

# City of Brighton Review of Investment Performance

Quarter-ended December 31, 2017

PFM Asset Management LLC

633 17<sup>th</sup> Street Suite 2250 Denver, CO 80202 Chris Blackwood, Managing Director Marc McClure, CFA, Senior Managing Consultant Andrea Vlad, Senior Marketing Representative

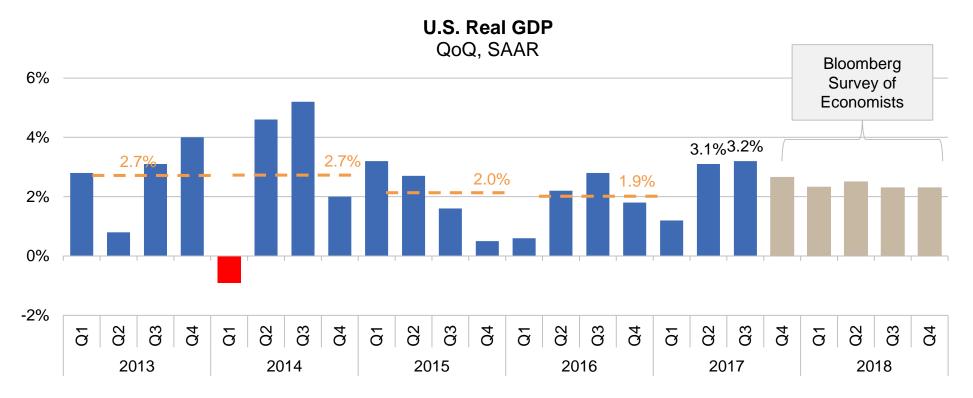
## **Economic and Market Update**

## **Current Market Themes**

- U.S. economic conditions are characterized by:
  - An improved pace of economic expansion
  - Muted inflation pressures, including tepid wage growth
  - Short-term optimism regarding the recent tax cuts
- Treasury yields continue to rise with the 2-year yield reaching the highest level since 2008. Meanwhile, longer-term yields are rising more slowly (or not at all) due to modest inflation, flattening the yield curve
  - Current Fed. Governor Jerome Powell was nominated to Chair the Federal Reserve after Janet Yellen's term expires next year. Powell is expected to continue Yellen's gradual approach towards monetary tightening
  - The Fed raised rates 3 times in 2017 and forecast 3 additional hikes for 2018
  - Fed balance sheet normalization will ramp up in 2018, based on the previously released plan
- Stock markets around the globe continue to march ever higher, even as volatility remains close to an all-time low
- The global growth outlook continues to brighten, led by the Euro-area
- Geopolitical risks continue to linger with potential hot spots in several parts of the globe

## **Economic Growth Remained Strong in 3rd Quarter**

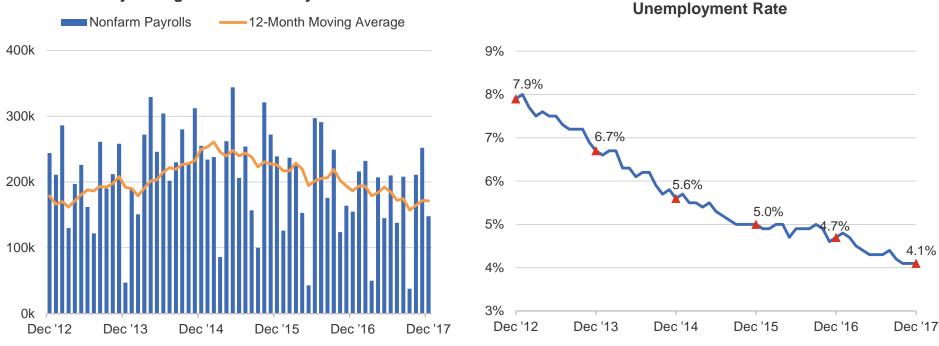
- Gross domestic product increased at an annualized rate of 3.2% in the third quarter of 2017. Growth in Q2 and Q3 was the fastest pace of expansion over two consecutive quarters since 2014. Growth has averaged 2.3% over the last four quarters.
- Q3 GDP reflected positive contributions from personal consumption, business investment, boosted primarily by a rise in private inventories, and exports which were offset by negative contributions from residential housing.



Source: Bloomberg, as of Q3 2017. SAAR is seasonally adjusted annualized rate. Orange denotes rolling four-quarter averages.

### Labor Market Activity Slows Down in December

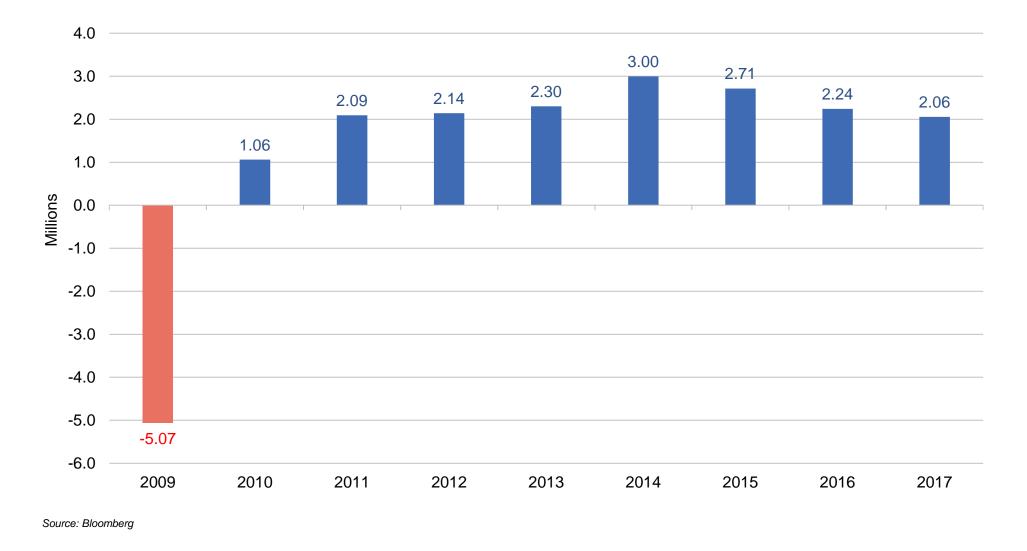
- The U.S. labor market added 148k jobs in December, well below expectations, while the headline unemployment rate held at 4.1%, the lowest level in 17 years
- The U.S. economy added 2.06 million jobs in 2017, the lowest number in seven years
- Average hourly earnings an important gauge of wage growth grew only 2.5% over the past 12 months



Monthly Change in Nonfarm Payrolls

Source: Bloomberg, as of December 2017.

