

# Great Lakes Water Authority

*Investment Performance Report – June 2022*



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# Executive Summary

## PORTFOLIO RECAP

- Safety – The aggregate portfolio is diversified amongst cash, bank deposits, U.S. Treasuries, Federal Agencies, commercial paper, SEC-registered money market funds, and a local government investment pool. The total credit profile of the portfolio is strong with over 96% of the assets invested in bank deposits or securities that are rated within the two highest short and long-term rating classifications as established by S&P.
- Liquidity – Great Lakes Water Authority (“GLWA”) has continued to monitor its portfolio with the goal of limiting the allocation to cash and bank deposit accounts and maximizing the use of short-term investments to meet cash requirements. As of 6/30/2022, approximately 58% of the funds were held in cash and money market accounts maturing overnight. The percentage is slightly higher than last quarter due to cash needed for July 1<sup>st</sup> debt payments.
- Return – The overall yield at market increased to 1.66% as of June 30, 2022, versus 0.77% as of March 31, 2022. The higher yield is reflective of the rise in interest rates that the market is currently experiencing. GLWA earned \$3.8 million (unaudited) in investment income for fiscal year 2022 on a book value basis. We expect the investment income for GLWA for FY 2023 to be approximately \$15.2 million.

## AVAILABLE FUNDS (Unaudited)

Type	Financial Institution	Book Value	Market Value	Yield @ Cost (as of 6/30/22)	Yield @ Market (as of 6/30/22)
Deposit Account	Comerica	\$4,145,870	\$4,145,870	0.01%	0.01%
Deposit Account - Retainage	First Independence	\$22,023,994	\$22,023,994	0.01%	0.01%
Deposit Account – Flint Security Deposit	Chase	\$3,815,493	\$3,815,493	0.26%	0.26%
Deposit Account	Chase	\$12,880,116	\$12,880,116	0.30%	0.30%
Trust Money Market Fund	U.S. Bank	\$309,115,106	\$309,115,106	1.26%	1.26%
Money Market Fund	JP Morgan	\$36,002,377	\$36,002,377	0.44%	0.44%
Local Government Investment Pool	GovMIC	\$74,939,172	\$74,939,172	1.11%	1.11%
Managed Funds	PFMAM	\$336,321,408	\$329,654,505	0.67%	2.50%
<b><u>JUNE 2022 TOTALS:</u></b>		<b><u>\$799,243,536</u></b>	<b><u>\$792,576,633</u></b>	<b><u>0.90%</u></b>	<b><u>1.66%</u></b>
<b><u>PREVIOUS QUARTER TOTALS:</u></b>		<b><u>\$902,380,433</u></b>	<b><u>\$896,858,207</u></b>	<b><u>0.38%</u></b>	<b><u>0.77%</u></b>

The accounts at Comerica Bank get an earnings credit to offset bank fees. The funds and earnings in the Retainage account are held on behalf of the contractors and do not belong to GLWA. The funds and earnings in the Flint Security Deposit account are held on behalf of the City of Flint and do not belong to GLWA. In addition to the above, there also exists surety bonds in the amount of \$323,059,258 as of 6/30/2022.

# Investment Strategy

## OVERALL STRATEGY

- All investment activity is conducted subject to GLWA’s investment policy and state statutes while meeting the primary objectives of safety and liquidity. The portfolio is managed to a disciplined investment plan to provide improved safety and diversification while putting every dollar to work.
- GLWA, working with its investment advisor PFM Asset Management (“PFMAM”), has continued to invest its funds in a mixture of short and intermediate-term individual investment securities to ensure adequate liquidity to cover upcoming debt, pension payments, and operational requirements.
- PFMAM will continue to actively manage long-term portfolios with full discretion and align short-term balances with expected liabilities and identify strategies to maximize future investment income in the current interest rate environment, subject to GLWA’s investment policy and state statutes.

## PORTFOLIO PERFORMANCE – CURRENT PERIOD\*

- The overall portfolio’s original yield at cost went from 0.38% as of 3/31/2022 to 0.90% as of 6/30/2022; the higher yield is a result of reinvesting the proceeds of lower-yielding securities that have matured in a higher interest rate environment.
- The total portfolio had a market yield of 1.66% at the end of June. Yield at market represents what the market would provide in return if the portfolio was purchased on June 30, 2022 (versus purchased in prior months / years).
  - This 1.66% yield at market as of 6/30/2022 is higher than in the prior quarter as the increase in short and intermediate-term yields during the quarter resulted in a shift in the yield at market of the portfolio higher.

## PORTFOLIO PERFORMANCE – PROJECTIONS

- GLWA earned almost \$3.8 million (unaudited) in investment income for fiscal year 2022 on a book value basis.
- The current period earnings were in line with budgeted expectations. Nevertheless, there is still a lot of uncertainty surrounding the interest rate environment for the 2023 fiscal year.
- The FY 2023 total interest earnings projection forecast is estimated to be approximately \$15.2 million.

*\* Yield at cost is based on the original cost of the individual investments from the purchase date to maturity. On the other hand, yield at market is calculated on a specific day (in this case, June 30, 2022) and assumes that all the securities in the portfolio are purchased given the market price/yield on that particular day. If one is to generally hold their investments to the stated maturity date, then the yield at cost would be the better number to use to gauge how the portfolio is performing.*

# Summary Market Overview and Outlook

## ECONOMIC HIGHLIGHTS UPDATE

- Jobs remain aplenty, inflation is set to improve, credit spreads narrowed, and stocks have posted an impressive rebound as the Federal Reserve (“Fed”) continues to align policy for a soft landing.
- The Consumer Price Index (“CPI”) declined from a cycle high of 9.1% to a better-than-expected 8.5% year-over-year through July. Gasoline prices, used car prices, and transportation services prices all declined in July. Gasoline prices, perhaps the most visible indicator of inflation, have fallen for 60 straight days since mid-June, going from a national average of \$5.02 to \$3.98 by mid-August. Despite favorable headlines, food, shelter, and medical care prices continue to rise.
- The U.S. added 528,000 new jobs in July, more than double the expectations, while the unemployment rate improved to a 50-year low of 3.5%. Job growth was widespread, led by gains in leisure and hospitality, professional services, and healthcare. Total non-farm employment has now finally returned to pre-pandemic levels.
- U.S. GDP declined at an annual real rate of -0.9% in the second quarter, marking the second consecutive quarter of contraction. Although two quarters of negative growth meets one technical sign of a recession, the official definition according to the National Bureau of Economic Research is “a significant decline in economic activity that is spread across the economy and that lasts more than a few months.” Economists do not believe the U.S. is currently in a recession with a 3.5% unemployment rate.
- The housing market has continued to cool, with new and existing home sales building permits, housing starts, pending sales, and mortgage applications all declining.

