# Hugh L. Carey Battery Park City Authority 

## Review of Investment Performance

Quarter Ended July 31, 2019

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## I. Market Commentary

## Market Commentary - Quarter Ended July 31, 2019

## SUMMARY

- The trade war rolls on. Amidst on-again, off-again U.S.-China tariff spats and the resultant spikes in market volatility, investors have to digest a new Fed monetary policy outlook and reduced global growth prospects. While the domestic economy savors the tenth year of this epic expansion, it's the headwinds abroad that remain the most imminent detractors.
- U.S. economic conditions are characterized by: (1) solid gross domestic product (GDP) growth in Q2, but more tempered expectations for Q3; (2) strong job growth, with a low unemployment rate of $3.7 \%$; (3) softening inflation pressures; and (4) increased downside risks, including a slowdown in manufacturing, weaker business investments and protracted trade wars.
- The Federal Reserve (Fed) elected to cut its benchmark interest rate by $0.25 \%$ during its July meeting, lowering its target range to 2.00\%-2.25\%. However, the Fed disappointed investors by offering little to ratify expectations of additional rate cuts during the remainder of the year. Officials also announced the Fed would end its balance sheet runoff two months early, ending a program meant to gradually withdraw stimulus added through quantitative easing.


## ECONOMIC SNAPSHOT

- The advance release of second quarter U.S. gross domestic product (GDP) indicated the U.S. economy grew at $2.1 \%$, trailing the $3.1 \%$ growth from the prior quarter, but outpacing consensus expectations of $1.8 \%$. Growth was propelled by a jump in personal consumption to $4.3 \%$, an increase from the prior quarter of $1.1 \%$ and the largest quarterly consumption figure since December 2017.
- The U.S. labor market remained strong, with average job growth of 172,000 per month in 2019, compared with average gains of 223,000 in 2018. The unemployment rate stood at $3.7 \%$ in July, near a 49-year low, as the economy remains at what is considered "full employment." Average hourly wages for private-sector workers grew 3.2\% year-over-year.
- Inflation continued to be tame. The Consumer Price Index (CPI) rose $1.6 \%$ over the past year, while the Fed's preferred inflation gauge, the Core Personal Consumption Expenditure (PCE) Price Index, excluding food and energy prices, also rose $1.6 \%$ over the past year, below the Fed's target of $2 \%$. Inflation remains the focus of future Fed policy.
- Recent manufacturing data weakened in the face of slowing global demand. The most recent Institute for Supply Management (ISM) manufacturing survey fell to a 30-month low, while new orders for manufactured goods have fallen in three of the past four months. Conversely, consumer confidence remains near all-time highs, while retail sales rebounded from weakness in Q2.


## INTEREST RATES

- U.S. Treasury yields fell for a third consecutive quarter, with maturities beyond one year falling 40 to 50 basis points (bps). At quarter-end, the yield on a 3-month Treasury bill stood at 2.19\%, the 2-year note was $1.88 \%$, the 5 -year was $1.85 \%$ and the 10 -year yielded $2.02 \%$.
- The yield curve reached its greatest level of inversion since 2007, as the spread between the 10-year and 3-month Treasuries reached -28 bps, although it finished the quarter narrower as short-term rates trended lower in reaction to rate cuts


## SECTOR PERFORMANCE

- Absolute returns were very strong in Q3 as lower yields pushed prices higher. Treasury benchmarks posted some of their strongest quarterly returns in three years. The increasing yield curve inversion further boosted the returns of longer duration instruments, outperforming shorter-maturity counterparts.
- Federal agency returns underperformed similar-duration Treasury securities for the quarter, as agency yield spreads continued to trade at very narrow levels. Callable agencies underperformed non-callable structures by a wider margin as the large downward move in yields increased the likelihood of call, limiting price appreciation.
- Supranational sectors offer little incremental income and modest potential for incremental returns compared to Treasuries. Spreads are narrow and issuance is light, as it has been all year.
- Investment-grade (IG) credit generated positive excess returns for the quarter. As a result, the sector is the year-to-date top performer by a wide margin. We will maintain current exposure in the sector; however, we advise caution as spreads approach 12-month tights on the heels of strong performance results.
- The continued drop in rates pressured mortgage-backed securities (MBS) in Q3. A surge in prepayment expectations resulted in underperformance in May and June but a rebound in July ended the quarter with positive returns. The outlook for MBS performance remains very much tied to long term interest rates and the resultant impact on prepayment estimates. As a result, MBS strategy focuses on those securities that exhibit less sensitivity to interest rate risks under adverse conditions.

Economic Snapshot


Note: $Y o Y=$ year over year, $Q o Q=$ 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 | 7/31/19 | $4 / 30 / 19$ | Change over <br> Quarter | 7/31/18 | Change over <br> Year |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 3-month | $2.19 \%$ | $2.46 \%$ | $(0.28 \%)$ | $2.07 \%$ | $0.11 \%$ |
| 1-year | $2.06 \%$ | $2.39 \%$ | $(0.33 \%)$ | $2.40 \%$ | $(0.34 \%)$ |
| 2-year | $1.88 \%$ | $2.27 \%$ | $(0.39 \%)$ | $2.69 \%$ | $(0.81 \%)$ |
| 5-year | $1.85 \%$ | $2.29 \%$ | $(0.45 \%)$ | $2.85 \%$ | $(1.00 \%)$ |
| 10-year | $2.01 \%$ | $2.51 \%$ | $(0.50 \%)$ | $2.97 \%$ | $(0.95 \%)$ |
| 30-year | $2.53 \%$ | $2.93 \%$ | $(0.40 \%)$ | $3.08 \%$ | $(0.55 \%)$ |

## LIBOR Rates

| Maturity | $7 / 31 / 19$ | $4 / 30 / 19$ | Change over <br> Quarter | $7 / 31 / 18$ | Change over <br> Year |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 1-month | $2.22 \%$ | $2.48 \%$ | $(0.26 \%)$ | $2.08 \%$ | $0.14 \%$ |
| 3-month | $2.27 \%$ | $2.58 \%$ | $(0.31 \%)$ | $2.35 \%$ | $(0.08 \%)$ |

U.S. Treasury Note Yield Curve


Yield Curves as of 7/31/19


## Source: Bloomberg.

## II. Executive Summary

## Performance Overview - Total Return Strategies - July 31, 2019

|  | Past Quarter | Past 12 <br> Months | Past 3-Years | Since Inception |
| :---: | :---: | :---: | :---: | :---: |
| Long-Term Strategy: |  |  |  |  |
| 2003 Reserve Fund | 0.87\% | 3.90\% | 1.17\% | 3.22\% |
| BM: BAML 1-5 Year US Treasury Note Index | 1.48\% | 4.80\% | 1.26\% | 3.13\% |
| BPCPC Operating Reserve Contingency | 1.57\% | 5.28\% | 1.30\% | 3.62\% |
| Insurance Fund | 1.54\% | 5.31\% | 1.20\% | 3.58\% |
| Operating Budget Reserve | 1.55\% | 5.36\% | 1.28\% | 3.73\% |
| BM: BAML 1-10 Year US Treasury Note Index | 2.09\% | 6.10\% | 1.25\% | 3.33\% |
| BPCA Other Post-Employment Benefits | 2.02\% | 5.95\% | 1.44\% | 2.87\% |
| BM: BAML 1-10 Year US Treasury Note Index | 2.09\% | 6.10\% | 1.25\% | $2.64 \%$ |
| BPCPC Other Post-Employment Benefits | 2.07\% | 6.02\% | 1.46\% | 2.31\% |
| BM: BAML 1-10 Year US Treasury Note Index | 2.09\% | 6.10\% | 1.25\% | 2.32\% |
| Short-Term Strategy: |  |  |  |  |
| 2003 Pledged Revenue | 0.66\% | 2.40\% | 1.45\% | 1.30\% |
| 2003 Project Operating Fund | 0.66\% | 2.48\% | 1.56\% | 1.32\% |
| BM: BAML 3 Month US Treasury Bill Index | 0.63\% | 2.34\% | 1.44\% | 1.23\% |

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

- U.S. Treasury yields continued to fall and the yield curve remained inverted between 2-and 5-year maturities. The 2year U.S. Treasury yield fell 39 basis points ( $0.39 \%$ ) to $1.88 \%$ and the yield on the 10 -year U.S. Treasury fell 50 basis points $(0.50 \%)$ finishing the quarter at $2.01 \%$. The yield curve reached its greatest level of inversion since 2007, as the spread between the 10 -year and 3 -month Treasuries reached -28 bps , although it finished the quarter narrower as shortterm rates trended lower in reaction to rate cuts.
- At its July 2019 meeting, the Fed (as widely anticipated) cut the overnight fed funds target rate by 25 basis points to a new range of $2.00 \%$ to $2.25 \%$. This marked the first Fed rate cut since December 2008. Despite the cut, the balance of the Fed's post-meeting commentary leaned hawkish, led by the dissenting votes of two Fed members (preferring no change).