Total U.S. Job Gains by Year

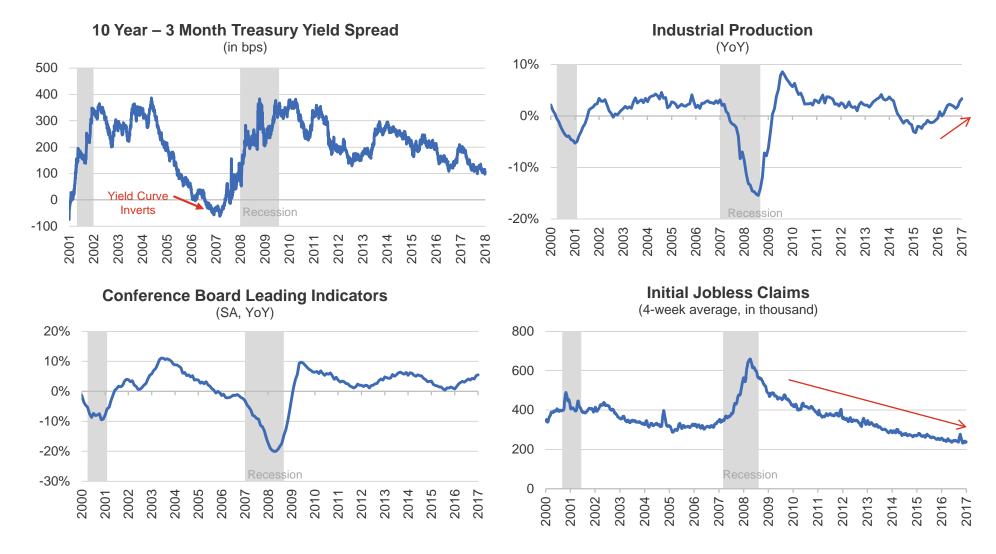


Inflation Steadies, but Outlook Remains Weak

 The core personal consumption expenditures (PCE) price index, the Fed's preferred measure of inflation, remained at 1.5% year-over-year in November. However, most Fed officials expect that inflation will gradually rise to reach the 2% target over time



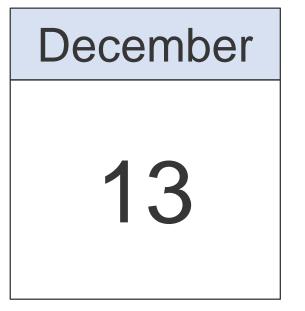
Source: Bloomberg, latest data available as of December 2017. Inflation expectations based on yield difference between 5-year Treasury note and 5-year Treasury Inflation Protected Securities (TIPS).



#### U.S. Recession Indicators: Risks Appear Low in the Near Term

Source: Bloomberg, latest data available as of December 2017. SA is seasonally adjusted.

## **FOMC Statement Highlights**

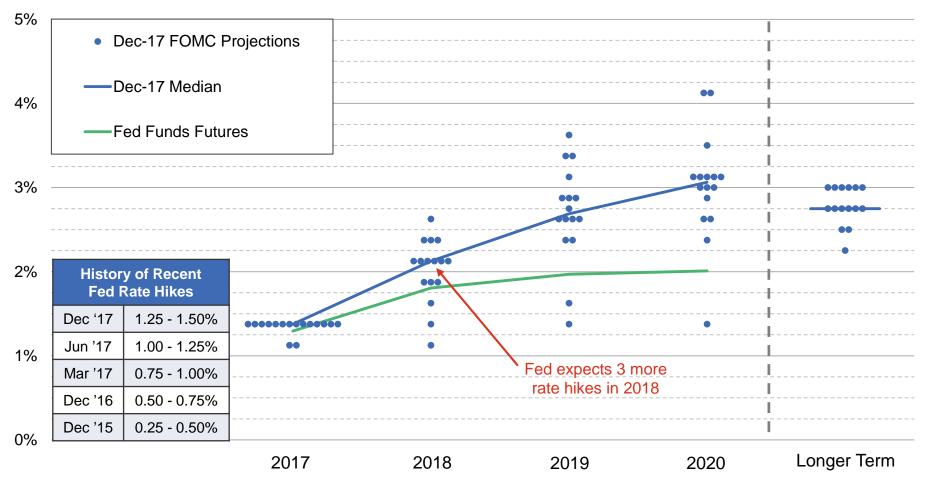


- Information received since the FOMC met in November indicates that the labor market has continued to strengthen and that economic activity has been rising at a solid rate. Averaging through hurricane-related fluctuations, job gains have been solid, and the unemployment rate declined further.
- Hurricane-related disruptions and rebuilding have affected economic activity, employment, and inflation in recent months but have not materially altered the outlook for the national economy.
- Inflation on a 12-month basis is expected to remain somewhat below 2 percent in the near term but to stabilize around the Committee's 2 percent objective over the medium term.
- The Committee decided to raise the target range for the federal funds rate to 1<sup>1</sup>/<sub>4</sub> to 1<sup>1</sup>/<sub>2</sub> percent.
- The Committee expects that economic conditions will evolve in a manner that will warrant gradual increases in the federal funds rate.
- All voting members of the FOMC supported the monetary policy action, except for Charles Evans (Chicago) and Neel Kashkari (Minneapolis), who preferred at this meeting to maintain the existing target range for the federal funds rate.

Source: Federal Reserve.

