# Hugh L. Carey Battery Park City Authority 

## Review of Investment Performance

Quarter Ended October 31, 2018

## Table of Contents

I. Market Commentary
II. Executive Summary
III. Summary of Aggregate Portfolio
IV.Total Return Performance Attributes

## I. Market Commentary

## Market Commentary - Quarter Ended October 31, 2018

## SUMMARY

- U.S. growth remained healthy in the quarter as the unemployment rate hit historical lows and confidence rose further. This occurred despite ongoing concerns about a trade war with China, a disorderly Brexit, Italian budget concerns, Iran sanctions, a Turkish debt crisis and other geopolitical risks.
- Positive domestic economic data included strong readings on the labor market, auto sales, industrial production, manufacturing and service sector purchasing manager surveys and consumer sentiment. On the weaker side, residential housing has slowed due to escalating prices and higher mortgage rates. Broad measures of inflation also moderated a bit during the quarter. Lastly, the twin deficits - the federal budget deficit and trade deficit - both portend long-term imbalances that could be problematic for sustainable long-term growth of the U.S. economy.
- The Federal Reserve's Beige Book - released in advance of the November Federal Open Market Committee (FOMC) meeting - was subdued, noting "modest to moderate growth" in economic activity from a majority of Federal Reserve (Fed) Districts. In particular, manufacturers reported moderate output growth, citing concerns over rising materials and shipping costs, trade uncertainty and difficulty finding qualified workers.
- The U.S. stock market gave up nearly all of its gains for the year at the end of the quarter as investors became concerned about rising rates, the upcoming midterm elections, future corporate earnings, a trade war with China, Brexit, Italian budget woes and general geopolitical uncertainty.


## ECONOMIC SNAPSHOT

- The advance release of third-quarter U.S. gross domestic product (GDP) showed surprisingly strong growth of $3.5 \%$, boosted by consumer spending, government spending and inventory replenishment. These factors more than offset weak business investment and the biggest drag from trade in 33 years.
- U.S. labor market conditions remained strong during the quarter. The U.S. economy added 250,000 new jobs in October, well above estimates, while the unemployment rate remained unchanged at $3.7 \%$ - the lowest since 1969. In addition, average hourly earnings - an important measure of wage growth - rose 3.1\% year over year (YoY), the fastest pace since 2009.
- The U.S. housing market has weakened as rising home prices, higher mortgage rates, a scarcity of materials and lack of construction labor have slowed activity. Residential investment fell $4 \%$ in the third calendar year quarter, the third consecutive quarter as a drag to GDP growth. A drop in forward indicators, like housing starts and building permits, portends further weakness in the months ahead.


## INTEREST RATES

- U.S. Treasury yields rose by 20-30 basis points (bps) ( $0.20 \%$ to $0.30 \%$ ) in the quarter. The yield on the two-year Treasury note rose 21 bps to $2.90 \%$, while the yield on the 10 -year note rose 19 bps to end the quarter at $3.16 \%$. The result was a flatter yield curve over the quarter, but the pace of flattening moderated near quarter-end.
- The yield curve remains very flat from a historical perspective (less incentive for investors to increase maturity). The yield difference between 10-year and two-year U.S. Treasury notes ended the quarter at 25 bps ( $0.25 \%$ ), only 9 bps off of the decade low. While a flattening curve is not a foolproof indicator of future recession, it is one of many signals investors look at for indications of the future economy.
- As a result of rising yields, shorter Treasury indices outperformed longer-maturity ones. Although longer maturities provided higher yields, the small incremental benefit due to a flat yield curve was not sufficient to offset the adverse impact on market values due to increasing yields.


## SECTOR PERFORMANCE

- Although Treasury returns were muted by rising rates during the quarter diversification into other sectors added value as most other investment-grade, fixed-income asset classes outperformed Treasuries.
- Despite very narrow spreads available in the federal agency sector, returns in the sector generated excess returns for the quarter.
- Supranational securities performed well, as the combination of tighter spreads and incremental income led to the sector posting attractive returns relative to both Treasuries and agencies.
- The corporate sector benefitted the most from incremental income, posting attractive excess returns for the third quarter. Record earnings, stable credit fundamentals and a generally positive economic environment continued to serve as tailwinds to the sector.
- Mortgage-backed security (MBS) returns continue to lag and are in the red YTD. And, with the Fed balance sheet holdings in MBS set for more significant reduction over the next quarter, new purchases will be limited and selective.
- Commercial paper and certificate of deposit yield spreads grinded to one-year lows over the quarter. As a result, short-term credit instruments now look more expensive relative to U.S. Treasuries. Still, they offer incrementally higher yields relative to similar-maturity government alternatives.

Economic Snapshot


1. Data as of July, 2018 2. Data as of October, 2017

Note: YOY = year over year, QoQ = quarter over quarter, SAAR = seasonally adjusted annual rate, WTI $=$ West Texas Intermediate crude oil
Source: Bloomberg.

## Interest Rate Overview

U.S. Treasury Note Yields

U.S. Treasury Yields

| Maturity | $10 / 31 / 18$ | $7 / 31 / 18$ | Change over <br> Quarter | $10 / 31 / 17$ | Change <br> over Year |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 3-month | $2.37 \%$ | $2.07 \%$ | $0.30 \%$ | $1.19 \%$ | $1.19 \%$ |
| 1-year | $2.68 \%$ | $2.40 \%$ | $0.28 \%$ | $1.42 \%$ | $1.26 \%$ |
| 2-year | $2.90 \%$ | $2.69 \%$ | $0.21 \%$ | $1.62 \%$ | $1.28 \%$ |
| 5-year | $2.99 \%$ | $2.85 \%$ | $0.14 \%$ | $2.02 \%$ | $0.97 \%$ |
| 10-year | $3.16 \%$ | $2.97 \%$ | $0.19 \%$ | $2.38 \%$ | $0.78 \%$ |
| 30-year | $3.39 \%$ | $3.08 \%$ | $0.31 \%$ | $2.89 \%$ | $0.50 \%$ |

