

Great Lakes Water Authority

Investment Performance Report – December 2017



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**Great Lakes Water Authority
Executive Summary**

PORTFOLIO RECAP

- **Safety** – The overall portfolio is diversified amongst cash, bank deposits, U.S. Treasuries, Federal Agencies, commercial paper, SEC-registered money market funds, and a local government investment pool. The total credit profile of the pool is strong with over 98% of the assets invested in bank deposits or securities that are rated within the two highest short and long-term rating classifications as established by S&P.
- **Liquidity** – The portfolio's liquidity weighting to overnight funds has remained steady, with 59.7% of the total assets maturing overnight.
- **Return** – The overall yield increased to 1.36% as of December 31, 2017 versus 1.09% at September 30, 2017. The Authority has earned \$5,534,062 in investment income for fiscal year 2018 to date on a book value basis. Based on the current interest rate environment, the investment income earned for the previous quarter, and assuming that the Authority maintains the same investable balances for the remainder of the fiscal year, we are projecting that the Authority will earn approximately \$11.0 million in investment income for fiscal year 2018.
- **Compliance** – The aggregate portfolio is in compliance with the Authority's investment policy and Michigan Public Act 20.

AVAILABLE FUNDS

| Type | Financial Institution | Market Value | YTM @ Market (as of 12/31/17) |
|-------------------------|-----------------------|-------------------------------|-------------------------------|
| Deposit Account | Comerica | \$34,695 | 0.25% |
| Deposit Account | First Independence | \$15,910,927 | 0.05% |
| Deposit Account | Chase | \$16,939,353 | 0.37% |
| Trust Money Market Fund | U.S. Bank | \$482,468,523 | 1.15% |
| Money Market Fund | JP Morgan | \$73,015,137 | 1.08% |
| LGIP | GovMIC | \$69,597,359 | 1.25% |
| Managed Funds | JP Morgan | \$4,997,000 | 1.58% |
| Managed Funds | PFM | \$439,303,593 | 1.73% |
| <u>TOTAL</u> | | <u>\$1,102,266,586</u> | <u>1.36%</u> |

The accounts at Comerica Bank get an earnings credit to offset bank fees. The earnings in the accounts at First Independence Bank is credited to the contractors and not the Authority. In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of December 31, 2017. "LGIP" stands for Local Government Investment Pool and "MMF" stands for Money Market Fund.

**Great Lakes Water Authority
Investment Strategy**

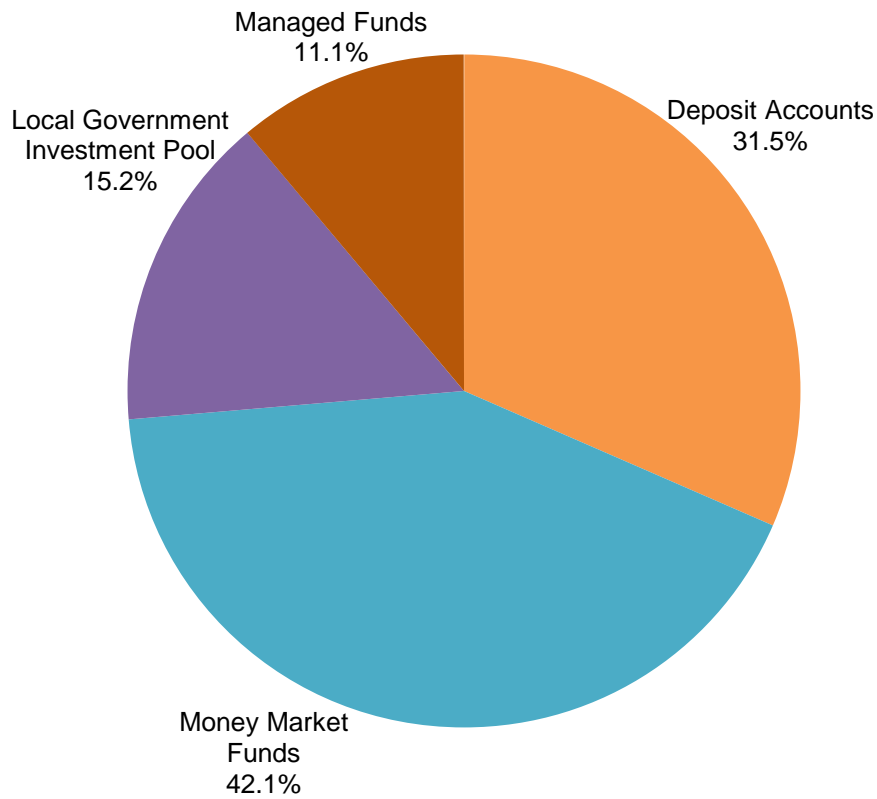
GLWA INVESTMENT STRATEGY

- To date, the Authority has continued to invest its funds in assets concentrated in a mixture of short and intermediate-term investments to ensure sufficient liquidity; there was a slight increase in funds maturing overnight at the end of December to cover debt service, debt reserve, and pension obligation payments and requirements
- The aggregate portfolio was yielding 1.36% at the end of December*
 - This compares to the 1.25% yield of the Bank of America / Merrill Lynch 3-Month U.S. Treasury Bill Index as of 12/31/2017, which is a comparable market indicator
- The Authority has continued to implement a disciplined investment plan to provide improved safety and diversification and putting every dollar to work
- For the third quarter of FY 2018, the investment strategy steps to be taken includes seeking opportunities to invest intermediate and longer-term funds based on refined cash flows (i.e., construction funds, trust funds, etc. that can be invested beyond three months)
- The Authority will continue to work with its investment manager to identify strategies to maximize future investment income while meeting the objectives of safety and liquidity
- Assuming that the Authority maintains the same investable balances for FY 2018 and FY 2019 and the interest rate environment remains in a similar range, we conservatively expect to earn approximately \$11.0 million in interest income in FY 2018 and over \$14.0 million in FY 2019

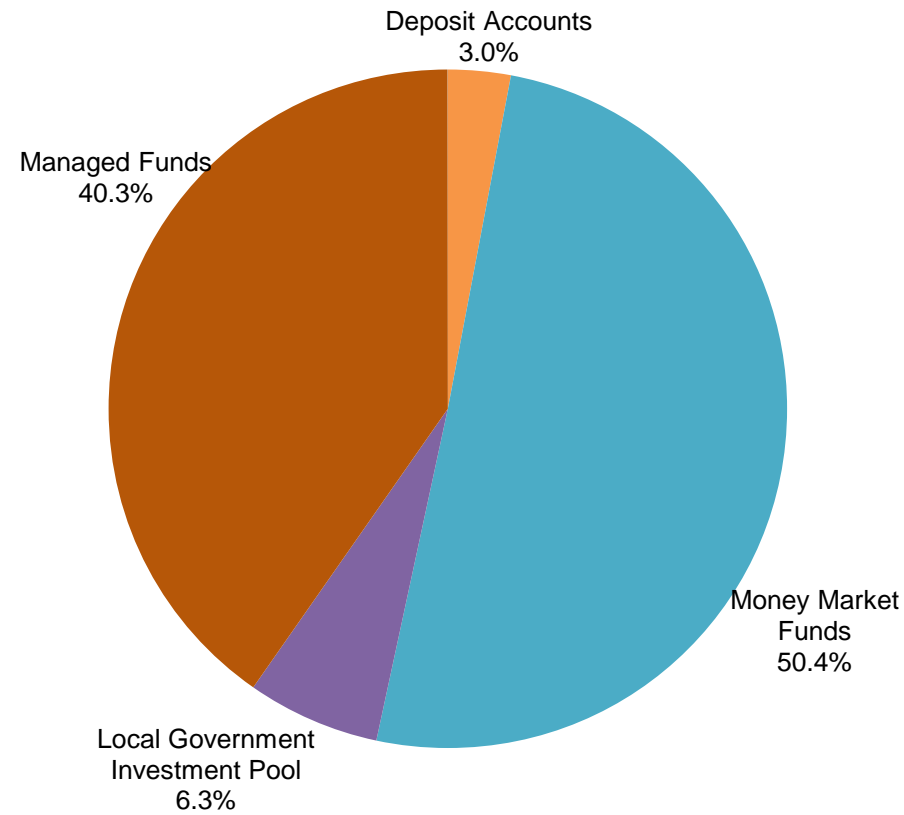
* Current market yield as of December 31, 2017.

