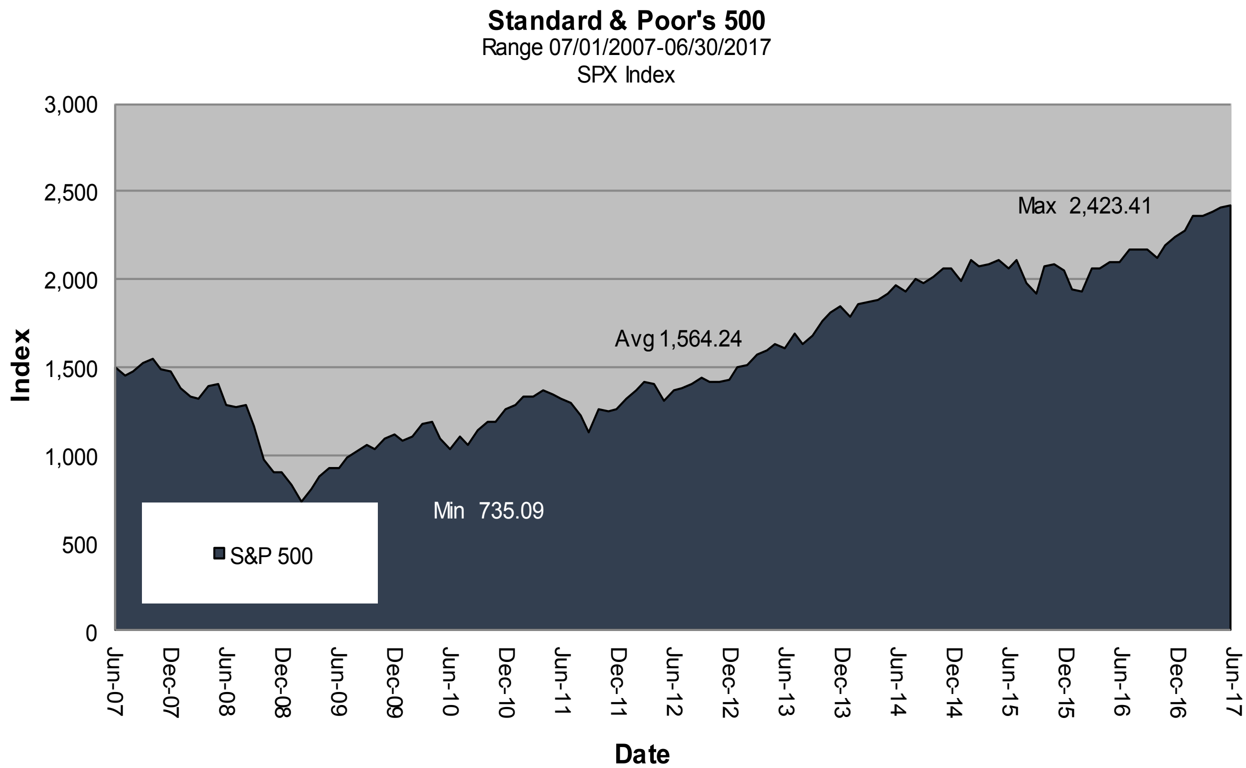
INVESTMENT MANAGEMENT

like levels), the risk of an as-yet-undetermined event causing disruption in the market is not insignificant. The catalyst of heightened volatility and a decline in stock prices could be any number of events, including continued declining bonds experienced in the last week of the quarter; a FOMC policy misstep; Congress's failure to make progress on its key initiatives of healthcare overhaul and tax reform; legal entanglements resulting from the work of the special counsel investigating Russia's efforts to disrupt US elections; or geopolitical eruption in some area, such as North Korea or Syria. Although investors have good reason to be modestly confident and cautiously optimistic, markets are likely to exhibit greater volatility over the next few quarters compared to prior quarters.

INVESTMENT MANAGEMENT

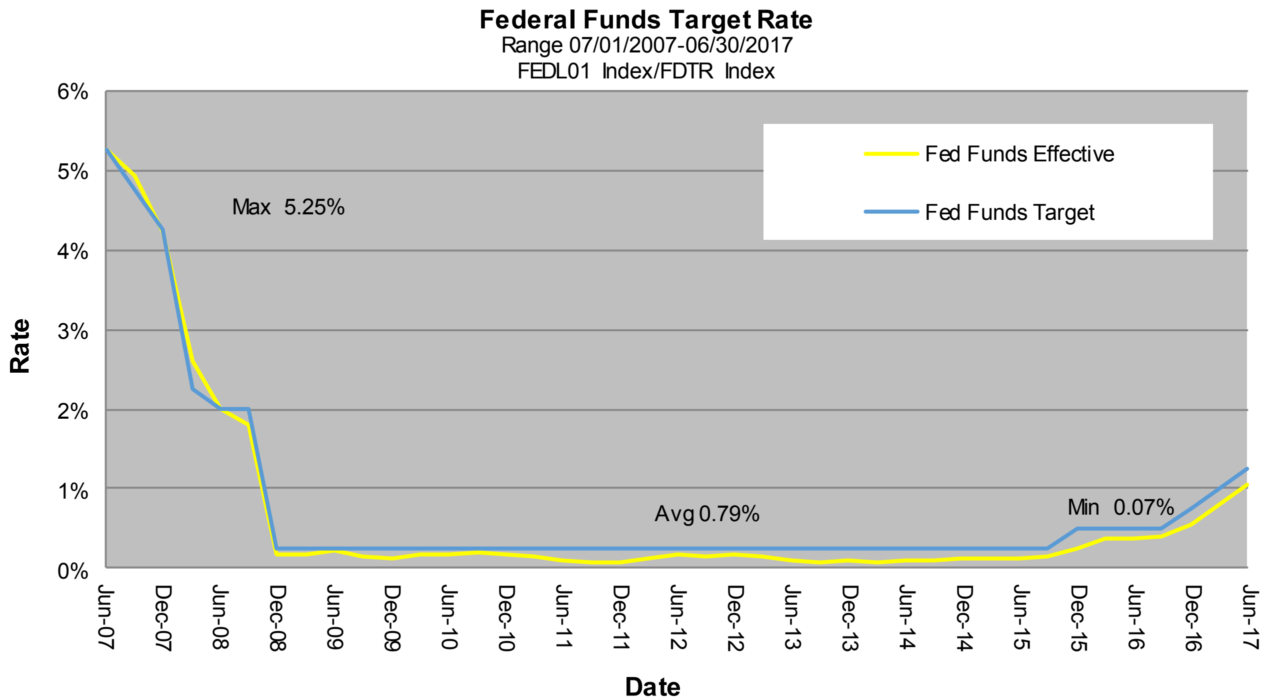
Real Gross Domestic Product & Standard & Poor's 500