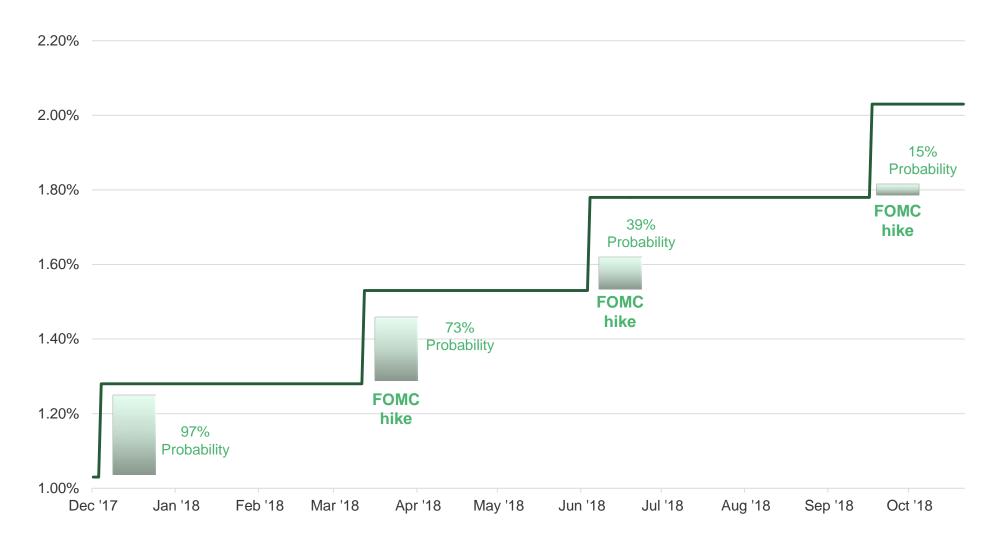
FOMC "Dot Plot" – December 2017

### Fed Participants' Assessments of 'Appropriate' Monetary Policy



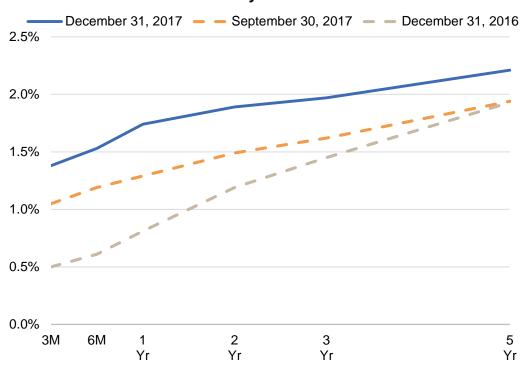
Source: Federal Reserve and Bloomberg. Individual dots represent each Fed members' judgement of the midpoint of the appropriate target range for the federal funds rate at each year-end. Fed funds futures as of 12/13/17.

## **Strategy Considerations – Short-Term Government Securities**



Source: PFM Trading Desk, Bloomberg, as of 12/11/17.

## U.S. Treasury Yield Curve



#### **U.S. Treasury Yield Curve**

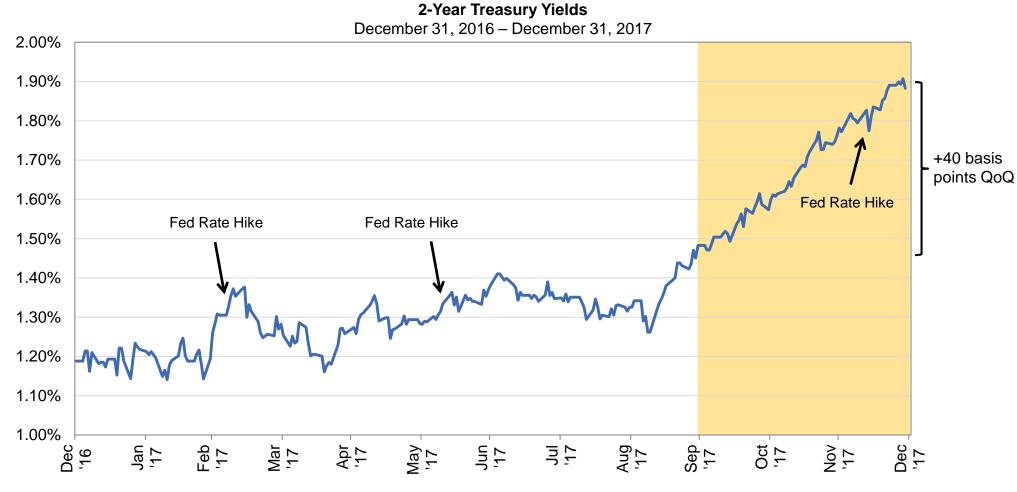
**Yield Curve History** 

Maturity	12/31/16	12/31/17	Change
3-Мо.	0.50%	1.38%	+ 0.88%
6-Mo.	0.61%	1.53%	+ 0.92%
1-Yr.	0.81%	1.74%	+ 0.93%
2-Yr.	1.19%	1.89%	+ 0.70%
3-Yr.	1.45%	1.97%	+ 0.52%
5-Yr.	1.93%	2.21%	+ 0.28%
10-Yr.	2.44%	2.41%	- 0.03%
20-Yr.	2.76%	2.58%	- 0.18%
30-Yr.	3.07%	2.74%	- 0.33%

Source: Bloomberg, as of 12/31/17.

### **Interest Rate Update**

• Two-year treasury yields moved notably higher for the year ended December 31, 2017; the increase was most pronounced during the fourth quarter as markets responded to another rate hike by the Federal Reserve and the passage of the largest overhaul of the U.S. tax system in more than 30 years



Source: Bloomberg, as of 12/31/17.

Yield Environment as of December 31, 2017

Maturity	Treasury	Federal Agency	AA Corporate	A Corporate	AAA Taxable Municipal
3-Month	1.38%	1.36%	1.65%	1.77%	1.64%
6-Month	1.53%	1.48%	1.80%	1.92%	1.79%
1-Year	1.74%	1.70%	1.91%	2.04%	1.94%
2-Year	1.89%	1.97%	2.12%	2.25%	2.15%
3-Year	1.97%	2.10%	2.28%	2.43%	2.27%
5-Year	2.21%	2.24%	2.54%	2.68%	2.40%

Source: Bloomberg BVAL yield curves for Treasury and Corporate, and Municipal yields, TradeWeb for Federal Agency yields. 3 and 6 month corporate yields from commercial paper; A-1+ for AA and A-1 for A. Yields are for indicative purposes only; actual yields may vary by issue.

## GOP Tax Cuts and Jobs Act

Income Tax Brackets		Deductions	Exemptions	Other	
Tax Rate	Single	Married	<ul> <li>Can deduct up to \$10,000 in a blend of</li> </ul>	<ul> <li>Child tax credit raised from \$1,000 to \$2,000</li> </ul>	• The deduction for
10%	\$9,525	\$19,050	state and local property,	per child.	interest on education loans, qualified tuition
12%	\$38,700	\$77,400	income, and sales tax.	• The estate tax	expenses, and
22%	\$82,500	\$165,000	The state and local deduction was	exemption will be doubled from \$5.5	expensive medical bills would be maintained.
24%	\$157,500	\$315,000	previously unlimited.	million to \$11 million.	No changes will be
32%	\$200,000	\$400,000	Deductible interest on		made to 401(k) plans.
35%	\$500,000	\$600,000	mortgage capped at \$750,000.		
37%	> \$500,000	> \$600,000	¢1.00,0001		
Ν	larginal Tax	Rate	Deductions	Exampliana	Other
		Nato	Deductions	Exemptions	Other
<ul> <li>Mark</li> </ul>	uced from 359 s the largest ne in U.S. his	one-time	<ul> <li>Pass-through businesses like limited liability corporations allowed to deduct 20%</li> </ul>	<ul> <li>Businesses will be exempt from paying the corporate alternative</li> </ul>	<ul> <li>One-time tax on repatriated cash and profits will be 15.5%, up</li> </ul>

Source: The Washington Post, Business Insider.