Great Lakes Water Authority
Investment Progression

Investment Types as of 12/31/2016



Investment Types as of 12/31/2017



**Great Lakes Water Authority
Market Overview and Outlook**

FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

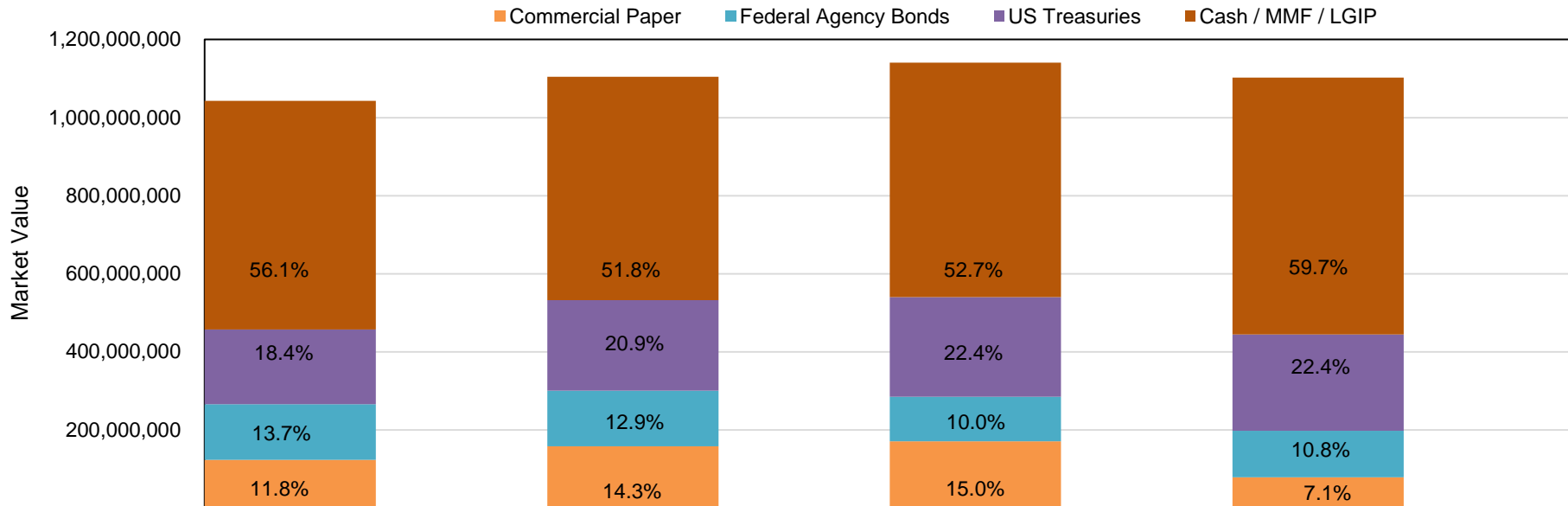
- In the fourth quarter of 2017, economic data was generally favorable as the unemployment rate hovered near a 15-year low, inflation remained in check, and the Federal Reserve raised rates for a third time in 2017. At the same time, both consumer and business confidence remained high, and Congress passed large corporate and individual tax cuts.
- Market reaction to the final tax bill reflected expectations for at least a near-term positive economic impact causing both interest rates and the U.S. equity markets to rise.
- The post-tax bill market moves amplified existing trends. During the quarter:
 - 2-Year Treasury yields rose by 40 basis points (0.40%), reflecting the December rate hike by the Federal Open Market Committee (“FOMC”) and expectations for more policy changes going forward
 - 10-year Treasury yields rose by 9 basis points (0.09%), muted by low inflation prospects and strong demand for yield by global investors
 - The yield curve flattened to the narrowest level since 2007
 - Equity markets capped the first calendar year ever with twelve consecutive months of positive returns
- The strength of the U.S. economy, coupled with the December Fed rate hike, drove yields on all but the longest Treasury maturities higher in the fourth quarter of 2017. As a result, fixed-income returns were mixed for the quarter, with shorter indexes generating negative returns; but, reinvestment opportunities became more attractive. Higher yields, narrow credit spreads, and a flat yield curve created a challenging investment landscape.

**Great Lakes Water Authority
Market Overview and Outlook**

FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- Credit instruments and other “spread product” generally outperformed Treasuries for the quarter relative to government securities. The primary drivers of portfolio performance were asset allocation and diversification.
 - Federal Agency yield spreads remained very narrow relative to similar maturity Treasuries throughout the quarter. Minimal incremental income and similar relative price changes resulted in little excess return from the Agency sector during the quarter (excess return is the return on a sector over and above the return on similar duration Treasuries).
- Generally, the economic themes that brought 2017 to a close will carry forward into 2018, including: improving growth; stable job production; healthy personal consumption; and strong corporate fundamentals.
- Following three hikes in 2017, the Fed’s “dot plot,” released after the December Federal Open Market Committee (“FOMC”) meeting, indicated an expectation for three more hikes in 2018. As of year-end, the market-implied probability of a rate hike at the March FOMC meeting was around 70%.
- The FOMC starts 2018 balancing several factors: persistently low inflation; uncertainty around the pace of economic growth; and the continuation of balance sheet normalization. Additionally, a change in leadership at the Fed – Jerome Powell has replaced Janet Yellen as Fed Chair – has the potential to create some uncertainty. Powell is expected to follow closely in Yellen’s footsteps.
- The outlook for some of the major investment-grade fixed-income sectors are as follows:
 - Federal Agency spreads remain tight; however, the best value relative to U.S. Treasuries is in the 2 – 3 year area of the curve.
 - Given the steepness of the short-term yield curve (under one year), short-term credit instruments like commercial paper look particularly attractive as their current yields fully compensate for at least three Fed rate hikes in 2018.

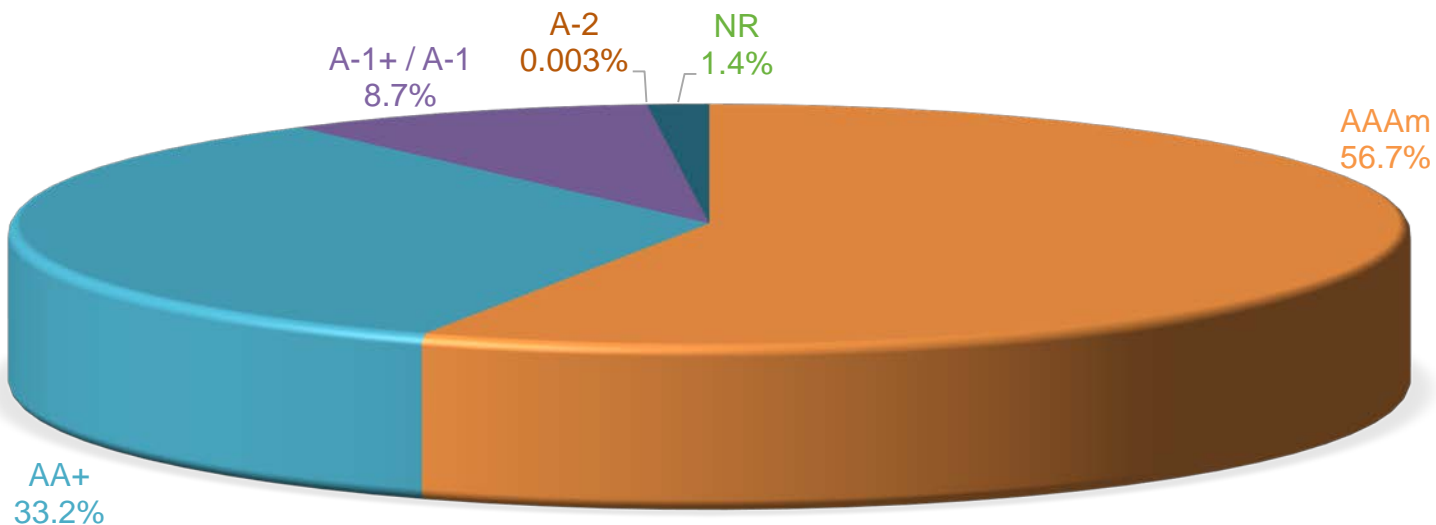
**Great Lakes Water Authority
Investments – By Security Type**



| Security Type | September | | October | | November | | December | |
|-------------------|----------------------|------------------|----------------------|------------------|----------------------|------------------|----------------------|------------------|
| | Market Value | Asset Allocation | Market Value | Asset Allocation | Market Value | Asset Allocation | Market Value | Asset Allocation |
| Commercial Paper | 123,134,114 | 11.8% | 158,194,416 | 14.3% | 170,695,566 | 15.0% | 78,757,023 | 7.1% |
| Federal Agencies | 142,953,689 | 13.7% | 142,851,047 | 12.9% | 114,120,395 | 10.0% | 119,048,302 | 10.8% |
| U.S. Treasuries | 191,617,373 | 18.4% | 231,237,582 | 20.9% | 255,151,533 | 22.4% | 246,495,268 | 22.4% |
| Cash / MMF / LGIP | 585,116,893 | 56.1% | 572,390,125 | 51.8% | 600,863,841 | 52.7% | 657,965,993 | 59.7% |
| Total | 1,042,822,070 | 100.0% | 1,104,673,170 | 100.0% | 1,140,831,335 | 100.0% | 1,102,266,586 | 100.0% |

In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of December 31, 2017. Please note that cash levels at the end of December increased slightly from the levels seen throughout the quarter due to maturities to meet January 1st debt payments.

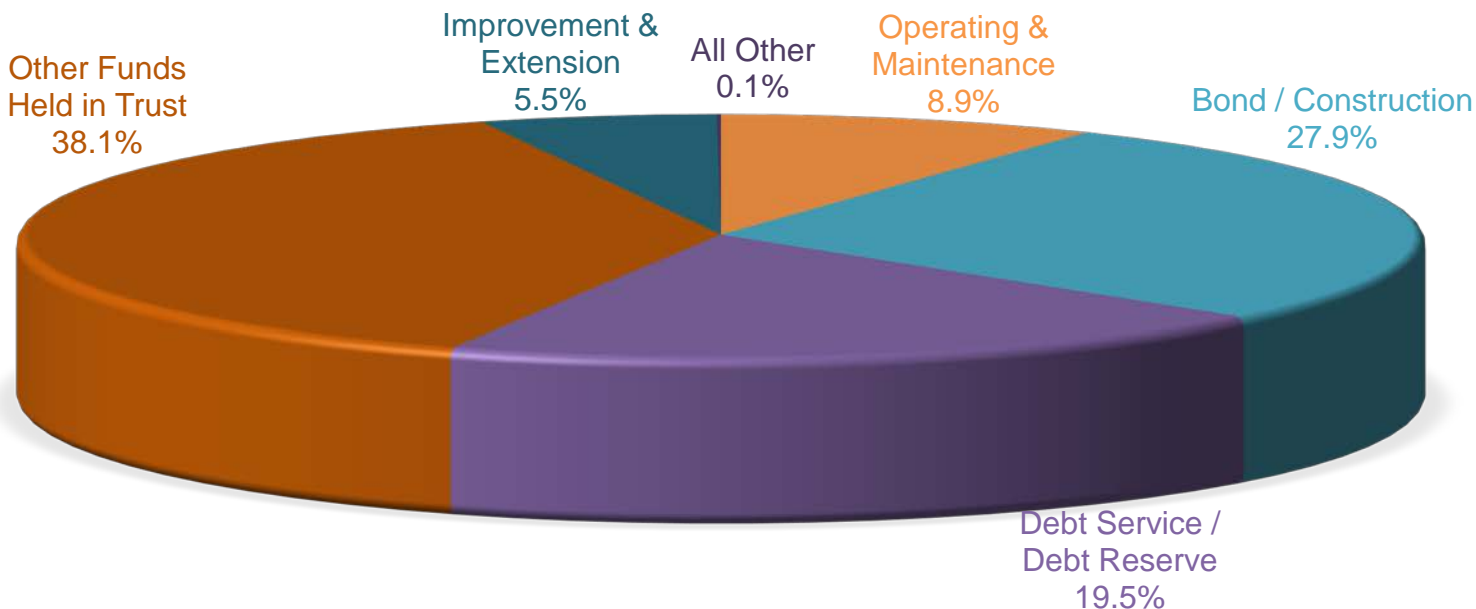
**Great Lakes Water Authority
Investments – By Credit Quality
As of December 31, 2017**