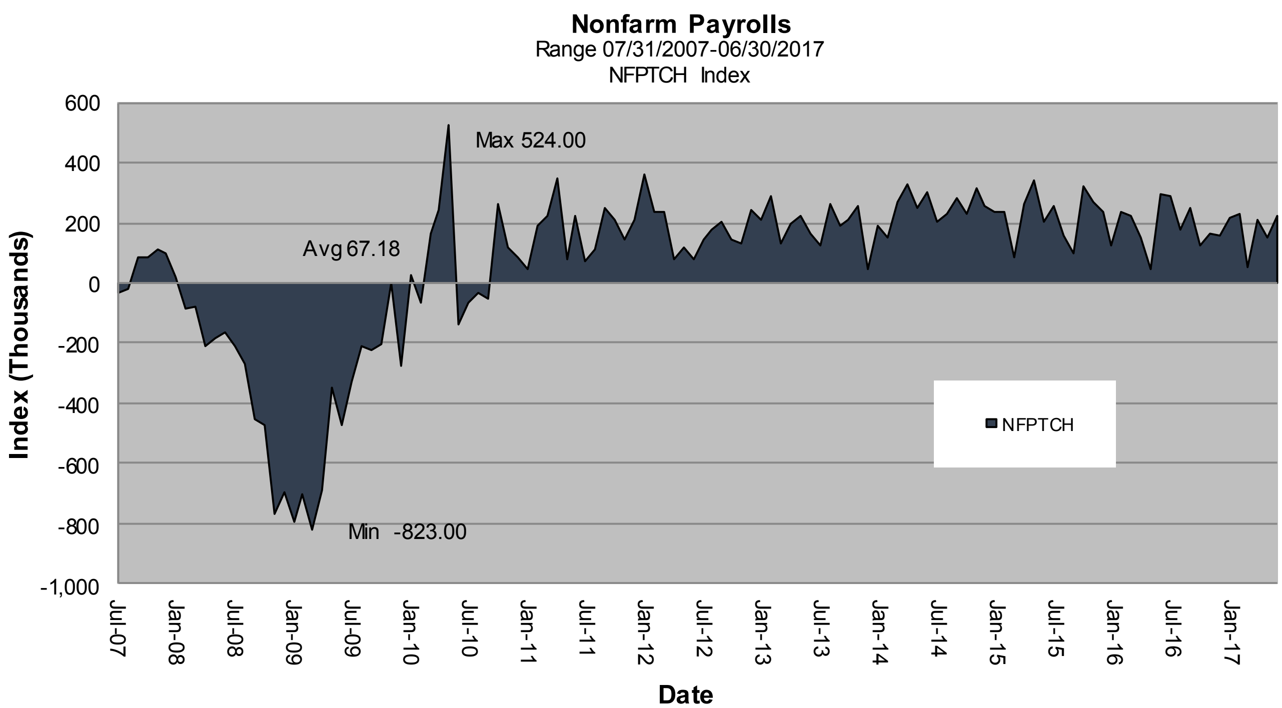




INVESTMENT MANAGEMENT

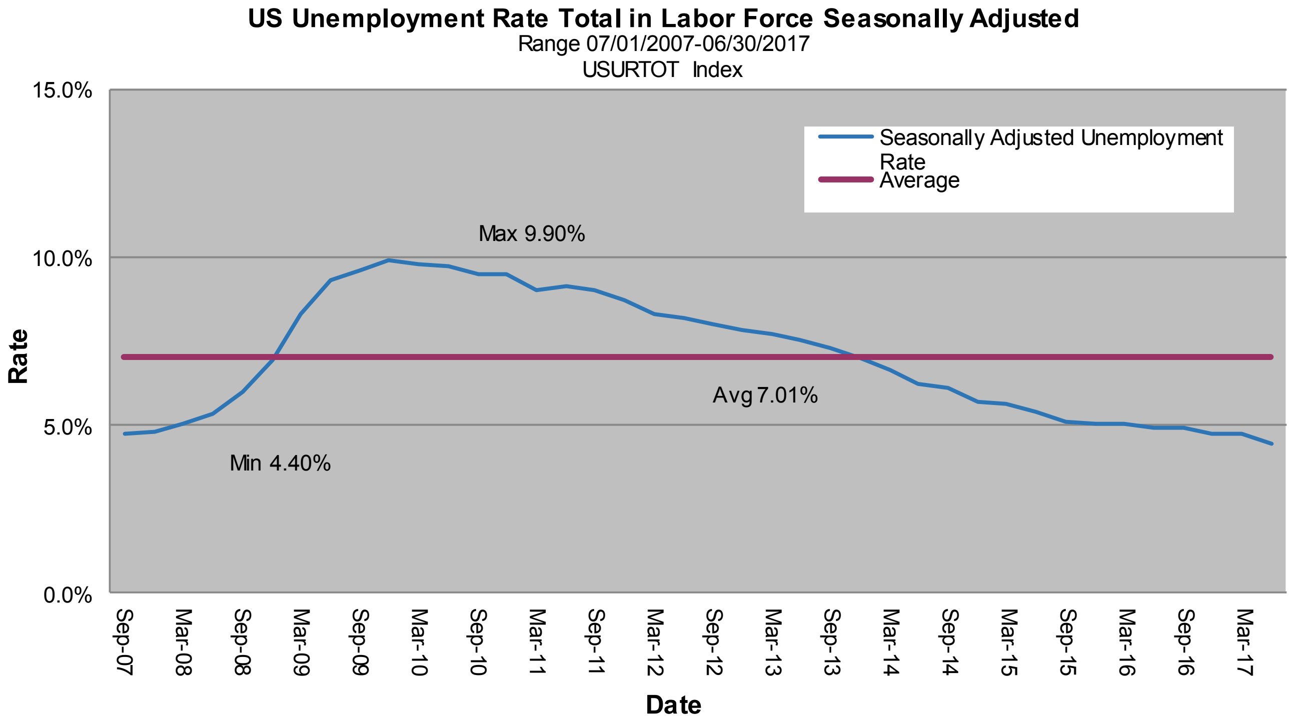
Federal Funds Target Rate & NonFarm Payrolls