## Longer-Term Funds

- The following portfolios temporarily suspended their investment strategy to accommodate the liquidation strategy for the 2019 bond financing: 2003 Reserve Fund, Operating Budget Reserve, Insurance Fund, and the Operating Reserve Contingency Funds.
- The two OPEB portfolios generally performed in line with their benchmark for the quarter ending July 31, 2019.


## Short-Term Funds

- The two short-term portfolios outperformed the BAML 3 Month Treasury Bill index for the quarter and for the 12 months ending July 31, 2019.
- Each portfolio is positioned to match the unique requirements of expected cash flows. Consistent with historical patterns, the 2003 Pledged Revenue account experienced significant cash inflows during the quarter.
- In the 12-month and under maturity range, high quality credit instruments such as commercial paper offered modest opportunities for incremental income.


## Investment Guidelines Compliance

| Compliance Issuer Check |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Issuer | Actual (\%) | Actual (\$) | IPS Limit | S\&P Rating | Moody's Rating | Check |
| U.S. Treasury | 75.45\% | 373,956,921 | 100\% | AA+ | Aaa | OK |
| Federal Home Loan Bank | 8.82\% | 43,705,585 | 250,000,000 | A-1+ | P-1 | OK |
| JP Morgan | 3.80\% | 18,820,436 | 5\% | A-1 | P-1 | OK |
| Toyota Motor Credit Corporation | 3.24\% | 16,072,750 | 5\% | A-1+ | P-1 | OK |
| International Bank of Recon and Development | 1.78\% | 8,831,628 | - | AAA | Aaa | OK |
| New York City Transitional Finance Authority | 0.87\% | 4,328,565 | 10\% | AAA | Aa1 | OK |
| Asian Development Bank | 0.84\% | 4,160,422 | - | AAA | Aaa | OK |
| Salt River Project | 0.78\% | 3,890,473 | 5\% | A-1+ | P-1 | OK |
| Port Authority of NY/NJ | 0.77\% | 3,794,676 | 10\% | A | Aa3 | OK |
| Ginnie Mae | 0.69\% | 3,399,789 | 100\% | AA+ | Aaa | OK |
| New York City | 0.67\% | 3,330,451 | 10\% | AA | Aa1 | OK |
| African Development Bank | 0.45\% | 2,212,107 | - | AAA | Aaa | OK |
| Prudential Funding LLC | 0.42\% | 2,089,373 | 5\% | A-1+ | P-1 | OK |
| Small Business Administration | 0.37\% | 1,847,937 | 100\% | AA+ | Aaa | OK |
| NY State Dorm Authority | 0.33\% | 1,612,070 | 10\% | NR | Aa1 | OK |
| New York State | 0.29\% | 1,426,479 | 10\% | AA+ | Aa1 | OK |
| Fannie Mae | 0.13\% | 643,776 | 250,000,000 | AA+ | Aaa | OK |
| Georgia State | 0.10\% | 512,372 | 10\% | AAA | Aaa | OK |
| Syracuse, NY | 0.09\% | 447,780 | 10\% | NR | A1 | OK |
| Freddie Mac | 0.07\% | 368,695 | 250,000,000 | AA+ | Aaa | OK |
| NY Metro Transportation Authority | 0.04\% | 203,790 | 10\% | A | A1 | OK |

[^1]
## Portfolio Value - Total Return Accounts

| Longer Term Investment Strategy | July 31, 2019 |  |  | April 30, 2019 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Market Value | Effective <br> Duration | \% of Total Portfolio | Market Value | Effective <br> Duration | \% of Total Portfolio |
| 2003 Reserve Fund | \$76,518,113 | 1.05 | 15.4\% | \$75,710,454 | 1.31 | 14.0\% |
| BPCPC Operating Reserve Contingency | \$12,507,865 | 2.36 | 2.5\% | \$12,795,252 | 2.47 | 2.4\% |
| Insurance Fund | \$5,897,001 | 2.46 | 1.2\% | \$5,803,422 | 2.47 | 1.1\% |
| Operating Budget Reserve | \$10,027,467 | 2.40 | 2.0\% | \$9,864,455 | 2.42 | 1.8\% |
| BPCA Other Post-Employment Benefits | \$26,343,127 | 3.63 | 5.3\% | \$25,805,466 | 3.46 | 4.8\% |
| BPCPC Other Post-Employment Benefits | \$13,839,937 | 3.64 | 2.8\% | \$13,530,387 | 3.57 | 2.5\% |
| Subtotal Longer Term Investment Strategy | \$145,133,510 | 2.03 | 29.3\% | \$143,509,437 | 2.14 | 26.5\% |

Short Term Investment Strategy

|  | $\mathbf{\$ 1 4 9 , 8 2 2 , 5 8 3}$ | $\mathbf{0 . 2 5}$ | $\mathbf{3 0 . 2 \%}$ | $\$ 55,001,122$ | 0.39 | $10.1 \%$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 2003 Pledged Revenue | $\mathbf{\$ 7 , 2 5 9 , 6 6 5}$ | $\mathbf{0 . 1 2}$ | $\mathbf{1 . 5 \%}$ | $\$ 7,092,491$ | 0.19 | $1.3 \%$ |
| 2003 Project Operating Fund | $\mathbf{\$ 1 5 7 , 0 8 2 , 2 4 8}$ | $\mathbf{0 . 2 4}$ | $\mathbf{3 1 . 7 \%}$ | $\mathbf{\$ 6 2 , 0 9 3 , 6 1 3}$ | $\mathbf{0 . 3 7}$ | $\mathbf{1 1 . 5 \%}$ |
| Subtotal Short Term Investment Strategy | $\mathbf{\$ 3 0 2 , 2 1 5 , 7 5 8}$ | $\mathbf{1 . 1 0}$ | $\mathbf{6 1 . 0 \%}$ | $\mathbf{\$ 2 0 5 , 6 0 3 , 0 5 1}$ | $\mathbf{1 . 6 0}$ | $\mathbf{3 7 . 9 \%}$ |
| Subtotal of Total Return Accounts |  |  |  |  |  |  |