LIBOR Rates

| Maturity | $10 / 31 / 18$ | $7 / 31 / 18$ | Change <br> over <br> Quarter | $10 / 31 / 17$ | Change <br> over Year |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 1-month | $2.04 \%$ | $2.08 \%$ | $(0.04 \%)$ | $1.24 \%$ | $0.79 \%$ |
| 3-month | $2.56 \%$ | $2.35 \%$ | $0.21 \%$ | $1.38 \%$ | $1.18 \%$ |

U.S. Treasury Note Yield Curve



## Source: Bloomberg.

## Bank of America Merrill Lynch Index Returns

| As of 10/31/2018 |  |  | Periods Ended 10/31/2018 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Duration | Yield | 3 Month | 1 Year | 3 Years |
| 1-3 Year Indices |  |  |  |  |  |
| U.S. Treasury | 1.85 | 2.86\% | 0.35\% | 0.25\% | 0.47\% |
| Federal Agency | 1.82 | 2.91\% | 0.40\% | 0.49\% | 0.65\% |
| U.S. Corporates, A-AAA Rated | 1.91 | 3.38\% | 0.51\% | 0.65\% | 1.35\% |
| Agency MBS (0 to 3 years) | 4.67 | 3.68\% | (1.12\%) | (1.14\%) | 0.29\% |
| Municipals | 1.83 | 2.18\% | (0.27\%) | 0.37\% | 0.65\% |
| 1-5 Year Indices |  |  |  |  |  |
| U.S. Treasury | 2.61 | 2.91\% | 0.27\% | (0.36\%) | 0.41\% |
| Federal Agency | 2.17 | 2.94\% | 0.38\% | 0.18\% | 0.65\% |
| U.S. Corporates, A-AAA Rated | 2.66 | 3.52\% | 0.39\% | (0.07\%) | 1.42\% |
| Agency MBS (0 to 5 years) | 3.63 | 3.48\% | (0.13\%) | (1.12\%) | 0.59\% |
| Municipals | 2.53 | 2.28\% | (0.44\%) | (0.04\%) | 0.68\% |
| Master Indices |  |  |  |  |  |
| U.S. Treasury | 6.08 | 3.04\% | (0.73\%) | (2.05\%) | 0.22\% |
| Federal Agency | 4.05 | 3.10\% | 0.03\% | (0.71\%) | 0.80\% |
| U.S. Corporates, A-AAA Rated | 6.82 | 3.99\% | (0.96\%) | (2.77\%) | 1.93\% |
| Agency MBS | 5.33 | 3.76\% | (0.69\%) | (1.53\%) | 0.73\% |
| Municipals | 6.96 | 2.97\% | (1.20\%) | (0.67\%) | 1.94\% |

Returns for periods greater than one year are annualized
Source: Bloomberg.

## II. Executive Summary

## Performance Overview - Total Return Strategies - October 31, 2018

$\left.\begin{array}{lllll}\hline & \begin{array}{c}\text { Past } \\ \text { Quarter }\end{array} & \begin{array}{c}\text { Past Quarter } \\ \text { Annualized }\end{array} & \begin{array}{c}\text { Past } \\ \text { Past } \\ \text { Months }\end{array} \\ \text { Long-Term Strategy: } \\ \text { Inception }\end{array}\right]$

[^0]
## Performance Summary - Total Return Strategies

## Longer-Term Funds

- All portfolios outperformed their respective benchmarks for the quarter and for the 12 months ending October 31, 2018.
- U.S. Treasury yields continue to rise. During the quarter the two- and 10-year yields rose to their highest levels since 2008 and 2001, respectively. The 2-year U.S. Treasury yield rose 21 basis points ( $0.21 \%$ ) to $2.90 \%$ and the yield on the 10-year U.S. Treasury rose 19 basis points (0.19\%) finishing the quarter at 3.16\%.
- A myriad of recent speeches and post-FOMC meeting statements seemed to affirm the Fed's commitment to continue the current tightening cycle. This affirmation, in combination with a solid domestic economic backdrop and the possibility of additional rate hikes in coming quarters, leads us to continue positioning portfolios with a defensive interest rate risk profile durations will remain short of benchmarks. We will also carefully consider adding additional exposure to the municipal, supra sovereign and full faith and credit MBS sectors as valuation dictates.


## Short-Term Funds

- Both portfolios outperformed the BAML 3 Month Treasury Bill index for the quarter and since inception. Each portfolio is positioned to match the unique requirements of expected cash flows.
- As expected, the 2003 Pledged Revenue account experienced significant cash inflows during the quarter. The cash contributions were reinvested in short-term securities to align with future expected withdrawals.
- Highly-rated commercial paper (CP) value has diminished as the spread between Treasuries and commercial paper has narrowed. We continue to utilize commercial paper in short-term portfolios where appropriate and as value presents itself.


## Investment Guidelines Compliance

| Compliance Issuer Check |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Issuer | Actual (\%) | Actual (\$) | IPS Limit | S\&P Rating | Check |
| U.S. Treasury | 73.84\% | 321,914,417 | 100\% | AA+ | OK |
| Federal Home Loan Bank | 5.13\% | 22,380,201 | 250,000,000 | A-1+ | OK |
| Toyota Motor Credit Corporation | 4.25\% | 18,515,272 | 5\% | A-1+ | OK |
| International Bank of Recon and Development | 2.92\% | 12,713,558 | - | AAA | OK |
| JP Morgan | 2.75\% | 11,977,429 | 5\% | A-1 | OK |
| Dexia Credit Local NY | 2.03\% | 8,870,776 | 5\% | A-1+ | OK |
| New York City | 1.35\% | 5,892,511 | 20\% | AA | OK |
| African Development Bank | 1.34\% | 5,837,533 | - | AAA | OK |
| Asian Development Bank | 1.15\% | 5,011,743 | - | AAA | OK |
| New York City Transitional Finance Authority | 0.90\% | 3,902,361 | 20\% | AAA | OK |
| Ginnie Mae | 0.87\% | 3,786,299 | 100\% | AA+ | OK |
| International American Development Bank | 0.81\% | 3,522,356 | - | AAA | OK |
| NY State Dorm Authority | 0.60\% | 2,600,205 | 20\% | AAA | OK |
| Freddie Mac | 0.54\% | 2,340,943 | 250,000,000 | AA+ | OK |
| Small Business Administration | 0.47\% | 2,050,426 | 100\% | AA+ | OK |
| Nassau County, NY IFA | 0.25\% | 1,108,711 | 20\% | AAA | OK |
| Prudential Funding LLC | 0.24\% | 1,034,151 | 5\% | A-1+ | OK |
| Fannie Mae | 0.17\% | 727,735 | 250,000,000 | AA+ | OK |
| Salt River Project | 0.16\% | 699,118 | 5\% | A-1+ | OK |
| Syracuse, NY | 0.10\% | 440,428 | 20\% | $\mathrm{NR}^{4}$ | OK |
| NY State Housing Finance Agency | 0.09\% | 380,252 | 20\% | AAA | OK |
| NY Metro Transportation Authority | 0.06\% | 258,856 | 20\% | A+ ${ }^{5}$ | OK |
| Brocton CSD | 0.00\% | 15,233 | 20\% | A | OK |