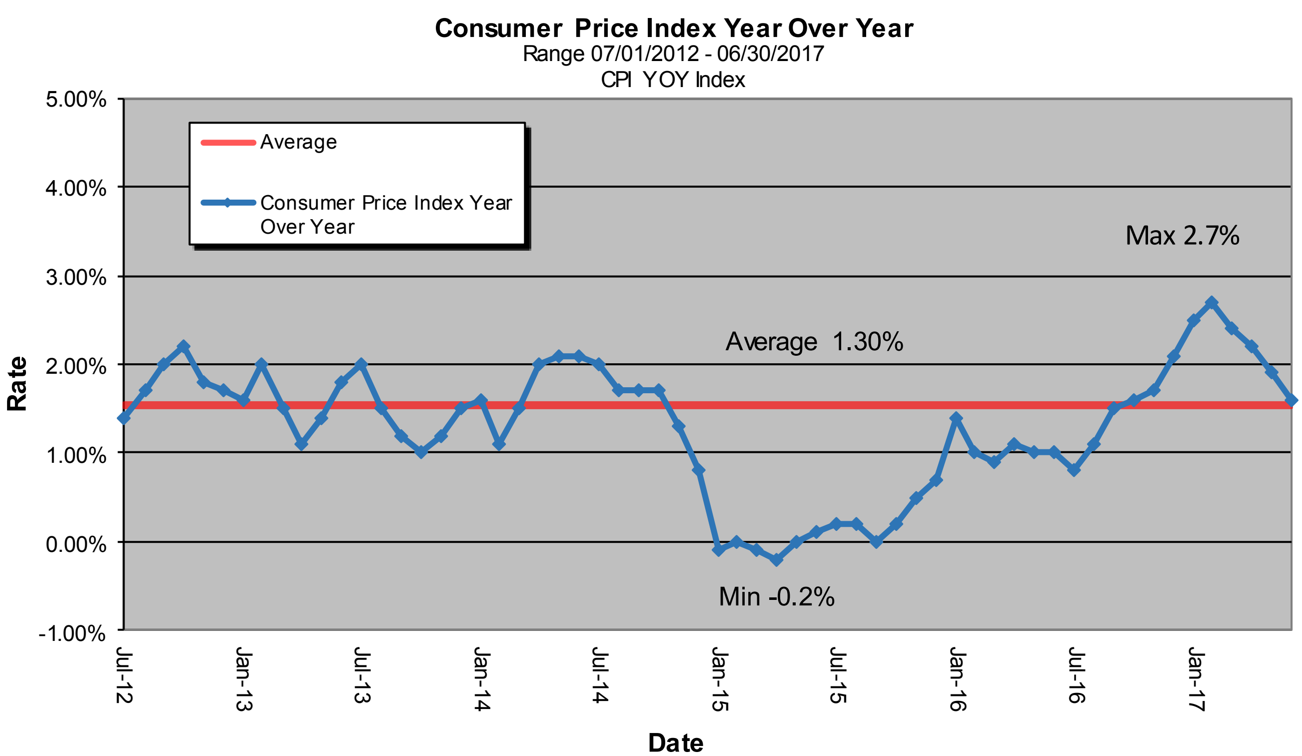




INVESTMENT MANAGEMENT

US Unemployment Rate & Consumer Price Index





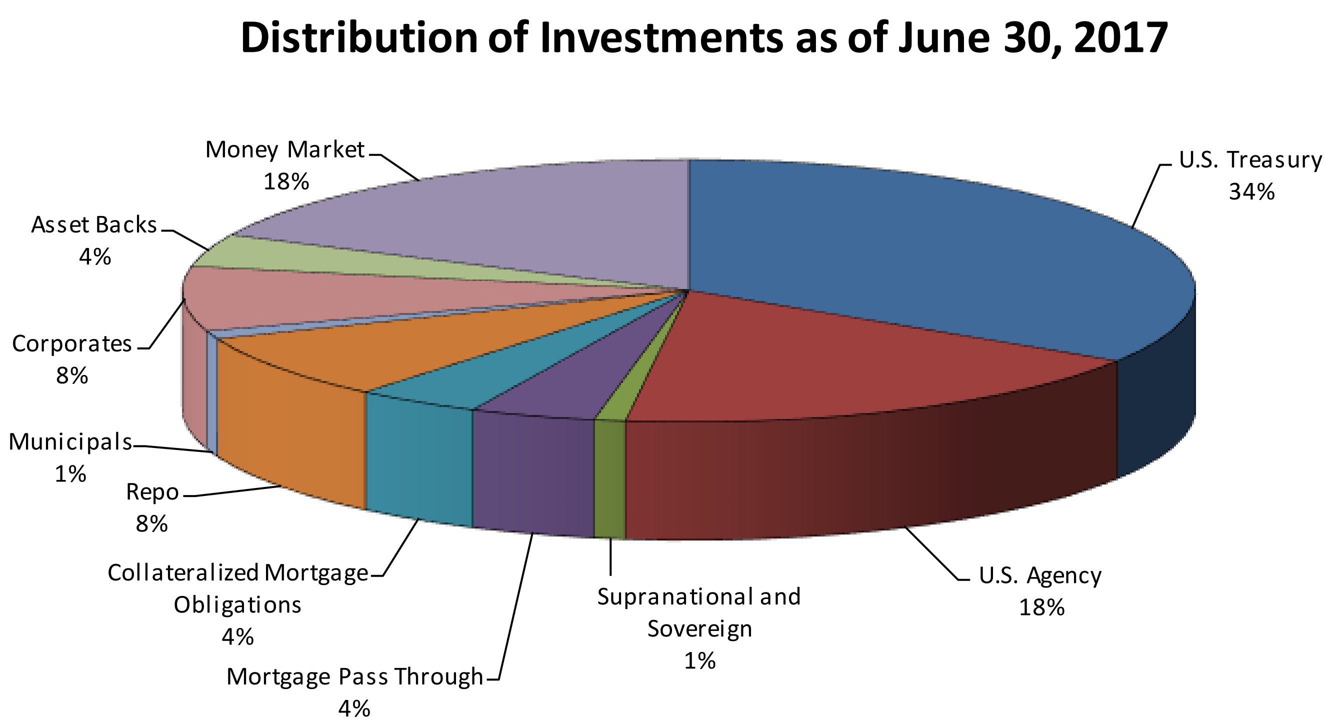
INVESTMENT MANAGEMENT

PORTFOLIO MANAGEMENT

For fiscal year 2017, the Commonwealth's investment portfolio was approximately $4.2 billion. The portfolio was invested in U. S. Treasury Securities (34%), U. S. Agency Securities (18%), Supranational and Sovereign (1%), Mortgage Pass-Through Securities (4%), Collateralized Mortgage Obligations (4%), Repurchase Agreements (Repo) (8%), Municipal Securities (1%), Corporate Securities (8%), Asset-Backed Securities (4%), and Money Market Securities (18%). The portfolio had a market yield of 1.14% and an effective duration of 0.68 years.

The total portfolio is broken down into three investment pools. The pool balances as of June 30, 2017 were $96.5 million (Short Term Pool), $1.6 billion (Limited Term Pool) and $2.5 billion (Intermediate Term Pool).

For fiscal year 2017, total investment income was $39 million compared to $25 million for fiscal year 2016.