| Credit Quality | Market Value | Asset Allocation |
|----------------|----------------------|------------------|
| Ratings | | |
| AAAm | 625,081,019 | 56.7% |
| AA+ | 365,543,570 | 33.2% |
| A-1 + / A-1 | 95,696,376 | 8.7% |
| A-2 | 34,695 | 0.003% |
| NR | 15,910,927 | 1.4% |
| Totals | 1,102,266,586 | 100.0% |

In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of December 31, 2017.

**Great Lakes Water Authority
Investment Analysis – By Account Purpose
As of December 31, 2017**



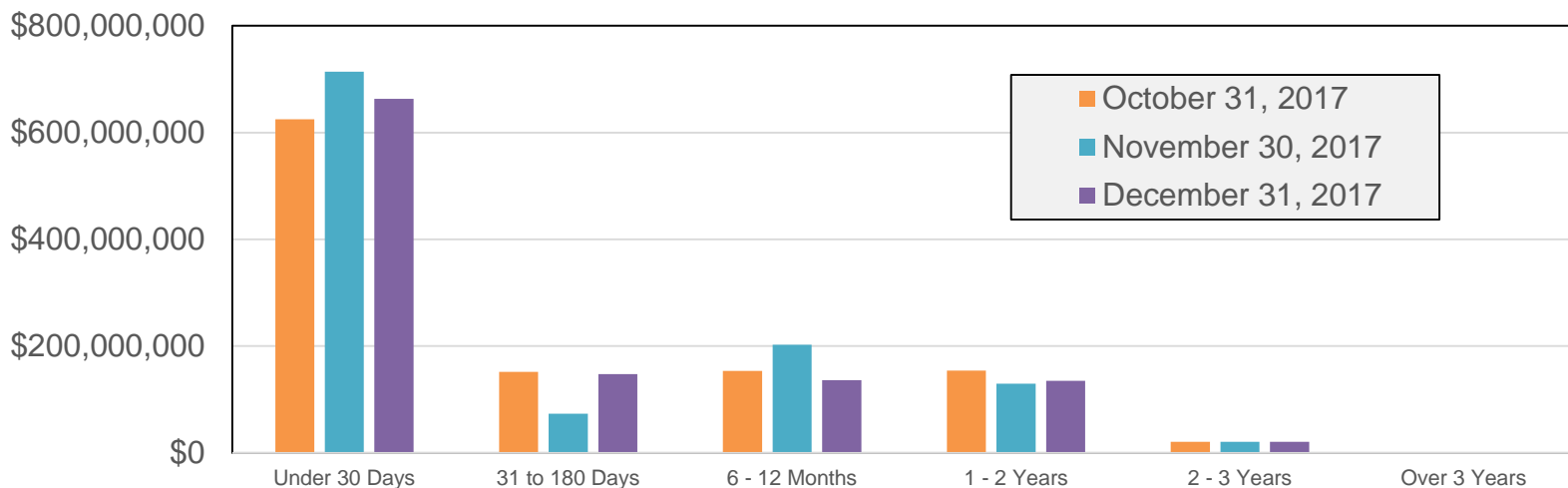
| Account Purpose | Market Value | % Allocation |
|-----------------------------|-------------------------|---------------|
| Operating & Maintenance | \$ 97,597,804 | 8.9% |
| Bond / Construction | \$ 307,105,116 | 27.9% |
| Debt Service / Debt Reserve | \$ 215,373,601 | 19.5% |
| Other Funds Held in Trust | \$ 420,143,177 | 38.1% |
| Improvement & Extension | \$ 60,952,089 | 5.5% |
| All Other | \$ 1,094,800 | 0.1% |
| Total | \$ 1,102,266,586 | 100.0% |

| Other Funds Held in Trust | Market Value | % Allocation |
|-----------------------------------|-----------------------|---------------|
| Budget Stabilization Funds | \$ 11,009,555 | 2.6% |
| Extraordinary R & R Reserve Funds | \$ 58,287,370 | 13.9% |
| Receiving Funds | \$ 327,272,440 | 77.9% |
| Pension Obligation Funds | \$ 20,748,385 | 4.9% |
| WRAP Funds | \$ 2,825,427 | 0.7% |
| Total | \$ 420,143,177 | 100.0% |

In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of December 31, 2017. "All Other" funds includes restricted Water Affordability funds held on behalf of DWSD.

**Great Lakes Water Authority
Investment Analysis – By Maturity**

| Maturity Distribution | October 31, 2017 | | % | November 30, 2017 | | % | December 31, 2017 | | % |
|-----------------------|------------------|----------------------|---------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
| Under 30 Days | \$ | 624,652,997 | 56.5% | \$ | 714,060,154 | 62.6% | \$ | 662,956,012 | 60.1% |
| 31 to 180 Days | | 151,697,149 | 13.7% | | 73,294,397 | 6.4% | | 147,606,350 | 13.4% |
| 6 - 12 Months | | 153,507,697 | 13.9% | | 202,787,984 | 17.8% | | 136,152,908 | 12.4% |
| 1 - 2 Years | | 154,026,821 | 13.9% | | 129,988,988 | 11.4% | | 134,875,104 | 12.2% |
| 2 - 3 Years | | 20,788,507 | 1.9% | | 20,699,813 | 1.8% | | 20,676,212 | 1.9% |
| Over 3 Years | | - | 0.0% | | - | 0.0% | | - | 0.0% |
| Totals | \$ | 1,104,673,170 | 100.0% | \$ | 1,140,831,335 | 100.0% | \$ | 1,102,266,586 | 100.0% |



In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of December 31, 2017.

**Great Lakes Water Authority
Investment Accounts – Yield at Cost & Market
As of December 31, 2017**

The portfolio is in compliance with the Authority's investment policy.

| | As of December 31, 2017 | | As of September 30, 2017 | |
|--|-------------------------|---------------------|--------------------------|---------------------|
| | YTM @ Cost | YTM @ Market | YTM @ Cost | YTM @ Market |
| Bank Deposits | | | | |
| Comerica | 0.25% | 0.25% | 0.25% | 0.25% |
| First Indenpedence | 0.05% | 0.05% | 0.05% | 0.05% |
| JP Morgan Chase | 0.37% | | 0.31% | 0.31% |
| Sub-Total Bank Deposits | 0.22% | 0.22% | 0.21% | 0.21% |
| Money Market Funds / LGIPs | | | | |
| GoVMIC | 1.25% | 1.25% | 1.13% | 1.13% |
| U.S. Bank - First American MMF | 1.15% | 1.15% | 0.89% | 0.89% |
| JP Morgan Securities - Blackrock MMF | 1.08% | 1.08% | 0.93% | 0.93% |
| Sub-Total MMF / LGIPs | 1.15% | 1.15% | 0.92% | 0.92% |
| Investment Portfolios | | | | |
| Sewage - Construction Bond 5421 | 1.35% | 1.58% | 1.10% | 0.95% |
| Sewage SR Debt Serv 5403 | 1.51% | 1.70% | 1.33% | 1.34% |
| Sewage SR Res 5400 | 1.31% | 1.83% | 1.10% | 1.42% |
| Sew 2nd Debt Serv 5403 | 1.55% | 1.76% | 1.31% | 1.30% |
| Sewage 2nd Res 5481 | 1.29% | 1.84% | 1.01% | 1.40% |
| Sew SRF Debt Serv 5410 | 1.45% | 1.64% | 1.16% | 1.21% |
| Sewage R & R | 1.32% | 1.52% | 1.15% | 1.16% |
| Sewer Pension Obligation | 1.27% | 1.47% | 1.22% | 1.28% |
| Sewer Bond Fund | 1.37% | 1.78% | 1.36% | 1.41% |
| Sewer O&M Pension Sub Account | 1.31% | 1.47% | 1.24% | 1.28% |
| Water SR Debt Ser 5503 | 1.54% | 1.73% | 1.33% | 1.34% |
| Water SR Reserve 5500 | 1.13% | 1.73% | 1.13% | 1.46% |
| Water 2nd Debt Serv 5503 | 1.55% | 1.72% | 1.31% | 1.31% |
| Water 2nd Res 5581 | 1.35% | 1.86% | 0.70% | 1.15% |
| Water SRF Debt Serv 5575 | 1.52% | 1.67% | 0.00% | 0.00% |
| Water R & R | 1.32% | 1.52% | 1.15% | 1.16% |
| Water Pension Obligation | 1.28% | 1.47% | 1.22% | 1.28% |
| Water Bond Fund | 1.37% | 1.79% | 1.34% | 1.42% |
| Water O&M Pension Sub Account | 1.31% | 1.47% | 1.24% | 1.28% |
| Sub-Total Investment Portfolios | 1.36% | 1.73% | 1.27% | 1.35% |
| <u>Grand Total</u> | <u>1.21%</u> | <u>1.36%</u> | <u>1.05%</u> | <u>1.09%</u> |
| Short-Term Index | | | | |
| BoA / ML 3-Month Treasury Index | | 1.25% | | 0.98% |

The accounts at Comerica Bank get an earnings credit to offset bank fees. The earnings in the accounts at First Independence Bank is credited to the contractors and not the Authority. The Bank of America / Merrill Lynch 3-Month Treasury Bill is an unmanaged index tracking the on-the-run Treasury Bill. The index is produced and maintained by Bank of America / Merrill Lynch & Co. YTM @ Cost is the expected 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 @ Market is the rate of return, based on the current market value, the annual interest receipts, maturity value and time period remaining until maturity, stated as a percentage, on an annualized basis.