[^2]
## Portfolio Value - Other BPCA Accounts

|  | July 31, 2019 |  |  | April 30, 2019 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Market Value | Effective <br> Duration | \% of Total Portfolio | Market Value | Effective Duration | \% of Total Portfolio |
| Corporate Funds | \$839,321 | 0.21 | 0.2\% | \$834,685 | 0.21 | 0.2\% |
| 2000 Arbitrage Rebate | \$824,106 | 0.29 | 0.2\% | \$818,418 | 0.08 | 0.2\% |
| 1993 Unpledged Revenue | \$13,042,891 | 0.23 | 2.6\% | \$6,401,735 | 0.35 | 1.2\% |
| 2003 Residual Fund | \$44,287,560 | 0.31 | 8.9\% | \$198,293,655 | 0.11 | 36.6\% |
| Joint Purpose Fund | \$360,857 | 0.29 | 0.1\% | \$354,315 | 0.08 | 0.1\% |
| Special Fund | \$952,344 | 0.29 | 0.2\% | \$943,177 | 0.08 | 0.2\% |
| BPCPC Operating Reserve | \$1,027,525 | 0.01 | 0.2\% | \$1,016,500 | 0.07 | 0.2\% |
| BPCA Goldman Sachs Liberty Contribution Fund | \$0 | 0.00 | 0.0\% | \$0 | 0.00 | 0.0\% |
| BPCA Series 2009A Project Costs | \$804,775 | 0.02 | 0.2\% | \$832,560 | 0.02 | 0.2\% |
| BPCA Series 2009B Project Costs | \$1,216,660 | 0.02 | 0.2\% | \$1,224,353 | 0.02 | 0.2\% |
| BPCA2013ACDE PROJ COST SUB AC | \$29,393,032 | 0.07 | 5.9\% | \$30,659,472 | 0.17 | 5.7\% |
| BPCA PIER A RESERVE FUND | \$983,161 | 0.29 | 0.2\% | \$973,119 | 0.00 | 0.2\% |
| BPCA SUBORDINATED PAYMENT ACCOUNT | \$3,858,134 | 0.07 | 0.8\% | \$1,994,605 | 0.00 | 0.4\% |
| Liberty Terr Mariners Cove-K | \$299,914 | 0.09 | 0.1\% | \$298,423 | 0.32 | 0.1\% |
| Liberty House Mariners J | \$245,323 | 0.12 | 0.0\% | \$243,728 | 0.38 | 0.0\% |
| Rector Park L | \$34,038 | 0.11 | 0.0\% | \$33,817 | 0.37 | 0.0\% |
| Hudson View W Towers G | \$173,186 | 0.11 | 0.0\% | \$172,066 | 0.37 | 0.0\% |
| Hudson Towers E/F | \$210,286 | 0.12 | 0.0\% | \$208,918 | 0.38 | 0.0\% |
| Hudson View Towers C | \$185,259 | 0.12 | 0.0\% | \$184,059 | 0.38 | 0.0\% |
| Liberty Ct Mariners Cove B | \$613,044 | 0.10 | 0.1\% | \$609,110 | 0.36 | 0.1\% |
| Millenium | \$3,699,805 | 0.17 | 0.7\% | \$3,675,382 | 0.37 | 0.7\% |
| Liberty Battery Place Assoc 4 | \$442,758 | 0.11 | 0.1\% | \$439,637 | 0.36 | 0.1\% |
| South Cove Assoc 11 | \$401,644 | 0.10 | 0.1\% | \$398,791 | 0.36 | 0.1\% |
| Soundings Rector Park A | \$214,283 | 0.12 | 0.0\% | \$212,890 | 0.38 | 0.0\% |
| The Regatta Site 10 | \$489,834 | 0.10 | 0.1\% | \$486,569 | 0.36 | 0.1\% |
| Debt Service Junior Payments | \$25,400,115 | 0.18 | 5.1\% | \$26,292,614 | 0.33 | 4.9\% |
| 2003 Debt Service Senior Payments | \$41,811,185 | 0.22 | 8.4\% | \$37,214,119 | 0.42 | 6.9\% |
| BPCA Millenium Tower Security Fund 2A | \$3,090,562 | 0.17 | 0.6\% | \$3,069,898 | 0.37 | 0.6\% |
| BPCA S 16/17 Riverhouse Security Fund | \$6,562,477 | 0.19 | 1.3\% | \$6,520,566 | 0.37 | 1.2\% |
| BPCA Visionaire Security Fund | \$3,999,115 | 0.16 | 0.8\% | \$3,973,922 | 0.35 | 0.7\% |
| BPCA Pier A Security Deposit Account | \$420,710 | 0.10 | 0.1\% | \$417,735 | 0.36 | 0.1\% |
| BPCA One Rector Park Security Fund | \$980,226 | 0.29 | 0.2\% | \$973,089 | 0.51 | 0.2\% |
| BPCA Rector Square Security Fund Site D | \$226,273 | 0.12 | 0.0\% | \$224,805 | 0.38 | 0.0\% |
| BPCA WFC TOWER C RETAIL RENT ESCROW | \$254,966 | 0.10 | 0.1\% | \$253,761 | 0.33 | 0.0\% |
| BPCA RIVER \& WARREN SEC FUND - SITE 19A | \$6,042,861 | 0.20 | 1.2\% | \$6,003,906 | 0.38 | 1.1\% |
| BPCA NORTH COVE MARINA SECURITY FUND | \$52,088 | 0.14 | 0.0\% | \$51,747 | 0.39 | 0.0\% |
| Subtotal of Other BPCA Accounts | \$193,440,316 | 0.20 | 39.0\% | \$336,306,145 | 0.19 | 62.1\% |

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

## Portfolio Earnings - PFM-Managed Accounts

|  | Portfolio Earnings <br> Quarter-Ended July 31, 2019 |  |
| :---: | :---: | :---: |
| Beginning Value April 30, 2019 | Market Value Basis ${ }^{1}$ | Accrual (Amortized Cost) Basis |
| Net Purchases/ (Sales) | $\$ 449,359,926$ |  |
| Change in Value | $(\$ 53,352,185)$ |  |
| Ending Value July 31, 2019 | $\$ 3,075,566$ | $(\$ 53,352,185)$ |
| Net Income ${ }^{2}$ | $\$ 399,083,306$ | $\$ 1,732,989$ |
| Porfolio Earnings | $\$ 607,187$ | $\$ 398,870,052$ |
|  | $\$ 3,682,752$ | $\$ 607,187$ |

## Notes:

1. Beginning and Ending Values exclude accrued income and cash balances at the bank.
2. Net Income includes coupon income paid, change in beginning and ending accruals, and purchased/sold accrued
3. A negative change in market value does not mean a realized loss. Losses are not realized until security/securities are

## Portfolio Earnings - Ramirez-Managed Accounts

|  | Portfolio Earnings Quarter-Ended July 31, 2019 <br> Market Value Basis ${ }^{1}$ | Accrual (Amortized Cost) Basis ${ }^{2}$ |
| :---: | :---: | :---: |
| Beginning Value April 30, 2019 | \$91,885,385 | \$91,462,537 |
| Net Purchases/ (Sales) | \$3,316,070 | \$3,316,070 |
| Change in Value | \$451,240 | \$108,581 |
| Ending Value July 31, 2019 | \$95,652,695 | \$94,887,188 |
| Net Income ${ }^{3}$ | \$174,197 | \$174,197 |
| Porfolio Earnings | \$625,438 | \$282,778 |

[^3] A negative change in market value does not mean a realized loss. Losses are not realized until security/securities are sold.