**Personal Taxes** 

**Business Taxes** 

## Colorado Economy



Year-over-Year Changes in Colorado				
Gross State Product <sup>1</sup>	\$323.7 million ( <b>↑</b> 3.3%)			
Unemployment <sup>2</sup>	2.9% (↓ 0.1%)			
Nonfarm Payrolls <sup>2</sup>	2.7 million (↑ 1.9%)			
Average Hourly Earnings <sup>2</sup>	\$27.85 (↑ 3.3%)			
Population <sup>3</sup>	5.6 million (↑ 1.2%)			
Headline News	Attorney General Jeff Sessions' announcement to rescind the Cole Memo may hurt the \$1.3 billion marijuana industry in Colorado			

Source: Bloomberg, Green Market Report, U.S. Census Bureau. 1. Gross state product is as of December 2016. 2. Unemployment, nonfarm payrolls, and average hourly earnings are as of November 2017. 3. Population data as of July 2017.

## **Portfolio Characteristics and Investment Strategy**

## **Portfolio Recap**

- Yields continued to climb during the fourth quarter, with some short- and intermediate-term yields reaching highs not seen since 2008. However, in this era of gradually increasing interest rates, new purchases were weighed against the probability for further rate increases and their potential to diminish the market value of portfolio investments. In this flat yield curve environment, we emphasized maturity selection.
- We continued to maintain the portfolio's duration in line with the benchmark's duration to minimize return volatility.
- Strong investor appetite for high-quality alternatives to U.S. Treasuries caused the yield spreads on investmentgrade fixed income sectors (relative to U.S. Treasuries) to tighten over the quarter, resulting in positive relative performance for non-Treasury sectors.
  - The yield spreads on federal agency securities vs. comparable-maturity Treasuries remained near historic lows, in some cases near zero, leading to diminished value of the agency sector.
  - Supranationals carried more yield spread and offered an attractive alternative in the high-quality government agency space.
  - Corporate yield spreads also remained near multi-year lows, as investors reaching for yield piled into a limited market supply of investment-grade securities, leading the corporate sector to deliver its ninth straight quarter of outperformance relative to U.S. Treasuries.
  - Short-term commercial paper (CP) and negotiable bank certificates of deposit (CDs) continued to offer value during the quarter. Although the Fed's December meeting caused CP/CD spreads to narrow, issuance has picked up and CP/CD yields have risen, widening the spread over similar-dated Treasuries.
  - Asset-backed securities (ABS) performed positively relative to Treasuries. Further spread compression in the ABS sector is likely to be limited given that current level spreads sit at historically tight levels.

## Investment Program Summary

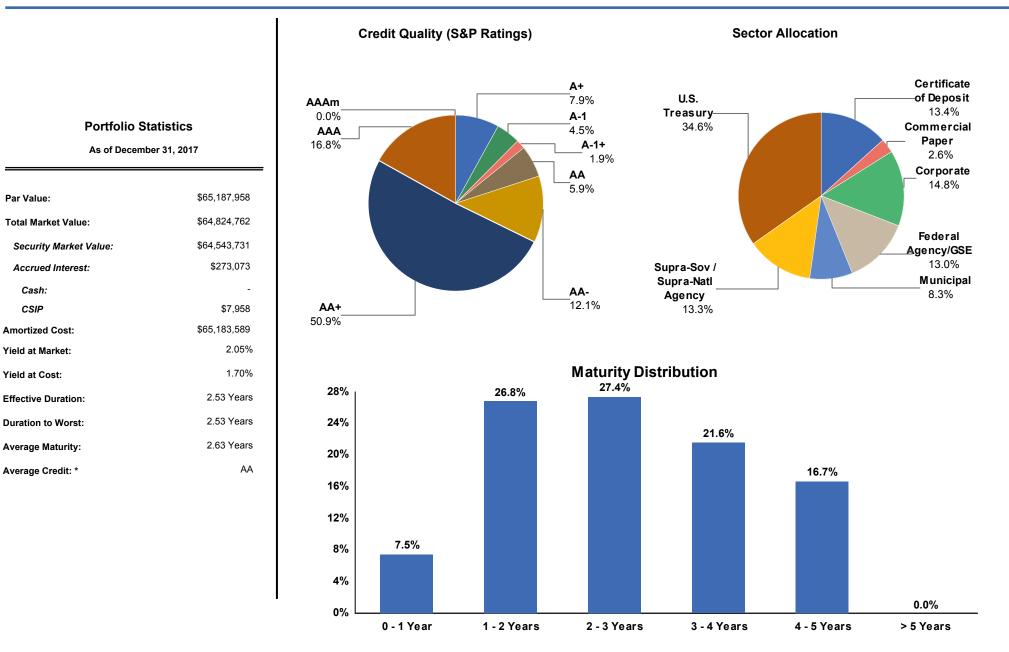
Portfolio	Portfolio Market Value as of 12/31/17	Portfolio Market Value as of 9/30/17	Portfolio Market Value as of 12/31/16	Change in Market Value over the Quarter	Change in Market Value over the Year
Long-Term Investment Portfolio	\$64,824,762	\$65,066,532	\$64,267,366	(\$241,770)	\$557,396
Short-Term Investment Portfolio	\$16,208,416	\$16,202,734	\$16,092,992	\$5,682	\$115,424
Total	\$81,033,178	\$81,269,266	\$80,360,358	(\$236,088)	\$672,820

Portfolio Market Values include accrued interest, CSIP money market fund balances, and are rounded to the nearest dollar. Please see CSIP Disclosure.