## ECONOMIC IMPACT ON PORTFOLIO

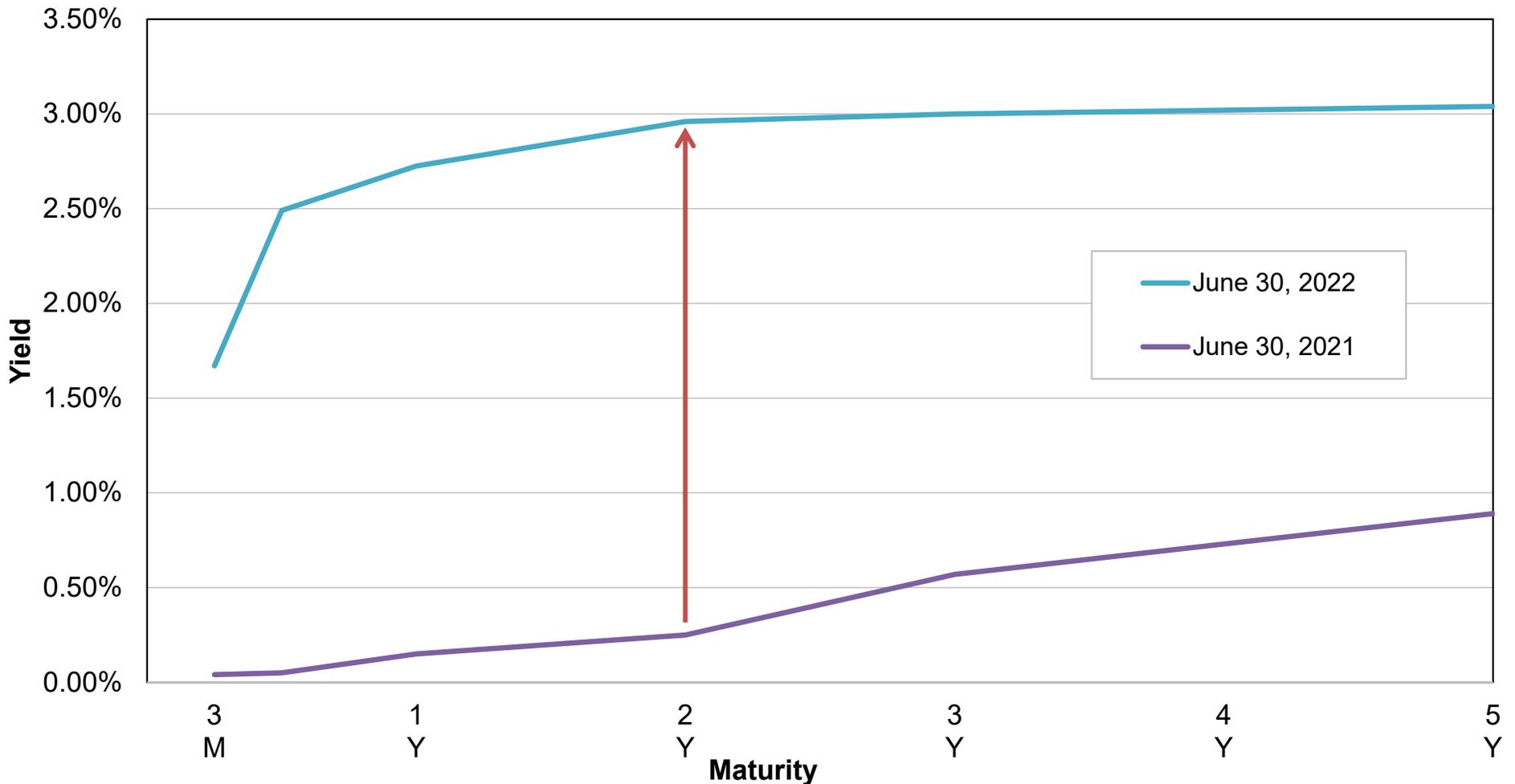
- As expected, the Fed boosted the overnight Federal Funds rate by 75 basis points for the second straight time at its July 27<sup>th</sup> meeting, bringing short-term rates to a new target range of 2.25% to 2.50%. After holding rates near zero for two years, the Fed is now raising rates and tightening monetary policy to slow demand and, hopefully, moderate inflation pressures. Market expectations are for short-term rates to end the calendar year of 2022 around 3.50%, so more hikes are expected.
- The U.S. Treasury yield curve has flattened as short-end yields increased on the Fed rate hike while yields on maturities greater than two years declined on expectations the Fed could pause in 2023. That view may be too optimistic, as several Fed governors have expressed the need to continue tightening. By the end of July, the inversion between 2 and 10-year U.S. Treasury yields reached the most since 2000.
- Portfolio Impact: With expectations for more Fed rate hikes, PFMAM has maintained a slightly defensive duration bias relative to benchmarks. However, with the end perhaps in sight by early 2023, PFMAM plans to use any significant backup in yields to reduce duration underweight and move closer to benchmarks. Federal Agency “bullet” maturities continue to offer little value. Short-term commercial paper investments continue to offer excellent yields and spread opportunities.

# Summary Market Overview and Outlook

## Treasury Yields Continue Their Upward Surge

- It should be noted that as a result of the Federal Reserve's interest rate hikes, the markets have seen a dramatic increase in short and intermediate-term fixed-income yields over the past year.

### U.S. Treasury Yield Curve



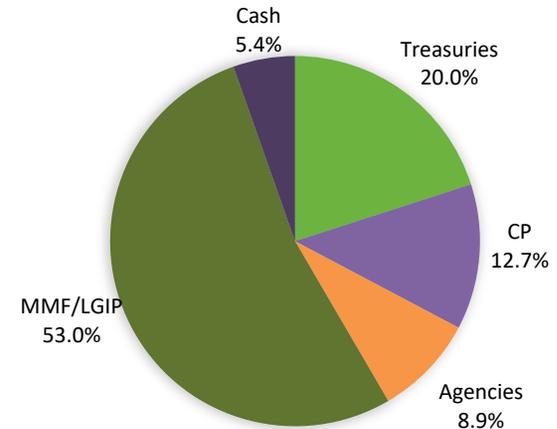
# Portfolio Snapshot

## Overall Portfolio Composition Summary

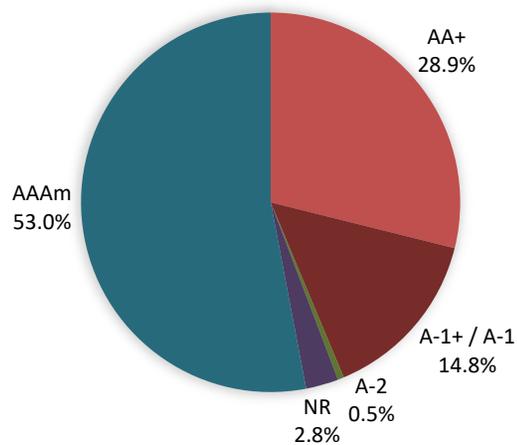
### PORTFOLIO STATISTICS

<b>Invested Amount</b>	\$792.577 Million
<b>Duration</b>	0.36 Years
<b>Yield at Cost</b>	0.90%
<b>Yield at Market</b>	1.66%