## Change in Value - Total Return Accounts

| Account Name | Beginning Period Value ${ }^{1}$ | (+\|-) | Net Transfers ${ }^{2}$ | (+1-) | Change in Value | = | Ending Period Value ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Longer Term Investment Strategy |  |  |  |  |  |  |  |
| 2003 Reserve Fund | \$75,732,690 |  | \$4,165 |  | \$798,161 |  | \$76,535,016 |
| BPCPC Operating Reserve Contingency | \$12,826,862 |  | $(\$ 513,428)$ |  | \$200,192 |  | \$12,513,625 |
| Insurance Fund | \$5,810,028 |  | (\$1) |  | \$88,744 |  | \$5,898,771 |
| Operating Budget Reserve | \$9,880,092 |  | \$100 |  | \$150,970 |  | \$10,031,162 |
| BPCA Other Post-Employment Benefits | \$25,835,870 |  | \$0 |  | \$522,642 |  | \$26,358,512 |
| BPCPC Other Post-Employment Benefits | \$13,567,809 |  | \$0 |  | \$280,715 |  | \$13,848,524 |
| Subtotal | \$143,653,351 |  | $(\$ 509,164)$ |  | \$2,041,424 |  | \$145,185,611 |
| Shorter Term Investment Strategy |  |  |  |  |  |  |  |
| 2003 Pledged Revenue | \$55,260,970 |  | \$95,586,154 |  | \$528,914 |  | \$151,376,038 |
| 2003 Project Operating Fund | \$7,116,753 |  | \$100,000 |  | \$43,835 |  | \$7,260,588 |
| Subtotal | \$62,377,723 |  | \$95,686,154 |  | \$572,749 |  | \$158,636,626 |
| Total | \$206,031,074 |  | \$95,176,990 |  | \$2,614,174 |  | \$303,822,237 |

Notes:

1. Beginning Period Value is as of April 30, 2019 and Ending Period Value is as of July 31, 2019. Beginning Period Value and Ending Period Value equal market values of portfolio holdings plus accrued interest and cash.
2. Net Transfers represent the total portfolio contributions and withdrawals during the quarter

## Change in Value - Other BPCA Accounts

| Account Name | Beginning Period Value ${ }^{1}$ | (+\|-) | Net Transfers ${ }^{2}$ | (+1-) | Change in Value | $=$ | Ending Period Value ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFM Asset Management Accounts |  |  |  |  |  |  |  |
| Corporate Funds | \$835,191 |  | \$0 |  | \$5,013 |  | \$840,204 |
| 2000 Arbitrage Rebate | \$819,001 |  | \$0 |  | \$5,585 |  | \$824,586 |
| 1993 Unpledged Revenue | \$8,778,551 |  | \$4,290,905 |  | \$71,951 |  | \$13,141,407 |
| 2003 Residual Fund | \$198,307,594 |  | (\$154,770,483) |  | \$752,119 |  | \$44,289,231 |
| Joint Purpose Fund | \$358,863 |  | \$0 |  | \$2,446 |  | \$361,309 |
| Special Fund | \$946,513 |  | \$0 |  | \$6,460 |  | \$952,974 |
| BPCPC Operating Reserve | \$1,022,609 |  | \$0 |  | \$5,777 |  | \$1,028,387 |
| BPCA Goldman Sachs Liberty Contribution | \$1,438 |  | \$0 |  | \$0 |  | \$1,438 |
| BPCA Series 2009A Project Costs | \$833,993 |  | $(\$ 33,530)$ |  | \$4,649 |  | \$805,112 |
| BPCA Series 2009B Project Costs | \$1,224,915 |  | (\$15,012) |  | \$6,934 |  | \$1,216,837 |
| BPCA Pier A Construction Escrow | \$0 |  | \$0 |  | \$0 |  | \$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 | \$30,667,658 |  | (\$1,453,314) |  | \$179,468 |  | \$29,393,812 |
| BPCA2013B Proj Costs Sub AC | \$0 |  | \$0 |  | \$0 |  | \$0 |
| BPCA Pier A Reserve Fund | \$973,119 |  | \$0 |  | \$10,233 |  | \$983,352 |
| BPCA Subordinated Pmt Acct | \$1,994,605 |  | \$1,839,926 |  | \$23,610 |  | \$3,858,141 |
| Subtotal | \$246,764,756 |  | (\$150,141,507) |  | \$1,074,247 |  | \$97,697,495 |

Notes:

1. Beginning Period Value is as of April 30, 2019 and Ending Period Value is as of July 31, 2019. Beginning Period Value and Ending Period Value equal market values of portfolio holdings plus accrued interest and cash.
2. Net Transfers represent the total portfolio contributions and withdrawals during the quarter

## Change in Value - Other BPCA Accounts

| Account Name | Beginning Period Value ${ }^{1}$ | (+1-) | Net Transfers ${ }^{2}$ | (+\|-) | Change in Value | $=$ | Ending Period Value ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ramirez Asset Management Accounts |  |  |  |  |  |  |  |
| Liberty Terr Mariners Cove-K | \$298,968 |  | \$0 |  | \$1,892 |  | \$300,860 |
| Liberty House Mariners J | \$244,488 |  | \$0 |  | \$1,595 |  | \$246,082 |
| Rector Park L | \$34,050 |  | \$0 |  | \$220 |  | \$34,270 |
| Hudson View W Towers G | \$172,140 |  | \$0 |  | \$1,121 |  | \$173,261 |
| Hudson Towers E/F | \$209,329 |  | \$0 |  | \$1,368 |  | \$210,697 |
| Hudson View Towers C | \$184,788 |  | \$0 |  | \$1,199 |  | \$185,987 |
| Liberty Ct Mariners Cove B | \$609,326 |  | \$0 |  | \$3,969 |  | \$613,295 |
| Millenium | \$3,679,722 |  | \$0 |  | \$20,179 |  | \$3,699,901 |
| Liberty Battery Place Assoc 4 | \$440,115 |  | \$0 |  | \$2,864 |  | \$442,980 |
| South Cove Assoc 11 | \$399,715 |  | \$0 |  | \$2,596 |  | \$402,311 |
| Soundings Rector Park A | \$213,884 |  | \$0 |  | \$1,393 |  | \$215,277 |
| The Regatta Site 10 | \$487,102 |  | \$0 |  | \$3,172 |  | \$490,274 |
| Debt Service Junior Payments | \$33,005,906 |  | (\$7,776,439) |  | \$170,979 |  | \$25,400,446 |
| 2003 Debt Service Senior Payments | \$46,047,668 |  | (\$4,503,153) |  | \$268,379 |  | \$41,812,893 |
| BPCA Millenium Tower Security Fund 2A | \$3,074,348 |  | \$0 |  | \$16,218 |  | \$3,090,566 |
| BPCA S 16/17 Riverhouse Security Fund | \$6,523,300 |  | \$0 |  | \$39,246 |  | \$6,562,546 |
| BPCA Visionaire Security Fund | \$3,978,060 |  | \$0 |  | \$21,846 |  | \$3,999,906 |
| BPCA Pier A Security Deposit Account | \$418,395 |  | \$0 |  | \$2,719 |  | \$421,114 |
| BPCA One Rector Park Security Fund | \$973,761 |  | \$0 |  | \$6,936 |  | \$980,696 |
| BPCA Rector Square Security Fund Site D | \$225,014 |  | \$0 |  | \$1,468 |  | \$226,482 |
| BPCA WFC Tower C Retail Rent Escrow | \$253,792 |  | \$0 |  | \$1,607 |  | \$255,398 |
| BPCA River \& Warren Sec Fund - Site 19A | \$6,006,788 |  | \$0 |  | \$36,291 |  | \$6,043,079 |
| BPCA North Cove Marina Security Fund | \$52,096 |  | \$0 |  | \$341 |  | \$52,437 |
| Subtotal | \$107,532,754 |  | (\$12,279,592) |  | \$607,597 |  | \$95,860,759 |

Notes:

1. Beginning Period Value is as of April 30, 2019 and Ending Period Value is as of July 31, 2019. Beginning Period Value and Ending Period Value equal market values of portfolio holdings plus accrued interest and cash.
2. Net Transfers represent the total portfolio contributions and withdrawals during the quarter

# III. Summary of Aggregate Portfolio 

## Aggregate Portfolio Composition and Credit Quality

| Security Type ${ }^{1}$ | July 31, 2019 | \% of Portfolio | Effective <br> Duration | April 30, 2019 | \% of Portfolio | Effective <br> Duration | QoQ <br> Change (\% of portfolio) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasuries | \$373,956,921 | 75.4\% | 0.86 | \$459,318,536 | 84.8\% | 0.72 | (9.3\%) |
| Federal Agencies and Instrumentalities (non-MBS) | \$58,977,522 | 11.9\% | 0.26 | \$19,003,787 | 3.5\% | 0.99 | 8.4\% |
| Commercial Paper | \$40,873,032 | 8.2\% | 0.15 | \$40,887,604 | 7.5\% | 0.31 | 0.7\% |
| Municipals | \$15,656,183 | 3.2\% | 0.75 | \$16,237,491 | 3.0\% | 0.88 | 0.2\% |
| Government MBS | \$6,192,416 | 1.2\% | 2.88 | \$6,461,778 | 1.2\% | 3.02 | 0.1\% |
| Totals | \$495,656,074 | 100.0\% | 0.75 | \$541,909,196 | 100.0\% | 0.73 |  |