**Great Lakes Water Authority
Demonstration of Yield to Maturity vs. Duration
As of December 31, 2017**

- The comparison agencies included on the list below were selected based on type and/or other non-performance based criteria to show a broad range of water entities/utilities. This peer group list does not represent an endorsement of any of the public agencies or their services. The types of funds (e.g., bond proceeds, debt service, etc.) and duration of the overall portfolios listed below as well as the various differences in permitted investments and allowable credit capacity in state statutes (i.e., the ability or non-ability to invest in long-term corporate credit) will have a direct impact on the corresponding yields at market.
- The overall yield of the Authority's aggregate portfolio compares favorably to those of other short-term indices (i.e., the S&P LGIP index and the 3-month U.S. Treasury index).
- The Authority does not have a potential for a longer duration portfolio when compared to other similar water entities/utilities as the Authority's covenants limits and restricts its ability in managing funds to longer-term strategy.

| As of December 31, 2017 | | | | |
|--|---------------------|---------------------|---------------------------|----------------------------------|
| | <i>Market Value</i> | <i>YTM @ Market</i> | <i>Effective Duration</i> | <i>Weighted Average Maturity</i> |
| GLWA | | | | |
| Great Lakes Water Authority | \$1,102,266,586 | 1.36% | 0.36 Years | 133 Days |
| Short/Intermediate-Term Indices | | | | |
| S&P Rated Government Investment Pool Index | | 1.13% | 0.10 Years | 36 Days |
| BoA / ML 3-Month Treasury Index | | 1.25% | 0.16 Years | 90 Days |
| BoA / ML 6-Month Treasury Index | | 1.48% | 0.41 Years | 180 Days |
| BoA / ML 1-Year Treasury Index | | 1.79% | 0.90 Years | 365 Days |
| BoA / ML 1-3 Year Treasury Index | | 1.88% | 1.80 Years | 657 Days |
| BoA / ML 1-5 Year Treasury Index | | 1.97% | 2.59 Years | 945 Days |
| Peer Analysis (Water Entities / Utilities) | | | | |
| Alameda County Water District, CA | \$98,154,414 | 2.06% | 2.57 Years | 978 Days |
| Coachella Valley Water District, CA | \$456,820,663 | 1.95% | 1.84 Years | 743 Days |
| District of Columbia Water & Sewer Authority, DC | \$309,620,203 | 1.64% | 0.63 Years | 234 Days |
| DuPage Water Commission, IL | \$138,728,230 | 1.99% | 2.26 Years | 935 Days |
| Fairfax County Water Authority, VA | \$249,258,092 | 1.86% | 1.83 Years | 690 Days |
| San Bernardino Valley Municipal Water District, CA | \$299,342,431 | 1.94% | 1.80 Years | 677 Days |
| Truckee Meadows Water Authority, NV | \$118,464,936 | 1.82% | 1.03 Years | 383 Days |

The BoA / ML indexes are unmanaged indexes tracking on-the-run Treasuries. These indexes are produced and maintained by Bank of America / Merrill Lynch & Co. Yield to maturity is the rate of return, based on the current market value, the annual interest receipts, maturity value and time period remaining until maturity, stated as a percentage, on an annualized basis.

Great Lakes Water Authority
Investment Income (by Book Value)
As of December 31, 2017

INVESTMENT INCOME BY MONTH

| Month | Interest Earned During Period | Realized Gain / Loss | Investment Income |
|-----------------------------|----------------------------------|-------------------------|------------------------------|
| July 2017 | \$637,658.61 | \$0.00 | \$637,658.61 |
| August 2017 | \$940,941.92 | \$0.00 | \$940,941.92 |
| September 2017 | \$884,798.87 | \$0.00 | \$884,798.87 |
| October 2017 | \$917,018.83 | \$0.00 | \$917,018.83 |
| November 2017 | \$979,111.10 | \$0.00 | \$979,111.10 |
| December 2017 | \$1,174,533.01 | \$0.00 | \$1,174,533.01 |
| <u>FY 2018 Y-T-D</u> | <u>\$5,534,062.34</u> | <u>\$0.00</u> | <u>\$5,534,062.34</u> |

These figures are based upon actual interest earned and posted to the Authority's various accounts via book value and does not include any earnings credit rate tied to the Authority's bank deposits.

**Great Lakes Water Authority
Portfolio Holdings
As of December 31, 2017**

| DESCRIPTION | CUSIP | PAR AMOUNT | MATURITY DATE | SETTLEMENT DATE | YTM AT COST | ORIGINAL COST | DAYS TO MATURITY | ACCRUED INTEREST | TOTAL VALUE |
|--|-----------|--------------|---------------|-----------------|-------------|---------------|------------------|------------------|-----------------|
| Short-Term Bank Deposits / MMF / LGIP | | | | | | | | | |
| COMERICA BANK | | \$ 34,695 | 1/1/2018 | 12/31/2017 | 0.25% | \$ 34,695 | 1 | \$ - | \$ 34,695 |
| FIRST INDEPENDENCE BANK | | 15,910,927 | 1/1/2018 | 12/31/2017 | 0.05% | 15,910,927 | 1 | - | 15,910,927 |
| JP MORGAN CHASE | | 16,939,353 | 1/1/2018 | 12/31/2017 | 0.37% | 16,939,353 | 1 | - | 16,939,353 |
| GoMIC | | 69,597,359 | 1/1/2018 | 12/31/2017 | 1.25% | 69,597,359 | 1 | - | 69,597,359 |
| U.S. BANK - FIRST AMERICAN MMF | | 482,468,523 | 1/1/2018 | 12/31/2017 | 1.15% | 482,468,523 | 1 | - | 482,468,523 |
| JP MORGAN SECURITIES - BLACKROCK MMF | | 73,015,137 | 1/1/2018 | 12/31/2017 | 1.08% | 73,015,137 | 1 | - | 73,015,137 |
| Federal Agencies | | | | | | | | | |
| FNMA 1 2/28/2018-13 | 3136G05Y3 | \$ 5,000,000 | 2/28/2018 | 2/1/2016 | 1.35% | \$ 4,964,650 | 59 | \$ 16,667 | \$ 4,997,000.00 |
| FHLB 0 6/20/2018 | 313385YH3 | 703,000 | 6/20/2018 | 7/19/2017 | 1.24% | 695,061 | 171 | - | 698,149 |
| FHLB 0 6/20/2018 | 313385YH3 | 3,520,000 | 6/20/2018 | 7/19/2017 | 1.24% | 3,480,247 | 171 | - | 3,495,712 |
| FHLB 0 6/20/2018 | 313385YH3 | 493,000 | 6/20/2018 | 7/19/2017 | 1.24% | 487,432 | 171 | - | 489,598 |
| FHLB 0 6/20/2018 | 313385YH3 | 2,974,000 | 6/20/2018 | 7/19/2017 | 1.24% | 2,940,414 | 171 | - | 2,953,479 |
| FHLB 0.875 6/29/2018 | 3130A8BD4 | 3,025,000 | 6/29/2018 | 10/31/2016 | 0.88% | 3,024,577 | 180 | 147 | 3,013,808 |
| FNMA 1.15 10/30/2018-14 | 3136G1KL2 | 10,000,000 | 10/30/2018 | 4/30/2013 | 1.36% | 9,889,200 | 303 | 19,167 | 9,947,400 |
| FNMA 1.375 1/28/2019 | 3135G0H63 | 5,200,000 | 1/28/2019 | 7/26/2017 | 1.39% | 5,198,908 | 393 | 30,388 | 5,176,756 |
| FNMA 1.375 1/28/2019 | 3135G0H63 | 6,695,000 | 1/28/2019 | 8/31/2017 | 1.31% | 6,700,758 | 393 | 39,124 | 6,665,073 |
| FNMA 1 2/26/2019 | 3135G0J53 | 5,205,000 | 2/26/2019 | 7/26/2017 | 1.39% | 5,173,666 | 422 | 18,073 | 5,155,813 |
| FNMA 1 2/26/2019 | 3135G0J53 | 6,690,000 | 2/26/2019 | 8/31/2017 | 1.33% | 6,657,821 | 422 | 23,229 | 6,626,780 |
| FHLB 1.5 3/8/2019 | 3133782M2 | 6,595,000 | 3/8/2019 | 8/31/2017 | 1.34% | 6,611,026 | 432 | 31,051 | 6,567,895 |
| FHLB 1.375 3/18/2019 | 3130AAXX1 | 5,175,000 | 3/18/2019 | 7/26/2017 | 1.38% | 5,174,431 | 442 | 20,359 | 5,145,089 |
| FHLB 1.375 5/28/2019 | 3130ABF92 | 5,260,000 | 5/28/2019 | 7/26/2017 | 1.40% | 5,257,423 | 513 | 6,630 | 5,224,232 |
| FHLB 1.375 5/28/2019 | 3130ABF92 | 5,245,000 | 5/28/2019 | 8/31/2017 | 1.34% | 5,248,409 | 513 | 6,611 | 5,209,334 |
| FHLB 1.625 6/14/2019 | 313379EE5 | 7,050,000 | 6/14/2019 | 9/1/2017 | 1.38% | 7,080,033 | 530 | 5,410 | 7,021,941 |
| FHLMC 0.875 7/19/2019 | 3137EAE81 | 5,230,000 | 7/19/2019 | 7/26/2017 | 1.41% | 5,176,079 | 565 | 20,593 | 5,148,203 |
| FHLMC 0.875 7/19/2019 | 3137EAE81 | 6,720,000 | 7/19/2019 | 8/31/2017 | 1.36% | 6,659,386 | 565 | 26,460 | 6,614,899 |
| FHLMC 1.375 8/15/2019 | 3137EAE88 | 5,215,000 | 8/15/2019 | 7/26/2017 | 1.45% | 5,206,917 | 592 | 32,268 | 5,170,255 |
| FNMA 1 8/28/2019 | 3135G0P49 | 6,715,000 | 8/28/2019 | 8/31/2017 | 1.39% | 6,664,100 | 605 | 22,943 | 6,615,954 |
| FNMA 1.75 9/12/2019 | 3135G0ZG1 | 4,705,000 | 9/12/2019 | 7/26/2017 | 1.45% | 4,734,171 | 620 | 24,930 | 4,691,685 |
| FHLB 1 9/26/2019 | 3130A9EP2 | 7,550,000 | 9/26/2019 | 8/31/2017 | 1.39% | 7,490,053 | 634 | 19,924 | 7,434,334 |
| FHLMC 1.25 10/2/2019 | 3137EADM8 | 5,045,000 | 10/2/2019 | 12/28/2017 | 1.93% | 4,985,469 | 640 | 15,590 | 4,984,914 |