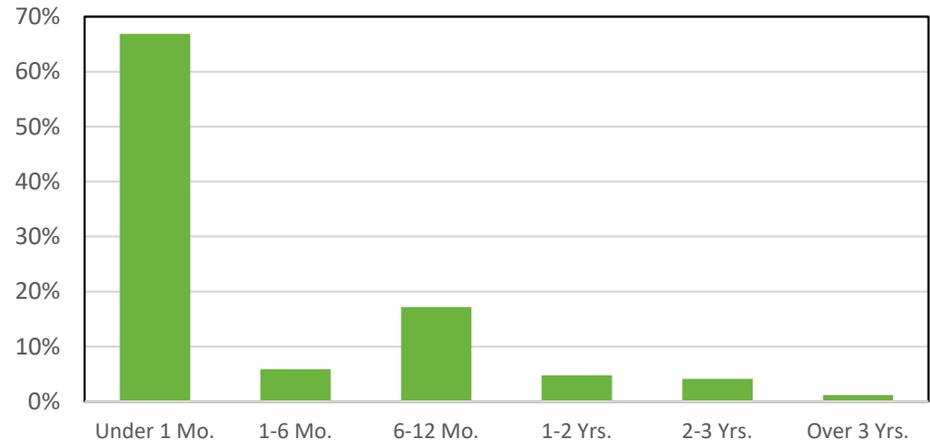
### SECTOR ALLOCATION



### CREDIT QUALITY



### MATURITY DISTRIBUTION

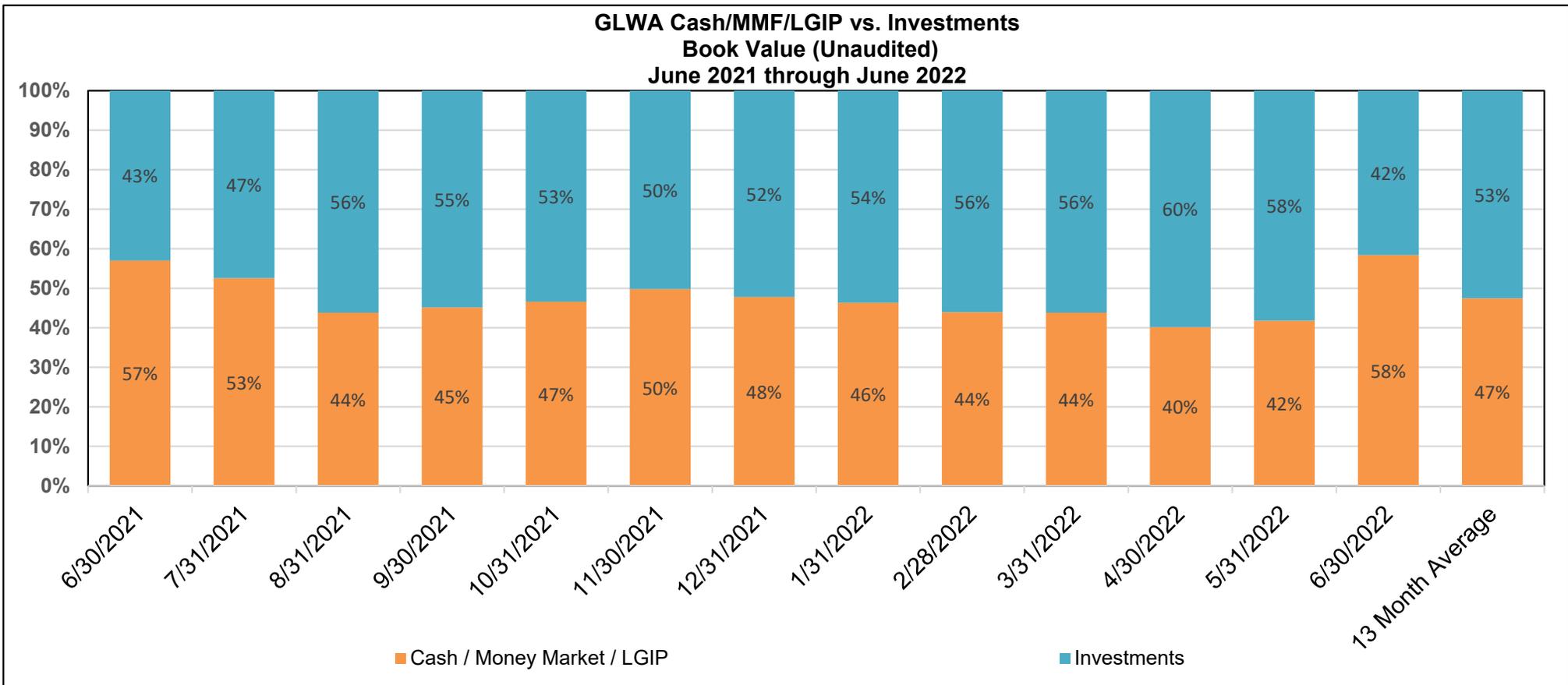


*In addition to the totals listed above, there also exists surety bonds in the amount of \$323,059,258 as of June 30, 2022.*

# Portfolio Snapshot

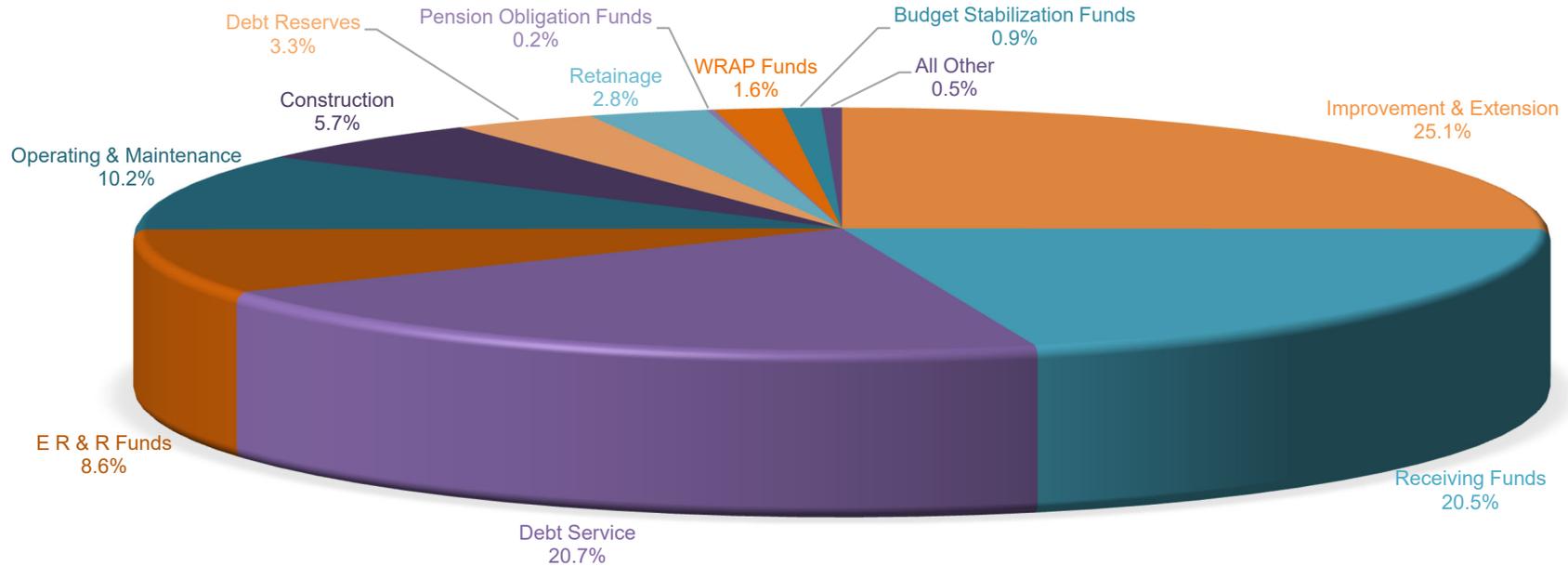
## Portfolio Mix – Cash / Money Market vs. Investments

- GLWA’s liquidity requirements fluctuate each month based on operational requirements, capital funding, and debt payments. Based on a review of historical activity and refinement of cash flow projections, GLWA has continually tried to balance the allocation of the portfolio’s holdings to cash & money market accounts versus the allocation to investments for the portfolio holdings.
- The chart below compares the monthly allocation of the portfolio holdings to the 13-month average. The allocation between cash and investments will vary each month based on liquidity requirements. For June of 2022, 58% of the overall portfolio was invested in cash, LGIP, and/or overnight money market fund accounts with the majority of the liquidity needed for July 1<sup>st</sup> debt payments.