## Aggregate Portfolio Summary: PFM Asset Management

| Security Type ${ }^{1}$ | July 31, 2019 | \% of Advisor | \% of <br> Total Portfolio | Effective <br> Duration | April 30, 2019 | \% of Advisor | \% of <br> Total Portfolio | Effective Duration | QoQ <br> Change (\% of Advisor) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasuries | \$295,240,454 | 73.8\% | 59.6\% | 1.04 | \$389,700,284 | 86.6\% | 71.9\% | 0.77 | (12.8\%) |
| Federal Agencies and Instrumentalities (non-MBS) | \$58,909,741 | 14.7\% | 11.9\% | 0.26 | \$19,003,787 | 4.2\% | 3.5\% | 0.99 | 10.5\% |
| Commercial Paper | \$32,293,984 | 8.1\% | 6.5\% | 0.18 | \$27,743,241 | 6.2\% | 5.1\% | 0.40 | 1.9\% |
| Municipals | \$7,169,530 | 1.8\% | 1.4\% | 1.07 | \$7,111,259 | 1.6\% | 1.3\% | 1.31 | 0.2\% |
| Government MBS | \$6,192,416 | 1.5\% | 1.2\% | 2.88 | \$6,391,074 | 1.4\% | 1.2\% | 3.02 | 0.1\% |
| Totals | \$399,806,124 | 100\% | 80.7\% | 0.88 | \$449,949,646 | 100.0\% | 83.0\% | 0.80 |  |



## 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.

## Aggregate Portfolio Summary: Ramirez Asset Management

| Security Type ${ }^{1}$ | July 31, 2019 | \% of Advisor | \% of <br> Total Portfolio | Effective <br> Duration | April 30, 2019 | \% of Advisor | \% of <br> Total Portfolio | Effective <br> Duration | QoQ <br> Change (\% of Advisor) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasuries | \$78,716,468 | 82.1\% | 15.9\% | 0.18 | \$69,618,252 | 75.7\% | 12.8\% | 0.40 | 6.4\% |
| Federal Agencies and Instrumentalities (non-MBS) | \$0 | 0.0\% | 0.0\% | 0.00 | \$0 | 0.0\% | 0.0\% | 0.00 | - |
| Commercial Paper | \$8,579,048 | 9.0\% | 1.7\% | 0.03 | \$13,144,363 | 14.3\% | 2.4\% | 0.11 | (5.3\%) |
| Municipals | \$8,486,653 | 8.9\% | 1.7\% | 0.48 | \$9,126,231 | 9.9\% | 1.7\% | 0.54 | (1.1\%) |
| Government MBS | \$67,781 | 0.1\% | 0.0\% | 2.79 | \$70,704 | 0.1\% | 0.0\% | 2.71 | (0.0\%) |
| Totals | \$95,849,949 | 100\% | 19.3\% | 0.20 | \$91,959,551 | 100.0\% | 17.0\% | 0.38 |  |

## Maturity Distribution <br> as of 7/31/2019

Credit Quality (S\&P)
as of 7/31/2019

Credit Quality (Moody's) as of 7/31/2019




## Notes:

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 Issuer Breakdown

| Security Type | July 31, 2019 | \% of Portfolio | April 30, 2019 | \% of Portfolio | QoQ \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| United States Treasury ${ }^{2}$ |  |  |  |  |  |
| U.S. Treasury | \$373,956,921 | 75.4\% | \$459,318,536 | 84.8\% | (9.3\%) |
| Ginnie Mae | \$3,399,789 | 0.7\% | \$3,507,511 | 0.6\% | 0.0\% |
| Small Business Administration | \$1,847,937 | 0.4\% | \$1,896,672 | 0.3\% | 0.0\% |
| Federal Agencies and Instrumentalities ${ }^{\text {2,3 }}$ |  |  |  |  |  |
| Freddie Mac | \$368,695 | 0.1\% | \$389,269 | 0.1\% | 0.0\% |
| Fannie Mae | \$643,776 | 0.1\% | \$668,326 | 0.1\% | 0.0\% |
| Federal Home Loan Bank | \$43,705,585 | 8.8\% | \$781,949 | 0.1\% | 8.7\% |
| International Bank of Recon and Development | \$8,831,628 | 1.8\% | \$10,008,109 | 1.8\% | (0.1\%) |
| International American Development Bank | \$0 | 0.0\% | \$1,365,416 | 0.3\% | (0.3\%) |
| Asian Development Bank | \$4,160,422 | 0.8\% | \$4,131,591 | 0.8\% | 0.1\% |
| African Development Bank | \$2,212,107 | 0.4\% | \$2,716,723 | 0.5\% | (0.1\%) |
| Commercial Paper ${ }^{2}$ |  |  |  |  |  |
| JP Morgan | \$18,820,436 | 3.8\% | \$20,286,302 | 3.7\% | 0.1\% |
| Prudential Funding LLC | \$2,089,373 | 0.4\% | \$3,928,415 | 0.7\% | (0.3\%) |
| Toyota Motor Credit Corporation | \$16,072,750 | 3.2\% | \$13,151,941 | 2.4\% | 0.8\% |
| Salt River Project | \$3,890,473 | 0.8\% | \$3,520,946 | 0.6\% | 0.1\% |
| Municipal Issuers ${ }^{2}$ |  |  |  |  |  |
| New York City | \$3,330,451 | 0.7\% | \$3,441,645 | 0.6\% | 0.0\% |
| New York City Transitional Finance Authority | \$4,328,565 | 0.9\% | \$4,296,694 | 0.8\% | 0.1\% |
| NY State Dorm Authority | \$1,612,070 | 0.3\% | \$1,594,210 | 0.3\% | 0.0\% |
| Port Authority of NY/NJ | \$3,794,676 | 0.8\% | \$1,914,597 | 0.4\% | 0.4\% |
| NY Metro Transportation Authority | \$203,790 | 0.0\% | \$1,162,297 | 0.2\% | (0.2\%) |
| NY State Environmental Facilities Corporation | \$0 | 0.0\% | \$2,056,913 | 0.4\% | (0.4\%) |
| New York State | \$1,426,479 | 0.3\% | \$1,311,296 | 0.2\% | 0.0\% |
| Georgia State | \$512,372 | 0.1\% | \$0 | 0.0\% | 0.1\% |
| Brocton CSD | \$0 | 0.0\% | \$15,218 | 0.0\% | (0.0\%) |
| Syracuse, NY | \$447,780 | 0.1\% | \$444,620 | 0.1\% | 0.0\% |
| TOTAL | \$495,656,074 | 100.0\% | \$541,909,196 | 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.