1. BPCA's investment guidelines does not detail sector limits for commercial paper, supranationals, or Government MBS.
2. Commercial paper issuer limits are subject to the lesser of $5 \%$ or $\$ 250$ million per issuer.
3. Actual (\$) include market value plus accrued interest.
4. The municipal holding rated "NR" by S\&P is rated by Moody's and is in compliance with BPCA's Investment Policy.
5. BPCA's portfolio has three different NY Metro Transportation Authority holdings. Two of the holdings are rated A+by S\&P, the third security is not rated 11 by S\&P, but rated by Moody's and is in compliance with BPCA's Investment Policy.

## Portfolio Value - Strategy Level

| October 31, 2018 |  |  | July 31, 2018 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Market Value | Effective Duration | \% of Total Portfolio | Market Value | Effective Duration | \% of Total Portfolio |


| Total Return Accounts |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Longer Term Investment Strategy | $\mathbf{\$ 1 4 0 , 1 0 8 , 5 2 6}$ | $\mathbf{2 . 7 1}$ | $\mathbf{3 2 . 1 \%}$ | $\$ 139,686,194$ | 2.88 | $28.9 \%$ |
| Short Term Investment Strategy | $\mathbf{\$ 1 8 9 , 3 2 5 , 3 8 1}$ | $\mathbf{0 . 0 3}$ | $\mathbf{4 3 . 4 \%}$ | $\$ 162,065,739$ | 0.26 | $33.6 \%$ |
| Subtotal of Total Return Accounts | $\mathbf{\$ 3 2 9 , 4 3 3 , 9 0 7}$ | $\mathbf{1 . 1 7}$ | $\mathbf{7 5 . 6 \%}$ | $\$ 301,751,933$ | 1.47 | $62.5 \%$ |

Other BPCA Accounts

| Subtotal of Other BPCA Accounts | $\$ 106,546,606$ | $\mathbf{0 . 1 3}$ | $\mathbf{2 4 . 4 \%}$ | $\$ 180,850,991$ | 0.17 | $37.5 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Grand Total BPCA Portfolio | $\$ 435,980,513$ | $\mathbf{0 . 9 2}$ | $\mathbf{1 0 0 . 0 \%}$ | $\$ 482,602,923$ | 0.98 | $100.0 \%$ |

Notes:

1. "Market Value" includes accrued interest, but does not include cash balances held at the bank.

## Portfolio Value - Total Return Accounts

| Total Return Accounts | October 31, 2018 |  | July 31, 2018 |  |
| :---: | :---: | :---: | :---: | :---: |
| Longer Term Investment Strategy | Market Value | Effective Duration | Market Value | Effective Duration |
| 2003 Reserve Fund | \$73,636,241 | 2.43 | \$73,339,996 | 2.57 |
| BPCPC Operating Reserve Contingency | \$13,282,893 | 3.13 | \$13,323,418 | 3.29 |
| Insurance Fund | \$5,612,323 | 3.05 | \$5,595,335 | 3.25 |
| Operating Budget Reserve | \$9,545,837 | 2.98 | \$9,510,311 | 3.17 |
| BPCA Other Post-Employment Benefits | \$24,937,891 | 2.98 | \$24,867,174 | 3.18 |
| BPCPC Other Post-Employment Benefits | \$13,093,341 | 3.02 | \$13,049,960 | 3.22 |
| Short Term Investment Strategy |  |  |  |  |
| 2003 Pledged Revenue | \$182,225,852 | 0.02 | \$154,995,675 | 0.27 |
| 2003 Project Operating Fund | \$7,099,529 | 0.13 | \$7,070,064 | 0.09 |
| Subtotal of Total Return Accounts | \$329,433,907 | 1.17 | \$301,751,933 | 1.47 |