# Portfolio Snapshot

## Investments – By Account Purpose



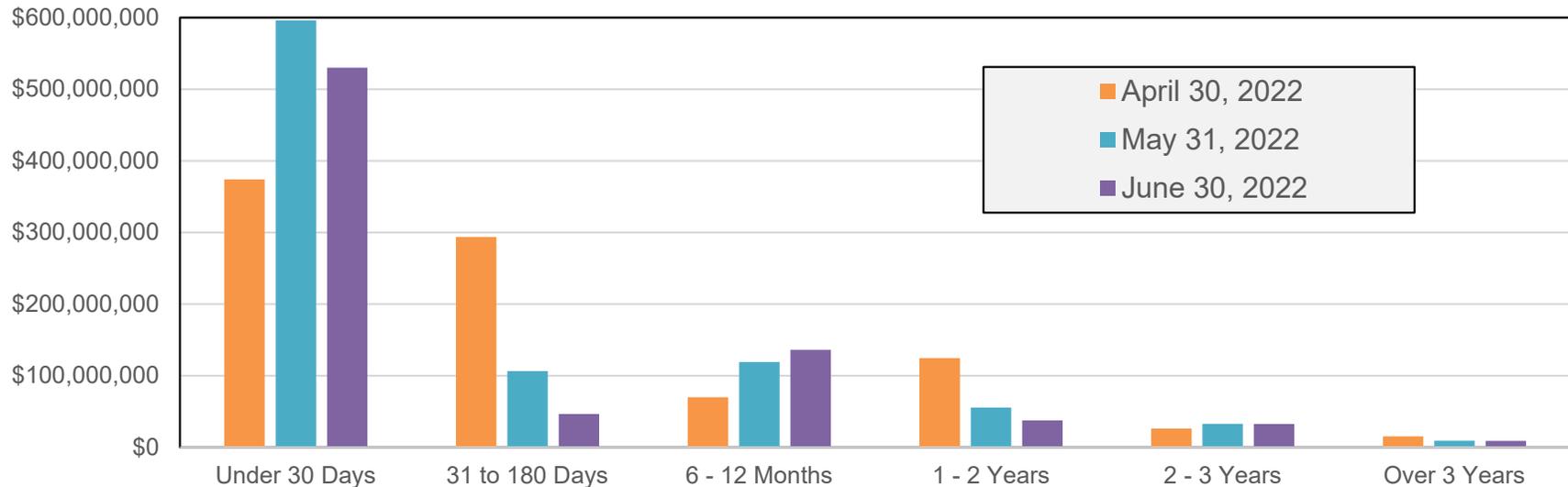
Account Purpose	Value Market	Allocation %	Cost Yield at	Market Yield at	Duration
Improvement & Extension	\$ 198,792,577	25.1%	1.03%	2.27%	0.490 Years
Debt Service	\$ 164,119,171	20.7%	0.99%	1.60%	0.052 Years
Receiving Funds (includes lockbox account)	\$ 162,279,900	20.5%	1.09%	1.09%	0.003 Years
Operating & Maintenance	\$ 80,712,821	10.2%	1.03%	1.03%	0.003 Years
Extraordinary Repair & Replacement Funds	\$ 68,105,932	8.6%	0.46%	2.96%	1.936 Years
Construction	\$ 45,331,425	5.7%	0.40%	0.40%	0.003 Years
Debt Reserves	\$ 26,467,406	3.3%	0.37%	2.79%	1.289 Years
Retainage	\$ 22,023,994	2.8%	0.01%	0.01%	0.003 Years
WRAP Funds	\$ 12,318,422	1.6%	1.34%	1.93%	0.156 Years
Budget Stabilization Funds	\$ 7,170,082	0.9%	0.44%	2.88%	1.788 Years
Flint Security Deposit Account	\$ 3,815,493	0.5%	0.26%	0.26%	0.003 Years
Pension Obligation Funds	\$ 1,439,409	0.2%	1.20%	1.20%	0.003 Years
<b>Total</b>	<b>\$ 792,576,633</b>	<b>100.0%</b>	<b>0.90%</b>	<b>1.66%</b>	<b>0.363 Years</b>

In addition to the totals listed above, there also exists surety bonds in the amount of \$323,059,258 as of June 30, 2022.

# Portfolio Snapshot

## Investments – By Maturity

Maturity Distribution	April 30, 2022		May 31, 2022		June 30, 2022	
	\$	%	\$	%	\$	%
Under 30 Days	\$ 374,225,238	41.4%	\$ 596,219,979	64.8%	\$ 530,166,930	66.9%
31 to 180 Days	293,558,397	32.4%	106,654,715	11.6%	46,564,443	5.9%
6 - 12 Months	70,154,326	7.8%	119,201,433	13.0%	136,306,241	17.2%
1 - 2 Years	124,791,037	13.8%	55,587,414	6.0%	37,606,163	4.7%
2 - 3 Years	26,441,966	2.9%	32,988,258	3.6%	32,744,475	4.1%
Over 3 Years	15,538,331	1.7%	9,257,715	1.0%	9,188,381	1.2%
<b>Totals</b>	<b>\$ 904,709,294</b>	<b>100.0%</b>	<b>\$ 919,909,515</b>	<b>100.0%</b>	<b>\$ 792,576,633</b>	<b>100.0%</b>



In addition to the totals listed above, there also exists surety bonds in the amount of \$323,059,258 as of June 30, 2022.

# Portfolio Snapshot

## Investment Accounts – Yield at Cost & Market

	As of June 30, 2022		As of March 31, 2022	
	YTM @ Cost	YTM @ Market	YTM @ Cost	YTM @ Market
<b>Bank Deposits</b>				
Comerica	0.01%	0.01%	0.01%	0.01%
First Independence	0.01%	0.01%	0.01%	0.01%
Flint Deposit Account	0.26%	0.26%	0.01%	0.01%
JP Morgan Chase	0.30%	0.30%	0.05%	0.05%
<b>Sub-Total Bank Deposits</b>	<b>0.12%</b>	<b>0.12%</b>	<b>0.02%</b>	<b>0.02%</b>
<b>Money Market Funds / LGIPs</b>				
GovMIC	1.11%	1.11%	0.18%	0.18%
U.S. Bank - First American MMF	1.26%	1.26%	0.02%	0.02%
JP Morgan Securities - Blackrock MMF	0.44%	0.44%	0.02%	0.02%
<b>Sub-Total MMF / LGIPs</b>	<b>1.16%</b>	<b>1.16%</b>	<b>0.02%</b>	<b>0.02%</b>
<b>Investment Portfolios</b>				
Sewage SR Debt Serv 5403	0.76%	1.69%	0.48%	0.87%
Sewage SR Res 5400	0.29%	2.94%	0.29%	2.11%
Sew SRF Debt Serv 5410	1.12%	2.03%	0.84%	1.22%
Sewage ER & R	0.46%	2.96%	0.46%	2.24%
Sewer Improvement & Extension	0.91%	2.75%	1.07%	1.57%
Sewer Pension Obligation	0.00%	0.00%	0.33%	0.77%
Sewer Wrap Fund	1.26%	2.14%	0.41%	0.87%
Sewer Budget Stabilization Fund	0.44%	2.89%	0.44%	2.15%
Sewer O&M Pension Sub Account	0.00%	0.00%	0.34%	0.78%
Water SR Debt Ser 5503	0.58%	1.66%	0.47%	0.84%
Water SR Reserve 5500	0.27%	2.94%	0.27%	2.10%
Water SRF Debt Serv 5575	0.94%	1.97%	0.66%	1.15%
Water ER & R	0.45%	2.96%	0.46%	2.25%
Water Improvement & Extension	0.51%	2.78%	0.99%	1.50%
Water Pension Obligation	0.00%	0.00%	0.33%	0.77%
Water Wrap Fund	1.58%	2.13%	0.43%	0.74%
Water Budget Stabilization Fund	0.43%	2.87%	0.44%	2.12%
Water O&M Pension Sub Account	0.00%	0.00%	0.35%	0.79%
<b>Sub-Total Investment Portfolios</b>	<b>0.67%</b>	<b>2.50%</b>	<b>0.66%</b>	<b>1.36%</b>
<b>Grand Total</b>	<b>0.90%</b>	<b>1.66%</b>	<b>0.38%</b>	<b>0.77%</b>