## IV. Total Return Performance Attributes

## Total Return Portfolio Attributes

| Yields | Effective Duration (in years) |  | Yield To Maturity - At Market |  | Yield To Maturity - On Cost |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | July 31, 2019 | April 30, 2019 | July 31, 2019 | April 30, 2019 | July 31, 2019 | April 30, 2019 |
| Longer Term Investment Strategy |  |  |  |  |  |  |
| 2003 Reserve Fund | 1.05 | 1.31 | 2.04\% | 2.32\% | 1.95\% | 1.97\% |
| BPCPC Operating Reserve Contingency | 2.36 | 2.47 | 1.86\% | 2.39\% | 1.98\% | 2.04\% |
| Insurance Fund | 2.46 | 2.47 | 1.91\% | 2.35\% | 1.81\% | 1.95\% |
| Operating Budget Reserve | 2.40 | 2.42 | 2.00\% | 2.38\% | 1.86\% | 2.01\% |
| BPCA Other Post-Employment Benefits | 3.63 | 3.46 | 1.95\% | 2.36\% | 2.08\% | 2.09\% |
| BPCPC Other Post-Employment Benefits | 3.64 | 3.57 | 1.95\% | 2.37\% | 2.06\% | 2.06\% |
| Short Term Investment Strategy |  |  |  |  |  |  |
| 2003 Pledged Revenue | 0.25 | 0.39 | 2.08\% | 2.44\% | 2.20\% | 2.52\% |
| 2003 Project Operating Fund | 0.12 | 0.19 | 1.99\% | 2.05\% | 2.31\% | 2.51\% |



## Portfolios Managed with a Longer-Term Investment Strategy

## Longer-Term Investment Strategy



Notes:

1. $\quad$ Performance on trade-date basis, gross-of-fees in accordance with the CFA Institute's Global Investment Performance Standards.
2. 
3. 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
4. Duration is the change in the value of a security that will result from a $1 \%$ change in interest rates, stated in years.
5. 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

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.
© PFM

## 2003 Reserve Fund Portfolio

Security Type ${ }^{1}$
July 31, 2019
\% of Portfolio
April 30, 2019
\% of Portfolio QoQ \% Change


## 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

| Security Type ${ }^{1}$ | July 31, 2019 | \% of Portfolio | April 30, 2019 | \% of Portfolio | QoQ \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasuries | \$7,988,683 | 63.9\% | \$8,084,573 | 63.2\% | 0.7\% |
| Federal Agencies and Instrumentalities (non-MBS) | \$1,943,069 | 15.5\% | \$2,111,950 | 16.5\% | (1.0\%) |
| Commercial Paper | \$0 | 0.0\% | \$0 | 0.0\% | 0.0\% |
| Municipal Obligations | \$1,400,286 | 11.2\% | \$1,389,620 | 10.9\% | 0.3\% |
| Government MBS | \$1,175,826 | 9.4\% | \$1,209,109 | 9.4\% | (0.0\%) |
| Totals | \$12,507,865 | 100.0\% | \$12,795,252 | 100.0\% |  |
| Portfolio Composition as of 07/31/19 | Federal Agencies and Instrumentalities (nonMBS) 15.5\% <br> Municipal <br> Obligations 11.2\% |  | Credit Qualit as of | Distribution /31/19 |  <br> AAA <br> 23.4\% |



## 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




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.

## V. Exhibit: <br> Bank of America Merrill Lynch Index Returns

## Bank of America Merrill Lynch Index Returns

As of 7/31/2019
Periods Ended 7/31/2019

|  | Duration | Yield | 3 Month | 1 Year | 3 Years |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1-3 Year Indices |  |  |  |  |  |
| U.S. Treasury | 1.86 | 1.94\% | 1.11\% | 3.84\% | 1.27\% |
| Federal Agency | 1.57 | 1.98\% | 1.04\% | 3.79\% | 1.46\% |
| U.S. Corporates, A-AAA Rated | 1.87 | 2.37\% | 1.34\% | 4.71\% | 2.10\% |
| Agency MBS (0 to 3 years) | 3.57 | 2.62\% | 2.25\% | 6.02\% | 2.16\% |
| Municipals | 1.77 | 1.14\% | 1.26\% | 2.95\% | 1.40\% |
| 1-5 Year Indices |  |  |  |  |  |
| U.S. Treasury | 2.60 | 1.91\% | 1.48\% | 4.80\% | 1.26\% |
| Federal Agency | 1.92 | 1.95\% | 1.20\% | 4.25\% | 1.45\% |
| U.S. Corporates, A-AAA Rated | 2.68 | 2.62\% | 1.90\% | 6.30\% | 2.61\% |
| Agency MBS (0 to 5 years) | 3.27 | 2.62\% | 2.27\% | 6.10\% | 1.79\% |
| Municipals | 2.49 | 1.18\% | 1.66\% | 3.83\% | 1.60\% |
| Master Indices |  |  |  |  |  |
| U.S. Treasury | 6.60 | 2.03\% | 3.28\% | 7.70\% | 1.16\% |
| Federal Agency | 4.16 | 2.10\% | 2.31\% | 6.37\% | 1.80\% |
| U.S. Corporates, A-AAA Rated | 7.52 | 2.88\% | 4.38\% | 10.14\% | 3.09\% |
| Agency MBS | 3.82 | 2.72\% | 2.59\% | 6.91\% | 2.18\% |
| Municipals | 6.88 | 2.07\% | 2.72\% | 7.32\% | 2.87\% |

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

## Important Disclosures

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Update on Interest Rate Swap Amendments

September 24, 2019


MohantyGargiulo ${ }_{\text {uc }}$
Advice for informed decisions

## Overview of Swap Amendments and Debt Cost Comparison

## Overview of Amendments

- In July, BPCA amended its interest rate swaps to convert the floating rate index received from $65 \%$ 1M LIBOR to SIFMA until 2024
$\checkmark$ The change in index better aligns swap payments with interest on the Series 2019DE bonds
$\checkmark$ To pay for the cost of amendments, the fixed rates were increased by $\sim 4-6$ bps until maturity
$\checkmark$ Converting to SIFMA also eliminates near-term uncertainties with respect to the anticipated LIBOR discontinuation, expected after 2021


## Debt Cost Comparison

- The weighted average cost of BPCA's variable-rate refunding bonds (including support costs) for the month of August 2019 was approximately $\mathbf{1 . 8 6 \%}$. Taking into account the modified interest rate swaps, BPCA's net debt cost was approximately $4.02 \%$.
- For comparison purposes, the weighted average cost of BPCA's prior LIBOR-based debt (including support costs) for the month of August 2019 would have been approximately $\mathbf{2 . 6 2 \%}$. Taking into account the original interest rate swaps, BPCA's net debt cost would have been approximately $4.61 \%$.

| Counterparty | Current <br> Notional | Maturity | Amendment <br> Date | Old Rate | New Rate | BPCA Receives <br> SIFMA Until |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Citibank | $\$ 90,797,000$ | $11 / 1 / 31$ | $7 / 26 / 19$ | $3.452 \%$ | $3.511 \%$ | $8 / 6 / 24$ |
| JP Morgan | $\$ 90,797,000$ | $11 / 1 / 31$ | $7 / 29 / 19$ | $3.452 \%$ | $3.512 \%$ | $8 / 6 / 24$ |
| BofA | $\$ 60,531,000$ | $11 / 1 / 31$ | $7 / 31 / 19$ | $3.452 \%$ | $3.512 \%$ | $6 / 1 / 24$ |
| Citibank | $\$ 37,500,000$ | $11 / 1 / 33$ | $7 / 26 / 19$ | $3.452 \%$ | $3.500 \%$ | $8 / 6 / 24$ |
| JP Morgan | $\$ 37,500,000$ | $11 / 1 / 33$ | $7 / 29 / 19$ | $3.452 \%$ | $3.4995 \%$ | $8 / 6 / 24$ |
| BofA | $\$ 25,000,000$ | $11 / 1 / 33$ | $7 / 26 / 19$ | $3.452 \%$ | $3.490 \%$ | $8 / 6 / 24$ |
|  | $\$ \mathbf{3 4 2 , 1 2 5 , 0 0 0}$ |  |  |  |  |  |



VRDBs /
SIFMA-Based
Direct Purchase


| Swap <br> Amendment <br> \|---- | Index Reverts <br> to LIBOR | Swap Final <br> Maturities |
| :---: | :---: | :---: |
| July 2019 | 2024 | $2031 / 2033$ |