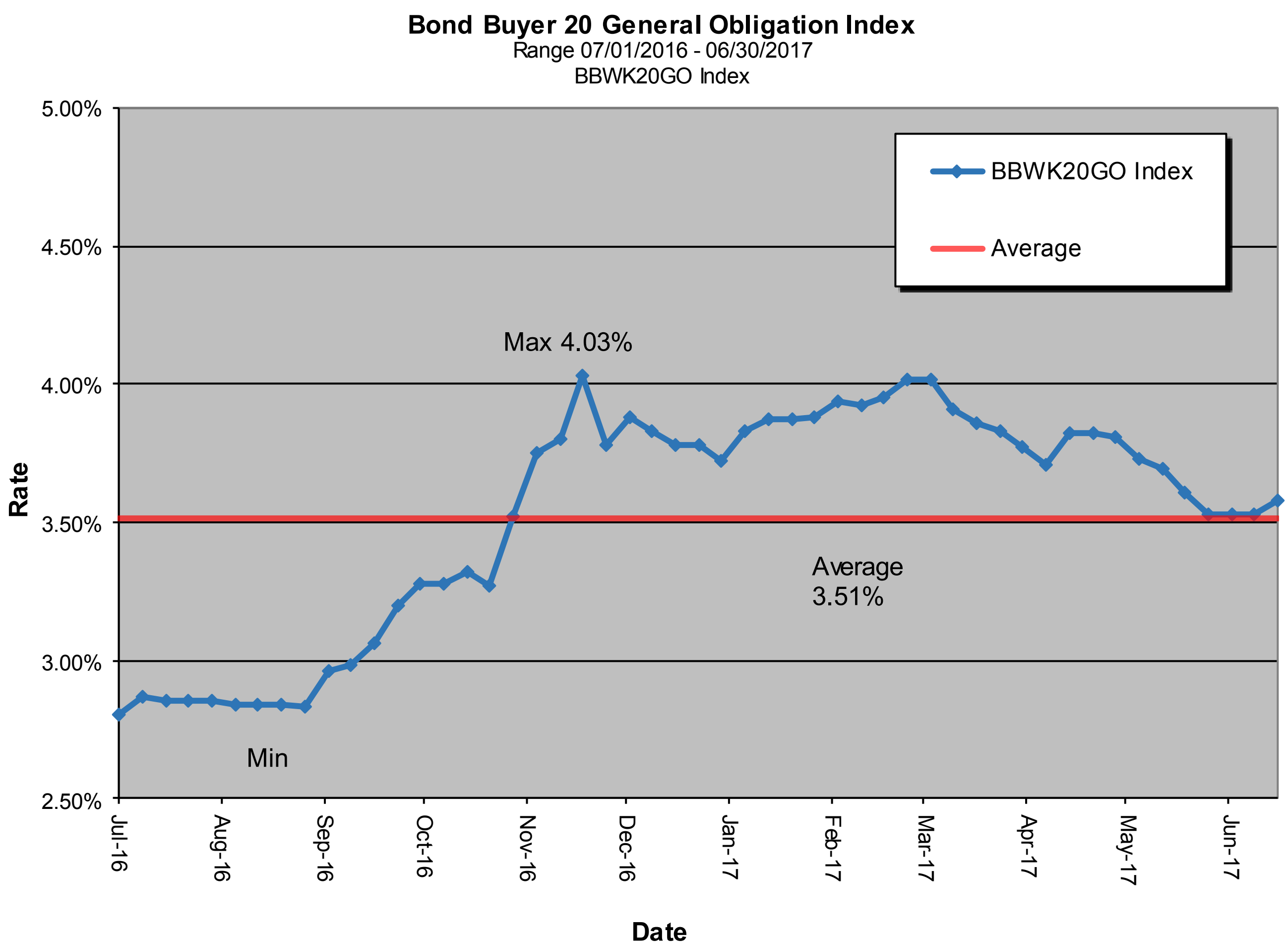


INVESTMENT MANAGEMENT

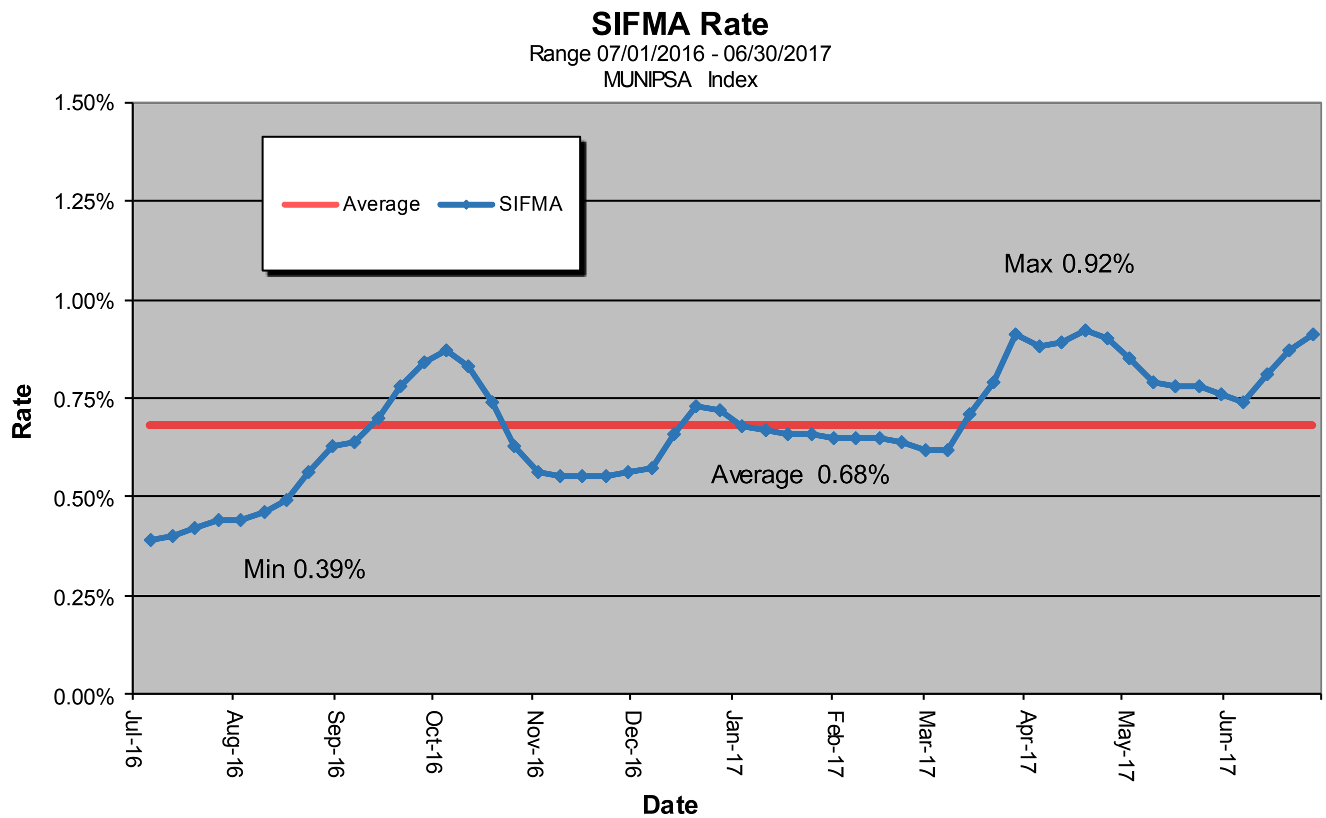
Tax-Exempt Interest Rates and Relationships

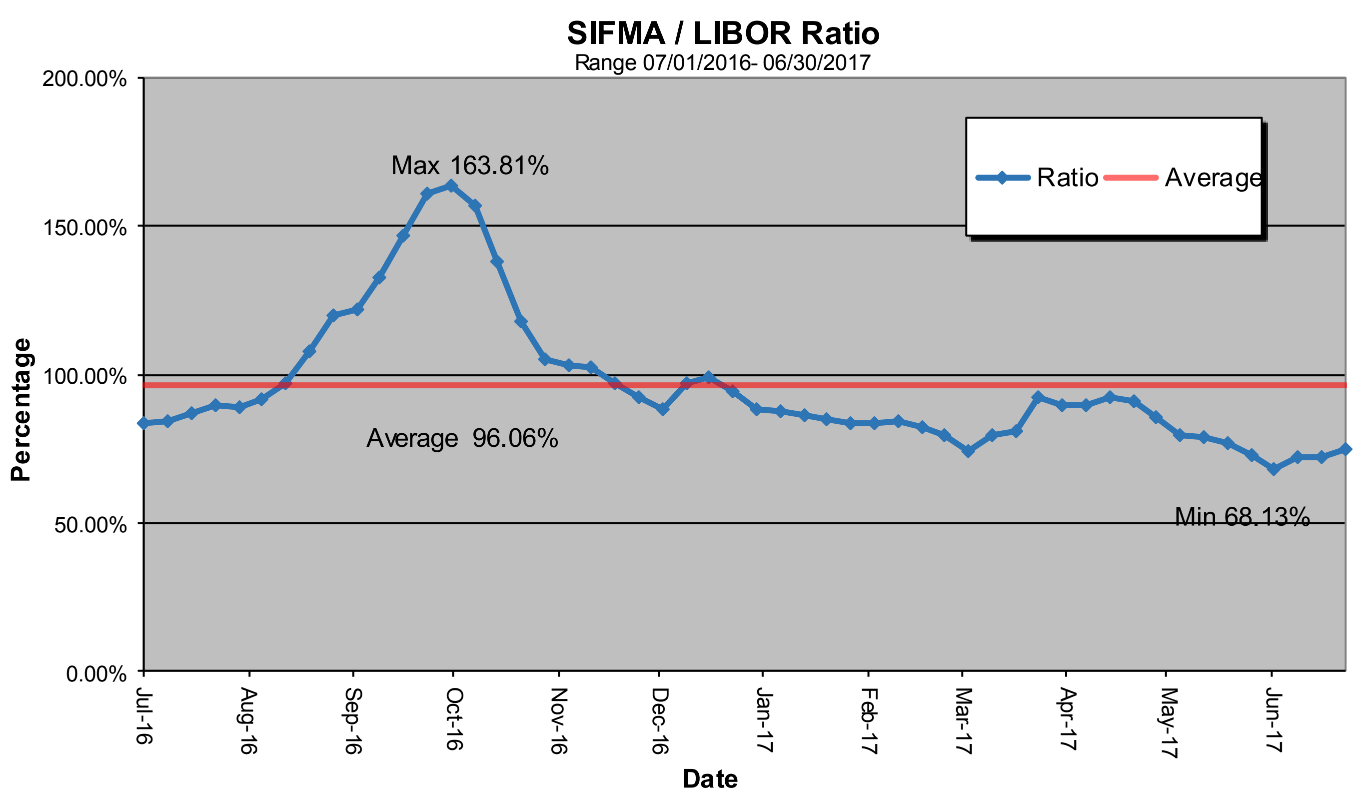
The Bond Buyer 20 General Obligation Index averaged 3.51% for Fiscal Year 2017. The high was 4.03% in December 2016 and the low was 2.80% in July 2016.

The Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Index averaged 0.68% for Fiscal Year 2017. The high was 0.92% in April 2017 and the low was 0.39% in July 2016. The 30-day USD London Interbank Offered Rate (LIBOR) averaged 0.751% for Fiscal Year 2017. The high was 1.223% in June 2017 and the low was 0.467% in July 2016. During the year, SIFMA traded at a high of 163.81% of the 30-day LIBOR in October 2016, at a low of 68.13% in June 2017, and at an average of 96.06% for the Fiscal Year.



SIFMA & SIFMA/LIBOR Ratio





CREDIT MANAGEMENT

MID-YEAR REFLECTION

U.S. Investment Grade (IG) corporate credit spreads are close to the tights of the year at 112 basis points. A healthy rally at the beginning of the year has given way to a steady 'lo-vol' grind as credit spreads remained in an 8 basis points range. The benefit of last year's aggressive loosening of global monetary conditions has started to fade, while hope for a meaningful fiscal stimulus in the U.S. has been tempered as well. That said, credit fundamentals appear to have stabilized as corporate profitability has improved.

Fundamentally IG companies continue to run historically high levels of leverage with Non-Financial debt/EBITDA of 3.0x. Q1 earnings came in well ahead of expectations, marking the best earnings season since 2011, and strong earnings growth is expected to continue over the balance of the year. However, while earnings are rising, debt is also rising at a rapid clip.

Demand for IG continues to be robust in first half of 2017 with record inflows to IG mutual funds and ETFs, pushing up total assets in IG mutual funds to $2.0 trillion. IG bond issuance has similarly clocked a record pace in the first half, but the slowdown in Q2 from Q1 has allowed spreads to continue to grind tighter. Foreign demand has been choppier this year as the cost to hedge USD fixed income positions remains high and the USD has started to weaken.