[^1]
## Portfolio Value - Other BPCA Accounts

| Other BPCA Accounts | Market Value | Effective Duration | Market Value | Effective Duration |
| :---: | :---: | :---: | :---: | :---: |
| Corporate Funds | \$825,042 | 0.21 | \$819,059 | 0.06 |
| 2000 Arbitrage Rebate | \$808,670 | 0.02 | \$803,960 | 0.01 |
| 1993 Unpledged Revenue | \$13,621,467 | 0.02 | \$9,966,879 | 0.27 |
| 2003 Residual Fund | \$1,608,347 | 0.02 | \$1,585,857 | 0.13 |
| Joint Purpose Fund | \$353,856 | 0.02 | \$42,115,367 | 0.12 |
| Special Fund | \$934,620 | 0.02 | \$929,954 | 0.01 |
| BPCPC Operating Reserve | \$1,009,473 | 0.16 | \$996,060 | 0.27 |
| BPCA Series 2009A Project Costs | \$1,009,996 | 0.00 | \$1,328,474 | 0.06 |
| BPCA Series 2009B Project Costs | \$1,231,990 | 0.00 | \$1,288,520 | 0.06 |
| BPCA2013ACDE PROJ COST SUB AC | \$33,731,518 | 0.18 | \$34,533,219 | 0.08 |
| BPCA PIER A RESERVE FUND | \$964,608 | 0.02 | \$604,970 | 0.00 |
| BPCA SUBORDINATED PAYMENT ACCOUNT | \$1,635,894 | 0.00 | \$1,506,924 | 0.00 |
| Liberty Terr Mariners Cove-K | \$294,362 | 0.26 | \$293,211 | 0.32 |
| Liberty House Mariners J | \$240,417 | 0.32 | \$239,583 | 0.39 |
| Rector Park L | \$32,912 | 0.31 | \$32,935 | 0.36 |
| Hudson View W Towers G | \$169,599 | 0.30 | \$168,693 | 0.36 |
| Hudson Towers E/F | \$206,511 | 0.33 | \$204,654 | 0.39 |
| Hudson View Towers C | \$181,588 | 0.32 | \$180,657 | 0.35 |
| Liberty Ct Mariners Cove B | \$600,410 | 0.30 | \$597,160 | 0.33 |
| Millenium | \$3,621,308 | 0.25 | \$3,606,428 | 0.24 |
| Liberty Battery Place Assoc 4 | \$433,317 | 0.31 | \$431,206 | 0.34 |
| South Cove Assoc 11 | \$394,400 | 0.29 | \$392,289 | 0.34 |
| Soundings Rector Park A | \$210,497 | 0.32 | \$209,639 | 0.39 |
| The Regatta Site 10 | \$480,442 | 0.30 | \$477,228 | 0.33 |
| Debt Service Junior Payments | \$10,069,650 | 0.00 | \$20,433,618 | 0.19 |
| 2003 Debt Service Senior Payments | \$10,691,741 | 0.03 | \$36,022,340 | 0.22 |
| BPCA Millenium Tower Security Fund 2A | \$3,024,491 | 0.26 | \$3,012,131 | 0.26 |
| BPCA S 16/17 Riverhouse Security Fund | \$6,428,888 | 0.26 | \$6,395,792 | 0.26 |
| BPCA Visionaire Security Fund | \$3,917,018 | 0.24 | \$3,899,520 | 0.23 |
| BPCA Pier A Security Deposit Account | \$412,367 | 0.30 | \$410,235 | 0.33 |
| BPCA One Rector Park Security Fund | \$960,107 | 0.19 | \$955,159 | 0.23 |
| BPCA Rector Square Security Fund Site D | \$221,464 | 0.31 | \$220,606 | 0.37 |
| BPCA WFC TOWER C RETAIL RENT ESCROW | \$250,451 | 0.28 | \$248,284 | 0.32 |
| BPCA RIVER \& WARREN SEC FUND - SITE 19A | \$5,919,312 | 0.25 | \$5,889,462 | 0.25 |
| BPCA NORTH COVE MARINA SECURITY FUND | \$49,871 | 0.36 | \$50,918 | 0.42 |
| Subtotal of Other BPCA Accounts | \$106,546,606 | 0.13 | \$180,850,991 | 0.17 |

## Notes:

1. "Market Value" includes accrued interest, but does not include cash balances held at the bank.
2. Highlighted funds are managed by Ramirez Asset Management ("RAM"). Market values for these funds are provided by RAM.

## Portfolio Earnings - PFM-Managed Accounts

|  | Portfolio Earnings <br> Quarter-Ended October 31, 2018 <br> Market Value Basis |  |
| :---: | ---: | ---: |
|  | Accrual (Amortized Cost) Basis |  |
| Beginning Value July 31, 2018 | $\$ 397,358,073$ |  |
| Net Purchases/Sales | $(\$ 11,898,569)$ | $\$ 401,211,819$ |
| Change in Value | $\$ 1,008,850$ | $(\$ 11,898,569)$ |
| Ending Value October 31, 2018 | $\$ 386,468,353$ | $\$ 1,235,045$ |
| Interest Earned | $\$ 764,096$ | $\$ 390,548,295$ |
| Porfolio Earnings | $\$ 1,772,946$ | $\$ 764,096$ |
|  |  | $\$ 1,999,141$ |

## Portfolio Earnings - Ramirez-Managed Accounts

|  | Portfolio Earnings <br> Quarter-Ended October 31, 2018 |  |
| :---: | :---: | :---: |
| Beginning Value July 31, 2018 | $=$Market Value Basis ${ }^{1}$ | Accrual (Amortized Cost) Basis ${ }^{2}$ |
| Net Purchases/Sales | $(\$ 35,218,541$ | $\$ 84,057,457$ |
| Change in Value | $\$ 318,694$ | $(\$ 35,762,077)$ |
| Ending Value October 31, 2018 | $\$ 48,775,158$ | $\$ 439,337$ |
| Net Income ${ }^{3}$ | $\$ 110,402$ | $\$ 48,734,718$ |
| Porfolio Earnings | $\$ 429,096$ | $\$ 110,402$ |

1. Underlying data for Market Value Basis supplied by Clearwater Analytics, values exclude Accrued Income.
2. Accrual (Amortized Cost) Basis data provided by custodian, BNY-Mellon.
3. Net Income includes coupon income paid, change in beginning and ending accruals, and purchased/sold accrued interest.

## Change in Value - Total Return Accounts

| Account Name | Beginning Period Value ${ }^{1}$ | (+1-) | Net Transfers | (+\|-) | Change in Value | $=$ | Ending Period Value ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Longer Term Investment Strategy |  |  |  |  |  |  |  |
| 2003 Reserve Fund | \$73,397,142 |  | \$0 |  | \$239,470 |  | \$73,636,612 |
| BPCPC Operating Reserve Contingency | \$13,326,533 |  | $(\$ 73,777)$ |  | \$30,790 |  | \$13,283,546 |
| Insurance Fund | \$5,602,210 |  | \$0 |  | \$12,271 |  | \$5,614,480 |
| Operating Budget Reserve | \$9,523,065 |  | \$0 |  | \$23,368 |  | \$9,546,433 |
| BPCA Other Post-Employment Benefits | \$24,878,363 |  | \$0 |  | \$60,499 |  | \$24,938,862 |
| BPCPC Other Post-Employment Benefits | \$13,062,240 |  | \$0 |  | \$31,408 |  | \$13,093,648 |
| Subtotal | \$139,789,553 |  | $(\$ 73,777)$ |  | \$397,805 |  | \$140,113,581 |
| Shorter Term Investment Strategy |  |  |  |  |  |  |  |
| 2003 Pledged Revenue | \$155,063,631 |  | \$27,652,063 |  | \$885,896 |  | \$183,601,590 |
| 2003 Project Operating Fund | \$7,073,020 |  | $(\$ 5,897)$ |  | \$32,894 |  | \$7,100,017 |
| Subtotal | \$162,136,650 |  | \$27,646,166 |  | \$918,791 |  | \$190,701,607 |
| Total | \$301,926,203 |  | \$27,572,389 |  | \$1,316,596 |  | \$330,815,187 |