## Swap Amendments Overview: Basis Risk

- If BPCA had not amended the swaps, it would have been subject to the risk of the bond rate (SIFMA-based) trading higher than 65\% 1M LIBOR:

- Hypothetical annualized cash flow basis exposure between 65\% 1M LIBOR and SIFMA:


## In USD (non-PV):

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 50.00\% | 60.00\% | 65.00\% | 70.00\% | 80.00\% |
|  | 6.00\% | \$2,935,248 | \$978,416 | \$0 | (\$978,416) | (\$2,935,248) |
|  | 5.00\% | \$2,446,040 | \$815,347 | \$0 | $(\$ 815,347)$ | (\$2,446,040) |
|  | 4.00\% | \$1,956,832 | \$652,277 | \$0 | $(\$ 652,277)$ | (\$1,956,832) |
|  | 3.00\% | \$1,467,624 | \$489,208 | \$0 | $(\$ 489,208)$ | (\$1,467,624) |
|  | 2.00\% | \$978,416 | \$326,139 | \$0 | $(\$ 326,139)$ | $(\$ 978,416)$ |
|  | 1.00\% | \$489,208 | \$163,069 | \$0 | $(\$ 163,069)$ | $(\$ 489,208)$ |

In Basis Points:


Based on average BPCA swap notional between 8/6/19-8/6/24

## BPCA Bond and Swap Rates

|  | Variable Rates |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Period | 2019D <br> VRDBs* | 2019E <br> SIFMA Index* | Weighted Avg. <br> Bond Rate | SIFMA Swap <br> Receipt | Net Variable Rate |
| August 2019 | $-1.331 \%$ | $-1.348 \%$ | $-1.337 \%$ | $1.348 \%$ | $0.011 \%$ |
| Sept. 2019 (to date) | $-1.338 \%$ | $-1.353 \%$ | $-1.343 \%$ | $1.353 \%$ | $0.010 \%$ |


| Weighted Avg. <br> Fixed Swap Rate | Net Synthetic <br> Fixed Rate |
| :---: | :---: |
| $-3.507 \%$ | $-3.496 \%$ |
| $-3.507 \%$ | $-3.498 \%$ |


| Weighted Avg. <br> Support Costs* | Net All-In Debt <br> Cost |
| :---: | :---: |
| $-0.520 \%$ | $-4.016 \%$ |
| $-0.520 \%$ | $-4.018 \%$ |

*Weighted average bond rate based on \$300MM of VRDBs and \$150MM of SIFMA FRN.

BPCA VRDB Rate and SIFMA (8/6/19 to Present)


## BPCA Synthetic Fixed Rate

|  | Variable Rates |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Date | $\begin{gathered} \hline \text { 2019D } \\ \text { VRDBs* } \\ \hline \end{gathered}$ | 2019E <br> SIFMA Index* | Weighted Avg. Bond Rate | SIFMA Swap Receipt | Net Variable Rate |
| 8/6/2019 | -1.36\% | -1.40\% | -1.37\% | 1.40\% | 0.03\% |
| 8/7/2019 | -1.36\% | -1.40\% | -1.37\% | 1.40\% | 0.03\% |
| 8/8/2019 | -1.36\% | -1.32\% | -1.35\% | 1.32\% | -0.03\% |
| 8/9/2019 | -1.36\% | -1.32\% | -1.35\% | 1.32\% | -0.03\% |
| 8/10/2019 | -1.36\% | -1.32\% | -1.35\% | 1.32\% | -0.03\% |
| 8/11/2019 | -1.36\% | -1.32\% | -1.35\% | 1.32\% | -0.03\% |
| 8/12/2019 | -1.36\% | -1.32\% | -1.35\% | 1.32\% | -0.03\% |
| 8/13/2019 | -1.36\% | -1.32\% | -1.35\% | 1.32\% | -0.03\% |
| 8/14/2019 | -1.36\% | -1.32\% | -1.35\% | 1.32\% | -0.03\% |
| 8/15/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| 8/16/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| 8/17/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| 8/18/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| 8/19/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| 8/20/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| 8/21/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| 8/22/2019 | -1.33\% | -1.36\% | -1.34\% | 1.36\% | 0.02\% |
| 8/23/2019 | -1.33\% | -1.36\% | -1.34\% | 1.36\% | 0.02\% |
| 8/24/2019 | -1.33\% | -1.36\% | -1.34\% | 1.36\% | 0.02\% |
| 8/25/2019 | -1.33\% | -1.36\% | -1.34\% | 1.36\% | 0.02\% |
| 8/26/2019 | -1.33\% | -1.36\% | -1.34\% | 1.36\% | 0.02\% |
| 8/27/2019 | -1.33\% | -1.36\% | -1.34\% | 1.36\% | 0.02\% |
| 8/28/2019 | -1.33\% | -1.36\% | -1.34\% | 1.36\% | 0.02\% |
| 8/29/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| 8/30/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| 8/31/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| AUG. 2019 | -1.331\% | -1.348\% | -1.337\% | 1.348\% | 0.011\% |


| Weighted Avg. Fixed Swap Rate | Net Synthetic Fixed Rate |
| :---: | :---: |
| -3.507\% | -3.481\% |
| -3.507\% | -3.481\% |
| -3.507\% | -3.534\% |
| -3.507\% | -3.534\% |
| -3.507\% | -3.534\% |
| -3.507\% | -3.534\% |
| -3.507\% | -3.534\% |
| -3.507\% | -3.534\% |
| -3.507\% | -3.534\% |
| -3.507\% | -3.477\% |
| -3.507\% | -3.477\% |
| -3.507\% | -3.477\% |
| -3.507\% | -3.477\% |
| -3.507\% | -3.477\% |
| -3.507\% | -3.477\% |
| -3.507\% | -3.477\% |
| -3.507\% | -3.487\% |
| -3.507\% | -3.487\% |
| -3.507\% | -3.487\% |
| -3.507\% | -3.487\% |
| -3.507\% | -3.487\% |
| -3.507\% | -3.487\% |
| -3.507\% | -3.487\% |
| -3.507\% | -3.481\% |
| -3.507\% | -3.481\% |
| -3.507\% | -3.481\% |
| -3.507\% | -3.496\% |


| Weighted Avg. <br> Support Costs* | Net All-In Debt <br> Cost |
| :---: | :---: |
| $-0.520 \%$ | $-4.001 \%$ |
| $-0.520 \%$ | $-4.001 \%$ |
| $-0.520 \%$ | $-4.054 \%$ |
| $-0.520 \%$ | $-4.054 \%$ |
| $-0.520 \%$ | $-4.054 \%$ |
| $-0.520 \%$ | $-4.054 \%$ |
| $-0.520 \%$ | $-4.054 \%$ |
| $-0.520 \%$ | $-4.054 \%$ |
| $-0.520 \%$ | $-4.054 \%$ |
| $-0.520 \%$ | $-3.997 \%$ |
| $-0.520 \%$ | $-3.997 \%$ |
| $-0.520 \%$ | $-3.997 \%$ |
| $-0.520 \%$ | $-3.997 \%$ |
| $-0.520 \%$ | $-3.997 \%$ |
| $-0.520 \%$ | $-3.997 \%$ |
| $-0.520 \%$ | $-3.997 \%$ |
| $-0.520 \%$ | $-4.007 \%$ |
| $-0.520 \%$ | $-4.007 \%$ |
| $-0.520 \%$ | $-4.007 \%$ |
| $-0.520 \%$ | $-4.007 \%$ |
| $-0.520 \%$ | $-4.007 \%$ |
| $-0.520 \%$ | $-4.007 \%$ |
| $-0.520 \%$ | $-4.007 \%$ |
| $-0.520 \%$ | $-4.001 \%$ |
| $-0.520 \%$ | $-4.001 \%$ |
| $-0.520 \%$ | $-4.001 \%$ |
| $-0.520 \%$ | $-4.016 \%$ |
|  |  |
|  |  |

*Weighted average bond rate based on \$300MM of VRDBs and \$150MM of SIFMA FRN.