In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of December 31, 2017.

**Great Lakes Water Authority
Portfolio Holdings
As of December 31, 2017**

| DESCRIPTION | CUSIP | PAR AMOUNT | MATURITY DATE | SETTLEMENT DATE | YTM AT COST | ORIGINAL COST | DAYS TO MATURITY | ACCRUED INTEREST | TOTAL VALUE |
|-----------------------------------|-----------|--------------|---------------|-----------------|-------------|---------------|------------------|------------------|-----------------|
| Commercial Paper | | | | | | | | | |
| Cooperatieve Rabobank 0 2/21/2018 | 21687BBM2 | \$ 4,100,000 | 2/21/2018 | 7/28/2017 | 1.40% | \$ 4,067,783 | 52 | \$ - | \$ 4,090,160.00 |
| Cooperatieve Rabobank 0 2/21/2018 | 21687BBM2 | 5,300,000 | 2/21/2018 | 7/28/2017 | 1.40% | 5,258,354 | 52 | - | 5,287,280 |
| Credit Agricole 0 3/23/2018 | 22533UCP6 | 1,598,000 | 3/23/2018 | 12/21/2017 | 1.64% | 1,591,384 | 82 | - | 1,591,992 |
| Toyota Motor Credit 0 3/23/2018 | 89233HCP7 | 1,655,000 | 3/23/2018 | 10/4/2017 | 1.43% | 1,643,980 | 82 | - | 1,648,777 |
| Toyota Motor Credit 0 3/23/2018 | 89233HCP7 | 1,711,000 | 3/23/2018 | 11/7/2017 | 1.40% | 1,702,080 | 82 | - | 1,704,567 |
| Bank of Tokyo 0 4/20/2018 | 06538CDL2 | 4,100,000 | 4/20/2018 | 7/26/2017 | 1.55% | 4,053,606 | 110 | - | 4,078,680 |
| JPMorgan Securities 0 4/20/2018 | 46640QDL2 | 4,100,000 | 4/20/2018 | 7/26/2017 | 1.54% | 4,053,911 | 110 | - | 4,077,860 |
| Bank of Tokyo 0 4/20/2018 | 06538CDL2 | 5,300,000 | 4/20/2018 | 7/26/2017 | 1.55% | 5,240,028 | 110 | - | 5,272,440 |
| JPMorgan Securities 0 4/20/2018 | 46640QDL2 | 5,300,000 | 4/20/2018 | 7/26/2017 | 1.54% | 5,240,422 | 110 | - | 5,271,380 |
| ING US Funding 0 5/2/2018 | 4497W1E28 | 692,000 | 5/2/2018 | 8/10/2017 | 1.54% | 684,308 | 122 | - | 688,007 |
| ING US Funding 0 5/2/2018 | 4497W1E28 | 3,468,000 | 5/2/2018 | 8/10/2017 | 1.54% | 3,429,452 | 122 | - | 3,447,990 |
| ING US Funding 0 5/2/2018 | 4497W1E28 | 2,922,000 | 5/2/2018 | 8/10/2017 | 1.54% | 2,889,521 | 122 | - | 2,905,140 |
| Credit Agricole 0 5/29/2018 | 22533UEV1 | 4,030,000 | 5/29/2018 | 12/28/2017 | 1.78% | 4,000,053 | 149 | - | 3,999,815 |
| Bank of Montreal 0 6/4/2018 | 06366HF44 | 639,000 | 6/4/2018 | 9/8/2017 | 1.51% | 631,964 | 155 | - | 633,977 |
| Bank of Montreal 0 6/4/2018 | 06366HF44 | 3,295,000 | 6/4/2018 | 9/8/2017 | 1.51% | 3,258,719 | 155 | - | 3,269,101 |
| Bank of Montreal 0 6/4/2018 | 06366HF44 | 982,000 | 6/4/2018 | 9/8/2017 | 1.51% | 971,187 | 155 | - | 974,281 |
| Bank of Montreal 0 6/4/2018 | 06366HF44 | 2,933,000 | 6/4/2018 | 9/8/2017 | 1.51% | 2,900,705 | 155 | - | 2,909,947 |
| Bank of Tokyo 0 6/22/2018 | 06538CFN6 | 2,029,000 | 6/22/2018 | 10/4/2017 | 1.63% | 2,005,611 | 173 | - | 2,011,165 |
| Bank of Tokyo 0 6/22/2018 | 06538CFN6 | 742,000 | 6/22/2018 | 10/4/2017 | 1.63% | 733,447 | 173 | - | 735,478 |
| BNP Paribas 0 6/22/2018 | 09659CFN3 | 692,000 | 6/22/2018 | 11/7/2017 | 1.63% | 685,018 | 173 | - | 685,917 |
| BNP Paribas 0 6/22/2018 | 09659CFN3 | 3,465,000 | 6/22/2018 | 11/7/2017 | 1.63% | 3,430,042 | 173 | - | 3,434,543 |
| JPMorgan Securities 0 6/22/2018 | 46640QFN6 | 691,000 | 6/22/2018 | 12/21/2017 | 1.92% | 684,396 | 173 | - | 684,926 |
| JPMorgan Securities 0 6/22/2018 | 46640QFN6 | 3,473,000 | 6/22/2018 | 12/21/2017 | 1.92% | 3,439,810 | 173 | - | 3,442,472 |
| JPMorgan Securities 0 6/22/2018 | 46640QFN6 | 1,627,000 | 6/22/2018 | 10/5/2017 | 1.62% | 1,608,434 | 173 | - | 1,612,699 |
| Bank of Tokyo 0 6/22/2018 | 06538CFN6 | 1,750,000 | 6/22/2018 | 10/4/2017 | 1.63% | 1,729,827 | 173 | - | 1,734,618 |
| Bank of Tokyo 0 6/22/2018 | 06538CFN6 | 479,000 | 6/22/2018 | 10/4/2017 | 1.63% | 473,478 | 173 | - | 474,790 |
| BNP Paribas 0 6/22/2018 | 09659CFN3 | 2,930,000 | 6/22/2018 | 11/7/2017 | 1.63% | 2,900,440 | 173 | - | 2,904,245 |
| BNP Paribas 0 6/22/2018 | 09659CFN3 | 492,000 | 6/22/2018 | 11/7/2017 | 1.63% | 487,036 | 173 | - | 487,675 |
| JPMorgan Securities 0 6/22/2018 | 46640QFN6 | 1,178,000 | 6/22/2018 | 10/5/2017 | 1.62% | 1,164,558 | 173 | - | 1,167,645 |
| JPMorgan Securities 0 6/22/2018 | 46640QFN6 | 489,000 | 6/22/2018 | 12/21/2017 | 1.92% | 484,327 | 173 | - | 484,702 |
| JPMorgan Securities 0 6/22/2018 | 46640QFN6 | 2,928,000 | 6/22/2018 | 12/21/2017 | 1.92% | 2,900,018 | 173 | - | 2,902,263 |
| JPMorgan Securities 0 6/29/2018 | 46640QFV8 | 196,000 | 6/29/2018 | 11/7/2017 | 1.64% | 193,962 | 180 | - | 194,207 |
| JPMorgan Securities 0 6/29/2018 | 46640QFV8 | 849,000 | 6/29/2018 | 11/7/2017 | 1.64% | 840,170 | 180 | - | 841,232 |
| Bank of Tokyo 0 9/17/2018 | 06538CJH5 | 123,000 | 9/17/2018 | 12/21/2017 | 1.97% | 121,238 | 260 | - | 121,246 |
| Bank of Tokyo 0 9/17/2018 | 06538CJH5 | 3,029,000 | 9/17/2018 | 12/21/2017 | 1.97% | 2,985,610 | 260 | - | 2,985,806 |

In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of December 31, 2017.