Potential risks look asymmetric as hope for fiscal support fades and tighter monetary policy looms. If better growth and/or higher yields result in corporate deleveraging and technical support, then spreads could rally back toward the tight end of the cycle. However, if heightened interest rate volatility results in a disorderly unwind of fixed income portfolios, fundamental weakness could erupt with nearly $3.5 trillion of IG debt scheduled to mature in next five years. This could drive spreads back to the wide end of the cycle. Additionally, the prospect of the beginning of the end of global central bank support looms large across U.S., Europe and the rest of the world.

Credit Process

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

<u>Default Monitoring</u>

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

<u>Industry/Company Analysis</u>

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

CREDIT MANAGEMENT

implemented where we focus on specific company fundamentals, picking the strongest companies within a sector.

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

Approved List

Once analysis has been completed, the State Investment Commission approves the list on a quarterly basis. For the first half of 2017, we added Guggenheim Securities, LLC as tri-party repurchase agreement counterparty replacing Bank of America N.A. In addition, we removed BB&T Corp, BP PLC, Caterpillar Inc. and JPMorgan Chase & Co. The Approved List, including approved securities lending counterparties, as of June 2017 may be found in Appendix A.

DEBT MANAGEMENT

The 2010 Extraordinary (Special) Session of the General Assembly delivered House Bill 1 (Executive Branch Budget other than Transportation Cabinet) and House Bill 3 (Kentucky Transportation Cabinet Budget) to the Governor on May 29, 2010, establishing an Executive Branch Budget for the biennium ending June 30, 2012. 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 Fund appropriations, and $5.0 million is Road Fund supported. A portion of the General Fund and Agency 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

DEBT MANAGEMENT

net amount of $1,251.24 million to support various capital initiatives of the Commonwealth with $9.0 million of previously authorized debt de-authorized in House Bill 303. Of the total authorization, $582.99 million is General Fund supported and $677.25 million is supported by Agency Fund appropriations. No additional Road Fund supported authorizations were appropriated. A portion of the Agency 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 authorizes 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 authorizes 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 facilitation 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 298 on April 11, 2017. None of the authorizations listed have been issued at June 30, 2017.

The balance of prior bond authorizations of the General Assembly dating from 2006 through 2017 totals $1,754.93 million. Of these prior authorizations, $931.43 million is General Fund supported, $671.50 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 June 30, 2017

Legislative Session (Year)	General Fund (millions)	Agency Fund (millions)	Road Fund (millions)	Federal Highway (millions)	TOTAL (millions)
2010 and prior	$ 34.44	$ 17.50	$80.00	$59.50	$ 191.44
2012	9.33	0.00	12.50	0.00	21.83
2014	405.25	6.34	0.00	0.00	501.59
2016	456.91	557.66	0.00	0.00	1,014.57
2017	25.50	0.00	0.00	0.00	25.50
TOTAL	$931.43	$671.50	$92.50	$59.50	$1,754.93

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.

DEBT MANAGEMENT

Ratings Update

The rating agencies continually monitor the Commonwealth's budgetary policies and actual performance in areas such as revenue, the economy, pensions, and debt management. Pension unfunded liabilities have continued to put substantial 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 picture at June 30, 2017 was:

	Moody's	S & P	Fitch
General Obligation Issuer Rating (none outstanding)	Aa2	A+	AA-
General Fund Appropriation Rating	Aa3	A	A+
Road Fund Appropriation Rating	Aa2	AA-	A+
Federal Highway Trust Fund Appropriation Rating	A2	AA	A+

DEBT MANAGEMENT

Tax and Revenue Anticipation Notes (TRAN)

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.

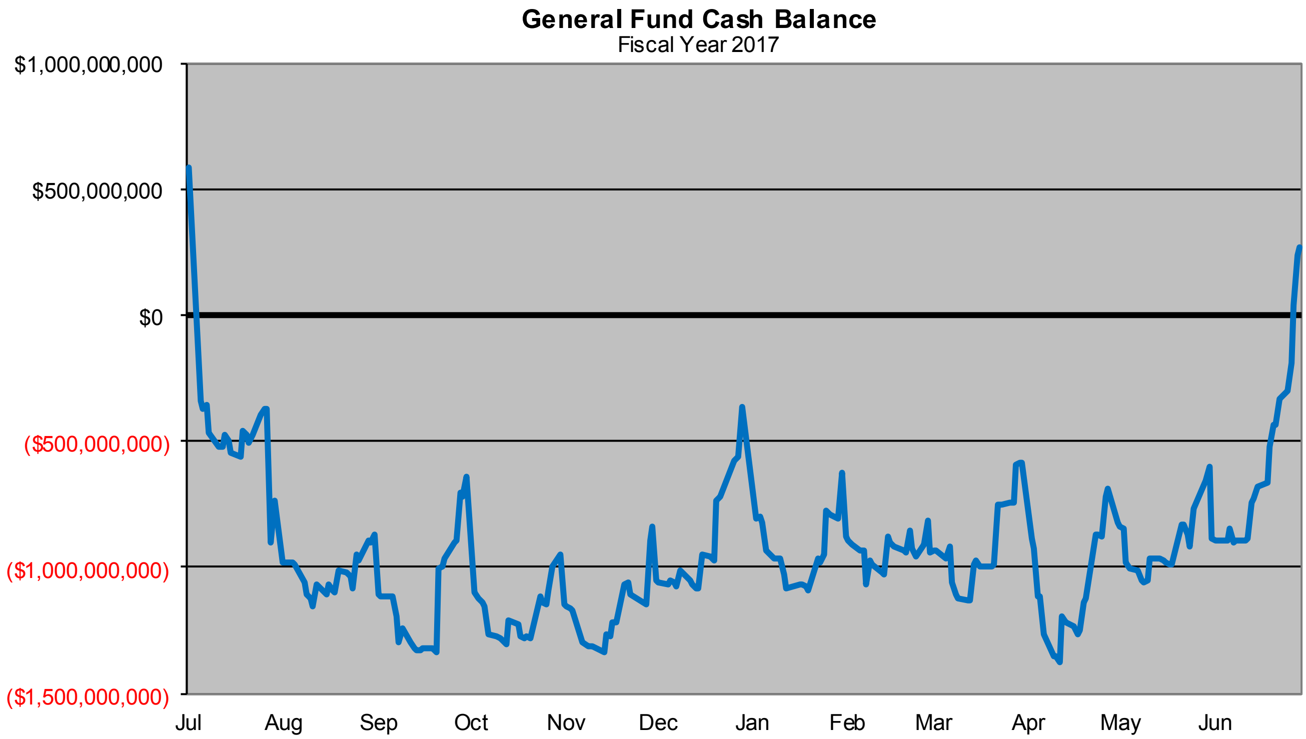
($ in millions)