The accounts at Comerica Bank get an earnings credit to offset bank fees. The earnings in the accounts at First Independence Bank is credited to the contractors and not the Authority. The funds in the Flint Security Deposit account are held on behalf of the City of Flint and the earnings do not belong to GLWA. YTM @ Cost is the expected return, based on the original cost, the annual interest receipts, maturity value and the time period from purchase date to maturity, stated as a percentage, on an annualized basis. YTM @ Market is the rate of return, based on the current market value, the annual interest receipts, maturity value and time period remaining until maturity, stated as a percentage, on an annualized basis.

# Portfolio Snapshot

## Peer Analysis Comparison

- The comparison agencies included in the list below were selected based on type and/or other non-performance-based criteria to show a broad range of water entities/utilities; this peer group list does not represent an endorsement of any of the public agencies or their services.
- The overall yield of GLWA's aggregate portfolio compares somewhat favorably to those of other short-term market indices (i.e., the S&P LGIP index and the 3-month U.S. Treasury index), despite the volatility of short-term interest rates and the limited ability in managing assets to a longer-term strategy.
- GLWA does have some limitations and unique constraints related to its ordinance and covenants that restricts the potential for a longer duration portfolio when compared to other similar water agencies.

As of June 30, 2022

	Market Value	YTM @ Market	Effective Duration	Weighted Average Maturity
<b>GLWA</b>				
Great Lakes Water Authority	\$792,576,633	1.66%	0.36 Years	131 Days
<b>Short/Intermediate-Term Indices</b>				
S&P Rated Government Investment Pool Index		0.18%	0.08 Years	30 Days
BoA / ML 3-Month Treasury Index		1.51%	0.15 Years	55 Days
BoA / ML 6-Month Treasury Index		2.07%	0.40 Years	146 Days
BoA / ML 1-Year Treasury Index		2.89%	0.90 Years	329 Days
BoA / ML 1-3 Year Treasury Index		2.95%	1.78 Years	650 Days
BoA / ML 1-5 Year Treasury Index		2.98%	2.52 Years	920 Days
<b>Peer Analysis (Water Entities / Utilities)</b>				
District of Columbia Water & Sewer Authority, DC	\$475,095,912	2.60%	0.83 Years	325 Days
DuPage Water Commission, IL	\$174,953,763	2.98%	2.14 Years	1,008 Days
Fairfax County Water Authority, VA	\$183,001,506	2.89%	1.72 Years	654 Days
Metro Wastewater Reclamation District, CO	\$277,754,516	2.86%	1.70 Years	674 Days
Metropolitan Water District of Southern California, CA	\$1,139,345,447	2.44%	0.70 Years	323 Days
Philadelphia Water Department, PA	\$190,167,883	2.81%	0.87 Years	320 Days
San Bernardino Valley Municipal Water District, CA	\$354,213,308	3.06%	1.65 Years	629 Days
Tohopekaliga Water Authority, FL	\$195,133,884	3.01%	1.74 Years	833 Days
Truckee Meadows Water Authority, NV	\$98,143,033	3.43%	1.91 Years	730 Days

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

# Portfolio Snapshot

## Monthly Investment Income

(Book Value in 000's)

### FY 2022 INVESTMENT INCOME BY MONTH (Unaudited)

Month	Interest Earned During Period <i>(in thousands)</i>	Realized Gain / Loss <i>(in thousands)</i>	Investment Income <i>(in thousands)</i>
July 2021	\$332.7	\$0.0	\$332.7
August 2021	\$327.7	\$108.7	\$436.4
September 2021	\$297.6	\$0.0	\$297.6
October 2021	\$311.4	\$0.0	\$311.4
November 2021	\$247.2	\$0.0	\$247.2
December 2021	\$280.1	\$0.0	\$280.1
January 2022	\$253.9	\$0.0	\$253.9
February 2022	\$222.6	\$0.0	\$222.6
March 2022	\$283.3	\$0.0	\$283.3
April 2022	\$325.4	\$0.0	\$325.4
May 2022	\$407.9	(\$55.8)*	\$352.1
June 2022	\$442.6	\$0.0	\$442.6
<b><u>FY 2022</u></b>	<b><u>\$3,732.3</u></b>	<b><u>\$52.9</u></b>	<b><u>\$3,785.2</u></b>