## **Long-Term Investment Portfolio**

#### LONG-TERM INVESTMENT PORTFOLIO

#### Portfolio Snapshot

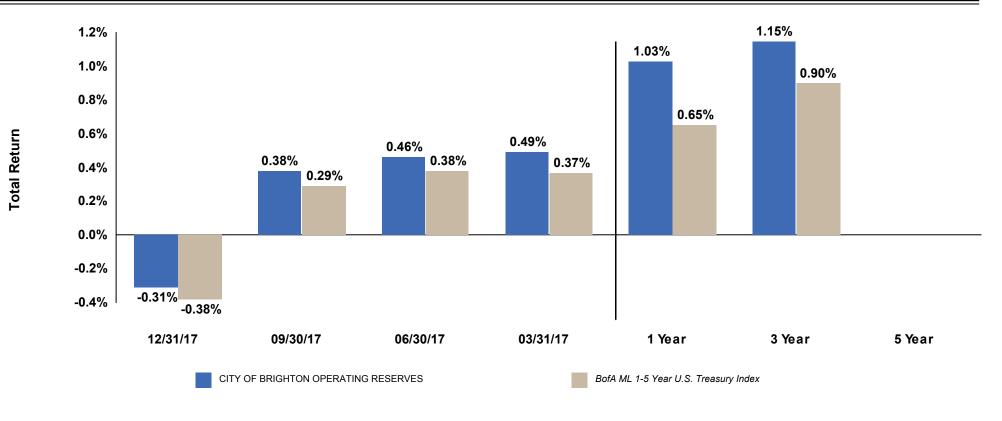


An average of each security's credit rating assigned a numeric value and adjusted for its relative weighting in the portfolio.

Portfolio Performance

#### Portfolio Performance (Total Return)

		Quarter Ended				Annualized Return		
Portfolio/Benchmark	Effective Duration	12/31/17	09/30/17	06/30/17	03/31/17	-	3 Year	5 Year
CITY OF BRIGHTON OPERATING RESERVES BofA	2.53	-0.31%	0.38%	0.46%	0.49%	1.03%	1.15%	-
ML 1-5 Year U.S. Treasury Index	2.59	-0.38%	0.29%	0.38%	0.37%	0.65%	0.90%	-
Difference		0.07%	0.09%	0.08%	0.12%	0.38%	0.25%	-

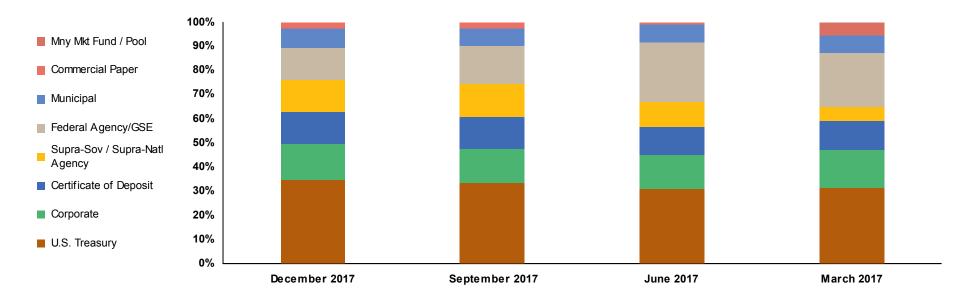


Portfolio performance is gross of fees unless otherwise indicated.

#### Portfolio Composition

#### **Sector Allocation**

	December	December 31, 2017		September 30, 2017		June 30, 2017		March 31, 2017	
Sector	MV (\$MM)	% of Total	MV (\$MM)	% of Total	MV (\$MM)	% of Total	MV (\$MM)	% of Total	
U.S. Treasury	22.4	34.6%	21.7	33.5%	19.9	30.7%	20.3	31.5%	
Corporate	9.5	14.8%	9.0	13.9%	9.2	14.3%	10.1	15.7%	
Certificate of Deposit	8.7	13.4%	8.7	13.4%	7.5	11.7%	7.5	11.7%	
Supra-Sov / Supra-Natl Agency	8.6	13.3%	8.8	13.6%	6.6	10.3%	3.8	5.8%	
Federal Agency/GSE	8.4	13.0%	10.2	15.7%	15.9	24.6%	14.4	22.4%	
Municipal	5.4	8.3%	4.7	7.2%	4.7	7.2%	4.7	7.3%	
Commercial Paper	1.7	2.6%	1.7	2.6%	0.7	1.1%	0.0	0.0%	
Mny Mkt Fund / Pool	0.0	0.0%	0.1	0.1%	0.0	0.1%	3.6	5.6%	
Total	\$64.6	100.0%	\$64.8	100.0%	\$64.6	100.0%	\$64.3	100.0%	



Detail may not add to total due to rounding.

#### Sector/Issuer Distribution

As of December 31, 2017

Sector / Issuer	Market Value (\$)	% of Sector	% of Total Portfolio
Certificate of Deposit			
BANK OF MONTREAL	1,161,435	13.4%	1.8%
BANK OF NOVA SCOTIA	797,104	9.2%	1.2%
CANADIAN IMPERIAL BANK OF COMMERCE	1,197,467	13.8%	1.9%
NORDEA BANK AB	1,200,744	13.9%	1.9%
SKANDINAVISKA ENSKILDA BANKEN AB	987,160	11.4%	1.5%
SVENSKA HANDELSBANKEN AB	945,800	10.9%	1.5%
SWEDBANK AB	1,193,518	13.8%	1.8%
WESTPAC BANKING CORP	1,178,041	13.6%	1.8%
Sector Total	8,661,268	100.0%	13.4%
Commercial Paper			
CREDIT AGRICOLE SA	998,262	59.3%	1.5%
MITSUBISHI UFJ FINANCIAL GROUP INC	683,931	40.7%	1.1%
Sector Total	1,682,193	100.0%	2.6%
Corporate			
APPLE INC	1,462,652	15.4%	2.3%
BERKSHIRE HATHAWAY INC	515,124	5.4%	0.8%
CHEVRON CORPORATION	1,377,661	14.5%	2.1%
EXXON MOBIL CORP	646,638	6.8%	1.0%

#### For the Quarter Ended December 31, 2017

#### LONG-TERM INVESTMENT PORTFOLIO

Portfolio Composition

Sector / Issuer	Market Value (\$)	% of Sector	% of Total Portfolio
IBM CORP	1,201,468	12.6%	1.9%
JOHNSON & JOHNSON	268,722	2.8%	0.4%
MICROSOFT CORP	958,710	10.1%	1.5%
PROCTER & GAMBLE CO	358,058	3.8%	0.6%
TOYOTA MOTOR CORP	1,192,500	12.5%	1.8%
WAL-MART STORES INC	587,904	6.2%	0.9%
WELLS FARGO & COMPANY	958,520	10.1%	1.5%
Sector Total	9,527,955	100.0%	14.8%