[^2]
## Change in Value - Other BPCA Accounts

| Account Name | Beginning Period Value ${ }^{1}$ | (+1-) | Net Transfers | (+1-) | Change in Value | $=$ | Ending Period Value ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFM Asset Management Accounts |  |  |  |  |  |  |  |
| Corporate Funds | \$821,133 |  | \$0 |  | \$4,137 |  | \$825,270 |
| 2000 Arbitrage Rebate | \$805,409 |  | \$0 |  | \$4,047 |  | \$809,456 |
| 1993 Unpledged Revenue | \$9,997,176 |  | \$3,564,955 |  | \$60,043 |  | \$13,622,173 |
| 2003 Residual Fund | \$1,600,442 |  | \$0 |  | \$8,121 |  | \$1,608,563 |
| Joint Purpose Fund | \$42,142,269 |  | (\$41,964,103) |  | \$176,539 |  | \$354,705 |
| Special Fund | \$930,884 |  | \$0 |  | \$4,700 |  | \$935,584 |
| BPCPC Operating Reserve | \$1,005,537 |  | \$0 |  | \$5,112 |  | \$1,010,649 |
| BPCA Goldman Sachs Liberty Contribution P | \$1,438 |  | \$0 |  | \$0 |  | \$1,438 |
| BPCA Series 2009A Project Costs | \$1,336,925 |  | $(\$ 332,502)$ |  | \$5,944 |  | \$1,010,367 |
| BPCA Series 2009B Project Costs | \$1,297,811 |  | $(\$ 71,833)$ |  | \$6,349 |  | \$1,232,327 |
| BPCA Pier A Construction Escrow | \$0 |  | (\$71,833) |  | \$71,833 |  | \$0 |
| BPCA Insurance Advance | \$704 |  | \$0 |  | \$0 |  | \$704 |
| BPCA2013ACDE COI Sub AC | \$0 |  | \$0 |  | \$0 |  | \$0 |
| BPCA2013B COI Sub AC | \$0 |  | \$0 |  | \$0 |  | \$0 |
| BPCA2013ACDE Proj Cost Sub AC | \$34,535,194 |  | $(\$ 975,169)$ |  | \$172,006 |  | \$33,732,031 |
| BPCA2013B Proj Costs Sub AC | \$0 |  | \$0 |  | \$0 |  | \$0 |
| BPCA Pier A Reserve Fund | \$604,970 |  | \$354,560 |  | \$5,766 |  | \$965,296 |
| BPCA Subordinated Pmt Acct | \$1,506,924 |  | \$32,372 |  | \$97,185 |  | \$1,636,482 |
| Subtotal | \$96,586,816 |  | (\$39,463,554) |  | \$621,782 |  | \$57,745,045 |

## Change in Value - Other BPCA Accounts

| Account Name | Beginning Period Value ${ }^{1}$ | (+\|-) | Net Transfers | (+I-) | Change in Value | $=$ | Ending Period Value ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ramirez Asset Management Accounts |  |  |  |  |  |  |  |
| Liberty Terr Mariners Cove-K | \$293,555 |  | \$0 |  | \$1,533 |  | \$295,088 |
| Liberty House Mariners J | \$240,046 |  | \$0 |  | \$1,195 |  | \$241,241 |
| Rector Park L | \$33,439 |  | \$0 |  | \$164 |  | \$33,603 |
| Hudson View W Towers G | \$169,024 |  | \$0 |  | \$844 |  | \$169,867 |
| Hudson Towers E/F | \$205,521 |  | \$0 |  | \$1,025 |  | \$206,546 |
| Hudson View Towers C | \$181,418 |  | \$0 |  | \$906 |  | \$182,324 |
| Liberty Ct Mariners Cove B | \$598,091 |  | \$0 |  | \$3,051 |  | \$601,142 |
| Millenium | \$3,607,353 |  | \$0 |  | \$18,468 |  | \$3,625,822 |
| Liberty Battery Place Assoc 4 | \$432,108 |  | \$0 |  | \$2,133 |  | \$434,241 |
| South Cove Assoc 11 | \$392,469 |  | \$0 |  | \$1,937 |  | \$394,406 |
| Soundings Rector Park A | \$210,000 |  | \$0 |  | \$1,046 |  | \$211,046 |
| The Regatta Site 10 | \$478,119 |  | \$0 |  | \$2,444 |  | \$480,562 |
| Debt Service Junior Payments | \$21,236,728 |  | (\$2,930,919) |  | \$248,865 |  | \$18,554,674 |
| 2003 Debt Service Senior Payments | \$36,023,156 |  | \$0 |  | \$335,626 |  | \$36,358,782 |
| BPCA Millenium Tower Security Fund 2A | \$3,012,872 |  | \$0 |  | \$15,591 |  | \$3,028,463 |
| BPCA S 16/17 Riverhouse Security Fund | \$6,396,659 |  | \$0 |  | \$32,831 |  | \$6,429,490 |
| BPCA Visionaire Security Fund | \$3,900,462 |  | \$0 |  | \$19,998 |  | \$3,920,460 |
| BPCA Pier A Security Deposit Account | \$410,786 |  | \$0 |  | \$2,027 |  | \$412,813 |
| BPCA One Rector Park Security Fund | \$955,297 |  | \$0 |  | \$5,085 |  | \$960,382 |
| BPCA Rector Square Security Fund Site D | \$220,933 |  | \$0 |  | \$1,101 |  | \$222,034 |
| BPCA WFC Tower C Retail Rent Escrow | \$249,156 |  | \$0 |  | \$1,311 |  | \$250,467 |
| BPCA River \& Warren Sec Fund - Site 19A | \$5,889,933 |  | \$0 |  | \$30,287 |  | \$5,920,219 |
| BPCA North Cove Marina Security Fund | \$51,148 |  | \$0 |  | \$252 |  | \$51,400 |
| Subtotal | \$85,188,273 |  | (\$2,930,919) |  | \$727,719 |  | \$82,985,073 |