**Great Lakes Water Authority
Portfolio Holdings
As of December 31, 2017**

| DESCRIPTION | CUSIP | PAR AMOUNT | MATURITY DATE | SETTLEMENT DATE | YTM AT COST | ORIGINAL COST | DAYS TO MATURITY | ACCRUED INTEREST | TOTAL VALUE |
|------------------------|-------------|------------|---------------|-----------------|-------------|---------------|------------------|------------------|--------------|
| U.S. Treasuries | | | | | | | | | |
| T-Note 1 3/15/2018 | 912828J68 | \$ 48,000 | 3/15/2018 | 11/7/2017 | 1.28% | \$ 47,953 | 74 | \$ 142 | \$ 47,966.40 |
| T-Note 1 3/15/2018 | 912828J68 | 1,638,000 | 3/15/2018 | 6/6/2017 | 1.16% | 1,635,953 | 74 | 4,842 | 1,636,853 |
| T-Note 1 3/15/2018 | 912828J68 | 1,502,000 | 3/15/2018 | 9/15/2017 | 1.15% | 1,500,885 | 74 | 4,440 | 1,500,949 |
| T-Note 1 3/15/2018 | 912828J68 | 1,559,000 | 3/15/2018 | 6/6/2017 | 1.17% | 1,556,929 | 74 | 4,608 | 1,557,909 |
| T-Bill 0 3/22/2018 | 912796NX3 | 40,000 | 3/22/2018 | 12/21/2017 | 1.34% | 39,865 | 81 | - | 39,881 |
| T-Bill 0 3/22/2018 | 912796NX3 | 30,000 | 3/22/2018 | 10/4/2017 | 1.16% | 29,837 | 81 | - | 29,911 |
| T-Note 0.75 3/31/2018 | 912828UU2 | 7,054,000 | 3/31/2018 | 8/9/2017 | 1.19% | 7,034,161 | 90 | 13,372 | 7,043,066 |
| T-Note 0.75 3/31/2018 | 912828UU2 | 9,240,000 | 3/31/2018 | 8/9/2017 | 1.19% | 9,214,013 | 90 | 17,515 | 9,225,678 |
| T-Note 1.125 6/15/2018 | 912828XF2-1 | 4,750,000 | 6/15/2018 | 8/9/2017 | 1.23% | 4,745,732 | 166 | 2,349 | 4,742,590 |
| T-Note 1.125 6/15/2018 | 912828XF2-1 | 889,000 | 6/15/2018 | 10/3/2017 | 1.25% | 888,201 | 166 | 440 | 887,613 |
| T-Note 1.125 6/15/2018 | 912828XF2-1 | 890,000 | 6/15/2018 | 9/7/2017 | 1.20% | 889,513 | 166 | 440 | 888,612 |
| T-Note 1.125 6/15/2018 | 912828XF2-1 | 4,159,000 | 6/15/2018 | 8/8/2017 | 1.22% | 4,155,588 | 166 | 2,057 | 4,152,512 |
| T-Note 1.125 6/15/2018 | 912828XF2-1 | 1,115,000 | 6/15/2018 | 12/4/2017 | 1.45% | 1,113,084 | 166 | 551 | 1,113,261 |
| T-Note 1.125 6/15/2018 | 912828XF2-1 | 1,286,000 | 6/15/2018 | 11/10/2017 | 1.38% | 1,284,091 | 166 | 636 | 1,283,994 |
| T-Note 1.125 6/15/2018 | 912828XF2-1 | 47,000 | 6/15/2018 | 12/21/2017 | 1.47% | 46,923 | 166 | 23 | 46,927 |
| T-Note 1.125 6/15/2018 | 912828XF2-2 | 503,000 | 6/15/2018 | 12/4/2017 | 1.45% | 502,135 | 166 | 249 | 502,215 |
| T-Note 1.125 6/15/2018 | 912828XF2-2 | 1,496,000 | 6/15/2018 | 9/15/2017 | 1.24% | 1,494,714 | 166 | 740 | 1,493,666 |
| T-Note 1.125 6/15/2018 | 912828XF2-2 | 513,000 | 6/15/2018 | 11/10/2017 | 1.39% | 512,198 | 166 | 254 | 512,200 |
| T-Note 1.125 6/15/2018 | 912828XF2-2 | 518,000 | 6/15/2018 | 10/4/2017 | 1.28% | 517,454 | 166 | 256 | 517,192 |
| T-Note 1.125 6/15/2018 | 912828XF2-2 | 17,000 | 6/15/2018 | 12/21/2017 | 1.47% | 16,972 | 166 | 8 | 16,973 |
| T-Note 1.125 6/15/2018 | 912828XF2-1 | 6,250,000 | 6/15/2018 | 8/9/2017 | 1.23% | 6,244,385 | 166 | 3,091 | 6,240,250 |
| T-Note 1.125 6/15/2018 | 912828XF2-1 | 1,220,000 | 6/15/2018 | 10/3/2017 | 1.25% | 1,218,904 | 166 | 603 | 1,218,097 |
| T-Note 1.125 6/15/2018 | 912828XF2-1 | 1,378,000 | 6/15/2018 | 12/4/2017 | 1.45% | 1,375,632 | 166 | 681 | 1,375,850 |
| T-Note 1.125 6/15/2018 | 912828XF2-1 | 1,223,000 | 6/15/2018 | 9/7/2017 | 1.20% | 1,222,331 | 166 | 605 | 1,221,092 |
| T-Note 1.125 6/15/2018 | 912828XF2-1 | 6,623,000 | 6/15/2018 | 8/8/2017 | 1.22% | 6,617,567 | 166 | 3,275 | 6,612,668 |
| T-Note 1.125 6/15/2018 | 912828XF2-2 | 1,880,000 | 6/15/2018 | 11/10/2017 | 1.38% | 1,877,209 | 166 | 930 | 1,877,067 |
| T-Note 1.125 6/15/2018 | 912828XF2-2 | 2,724,000 | 6/15/2018 | 9/15/2017 | 1.24% | 2,721,659 | 166 | 1,347 | 2,719,751 |
| T-Note 1.125 6/15/2018 | 912828XF2-2 | 885,000 | 6/15/2018 | 11/10/2017 | 1.39% | 883,617 | 166 | 438 | 883,619 |
| T-Note 1.125 6/15/2018 | 912828XF2-2 | 899,000 | 6/15/2018 | 12/4/2017 | 1.45% | 897,455 | 166 | 445 | 897,598 |
| T-Note 1.125 6/15/2018 | 912828XF2-2 | 70,000 | 6/15/2018 | 12/21/2017 | 1.47% | 69,885 | 166 | 35 | 69,891 |
| T-Note 1.125 6/15/2018 | 912828XF2-2 | 915,000 | 6/15/2018 | 10/4/2017 | 1.28% | 914,035 | 166 | 452 | 913,573 |
| T-Note 1.125 6/15/2018 | 912828XF2-2 | 30,000 | 6/15/2018 | 12/21/2017 | 1.47% | 29,951 | 166 | 15 | 29,953 |
| T-Note 1.375 6/30/2018 | 912828VK3-2 | 7,510,000 | 6/30/2018 | 7/26/2017 | 1.23% | 7,519,974 | 181 | - | 7,505,344 |
| T-Note 1.375 6/30/2018 | 912828VK3-2 | 7,960,000 | 6/30/2018 | 7/26/2017 | 1.23% | 7,970,572 | 181 | - | 7,955,065 |
| T-Note 0.625 6/30/2018 | 912828R93 | 745,000 | 6/30/2018 | 7/10/2017 | 1.11% | 741,479 | 181 | - | 741,916 |
| T-Note 1.375 6/30/2018 | 912828VK3-1 | 36,000 | 6/30/2018 | 7/19/2017 | 1.23% | 36,049 | 181 | - | 35,978 |
| T-Note 1.375 6/30/2018 | 912828VK3 | 88,000 | 6/30/2018 | 10/4/2017 | 1.30% | 88,048 | 181 | - | 87,945 |
| T-Note 1.375 6/30/2018 | 912828VK3 | 89,000 | 6/30/2018 | 12/21/2017 | 1.52% | 88,930 | 181 | - | 88,945 |

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**Great Lakes Water Authority
Portfolio Holdings
As of December 31, 2017**