#### Federal Agency/GSE

FANNIE MAE	6,003,256	71.7%	9.3%
FEDERAL HOME LOAN BANKS	309,511	3.7%	0.5%
FREDDIE MAC	2,063,107	24.6%	3.2%
Sector Total	8,375,874	100.0%	13.0%

#### Mny Mkt Fund / Pool

PFM FUNDS - GOVT SELECT, COLO INVST	7,958	100.0%	- %
Sector Total	7,958	100.0%	0.0%

#### Municipal

CALIFORNIA ST	640,826	11.9%	1.0%
CITY OF NEW YORK CITY, NY	1,002,634	18.6%	1.6%
FLORIDA ST HURRICAN CAT FUND	1,197,408	22.3%	1.9%
MISSISSIPPI STATE	487,463	9.1%	0.8%

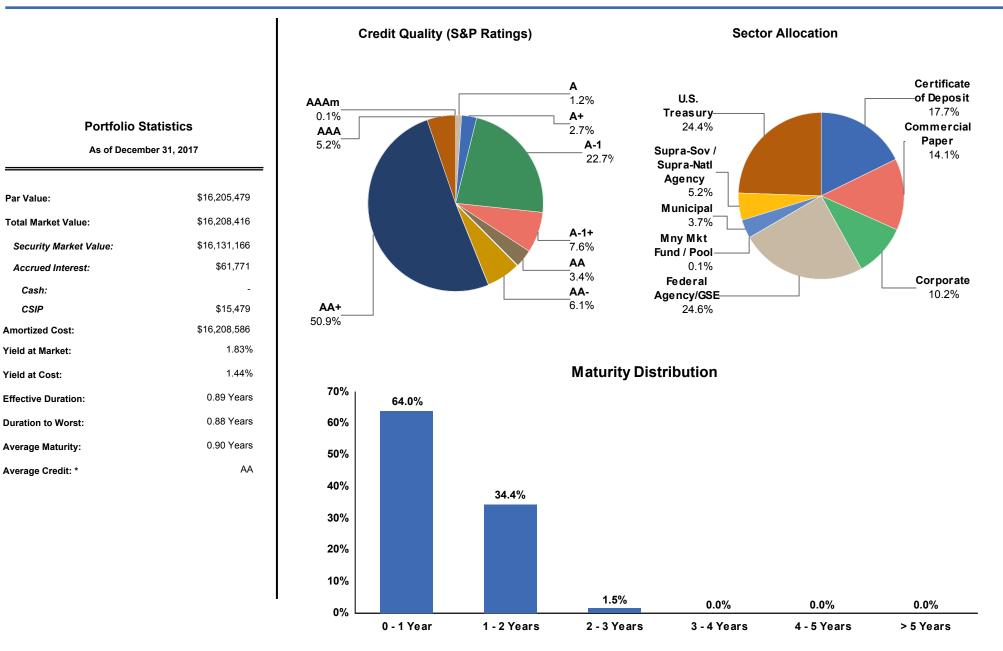
#### For the Quarter Ended December 31, 2017

ONG-TERM INVESTMENT PORTFOLIO			Portfolio Composi
Sector / Issuer	Market Value (\$)	% of Sector	% of Total Portfolio
NEW YORK CITY NY TRANSITIONAL	1,086,439	20.2%	1.7%
STATE OF CONNECTICUT	963,919	17.9%	1.5%
Sector Total	5,378,689	100.0%	8.3%
Supra-Sov / Supra-Natl Agency			
AFRICAN DEVELOPMENT BANK	1,050,308	12.3%	1.6%
ASIAN DEVELOPMENT BANK	2,526,311	29.5%	3.9%
INTER-AMERICAN DEVELOPMENT BANK	1,591,522	18.6%	2.5%
INTL BANK OF RECONSTRUCTION AND DEV	3,386,534	39.6%	5.2%
Sector Total	8,554,675	100.0%	13.3%
.S. Treasury			
UNITED STATES TREASURY	22,363,076	100.0%	34.6%
Sector Total	22,363,076	100.0%	34.6%
ortfolio Total	64,551,689	100.0%	100.0%

## **Short-Term Investment Portfolio**

#### SHORT-TERM INVESTMENT PORTFOLIO

#### Portfolio Snapshot

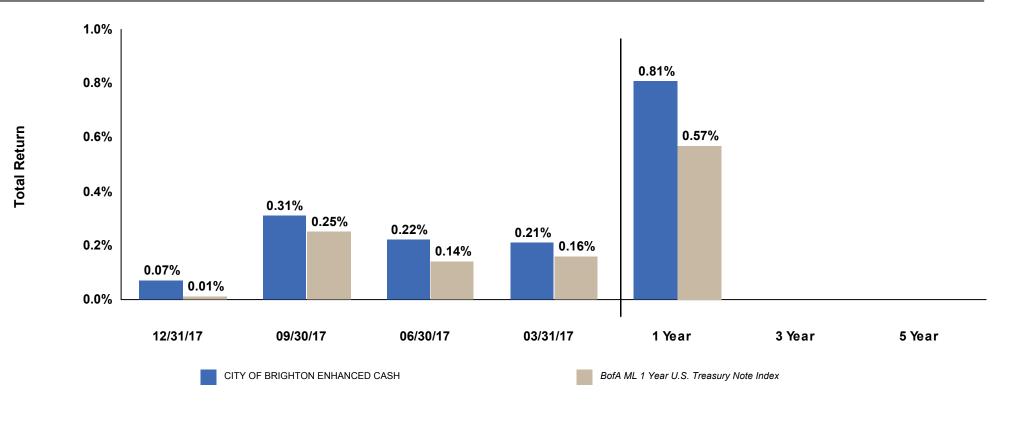


\*An average of each security's credit rating assigned a numeric value and adjusted for its relative weighting in the portfolio.