1. Beginning Period Value is as of July 31, 2018 and Ending Period Value is as of October 31, 2018. Beginning Period Value and Ending Period Value equal market values of portfolio holdings plus accrued interest and cash
III. Summary of Aggregate Portfolio

## Aggregate Portfolio Composition and Credit Quality

| Security Type | October 31, 2018 | \% of <br> Portfolio | Effective <br> Duration | July 31, 2018 | \% of <br> Portfolio | QoQ <br> Effective <br> Duration | Change <br> (\% of portfolio) |
| ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasuries | $\$ 321,914,417$ | $\mathbf{7 3 . 8 \%}$ | $\mathbf{0 . 9 5}$ | $\$ 354,969,625$ | $73.6 \%$ | 1.02 | $\mathbf{0 . 3 \%}$ |
| Federal Agencies and | $\$ 51,331, \mathbf{8 5 5}$ | $\mathbf{1 1 . 8 \%}$ | $\mathbf{0 . 8 9}$ | $\$ 51,235,657$ | $10.6 \%$ | 1.13 | $\mathbf{1 . 2 \%}$ |
| Instrumentalities (non-MBS) | $\$ 41,096,744$ | $\mathbf{9 . 4 \%}$ | $\mathbf{0 . 0 6}$ | $\$ 51,216,514$ | $10.6 \%$ | 0.24 | $\mathbf{( 1 . 2 \% )}$ |
| Commercial Paper | $\$ 14,598,557$ | $\mathbf{3 . 3 \%}$ | $\mathbf{1 . 6 1}$ | $\$ 17,588,993$ | $3.6 \%$ | 1.09 | $\mathbf{( 0 . 3 \% )}$ |
| Municipals | $\$ 7,038,939$ | $\mathbf{1 . 6 \%}$ | $\mathbf{3 . 2 0}$ | $\$ 7,592,134$ | $1.6 \%$ | 3.21 | $\mathbf{0 . 0 \%}$ |
| Government MBS |  |  |  |  |  |  |  |
| Totals | $\$ 435,980,513$ | $\mathbf{1 0 0 . 0 \%}$ | $\mathbf{0 . 9 2}$ | $\mathbf{\$ 4 8 2 , 6 0 2 , 9 2 3}$ | $\mathbf{1 0 0 . 0 \%}$ | 0.98 |  |


2. End of quarter trade-date market values of portfolio holdings, including accrued interest
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.
3. NR holdings are not rated by S\&P, but rated by Moody's and are in compliance with BPCA's Investment Policy.

Aggregate Portfolio Summary: PFM Asset Management

| Security Type ${ }^{1}$ | October 31, 2018 | \% of Advisor | \% of Total Portfolio | Effective Duration | July 31, 2018 | \% of <br> Advisor | \% of Total Portfolio | Effective Duration |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasuries | \$283,021,621 | 73.1\% | 64.9\% | 1.07 | \$296,316,659 | 74.4\% | 61.4\% | 1.18 | (1.3\%) |
| Federal Agencies and Instrumentalities (non-MBS) | \$50,832,846 | 13.1\% | 11.7\% | 0.90 | \$49,666,160 | 12.5\% | 10.3\% | 1.16 | 0.7\% |
| Commercial Paper | \$37,271,378 | 9.6\% | 8.5\% | 0.05 | \$37,080,049 | 9.3\% | 7.7\% | 0.28 | 0.3\% |
| Municipals | \$9,082,696 | 2.3\% | 2.1\% | 2.12 | \$7,661,328 | 1.9\% | 1.6\% | 1.90 | 0.4\% |
| Government MBS | \$6,960,848 | 1.8\% | 1.6\% | 3.20 | \$7,506,980 | 1.9\% | 1.6\% | 3.21 | (0.1\%) |
| Totals | \$387,169,388 | 100\% | 88.8\% | 1.01 | \$398,231,176 | 100.0\% | 82.5\% | 1.02 |  |

## Maturity Distribution as of 10/31/2018

Notes:

Credit Quality
as of $10 / 31 / 2018$


1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## Aggregate Portfolio Summary: Ramirez Asset Management

| Security Type ${ }^{1}$ | October 31, 2018 | \% of Advisor | \% of Total Portfolio | Effective <br> Duration | July 31, 2018 | \% of Advisor | \% of Total Portfolio | Effective <br> Duration | QoQ <br> Change (\% of Advisor) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasuries | \$38,892,796 | 79.7\% | 8.9\% | 0.06 | \$58,652,966 | 69.5\% | 11.7\% | 0.21 | 10.2\% |
| Federal Agencies and Instrumentalities (non-MBS) | \$499,009 | 1.0\% | 0.1\% | 0.09 | \$1,569,497 | 1.9\% | 0.3\% | 0.09 | (0.8\%) |
| Commercial Paper | \$3,825,367 | 7.8\% | 0.9\% | 0.17 | \$14,136,465 | 16.8\% | 2.8\% | 0.13 | (8.9\%) |
| Municipals | \$5,515,861 | 11.3\% | 1.3\% | 0.78 | \$9,927,665 | 11.8\% | 2.0\% | 0.46 | (0.5\%) |
| Government MBS | \$78,091 | 0.2\% | 0.0\% | 2.85 | \$85,154 | 0.1\% | 0.0\% | 2.85 | 0.1\% |
| Totals | \$48,811,124 | 100\% | 11.2\% | 0.16 | \$84,371,747 | 100.0\% | 16.8\% | 0.23 |  |