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|-------------------------|-------------|------------|---------------|-----------------|-------------|---------------|------------------|------------------|-------------|
| U.S. Treasuries | | | | | | | | | |
| T-Note 1.375 6/30/2018 | 912828VK3 | 188,000 | 6/30/2018 | 12/21/2017 | 1.52% | 187,853 | 181 | - | 187,883 |
| T-Note 1.375 6/30/2018 | 912828VK3 | 10,000 | 6/30/2018 | 10/4/2017 | 1.30% | 10,005 | 181 | - | 9,994 |
| T-Note 2.375 6/30/2018 | 912828QT0 | 42,000 | 6/30/2018 | 8/10/2017 | 1.24% | 42,420 | 181 | - | 42,177 |
| T-Note 0.625 6/30/2018 | 912828R93 | 2,705,000 | 6/30/2018 | 2/27/2017 | 0.98% | 2,692,215 | 181 | - | 2,693,801 |
| T-Note 0.625 6/30/2018 | 912828R93 | 57,000 | 6/30/2018 | 11/17/2017 | 1.46% | 56,708 | 181 | - | 56,764 |
| T-Note 1.375 6/30/2018 | 912828VK3-1 | 838,000 | 6/30/2018 | 7/19/2017 | 1.23% | 839,146 | 181 | - | 837,480 |
| T-Note 1.375 6/30/2018 | 912828VK3 | 881,000 | 6/30/2018 | 10/4/2017 | 1.30% | 881,482 | 181 | - | 880,454 |
| T-Note 1.375 6/30/2018 | 912828VK3 | 854,000 | 6/30/2018 | 12/21/2017 | 1.52% | 853,333 | 181 | - | 853,471 |
| T-Note 1.375 6/30/2018 | 912828VK3 | 780,000 | 6/30/2018 | 9/7/2017 | 1.22% | 780,975 | 181 | - | 779,516 |
| T-Note 2.375 6/30/2018 | 912828QT0 | 820,000 | 6/30/2018 | 8/10/2017 | 1.24% | 828,200 | 181 | - | 823,460 |
| T-Note 0.75 8/31/2018 | 912828C3 | 5,190,000 | 8/31/2018 | 7/26/2017 | 1.27% | 5,160,806 | 243 | 13,118 | 5,158,393 |
| T-Note 0.75 8/31/2018 | 912828C3 | 6,650,000 | 8/31/2018 | 7/26/2017 | 1.27% | 6,612,594 | 243 | 16,809 | 6,609,502 |
| T-Note 1 9/15/2018 | 912828L40 | 7,018,000 | 9/15/2018 | 11/8/2017 | 1.50% | 6,988,393 | 258 | 20,744 | 6,984,033 |
| T-Note 1 9/15/2018 | 912828L40 | 121,000 | 9/15/2018 | 10/4/2017 | 1.36% | 120,594 | 258 | 358 | 120,414 |
| T-Note 1 9/15/2018 | 912828L40 | 122,000 | 9/15/2018 | 11/7/2017 | 1.49% | 121,490 | 258 | 361 | 121,410 |
| T-Note 1 9/15/2018 | 912828L40 | 9,525,000 | 9/15/2018 | 11/8/2017 | 1.50% | 9,484,816 | 258 | 28,154 | 9,478,899 |
| T-Note 1 9/15/2018 | 912828L40 | 2,993,000 | 9/15/2018 | 10/4/2017 | 1.36% | 2,982,945 | 258 | 8,847 | 2,978,514 |
| T-Note 1 9/15/2018 | 912828L40 | 2,994,000 | 9/15/2018 | 11/7/2017 | 1.49% | 2,981,486 | 258 | 8,850 | 2,979,509 |
| T-Note 0.75 9/30/2018 | 912828T42 | 5,160,000 | 9/30/2018 | 7/26/2017 | 1.28% | 5,128,355 | 273 | 9,781 | 5,123,312 |
| T-Note 0.75 9/30/2018 | 912828T42 | 6,605,000 | 9/30/2018 | 7/26/2017 | 1.28% | 6,564,493 | 273 | 12,520 | 6,558,038 |
| T-Note 1.375 9/30/2018 | 912828RH5 | 10,220,000 | 9/30/2018 | 10/26/2016 | 0.87% | 10,317,809 | 273 | 35,517 | 10,192,815 |
| T-Note 1.375 9/30/2018 | 912828RH5 | 7,805,000 | 9/30/2018 | 10/26/2016 | 0.87% | 7,879,696 | 273 | 27,125 | 7,784,239 |
| T-Note 0.75 10/31/2018 | 912828T83 | 5,215,000 | 10/31/2018 | 7/26/2017 | 1.31% | 5,178,536 | 304 | 6,591 | 5,172,028 |
| T-Note 0.75 10/31/2018 | 912828T83 | 4,275,000 | 10/31/2018 | 8/31/2017 | 1.26% | 4,249,784 | 304 | 5,403 | 4,239,774 |
| T-Note 0.75 10/31/2018 | 912828T83 | 2,400,000 | 10/31/2018 | 7/26/2017 | 1.31% | 2,383,219 | 304 | 3,033 | 2,380,224 |
| T-Note 1.375 11/30/2018 | 912828RT9 | 10,400,000 | 11/30/2018 | 7/26/2017 | 1.32% | 10,407,313 | 334 | 12,179 | 10,361,416 |
| T-Note 1 11/30/2018 | 912828U40 | 13,370,000 | 11/30/2018 | 8/31/2017 | 1.26% | 13,326,652 | 334 | 11,387 | 13,274,939 |
| T-Note 1.25 4/30/2019 | 912828ST8 | 5,225,000 | 4/30/2019 | 7/26/2017 | 1.37% | 5,214,183 | 485 | 11,006 | 5,183,566 |
| T-Note 1.25 4/30/2019 | 912828ST8 | 6,680,000 | 4/30/2019 | 8/31/2017 | 1.31% | 6,673,216 | 485 | 14,070 | 6,627,028 |
| T-Note 1.25 5/31/2019 | 912828XS4 | 5,180,000 | 5/31/2019 | 7/26/2017 | 1.37% | 5,168,669 | 516 | 5,514 | 5,137,110 |
| T-Note 1.625 6/30/2019 | 912828WS5 | 146,000 | 6/30/2019 | 7/21/2017 | 1.35% | 146,776 | 546 | - | 145,492 |
| T-Note 1.625 6/30/2019 | 912828WS5 | 1,625,000 | 6/30/2019 | 2/27/2017 | 1.27% | 1,638,267 | 546 | - | 1,619,345 |
| T-Note 1.25 6/30/2019 | 912828XV7 | 5,800,000 | 6/30/2019 | 10/11/2017 | 1.49% | 5,776,664 | 546 | - | 5,748,554 |
| T-Note 1.625 6/30/2019 | 912828WS5 | 4,475,000 | 6/30/2019 | 2/10/2017 | 1.32% | 4,506,989 | 546 | - | 4,459,427 |
| T-Note 1.25 6/30/2019 | 912828XV7 | 10,150,000 | 6/30/2019 | 10/11/2017 | 1.49% | 10,109,162 | 546 | - | 10,059,970 |
| T-Note 1.625 6/30/2019 | 912828WS5 | 2,450,000 | 6/30/2019 | 2/27/2017 | 1.27% | 2,470,002 | 546 | - | 2,441,474 |
| T-Note 1.625 6/30/2020 | 912828XH8 | 9,705,000 | 6/30/2020 | 10/11/2017 | 1.61% | 9,709,928 | 912 | - | 9,633,377 |
| T-Note 1.625 6/30/2020 | 912828XH8 | 6,560,000 | 6/30/2020 | 10/11/2017 | 1.61% | 6,563,331 | 912 | - | 6,511,587 |
| T-Note 1.625 6/30/2020 | 912828XH8 | 4,565,000 | 6/30/2020 | 2/27/2017 | 1.54% | 4,578,374 | 912 | - | 4,531,310 |

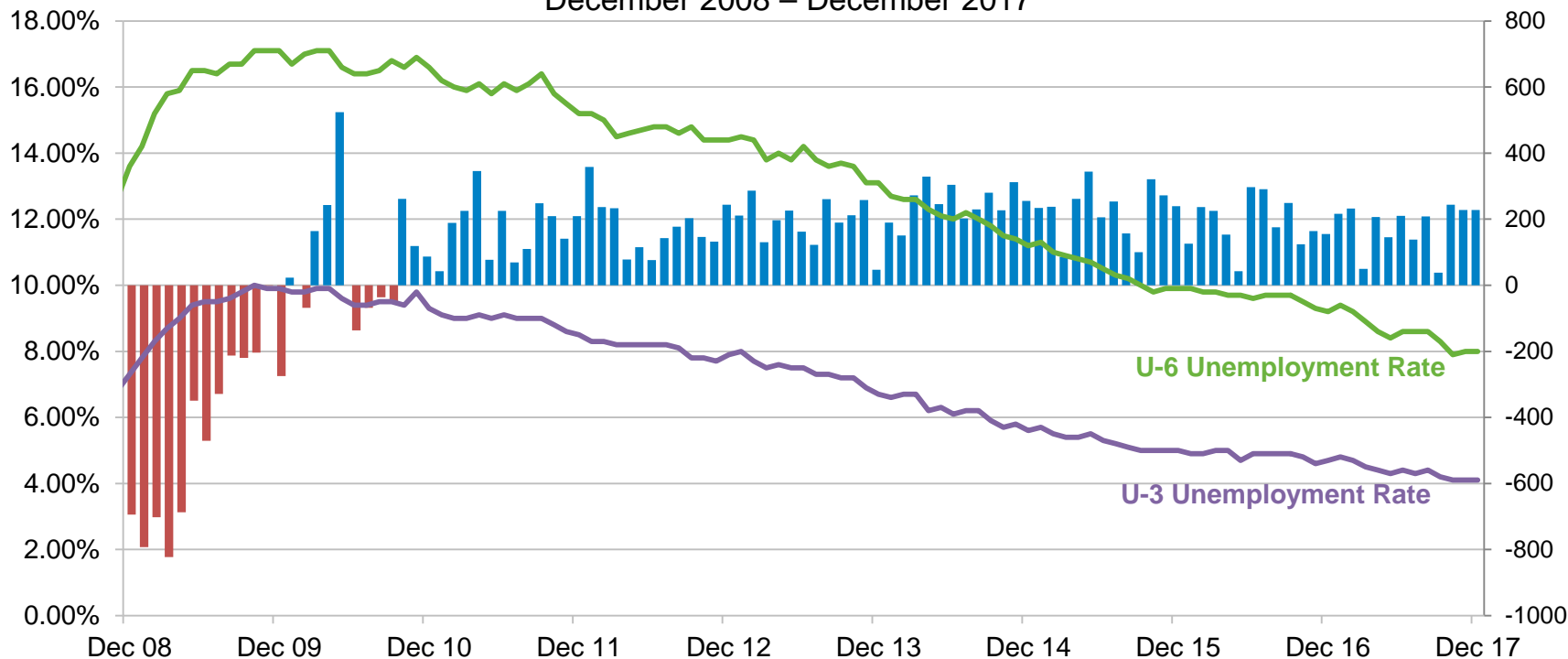
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Appendix I: Economic Update

U.S. Labor Market

- In December, nonfarm payrolls came in short of expectations, increasing by only 148,000
- The unemployment rate was unchanged at 4.1%, continuing the recent trend of lows for U.S. unemployment