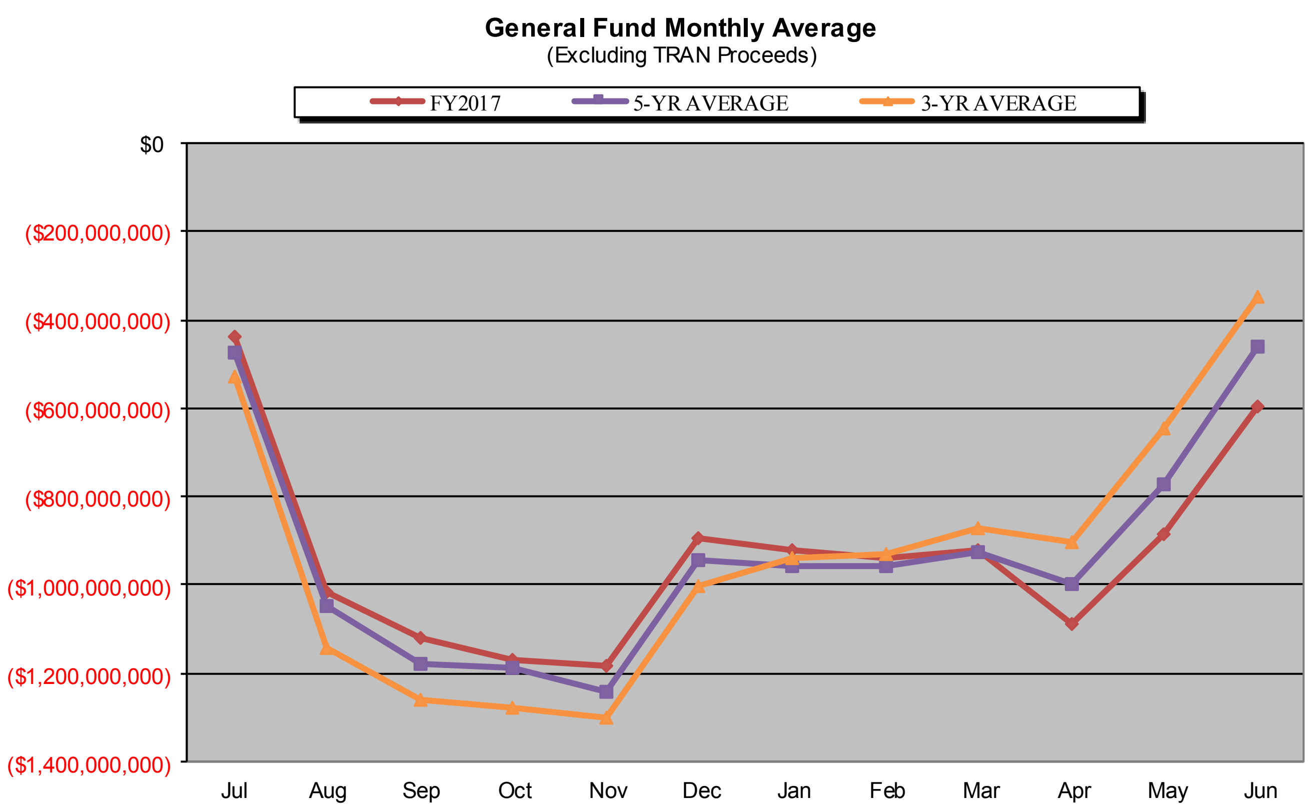
Fiscal Year	TRAN size	Economic Benefit
1998	200	3.2
1999	300	4.7
2000	400	7.3
2001	550	6.5
2002	650	4.3
2003	500	0.3
2004	NA	NA
2005	500	2.8
2006	600	6
2007	150	2.8

($ in millions)

Fiscal Year	TRAN size	Economic Benefit
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

DEBT MANAGEMENT





DEBT MANAGEMENT

FINANCIAL AGREEMENTS

As of June 30, 2017, 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 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 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

DEBT MANAGEMENT

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

Details related to the interest rate swaps as of June 30, 2017 are presented in Appendix B.

ASSET/LIABILITY MODEL

General Fund

The total SPBC debt portfolio as of June 30, 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 million callable portion had a weighted average coupon of 4.94%.

The SPBC debt structure has 45% of principal maturing in 5 years and 69% 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 $588.6 million on July 1, 2016 and a low of negative $1.3 billion on November 14, 2016. The average and median balances were a negative $973.9 million and a negative $1.1 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 $657.8 million for Fiscal Year 2017. In addition, General Fund debt service of $11.3 million was provided for the Eastern State Hospital financing that was issued through the Lexington-Fayette Urban County Government in 2011. Net interest margin will continue to be negative due to low cash balances versus outstanding fixed rate debt, low level of interest rates, and the callability of the debt portfolio.

SPBC Project 115

SPBC issued General Fund Revenue Bonds, Project No. 115, in a single series for a total offering of $227,815,000. The transaction provided permanent financing for General Fund supported capital projects as authorized by the Commonwealth of Kentucky General Assembly via various House Bills and Sessions.

DEBT MANAGEMENT

The SPBC Project No. 115 transaction achieved an All-In True Interest Cost of 3.85% with an average life of 12.929 years. The bonds were sold on a tax-exempt basis via negotiated sale with Citigroup serving as senior managing underwriter and Dinsmore and Shohl, LLP as bond counsel. The bonds received ratings of Aa3, A, and A+ from Moody's Investors Service, Inc., Standard & Poor's Ratings Services, and Fitch Ratings, respectively. The transaction closed on February 8, 2017.