© PFM

## Aggregate Portfolio Issuer Breakdown

| Security Type | October 31, 2018 | \% of Portfolio | July 31, 2018 | \% of Portfolio | QoQ \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| United States Treasury ${ }^{2}$ |  |  |  |  |  |
| U.S. Treasury | \$321,914,417 | 73.8\% | \$354,969,625 | 73.6\% | 0.3\% |
| Ginnie Mae | \$3,786,299 | 0.9\% | \$4,150,969 | 0.9\% | 0.0\% |
| Small Business Administration | \$2,050,426 | 0.5\% | \$2,151,046 | 0.4\% | 0.0\% |
| Federal Agencies and Instrumentalities ${ }^{2,3}$ |  |  |  |  |  |
| Freddie Mac | \$2,340,943 | 0.5\% | \$2,407,566 | 0.5\% | 0.0\% |
| Fannie Mae | \$727,735 | 0.2\% | \$773,571 | 0.2\% | 0.0\% |
| Federal Home Loan Bank | \$22,380,201 | 5.1\% | \$22,689,246 | 4.7\% | 0.4\% |
| International Bank of Recon and Development | \$12,713,558 | 2.9\% | \$12,249,978 | 2.5\% | 0.4\% |
| International American Development Bank | \$3,522,356 | 0.8\% | \$3,525,014 | 0.7\% | 0.1\% |
| Asian Development Bank | \$5,011,743 | 1.1\% | \$5,011,394 | 1.0\% | 0.1\% |
| African Development Bank | \$5,837,533 | 1.3\% | \$5,869,006 | 1.2\% | 0.1\% |
| Commercial Paper ${ }^{2}$ |  |  |  |  |  |
| JP Morgan | \$11,977,429 | 2.7\% | \$13,653,316 | 2.8\% | (0.1\%) |
| Prudential Funding LLC | \$1,034,151 | 0.2\% | \$3,142,104 | 0.7\% | (0.4\%) |
| Toyota Motor Credit Corporation | \$18,515,272 | 4.2\% | \$20,607,996 | 4.3\% | (0.0\%) |
| Salt River Project | \$699,118 | 0.2\% | \$2,995,483 | 0.6\% | (0.5\%) |
| MetLife Funding Inc | \$0 | 0.0\% | \$1,998,383 | 0.4\% | (0.4\%) |
| Dexia Credit Local NY | \$8,870,776 | 2.0\% | \$8,819,230 | 1.8\% | 0.2\% |
| Municipal Issuers ${ }^{2}$ |  |  |  |  |  |
| Nassau County, NY IFA | \$1,108,711 | 0.3\% | \$1,102,672 | 0.2\% | 0.0\% |
| New York City | \$5,892,511 | 1.4\% | \$7,911,222 | 1.6\% | (0.3\%) |
| New York City Transitional Finance Authority | \$3,902,361 | 0.9\% | \$3,907,711 | 0.8\% | 0.1\% |
| NY State Dorm Authority | \$2,600,205 | 0.6\% | \$1,430,851 | 0.3\% | 0.3\% |
| Port Authority of NY/NJ | \$0 | 0.0\% | \$605,819 | 0.1\% | (0.1\%) |
| NY Metro Transportation Authority | \$258,856 | 0.1\% | \$257,221 | 0.1\% | 0.0\% |
| West Islip NY Union Free SD | \$0 | 0.0\% | \$100,108 | 0.0\% | (0.0\%) |
| Texas State | \$0 | 0.0\% | \$1,001,777 | 0.2\% | (0.2\%) |
| Brocton CSD | \$15,233 | 0.0\% | \$15,122 | 0.0\% | 0.0\% |
| Syracuse, NY | \$440,428 | 0.1\% | \$869,349 | 0.2\% | (0.1\%) |
| NY State Housing Finance Agency | \$380,252 | 0.1\% | \$387,140 | 0.1\% | 0.0\% |
| TOTAL | \$435,980,513 | 100.0\% | \$482,602,923 | 100.0\% |  |

## Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Pursuant to the Authority's Investment Policy, investments in obligations other than those backed by the full faith and credit of the U.S. Government are limited to the following: (1) Federal Agencies - $\$ 250$ million per issuer, (2) Commercial Paper - the lesser of $5 \%$ or $\$ 250$ million per issuer, (3) Bankers' Acceptances - the lesser of $5 \%$ or $\$ 250$ million per issuer and (4) Municipal Bonds - $10 \%$.
3. Federal Agencies and Instrumentalities includes Mortgage-Backed Securities.

## Aggregate Portfolio Maturity Structure

| Security Type ${ }^{1}$ | October 31, 2018 | \% of Portfolio | July 31, 2018 | \% of Portfolio | QoQ \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Under 6 Months | \$299,103,753 | 68.6\% | \$341,105,048 | 70.7\% | (2.1\%) |
| 6-12 Months | \$18,898,588 | 4.3\% | \$11,086,718 | 2.3\% | 2.0\% |
| 1-2 Years | \$24,955,799 | 5.7\% | \$30,046,762 | 6.2\% | (0.5\%) |
| 2-3 Years | \$33,192,237 | 7.6\% | \$37,382,614 | 7.7\% | (0.1\%) |
| 3-4 Years | \$19,766,540 | 4.5\% | \$20,664,460 | 4.3\% | 0.3\% |
| 4-5 Years | \$11,236,279 | 2.6\% | \$10,733,837 | 2.2\% | 0.4\% |
| 5 Years and Over | \$28,827,316 | 6.6\% | \$31,583,485 | 6.5\% | 0.1\% |
| Totals | \$435,980,513 | 100.0\% | \$482,602,923 | 100.0\% |  |



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.

## IV. Total Return Performance Attributes

## Total Return Portfolio Attributes



## Portfolios Managed with a Longer-Term Investment Strategy

## Longer-Term Investment Strategy

| Total Return ${ }^{1,2,4,5}$ | October 31, 2018 | Annualized Quarter | Annualized Since Inception |
| :---: | :---: | :---: | :---: |
| - 2003 Reserve Fund | 0.36\% | 1.43\% | 3.13\% |
| $\square \quad \mathrm{BM}$ : BAML 1-5 Year US Treasury Note Index | 0.27\% | 1.08\% | 2.96\% |
| $\square \quad \mathrm{BPCPC}$ Operating Reserve Contingency | 0.23\% | 0.92\% | 3.44\% |
| $\square \quad$ Insurance Fund | 0.22\% | 0.87\% | 3.39\% |
| $\square$ Operating Budget Reserve | 0.25\% | 0.98\% | 3.54\% |
| $\square$ BM: BAML 1-10 Year US Treasury Note Index | 0.13\% | 0.51\% | 3.07\% |
| $\square$ BPCA Other Post-Employment Benefits | 0.24\% | 0.97\% | 2.54\% |
| $\square$ BM: BAML 1-10 Year US Treasury Note Index | 0.13\% | 0.51\% | 2.28\% |
| $\square \quad$ BPCPC Other Post-Employment Benefits | 0.24\% | 0.96\% | 1.86\% |
| $\square \quad$ BM: BAML 1-10 Year US Treasury Note Index | 0.13\% | 0.51\% | 1.85\% |
| Effective Duration (in years) ${ }^{3}$ | October 31, 2018 | July 31, 2018 |  |