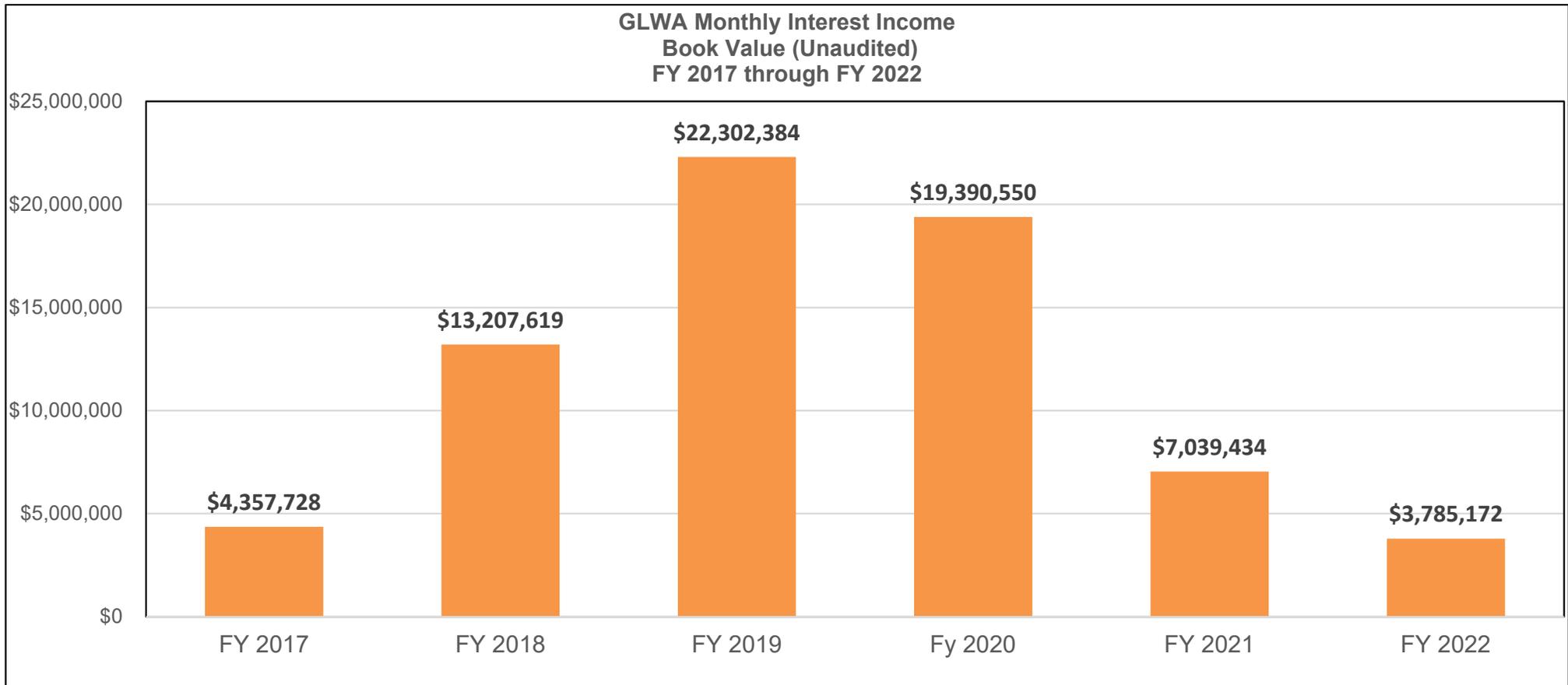
\* The realized loss in May 2022 was due to the sale of investments to meet capital spending requirements.

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

# Portfolio Snapshot

## Year-Over-Year Investment Income

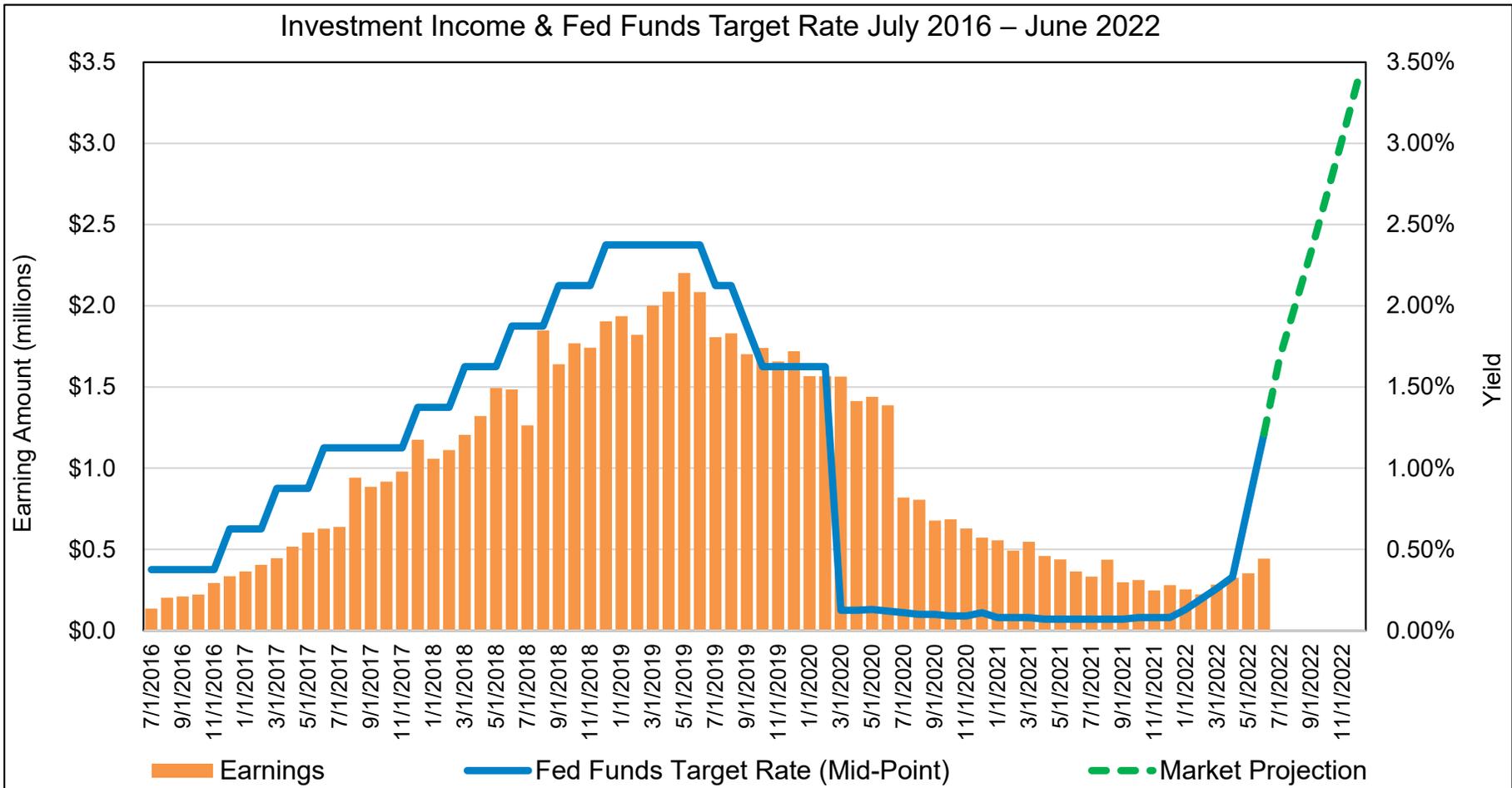
- GLWA earned \$3,785,172 in investment income for fiscal year 2022 on a book value basis compared to \$7,039,434 for fiscal year 2021.
- The budgeted total investment income for fiscal year 2023 is projected to be higher than the interest earnings received in FY 2022 based on the market's anticipation of a continued increase in the Fed Funds target rate over the next few months.



# Portfolio Snapshot

## Monthly Investment Income Compared to Fed Funds Rate

- At least 50% of the GLWA portfolio is designated for obligations that are 12 months or less. As a result of the short-term duration of GLWA’s portfolio, it is heavily impacted by changes in the Fed Funds target rate; the chart below illustrates that GLWA’s investment income has consistently followed the trend of the Fed Funds rate.
- According to effective Fed Funds futures, the market is pricing in over 200 basis points more in rate hikes in calendar year 2022; based on the historical trend, this will translate into higher interest earnings for GLWA in fiscal year 2023 and beyond.