Portfolio Performance

#### Portfolio Performance (Total Return)

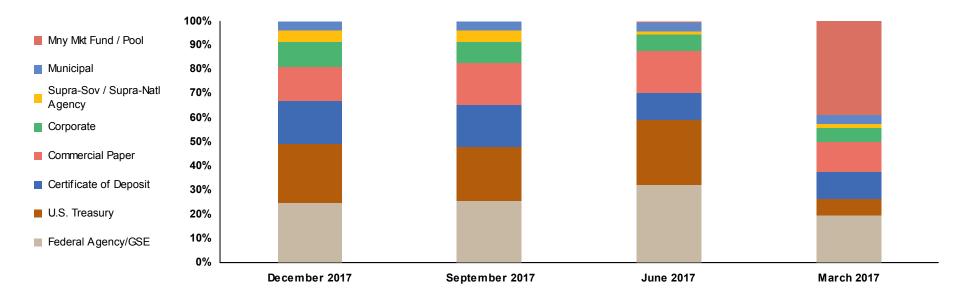
			Quarte	r Ended			Annualized	l Return
Portfolio/Benchmark	Effective Duration	12/31/17	09/30/17	06/30/17	03/31/17	-	3 Year	5 Year
CITY OF BRIGHTON ENHANCED CASH BofA	0.89	0.07%	0.31%	0.22%	0.21%	0.81%	-	-
ML 1 Year U.S. Treasury Note Index	0.90	0.01%	0.25%	0.14%	0.16%	0.57%	-	-
Difference		0.06%	0.06%	0.08%	0.05%	0.24%	-	-



Portfolio performance is gross of fees unless otherwise indicated.

#### **Sector Allocation**

	December 3	31, 2017	September 3	30, 2017	June 30,	2017	March 31	, 2017
Sector	MV (\$MM)	% of Total	MV (\$MM)	% of Total	MV (\$MM)	% of Total	MV (\$MM)	% of Total
Federal Agency/GSE	4.0	24.6%	4.1	25.5%	5.2	32.2%	3.1	19.3%
U.S. Treasury	3.9	24.4%	3.6	22.2%	4.3	26.8%	1.2	7.3%
Certificate of Deposit	2.9	17.7%	2.8	17.5%	1.8	11.3%	1.8	10.9%
Commercial Paper	2.3	14.1%	2.8	17.2%	2.7	17.0%	2.0	12.4%
Corporate	1.6	10.2%	1.4	8.5%	1.1	7.0%	0.9	5.8%
Supra-Sov / Supra-Natl Agency	0.8	5.2%	0.8	5.3%	0.2	1.5%	0.2	1.5%
Municipal	0.6	3.7%	0.6	3.7%	0.6	3.7%	0.6	3.7%
Mny Mkt Fund / Pool	0.0	0.1%	0.0	0.1%	0.1	0.5%	6.3	39.1%
Total	\$16.1	100.0%	\$16.2	100.0%	\$16.1	100.0%	\$16.1	100.0%



Detail may not add to total due to rounding.

#### Portfolio Composition

#### **Sector/Issuer Distribution**

As of December 31, 2017

Sector / Issuer	Market Value (\$)	% of Sector	% of Total Portfolio
Certificate of Deposit			
BANK OF AMERICA CO	299,611	10.5%	1.9%
CANADIAN IMPERIAL BANK OF COMMERCE	249,472	8.7%	1.5%
CITIGROUP INC	249,996	8.7%	1.5%
CREDIT SUISSE GROUP	324,442	11.3%	2.0%
NORDEA BANK AB	250,155	8.7%	1.5%
NORINCHUKIN BANK	249,390	8.7%	1.5%
ROYAL BANK OF CANADA	249,999	8.7%	1.5%
SKANDINAVISKA ENSKILDA BANKEN AB	246,790	8.6%	1.5%
SVENSKA HANDELSBANKEN AB	234,933	8.2%	1.5%
TORONTO-DOMINION BANK	249,998	8.7%	1.5%
UBS AG	259,623	9.1%	1.6%
Sector Total	2,864,409	100.0%	17.7%
Commercial Paper			
BANK OF MONTREAL	248,076	10.9%	1.5%
BNP PARIBAS	249,155	10.9%	1.5%
CREDIT AGRICOLE SA	248,513	10.9%	1.5%
ING GROUP NV	248,601	10.9%	1.5%
IP MORGAN CHASE & CO	545 818	23.9%	3.4%

#### For the Quarter Ended December 31, 2017

#### SHORT-TERM INVESTMENT PORTFOLIO

Portfolio Composition

Sector / Issuer	Market Value (\$)	% of Sector	% of Total Portfolio
TOYOTA MOTOR CORP	247,422	10.8%	1.5%
Sector Total	2,283,246	100.0%	14.1%

#### Corporate

Sector Total	1,646,741	100.0%	10.2%
WAL-MART STORES INC	149,467	9.1%	0.9%
TOYOTA MOTOR CORP	398,200	24.2%	2.5%
PROCTER & GAMBLE CO	149,535	9.1%	0.9%
GENERAL ELECTRIC CO	190,726	11.6%	1.2%
CHEVRON CORPORATION	440,605	26.8%	2.7%
APPLE INC	318,207	19.3%	2.0%

#### Federal Agency/GSE

FANNIE MAE	790,205	19.9%	4.9%
FEDERAL HOME LOAN BANKS	2,012,079	50.7%	12.5%
FREDDIE MAC	1,165,732	29.4%	7.2%
Sector Total	3,968,015	100.0%	24.6%

#### Mny Mkt Fund / Pool

PFM FUNDS - GOVT SELECT, COLO INVST	15,479	100.0%	0.1%
Sector Total	15,479	100.0%	0.1%

#### Municipal

FLORIDA ST HURRICAN CAT FUND	200,070	34.0%	1.2%
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For the C	Juarter	Ended	Decembe	er 31,	2017
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SHORT-TERM INVESTMENT PORTFOLIO			Portfolio Compositio
Sector / Issuer	Market Value (\$)	% of Sector	% of Total Portfolio
REGIONAL TRANS AUTH, IL	199,742	33.9%	1.2%
STATE OF CONNECTICUT	189,314	32.1%	1.2%
Sector Total	589,126	100.0%	3.6%
Supra-Sov / Supra-Natl Agency			
AFRICAN DEVELOPMENT BANK	349,339	41.4%	2.2%
INTL BANK OF RECONSTRUCTION AND DEV	494,149	58.6%	3.1%
Sector Total	843,487	100.0%	5.2%
U.S. Treasury			
UNITED STATES TREASURY	3,936,143	100.0%	24.4%
Sector Total	3,936,143	100.0%	24.4%
Portfolio Total	16,146,645	100.0%	100.0%

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## 2018 Investment Outlook and Strategy