Notes:

1. Performance on trade-date basis, gross-of-fees in accordance with the CFA Institute's Global Investment Performance Standards.
2. Bank of America/Meriill Lynch (BAML) indices provided by Bloomberg Financial Markets. The total returns shown for periods longer than a year are the annualized returns for the stated period
3. Duration is the change in the value of a security that will result from a $1 \%$ change in interest rates, stated in years.
4. Periodic performance numbers are presented both as the periodic return and on an annualized basis. The annualized return assumes the periodic return is compounded at the same rate and is
is presented for reference only. The actual annual return will be the result of chaining the most
Since inception performance for all portfolios other than 'BPCA Other Post Employment Benefits' and 'BPCPC Other Post Employment Benefits' is calculated from January 31, 2006 to present For the 'Reserve Fund,' the inception of the BAML 1-5 Year Treasury Index as the performance benchmark is July 31, 2013. For prior periods, the BAML 1-10 Year Treasury index was utilized Since inception performance for the 'BPCA Other Post Employment Benefits' is calculated from January 31, 2008 to present.
Since inception performance for the 'BPCPC Other Post Employment Benefits' is calculated from February 12, 2010 to present.

## 2003 Reserve Fund Portfolio



## Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## BPCPC Operating Reserve Contingency Portfolio



## Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## Insurance Fund Portfolio

| Security Type ${ }^{1}$ | October 31, 2018 | \% of Portfolio | July 31, 2018 | \% of Portfolio | QoQ \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasuries | \$4,208,734 | 75.0\% | \$4,180,039 | 74.7\% | 0.3\% |
| Federal Agencies and Instrumentalities (non-MBS) | \$834,380 | 14.9\% | \$835,259 | 14.9\% | (0.1\%) |
| Commercial Paper | \$0 | 0.0\% | \$0 | 0.0\% | 0.0\% |
| Municipal Obligations | \$448,738 | 8.0\% | \$450,935 | 8.1\% | (0.1\%) |
| Government MBS | \$120,471 | 2.1\% | \$129,101 | 2.3\% | (0.2\%) |
| Totals \$5,612,323 |  | 100.0\% | \$5,595,335 | 100.0\% |  |
| Portfolio Composition as of 10/31/18 |  | Credit Quality Distribution as of 10/31/18 |  |  |  |



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## Operating Budget Reserve Portfolio



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## BPCA OPEB Portfolio



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## BPCPC OPEB Portfolio



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

# Portfolios Managed with a Shorter-Term Investment Strategy 

## Shorter-Term Investment Strategy



## Notes:

1. Performance on trade-date basis, gross-of-fees in accordance with the CFA Institute's Global Investment Performance Standards.
2. Bank of America/Merrill Lynch (BAML) indices provided by Bloomberg Financial Markets. The total returns shown for periods longer than a year are the annualized returns for the stated period.
3. Duration is the change in the value of a security that will result from a $1 \%$ change in interest rates, stated in years.
 for reference only. The actual annual return will be the result of chaining the most recent four quarterly returns.
4. Since inception performance is calculated from January 31, 2006 to present.

## 2003 Pledged Revenue



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest.
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## 2003 Project Operating Fund Portfolio



Notes:

1. End of quarter trade-date market values of portfolio holdings, including accrued interest
2. Government MBS includes Freddie Mac, Fannie Mae, Ginnie Mae, and Small Business Administration MBS.

## Important Disclosures

This report is only intended for the entity identified in the report, and should specifically not be relied on by any other entity. The information contained in the report is intended for institutional and/or sophisticated professional investors. This material is intended for informational purposes only and should not be relied upon to make an investment decision, as it was prepared without regard to any specific objectives, or financial circumstances. It should not be construed as an offer or to purchase or sell any investment. Any investment or strategy referenced may involve significant risks, including, but not limited to: risk of loss, illiquidity, unavailability within all jurisdictions, and may not be suitable for all investors. To the extent permitted by applicable law, no member of the PFM Group, or any officer, employee or associate accepts any liability whatsoever for any direct or consequential loss arising from any use of this presentation or its contents, including for negligence. This material is not intended for distribution to, or use by, any person in a jurisdiction where delivery would be contrary to applicable law or regulation, or where it is subject to any contractual restriction. No further distribution is permissible without prior written consent.

The views expressed within this material constitute the perspective and judgment of PFM Asset Management LLC at the time of distribution and are subject to change. Any forecast, projection, or prediction of the market, the economy, economic trends, and equity or fixed-income markets are based upon current opinion as of the date of issue, and are also subject to change. Opinions and data presented are not necessarily indicative of future events or expected performance. Information contained herein is based on data obtained from recognized statistical services, issuer reports or communications, or other sources, believed to be reliable. No representation is made as to its accuracy or completeness.

PFM Asset Management LLC is an investment adviser registered with the United States Securities and Exchange Commission.


[^0]:    Notes:

    1. Bank of America/Merrill Lynch (BAML) indices provided by Bloomberg Financial Markets. The total returns shown for periods longer than a year are the annualized returns for the stated period
    2. Since inception performance for all portfolios other than 'BPCA Other Post Employment Benefits' and 'BPCPC Other Post Employment Benefits' is calculated from January 31, 2006 to present
    3. For the 'Reserve Fund,' the inception of the BAML 1-5 Year Treasury Index as the performance benchmark is July 31, 2013. For prior periods, the BAML 1-10 Year Treasury Index was utilized.
    4. Since inception performance for the 'BPCA Other Post Employment Benefits' is calculated from January 31, 2008 to present.
    5. Since inception performance for the 'BPCPC Other Post Employment Benefits' is calculated from February 12, 2010 to present.
[^1]:    Notes:

    1. "Market Value" includes accrued interest, but does not include cash balances held at the bank.
[^2]:    1. Beginning Period Value is as of July 31, 2018 and Ending Period Value is as of October 31, 2018. Beginning Period Value and Ending Period Value equal market values of portfolio holdings plus accrued interest and cash.