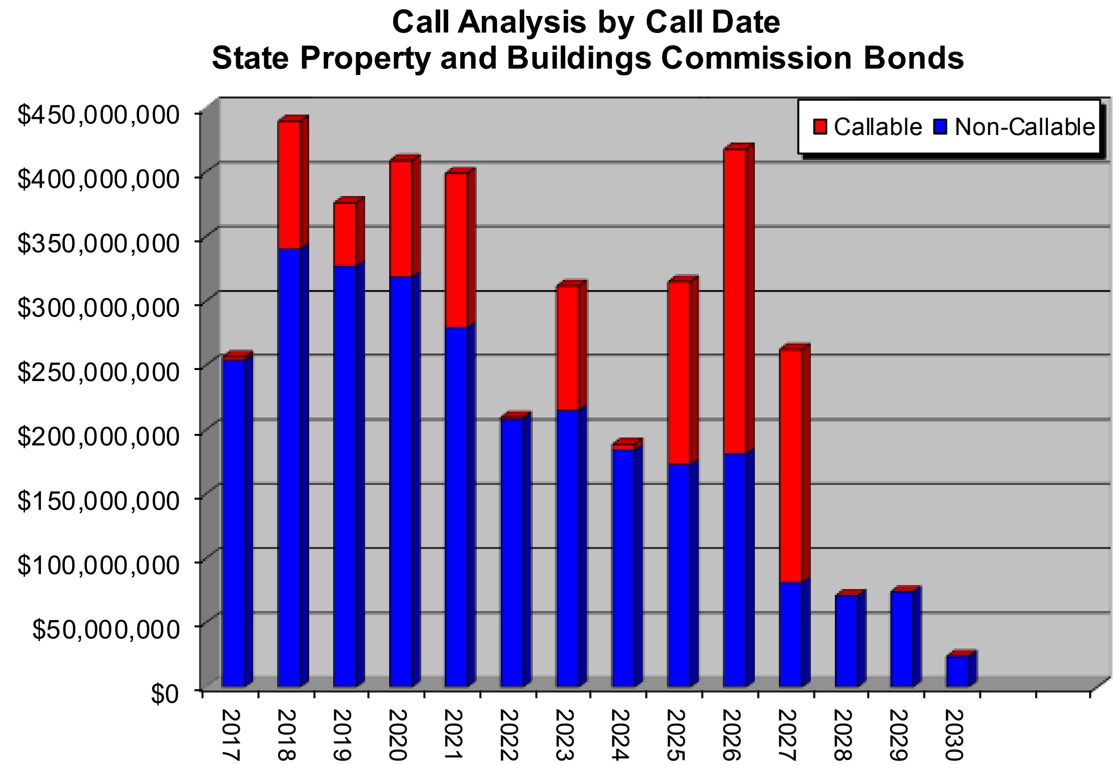
Agency Fund

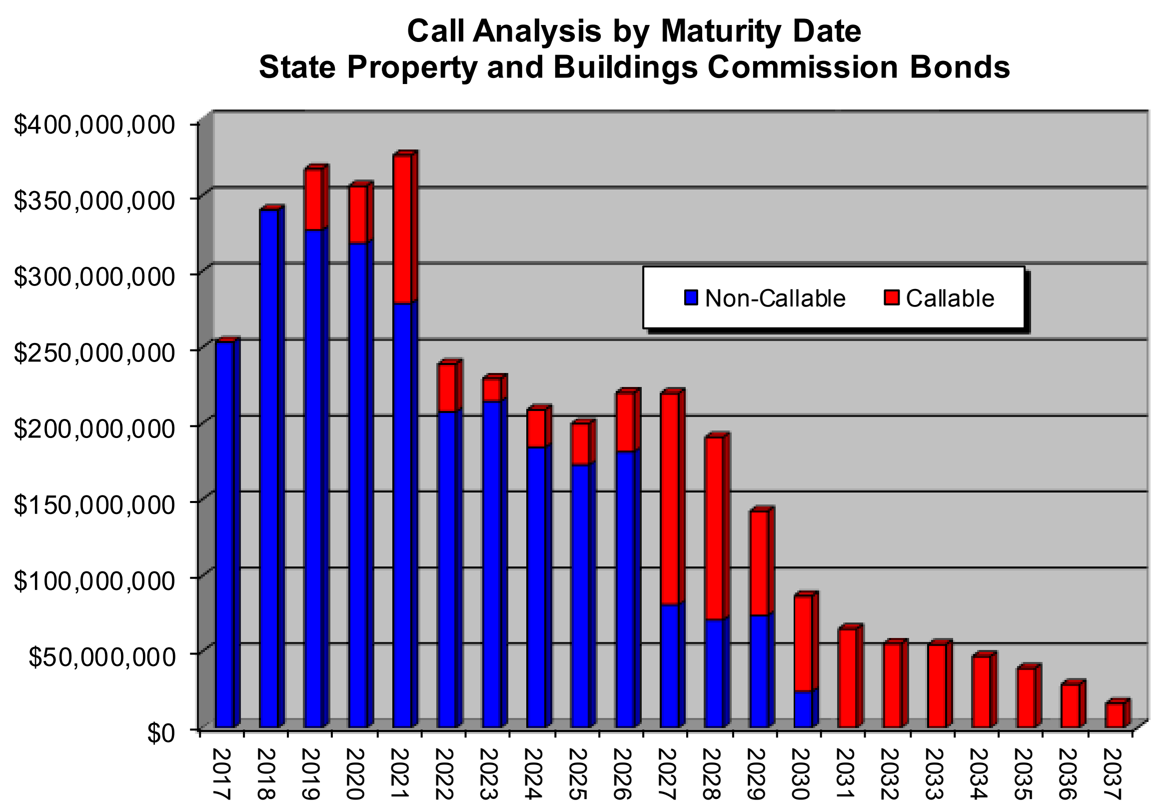
SPBC 116

On April 12, 2017, SPBC closed $60,135,000 of Agency Fund Revenue Bonds, Project No. 116, on behalf of the Kentucky Community and Technical College System. The transaction provided permanent financing for $65,000,000 to support phase two of a long range series of Agency Fund supported capital projects, commonly and collectively referred to as the Kentucky Community and Technical College System BuildSmart Initiative. The total project amount of $194 million was authorized by Commonwealth of Kentucky General Assembly in House Bill 235 of the 2014 Regular Session, with $145.5 million to come in the form of Agency Fund bonds and the remaining $48.5 million to come from the agency in the form of private and matched funds. The legislation required the Kentucky Community and Technical College System to establish a mandatory student fee to pay debt service on the bonds. The bonds also paid for costs of issuing the bonds.

The SPBC Project No. 116 transaction achieved an All-In True Interest Cost of 3.56% with an average life of 11.329 years. The bonds were sold on a tax-exempt basis via negotiated sale with Citigroup serving as senior managing underwriter and Dinsmore and Shohl LLP as bond counsel. The bonds received ratings of Aa3 and A+ from Moody's Investors Service, Inc. and Fitch Ratings, respectively.

DEBT MANAGEMENT





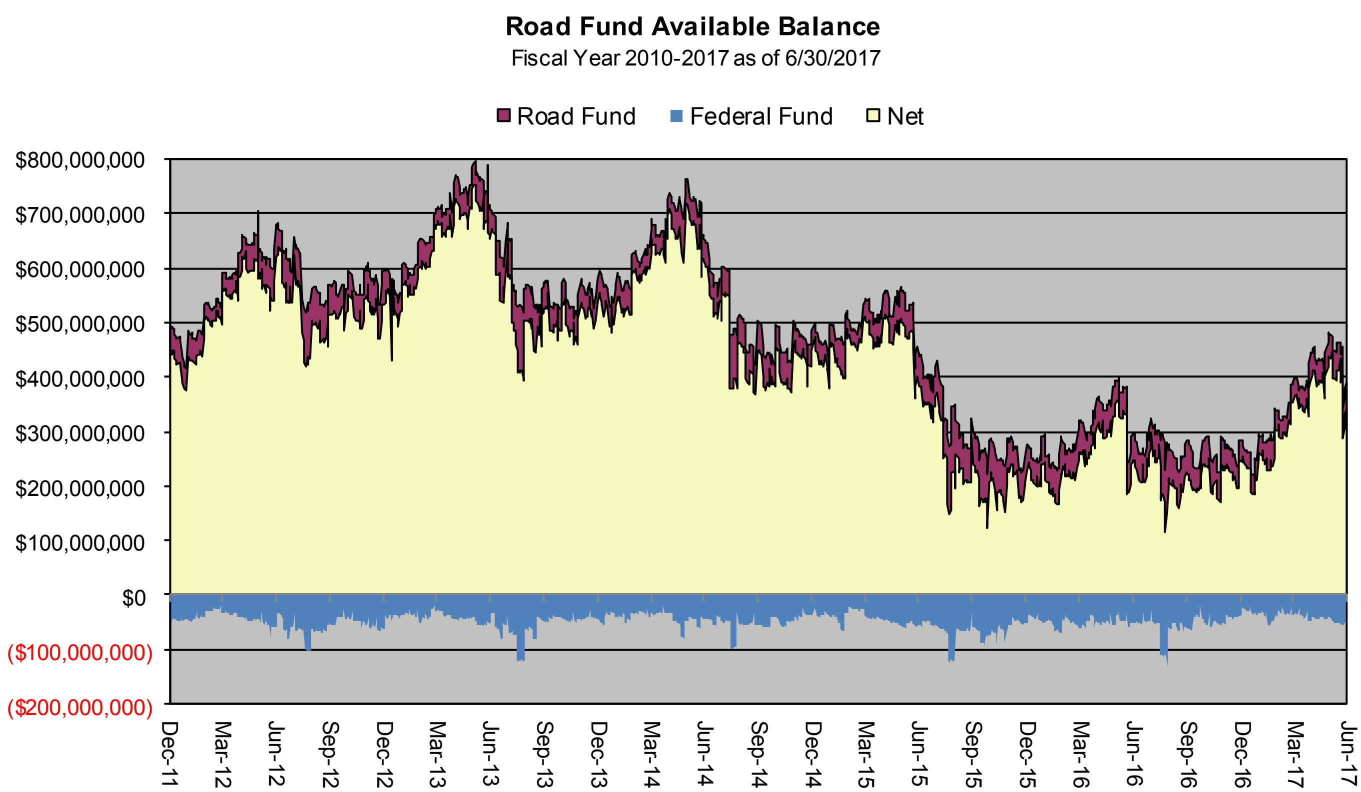
DEBT MANAGEMENT

Road Fund

The Road Fund average daily cash balance for Fiscal Year 2017 was $268.9 million compared to $246.7 million for Fiscal Year 2016. The Road Fund cash was invested in the Intermediate Term Investment Pool which had a duration of 1.13 years as of June 30, 2017. The Road Fund earned $1.6 million on a cash basis for Fiscal Year 2017 versus $2.4 million for Fiscal Year 2016. The continued relatively low level of investable balances at certain times during the fiscal year limits the investment opportunities.

As of June 30, 2017, the Turnpike Authority of Kentucky (TAK) had $1.369 billion of bonds outstanding with a weighted average coupon of 4.82 percent and an average life of 6.99 years.

Road Fund debt service paid in Fiscal Year 2017 was $165.3 million, resulting in a net interest margin (investment income earned year-to-date less debt service paid) of negative $163.7 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.



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 June 29, 2017

Company Name	Repurchase Agreements	Debt	Company Name	Repurchase Agreements	Debt
Apple Inc		Yes	Johnson & Johnson		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
Berkshire Hathaway Inc		Yes	MFUG Securities	Yes	No
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	Procter & Gamble Co/The		Yes
Cisco Systems Inc		Yes	Royal Bank of Canada	Yes	Yes
Cooperatieve Rabobank		Yes	Royal Dutch Shell PLC		Yes
Costco Wholesale Corp		Yes	State Street Corp		Yes
Deere & Co		Yes	Sumitomo Mitsui Trust Bank		Yes
Exxon Mobil Corp		Yes	Swedbank AB		Yes
General Electric Co		Yes	Texas Instruments Inc.		Yes
Guggenheim Securities, LLC	Yes	No	Toronto-Dominion Bank/The		Yes
Honda Motor Co Ltd		Yes	Total SA		Yes
Home Depot Inc		Yes	Toyota Motor Corp		Yes
HSBC Bank USA NA		Yes	UBS AG (U.S.)		Yes
IBRD - World Bank		No	US Bank NA		Yes
Intel Corp		Yes	Wal-Mart Stores Inc		Yes
Intl Business Machines Corp		Yes	Walt Disney Co/The		Yes
			Wells Fargo & Co		Yes