- The U.S. economy is generally on strong footing heading into the new year, bolstered by expanding economic activity, a strong jobs market, and gains in housing. However, the continued rise of the domestic stock market, coupled with low volatility, may point to investor complacency.
- The Federal Reserve recently reiterated its intentions to continue to gradually increase rates into 2018. However, persistently low inflation readings may derail these plans. In this uncertain environment, we plan to adopt a duration-neutral stance but will continue to carefully monitor the portfolio's duration relative to the benchmark's duration, making adjustments as appropriate.
- Federal Agency issuance is expected to resume in the new year, but the overall level is expected to be slower than 2017. Given the flatness of the yield curve and narrow bullet agency spreads, we may seek value in callable agency securities where we find them advantageous.
- We will continue to focus on exposure to the corporate sector as well as other spread products to add value to the portfolios.
- The mortgage-backed securities (MBS) sector may experience some turbulence once the pace of tapering increases in future months. For that reason, we are generally avoiding additional MBS allocations at this time.
- Broad diversification across all investment-grade sectors remains a key component of our portfolio strategy. We will
  continue to monitor the markets and will make relative-value trades as appropriate in order to safely enhance
  portfolio earnings. However, as always, while we continue to seek opportunities to enhance the earnings, our priority
  will always be to maintain the safety and liquidity of portfolio investments.

#### **IMPORTANT DISCLOSURES**

This material is based on information obtained from sources generally believed to be reliable and available to the public; however, PFM Asset Management LLC cannot guarantee its accuracy, completeness or suitability. This material is for general information purposes only and is not intended to provide specific advice or a specific recommendation. All statements as to what will or may happen under certain circumstances are based on assumptions, some, but not all of which, are noted in the presentation. Assumptions may or may not be proven correct as actual events occur, and results may depend on events outside of your or our control. Changes in assumptions may have a material effect on results. Past performance does not necessarily reflect and is not a guaranty of future results. The information contained in this presentation is not an offer to purchase or sell any securities.

- Market values that include accrued interest are derived from closing bid prices as of the last business day of the month as supplied by Interactive Data, Bloomberg, or Telerate. Where prices are not available from generally recognized sources, the securities are priced using a yield based matrix system to arrive at an estimated market value.
- In accordance with generally accepted accounting principles, information is presented on a trade date basis; forward settling purchases are included in the monthly balances, and forward settling sales are excluded.
- Performance is presented in accordance with the CFA Institute's Global Investment Performance Standards (GIPS). Unless otherwise noted, performance is shown gross of fees.
   Quarterly returns are presented on an unannualized basis. Returns for periods greater than one year are presented on an annualized basis. Past performance is not indicative of future returns.
- Bank of America/Merrill Lynch Indices provided by Bloomberg Financial Markets.
- Money market fund/cash balances are included in performance and duration computations.
- Standard & Poor's is the source of the credit ratings. Distribution of credit rating is exclusive of money market fund/LGIP holdings.
- Callable securities in the portfolio are included in the maturity distribution analysis to their stated maturity date, although, they may be called prior to maturity.
- MBS maturities are represented by expected average life.

#### GLOSSARY

- ACCRUED INTEREST: Interest that is due on a bond or other fixed income security since the last interest payment was made.
- AGENCIES: Federal agency securities and/or Government-sponsored enterprises.
- AMORTIZED COST: The original cost of the principal of the security is adjusted for the amount of the periodic reduction of any discount or premium from the purchase date until the date of the report. Discount or premium with respect to short-term securities (those with less than one year to maturity at time of issuance) is amortized on a straight line basis. Such discount or premium with respect to longer-term securities is amortized using the constant yield basis.
- BANKERS' ACCEPTANCE: A draft or bill or exchange accepted by a bank or trust company. The accepting institution guarantees payment of the bill as well as the insurer.
- COMMERCIAL PAPER: An unsecured obligation issued by a corporation or bank to finance its short-term credit needs, such as accounts receivable and inventory.
- CONTRIBUTION TO DURATION: Represents each sector or maturity range's relative contribution to the overall duration of the portfolio measured as a percentage weighting. Since
  duration is a key measure of interest rate sensitivity, the contribution to duration measures the relative amount or contribution of that sector or maturity range to the total rate
  sensitivity of the portfolio.
- DURATION TO WORST: A measure of the sensitivity of a security's price to a change in interest rates, stated in years, computed from cash flows to the maturity date or to the put
  date, whichever results in the highest yield to the investor.
- EFFECTIVE DURATION: A measure of the sensitivity of a security's price to a change in interest rates, stated in years.
- EFFECTIVE YIELD: The total yield an investor receives in relation to the nominal yield or coupon of a bond. Effective yield takes into account the power of compounding on investment returns, while ominal yield does not.
- FDIC: Federal Deposit Insurance Corporation. A federal agency that insures bank deposits to a specified amount.
- INTEREST RATE: Interest per year divided by principal amount and expressed as a percentage.
- MARKET VALUE: The value that would be received or paid for an investment in an orderly transaction between market participants at the measurement date.
- MATURITY: The date upon which the principal or stated value of an investment becomes due and payable.
- NEGOTIABLE CERTIFICATES OF DEPOSIT: A CD with a very large denomination, usually \$1 million or more, that can be traded in secondary markets.
- PAR VALUE: The nominal dollar face amount of a security.

#### GLOSSARY

- PASS THROUGH SECURITY: A security representing pooled debt obligations that passes income from debtors to its shareholders. The most common type is the mortgage-backed security.
- REPURCHASE AGREEMENTS: A holder of securities sells these securities to an investor with an agreement to repurchase them at a fixed price on a fixed date.
- SETTLE DATE: The date on which the transaction is settled and monies/securities are exchanged. If the settle date of the transaction (i.e., coupon payments and maturity proceeds) occurs on a non-business day, the funds are exchanged on the next business day.
- **TRADE DATE:** The date on which the transaction occurred; however, the final consummation of the security transaction and payment has not yet taken place.
- UNSETTLED TRADE: A trade which has been executed; however, the final consummation of the security transaction and payment has not yet taken place.
- U.S. TREASURY: The department of the U.S. government that issues Treasury securities.
- YIELD: The rate of return based on the current market value, the annual interest receipts, maturity value, and the time period remaining until maturity, stated as a percentage on an annualized basis.
- YTM AT COST: The yield to maturity at cost is the expected rate of return based on the original cost, the annual interest receipts, maturity value, and the time period from purchase date to maturity, stated as a percentage on an annualized basis.
- YTM AT MARKET: The yield to maturity at market is the rate of return based on the current market value, the annual interest receipts, maturity value, and the time period remaining until maturity, stated as a percentage on an annualized basis.