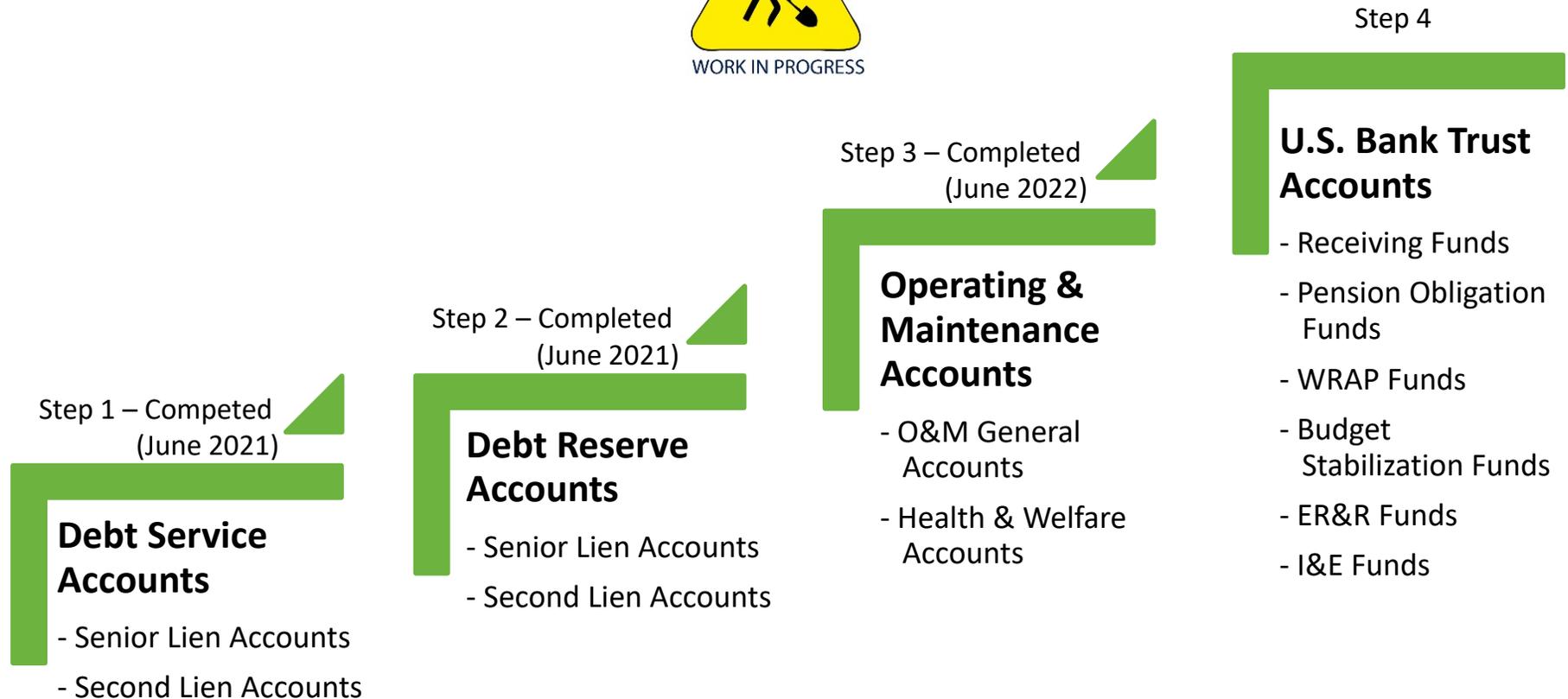
# Pooling of Cash / Investment Accounts

- PFMAM & GLWA are working toward reducing the number of bank accounts by pooling. Benefits of pooling accounts include the ability to take advantage of economies of scale when purchasing securities and reducing unnecessary liquidity. The steps to be taken for the recommended pooling strategy is shown below. Water and Sewer accounts will not be pooled.

## Putting Money To Work Safely – Investment Progression



WORK IN PROGRESS



*Non-pooled accounts include the lockbox accounts, payroll accounts, accounts payable, P-Card accounts, construction bond accounts, retainage accounts, and the Flint Security Deposit account.*

# Appendix I: Portfolio Holdings

## Portfolio Holdings As of June 30, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
<u>Short-Term Bank Deposits / MMF / LGIP</u>									
COMERICA BANK		\$ 4,145,870	7/1/2022	6/30/2022	0.01%	\$ 4,145,870	1	\$ -	\$ 4,145,870
FIRST INDEPENDENCE BANK		22,023,994	7/1/2022	6/30/2022	0.01%	22,023,994	1	-	22,023,994
FLINT DEPOSIT ACCOUNT		3,815,493	7/1/2022	6/30/2022	0.26%	3,815,493	1	-	3,815,493
JP MORGAN CHASE		12,880,116	7/1/2022	6/30/2022	0.30%	12,880,116	1	-	12,880,116
GovMIC		74,939,172	7/1/2022	6/30/2022	1.11%	74,939,172	1	-	74,939,172
U.S. BANK - FIRST AMERICAN MMF		309,115,106	7/1/2022	6/30/2022	1.26%	309,115,106	1	-	309,115,106
JP MORGAN SECURITIES - BLACKROCK MMF		36,002,377	7/1/2022	6/30/2022	0.44%	36,002,377	1	-	36,002,377

*In addition to the totals listed above, there also exists surety bonds in the amount of \$323,059,258 as of June 30, 2022.*

## Portfolio Holdings As of June 30, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
<b>Commercial Paper</b>									
Goldman Sachs 0 7/1/2022	38150UG13	\$ 4,915,000	7/1/2022	3/11/2022	1.21%	\$ 4,896,651	1	\$ -	\$ 4,915,000
MUFG Bank LTD NY 0 7/1/2022	62479MG15	2,540,000	7/1/2022	4/6/2022	0.92%	2,534,418	1	-	2,540,000
Natixis Bank NY 0 7/1/2022	63873KG19	4,285,000	7/1/2022	2/4/2022	0.46%	4,276,951	1	-	4,285,000
Nordea Bank ABP 0 7/1/2022	65558KG16	14,415,000	7/1/2022	1/11/2022	0.35%	14,391,035	1	-	14,415,000
CitiGroup Global Markets 0 9/19/2022	17327BJK2	1,005,000	9/19/2022	3/11/2022	1.46%	997,228	81	-	999,905
Credit Suisse NY 0 9/19/2022	2254EBJK8	507,000	9/19/2022	4/6/2022	1.50%	503,517	81	-	504,430
MUFG Bank LTD NY 0 9/19/2022	62479MJK0	500,000	9/19/2022	6/7/2022	1.79%	497,429	81	-	497,465
Royal Bank of Canada 0 9/19/2022	78015DJK7	500,000	9/19/2022	1/11/2022	0.43%	498,501	81	-	497,465
Collat CP Co 0 10/3/2022	19424JK39	1,100,000	10/3/2022	6/7/2022	1.89%	1,093,222	95	-	1,092,729
Collat CP Co 0 9/1/2022	19424JJ15	1,100,000	9/1/2022	5/4/2022	1.70%	1,093,803	63	-	1,095,677
LMA Americas LLC 0 8/5/2022	53944RH50	1,100,000	8/5/2022	4/5/2022	1.16%	1,095,713	36	-	1,097,866
BNZ International Funding 0 7/1/2022	0556XIG14	1,659,000	7/1/2022	5/9/2022	1.10%	1,656,313	1	-	1,659,000
Goldman Sachs 0 7/1/2022	38150UG13	15,085,000	7/1/2022	3/11/2022	1.21%	15,028,683	1	-	15,085,000
MUFG Bank LTD NY 0 7/1/2022	62479MG15	3,365,000	7/1/2022	4/6/2022	0.92%	3,357,604	1	-	3,365,000
Natixis Bank NY 0 7/1/2022	63873KG19	5,080,000	7/1/2022	2/4/2022	0.46%	5,070,458	1	-	5,080,000
Nordea Bank ABP 0 7/1/2022	65558KG16	14,900,000	7/1/2022	1/11/2022	0.35%	14,875,229	1	-	14,900,000
CitiGroup Global Markets 0 9/19/2022	17327BJK2	9,060,000	9/19/2022	3/11/2022	1.46%	8,989,936	81	-	9,014,066
Credit Suisse NY 0 9/19/2022	2254EBJK8	4,563,000	9/19/2022	4/6/2022	1.50%	4,531,650	81	-	4,539,866
MUFG Bank LTD NY 0 9/19/2022	62479MJK0	4,515,000	9/19/2022	6/7/2022	1.79%	4,491,783	81	-	4,492,109
Royal Bank of Canada 0 9/19/2022	78015DJK7	4,505,000	9/19/2022	1/11/2022	0.43%	4,491,494	81	-	4,482,160
Collat CP Co 0 11/30/2022	19424JLW4	1,050,000	11/30/2022	6/7/2022	2.30%	1,038,347	153	-	1,037,012
MUFG Bank LTD NY 0 10/4/2022	62479MK44	1,025,000	10/4/2022	4/4/2022	1.49%	1,017,279	96	-	1,018,153
National Australia Bank 0 11/1/2022	63254FL13	1,050,000	11/1/2022	5/4/2022	2.02%	1,039,442	124	-	1,040,172
Natixis Bank NY 0 8/1/2022	63873KH18	1,025,000	8/1/2022	12/7/2021	0.35%	1,022,638	32	-	1,023,237
Natixis Bank NY 0 9/1/2022	63873KJ16	1,025,000	9/1/2022	3/4/2022	1.05%	1,019,640	63	-	1,020,972
Svenska Handel Sbanken 0 7/1/2022	86960KG14	1,025,000	7/1/2022	12/7/2021	0.30%	1,023,240	1	-	1,025,000