*Addition:
Guggenheim Securities, LLC

Removed:
Bank of America N.A.
BB&T Corp
BP PLC
Caterpillar Inc
JPMorgan Chase & Co

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

APPENDIX A

Securities Lending Agent Approved Counterparties

As Of June 29, 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	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 June 30, 2017 (negative indicates payment owed) by ALCo if terminated)	(35,617)	(5,652,085)	(3,861,115)	(10,161,500)
Interest Earnings (not applicable)				
Total	not applicable	not applicable	not applicable	not applicable

Swap Summary

As of June 30, 2017:

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

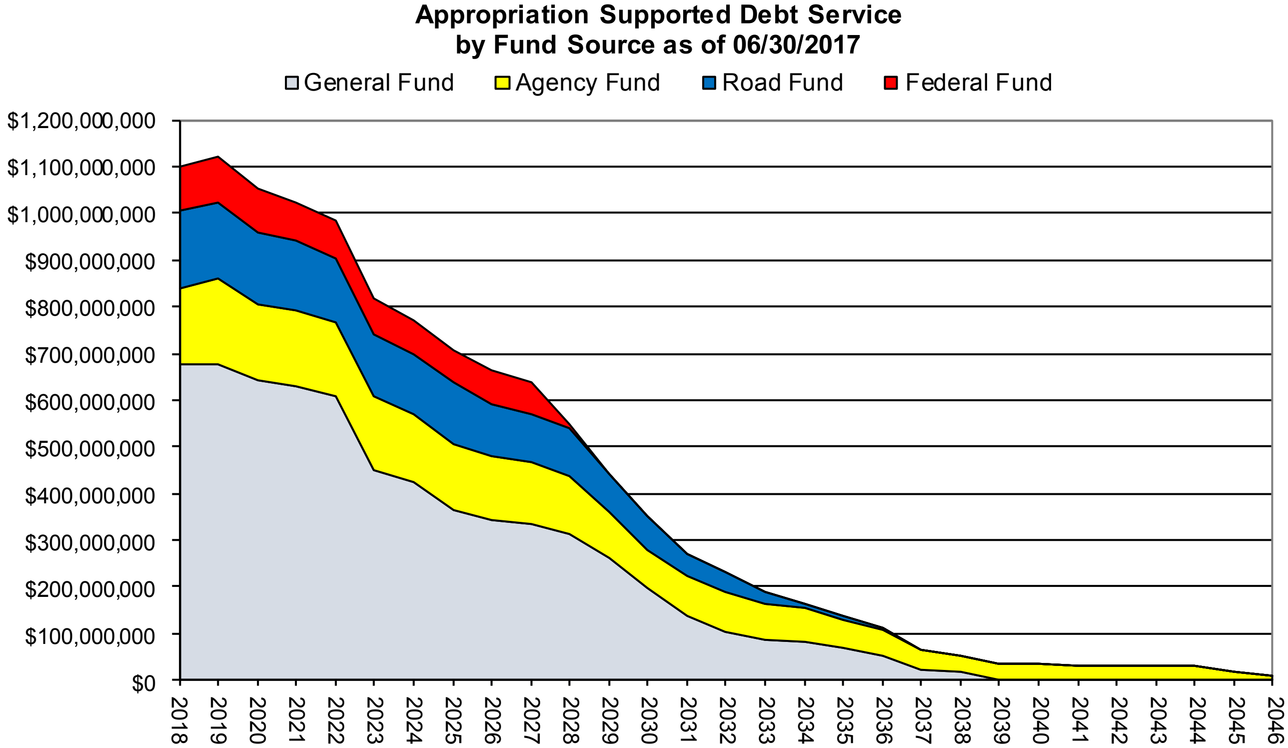
Deutsche Bank (assigned from Citibank on 2/14/2011)

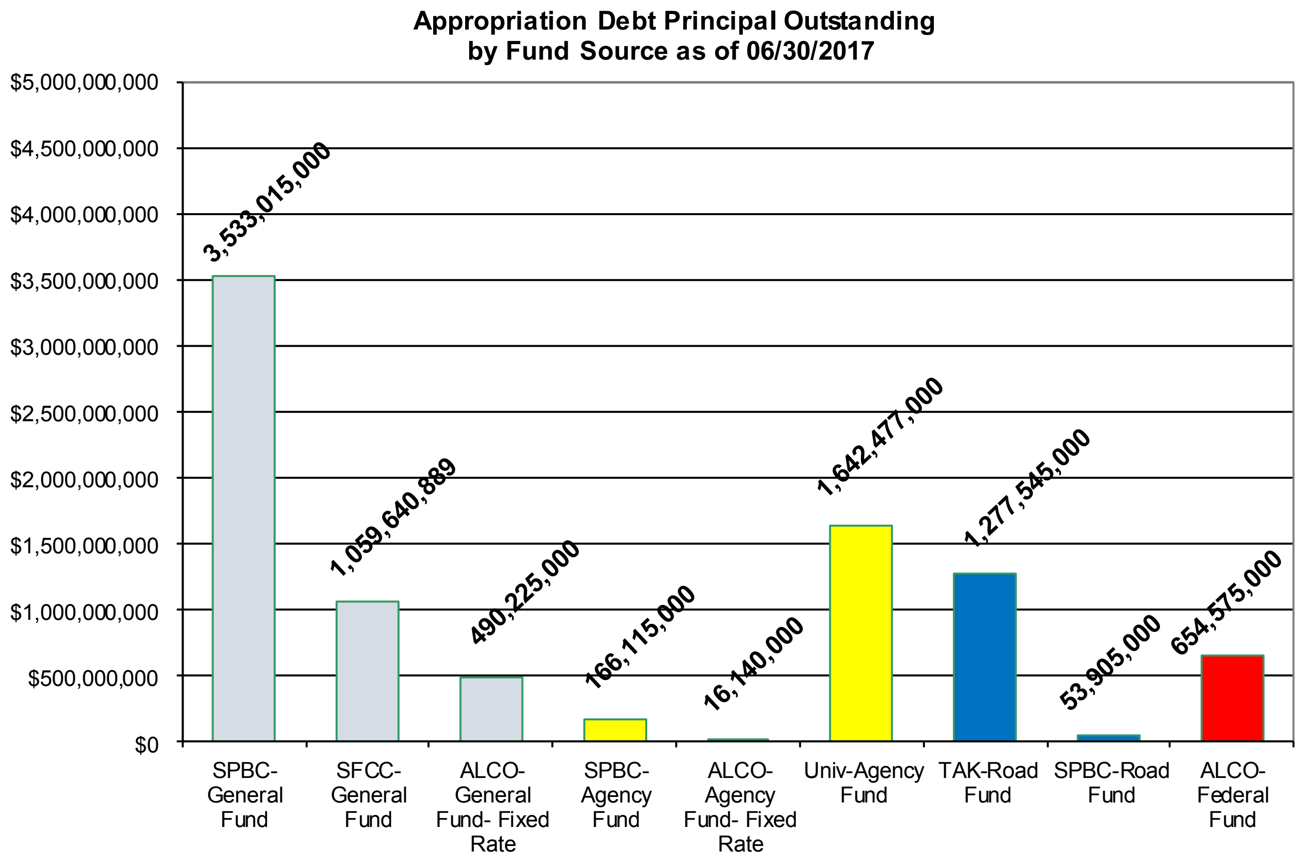
243,080,000

	Debt		10 Percent Net Exposure	
	General Fund	Road Fund	General Fund	Road Fund
Bonds Outstanding	4,023,240,000	1,331,450,000	402,324,000	133,145,000
Authorized but Unissued	931,428,700	92,500,000	93,142,870	9,250,000
Total	4,954,668,700	1,423,950,000	495,466,870	142,395,000

Investment Pool Balance		10 Percent Investment Portfolio	
Other Funds	Net Road Fund	Other Funds	Net Road Fund
4,224,289,436	342,775,891	422,428,944	34,277,589

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 06/30/2017

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	$184,970,000
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**			**$490,225,000**
Agency Fund Project Notes					
2005 1st Series		$11,275,000	6/2005	6/2025	$6,595,000
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	**$169,425,000**			**$16,140,000**
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		**$2,162,120,000**			**$1,160,940,000**

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Creating Financial Value for the Commonwealth