Unemployment vs. Non-Farm Payrolls
December 2008 – December 2017



Source: Bloomberg

FOMC Statement Highlights

December

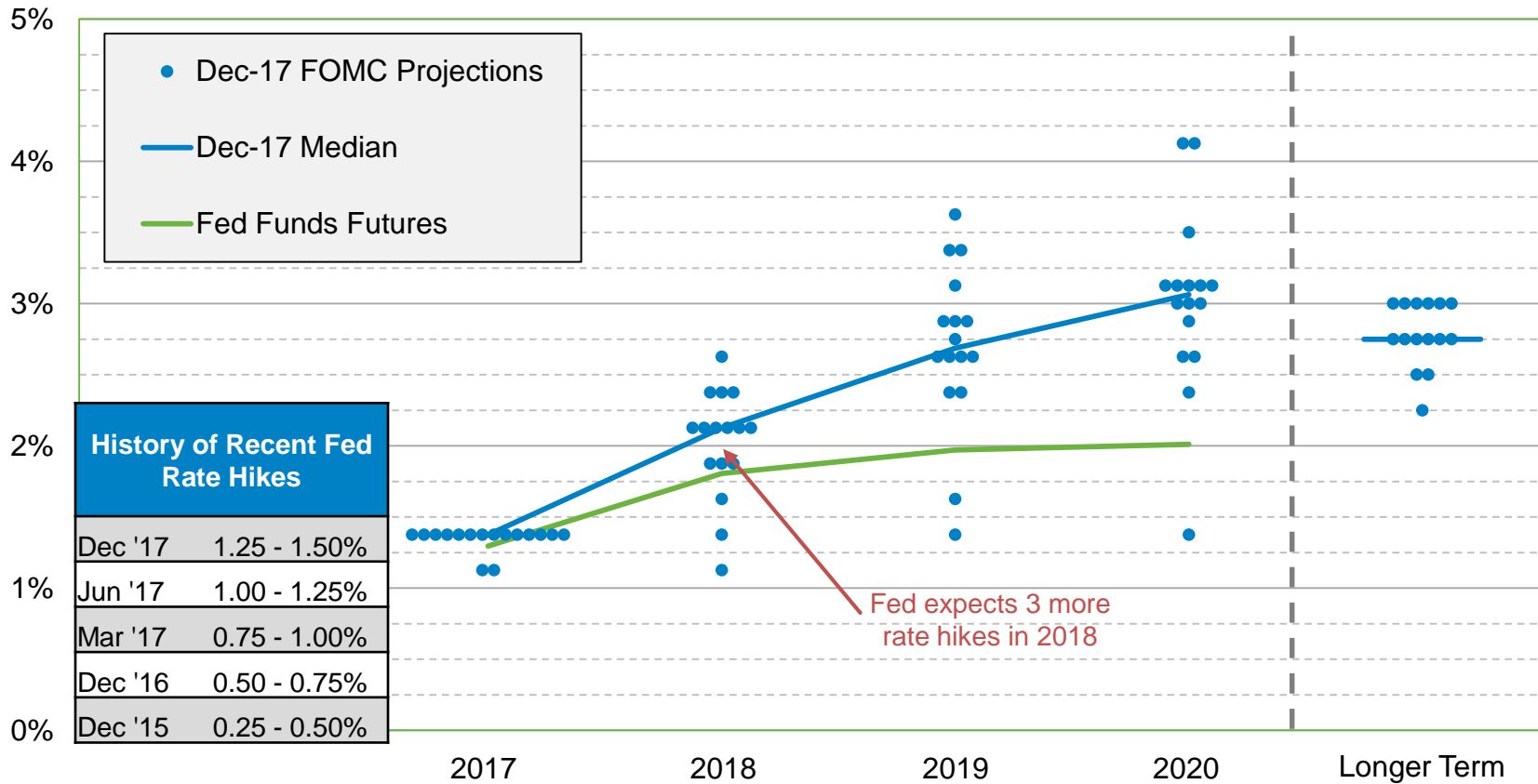
13

- 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 2.0% in the near term** but to stabilize around the Committee's 2.0% objective over the medium term.
-
- The Committee decided to **raise the target range for the Federal Funds rate to 1.25% to 1.50%**.
 - 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

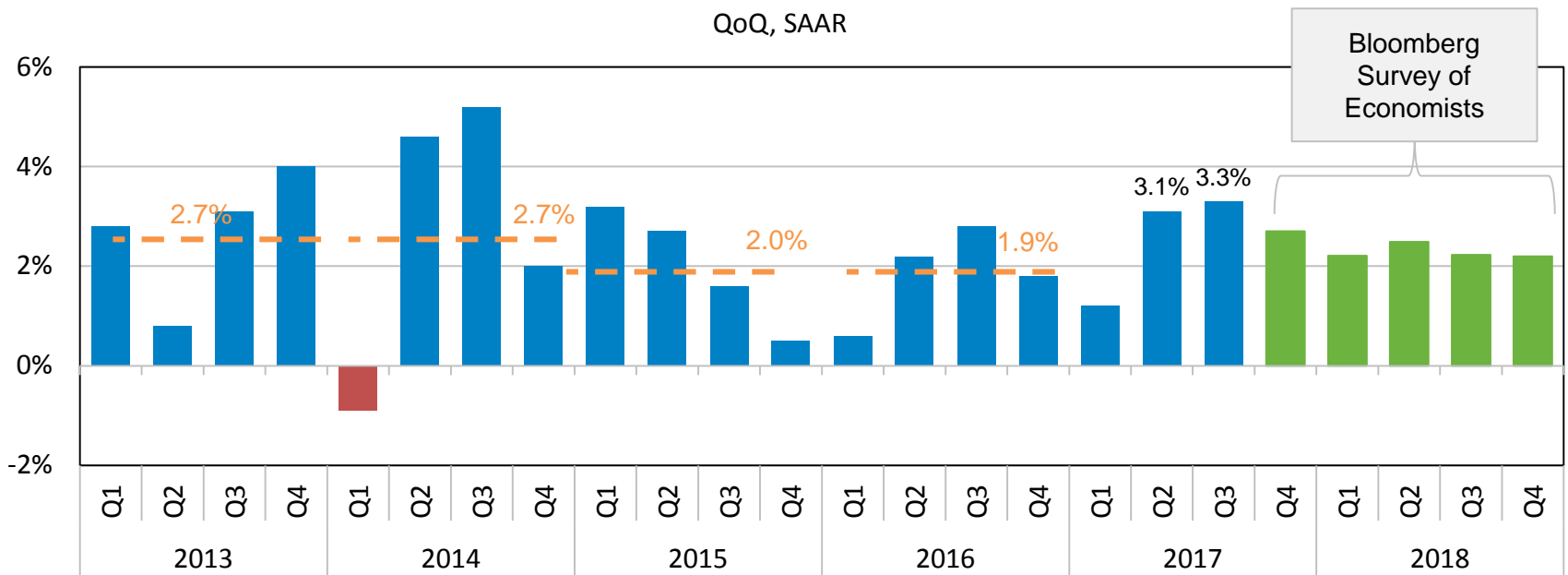


Source: Bloomberg

Economic Growth Remained Strong in the 3rd Quarter

- Gross domestic product increased at an annualized rate of 3.3% in the third quarter of 2017, the fastest pace of expansion over two consecutive quarters since 2014; growth has averaged 2.4% over the last four quarters
- The acceleration in third quarter 2017 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

U.S. Real GDP
QoQ, SAAR

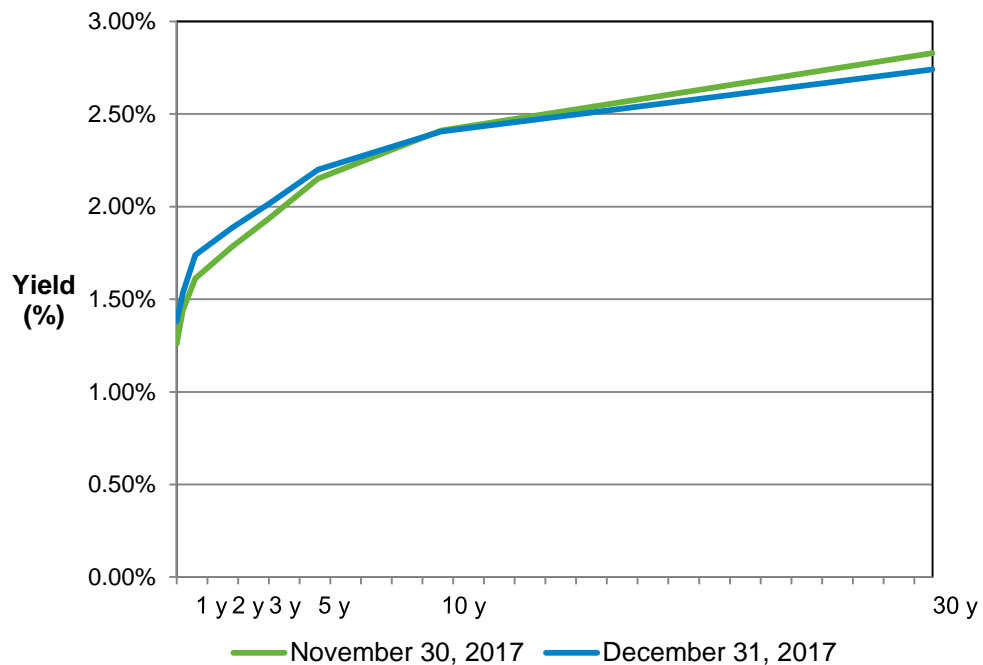


Source: Bloomberg

U.S. Treasury Yields

U.S. Treasury Yield Curve

November 30, 2017 vs. December 31, 2017



| | 11/30/2017 | 12/31/2017 | Change |
|---------|------------|------------|--------|
| 3 month | 1.26% | 1.38% | 0.12% |
| 6 month | 1.44% | 1.53% | 0.09% |
| 1 year | 1.61% | 1.74% | 0.13% |
| 2 year | 1.78% | 1.89% | 0.11% |
| 3 year | 1.94% | 2.01% | 0.07% |
| 5 year | 2.15% | 2.20% | 0.05% |
| 10 year | 2.41% | 2.41% | 0.00% |
| 30 year | 2.83% | 2.74% | -0.09% |

Source: Bloomberg

Disclosure

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