## BPCA Synthetic Fixed Rate (cont'd)

|  | Variable Rates |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Date | $\begin{gathered} \text { 2019D } \\ \text { VRDBs* } \end{gathered}$ | 2019E <br> SIFMA Index* | Weighted Avg. Bond Rate | SIFMA Swap Receipt | Net Variable Rate |
| 9/1/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| 9/2/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| 9/3/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| 9/4/2019 | -1.31\% | -1.35\% | -1.32\% | 1.35\% | 0.03\% |
| 9/5/2019 | -1.25\% | -1.28\% | -1.26\% | 1.28\% | 0.02\% |
| 9/6/2019 | -1.25\% | -1.28\% | -1.26\% | 1.28\% | 0.02\% |
| 9/7/2019 | -1.25\% | -1.28\% | -1.26\% | 1.28\% | 0.02\% |
| 9/8/2019 | -1.25\% | -1.28\% | -1.26\% | 1.28\% | 0.02\% |
| 9/9/2019 | -1.25\% | -1.28\% | -1.26\% | 1.28\% | 0.02\% |
| 9/10/2019 | -1.25\% | -1.28\% | -1.26\% | 1.28\% | 0.02\% |
| 9/11/2019 | -1.25\% | -1.28\% | -1.26\% | 1.28\% | 0.02\% |
| 9/12/2019 | -1.32\% | -1.31\% | -1.32\% | 1.31\% | -0.01\% |
| 9/13/2019 | -1.32\% | -1.31\% | -1.32\% | 1.31\% | -0.01\% |
| 9/14/2019 | -1.32\% | -1.31\% | -1.32\% | 1.31\% | -0.01\% |
| 9/15/2019 | -1.32\% | -1.31\% | -1.32\% | 1.31\% | -0.01\% |
| 9/16/2019 | -1.32\% | -1.31\% | -1.32\% | 1.31\% | -0.01\% |
| 9/17/2019 | -1.32\% | -1.31\% | -1.32\% | 1.31\% | -0.01\% |
| 9/18/2019 | -1.32\% | -1.31\% | -1.32\% | 1.31\% | -0.01\% |
| 9/19/2019 | -1.47\% | -1.47\% | -1.47\% | 1.47\% | 0.00\% |
| 9/20/2019 | -1.47\% | -1.47\% | -1.47\% | 1.47\% | 0.00\% |
| 9/21/2019 | -1.47\% | -1.47\% | -1.47\% | 1.47\% | 0.00\% |
| 9/22/2019 | -1.47\% | -1.47\% | -1.47\% | 1.47\% | 0.00\% |
| 9/23/2019 | -1.47\% | -1.47\% | -1.47\% | 1.47\% | 0.00\% |
| 9/24/2019 | -1.47\% | -1.47\% | -1.47\% | 1.47\% | 0.00\% |
| 9/25/2019 | -1.47\% | -1.47\% | -1.47\% | 1.47\% | 0.00\% |
| SEP. 2019 (to date) | -1.338\% | -1.353\% | -1.343\% | 1.353\% | 0.010\% |


| Weighted Avg. Fixed Swap Rate | Net Synthetic Fixed Rate | Weighted Avg. <br> Support Costs* | Net All-In Debt Cost |
| :---: | :---: | :---: | :---: |
| -3.507\% | -3.481\% | -0.520\% | -4.001\% |
| -3.507\% | -3.481\% | -0.520\% | -4.001\% |
| -3.507\% | -3.481\% | -0.520\% | -4.001\% |
| -3.507\% | -3.481\% | -0.520\% | -4.001\% |
| -3.507\% | -3.484\% | -0.520\% | -4.004\% |
| -3.507\% | -3.484\% | -0.520\% | -4.004\% |
| -3.507\% | -3.484\% | -0.520\% | -4.004\% |
| -3.507\% | -3.484\% | -0.520\% | -4.004\% |
| -3.507\% | -3.484\% | -0.520\% | -4.004\% |
| -3.507\% | -3.484\% | -0.520\% | -4.004\% |
| -3.507\% | -3.484\% | -0.520\% | -4.004\% |
| -3.507\% | -3.514\% | -0.520\% | -4.034\% |
| -3.507\% | -3.514\% | -0.520\% | -4.034\% |
| -3.507\% | -3.514\% | -0.520\% | -4.034\% |
| -3.507\% | -3.514\% | -0.520\% | -4.034\% |
| -3.507\% | -3.514\% | -0.520\% | -4.034\% |
| -3.507\% | -3.514\% | -0.520\% | -4.034\% |
| -3.507\% | -3.514\% | -0.520\% | -4.034\% |
| -3.507\% | -3.504\% | -0.520\% | -4.024\% |
| -3.507\% | -3.504\% | -0.520\% | -4.024\% |
| -3.507\% | -3.504\% | -0.520\% | -4.024\% |
| -3.507\% | -3.504\% | -0.520\% | -4.024\% |
| -3.507\% | -3.504\% | -0.520\% | -4.024\% |
| -3.507\% | -3.504\% | -0.520\% | -4.024\% |
| -3.507\% | -3.504\% | -0.520\% | -4.024\% |
| -3.507\% | -3.498\% | -0.520\% | -4.018\% |

*Weighted average bond rate based on \$300MM of VRDBs and \$150MM of SIFMA FRN.

## Regulatory Disclosure

Pursuant to Municipal Securities Rulemaking Board ("MSRB") Rule G-42, on Duties of Non-Solicitor Municipal Advisors, Municipal Advisors are required to make certain written disclosures to Issuers which include, amongst other things, Conflicts of Interest and any Legal or Disciplinary events of Mohanty Gargiulo LLC and its associated persons. Therefore, Mohanty Gargiulo LLC is making the following disclosures.

## Conflicts of Interest

Mohanty Gargiulo LLC represents that in connection with the issuance of municipal financial product transactions, Mohanty Gargiulo LLC may receive compensation from an Issuer or Obligated Person for services rendered, which compensation is contingent upon the successful closing of a transaction and/or is based on the size of a transaction. Consistent with the requirements of MSRB Rule G-42, Mohanty Gargiulo LLC hereby discloses that such contingent and/or transactional compensation may present a potential conflict of interest regarding Mohanty Gargiulo LLC's ability to provide unbiased advice to enter into such transaction. This conflict of interest will not impair Mohanty Gargiulo LLC's ability to render unbiased and competent advice or to fulfill its fiduciary duty to the Issuer.

If Mohanty Gargiulo LLC becomes aware of any additional potential or actual conflict of interest after this disclosure, Mohanty Gargiulo LLC will disclose the detailed information in writing to the Issuer in a timely manner.

## Legal or Disciplinary Events

Mohanty Gargiulo LLC does not have any legal events or disciplinary history on Mohanty Gargiulo LLC's Form MA and Form MA-I, which includes information about any criminal actions, regulatory actions, investigations, terminations, judgments, liens, civil judicial actions, customer complaints, arbitrations and civil litigation. The Issuer may electronically access Mohanty Gargiulo LLC's most recent Form MA and each most recent Form MA-I filed with the Commission at the following website:
www.sec.gov/edgar/searchedgar/companysearch.html.
There have been no material changes to a legal or disciplinary event disclosure on any Form MA or Form MA-I filed with the SEC. If any material legal or regulatory action is brought against Mohanty Gargiulo LLC, Mohanty Gargiulo LLC will provide complete disclosure to the Issuer in detail allowing the Issuer to evaluate Mohanty Gargiulo LLC, its management and personnel.


[^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. 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.
[^2]:    Notes:

    1. "Market Value" includes accrued interest, but does not include cash balances held at the bank.
[^3]:    Notes:

    1. Underlying data for Market Value Basis supplied by Advent APX, values exclude accrued income and cash balances at the bank.
    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.