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## Portfolio Holdings As of June 30, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
<b>Federal Agencies</b>									
FHLMC 0.375 5/5/2023	3137EAER6	\$ 6,000,000	5/5/2023	6/5/2020	0.38%	\$ 6,000,060	309	\$ 3,438	\$ 5,872,380
FNMA 0.25 5/22/2023	3135G04Q3	10,000,000	5/22/2023	6/5/2020	0.36%	9,968,400	326	2,639	9,772,300
FNMA 0.25 7/10/2023	3135G05G4	1,250,000	7/10/2023	7/16/2020	0.29%	1,248,425	375	1,476	1,216,863
FHLMC 0.375 5/5/2023	3137EAER6	14,650,000	5/5/2023	6/5/2020	0.38%	14,650,147	309	8,393	14,338,395
FNMA 0.25 5/22/2023	3135G04Q3	25,000,000	5/22/2023	6/5/2020	0.36%	24,921,000	326	6,597	24,430,750
FNMA 0.25 7/10/2023	3135G05G4	1,650,000	7/10/2023	7/16/2020	0.29%	1,647,921	375	1,948	1,606,259
FNMA 0.25 5/22/2023	3135G04Q3	240,000	5/22/2023	6/5/2020	0.35%	239,292	326	63	234,535
FNMA 0.25 5/22/2023	3135G04Q3	3,400,000	5/22/2023	6/5/2020	0.35%	3,389,970	326	897	3,322,582
FNMA 0.25 5/22/2023	3135G04Q3	670,000	5/22/2023	6/5/2020	0.35%	668,024	326	177	654,744
FHLMC 0.25 6/26/2023	3137EAES4	3,150,000	6/26/2023	7/2/2020	0.29%	3,146,189	361	88	3,065,832
FNMA 0.25 5/22/2023	3135G04Q3	5,750,000	5/22/2023	6/5/2020	0.35%	5,733,038	326	1,517	5,619,073

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## Portfolio Holdings As of June 30, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
<b>U.S. Treasuries</b>									
T-Note 0 8/15/2023	912833LM0	\$ 10,500,000	8/15/2023	2/7/2020	1.41%	\$ 9,992,745	411	\$ -	\$ 10,188,990
T-Note 0.5 3/15/2023	912828ZD5	10,000,000	3/15/2023	3/16/2020	0.58%	9,977,344	258	14,538	9,844,500
T-Note 1.5 1/15/2023	912828Z29	15,000,000	1/15/2023	2/7/2020	1.39%	15,045,703	199	103,177	14,906,250
T-Note 0 8/15/2023	912833LM0	5,400,000	8/15/2023	2/7/2020	1.41%	5,139,126	411	-	5,240,052
T-Note 0.5 3/15/2023	912828ZD5	20,000,000	3/15/2023	3/16/2020	0.58%	19,954,688	258	29,076	19,689,000
T-Note 0.125 1/15/2024	91282CBE0	260,000	1/15/2024	1/25/2021	0.18%	259,563	564	149	248,880
T-Note 0.125 10/31/2022	91282CAR2	200,000	10/31/2022	5/27/2021	0.10%	200,063	123	41	198,682
T-Note 0.25 3/15/2024	91282CBR1	125,000	3/15/2024	3/15/2021	0.33%	124,712	624	91	119,351
T-Note 0.375 12/31/2025	91282CBC4	250,000	12/31/2025	1/25/2021	0.43%	249,287	1,280	-	227,843
T-Note 0.375 4/30/2025	912828ZL7	125,000	4/30/2025	3/11/2021	0.61%	123,789	1,035	78	116,011
T-Note 0.5 3/15/2023	912828ZD5	250,000	3/15/2023	3/16/2020	0.59%	249,336	258	363	246,113
T-Note 1.375 1/31/2025	912828Z52	280,000	1/31/2025	12/6/2021	0.94%	283,773	946	1,595	268,548
T-Note 1.5 10/31/2024	912828YM6	130,000	10/31/2024	5/27/2021	0.42%	134,773	854	323	125,597
T-Note 1.625 10/31/2023	912828T91	130,000	10/31/2023	5/27/2021	0.20%	134,489	488	350	127,751
T-Note 1.75 12/31/2024	912828YY0	1,100,000	12/31/2024	8/30/2021	0.49%	1,145,719	915	-	1,066,054
T-Note 2.625 6/30/2023	9128284U1	3,250,000	6/30/2023	8/30/2021	0.19%	3,394,727	365	-	3,241,355
T-Note 1.5 9/15/2022	912828YF1	1,560,000	9/15/2022	12/14/2021	0.22%	1,574,930	77	6,804	1,559,454
T-Note 1.5 9/15/2022	912828YF1	90,000	9/15/2022	5/5/2022	1.25%	90,081	77	393	89,969
T-Note 1.5 9/15/2022	912828YF1	408,000	9/15/2022	5/5/2022	1.23%	408,398	77	1,779	407,857
T-Note 0.125 1/15/2024	91282CBE0	3,420,000	1/15/2024	1/25/2021	0.18%	3,414,255	564	1,960	3,273,727
T-Note 0.375 12/31/2025	91282CBC4	3,400,000	12/31/2025	1/25/2021	0.43%	3,390,305	1,280	-	3,098,658
T-Note 0.375 4/30/2025	912828ZL7	2,400,000	4/30/2025	8/24/2021	0.59%	2,381,531	1,035	1,492	2,227,416
T-Note 0.375 7/15/2024	91282CCL3	1,345,000	7/15/2024	8/23/2021	0.42%	1,343,266	746	2,313	1,275,759

In addition to the totals listed above, there also exists surety bonds in the amount of \$323,059,258 as of June 30, 2022.

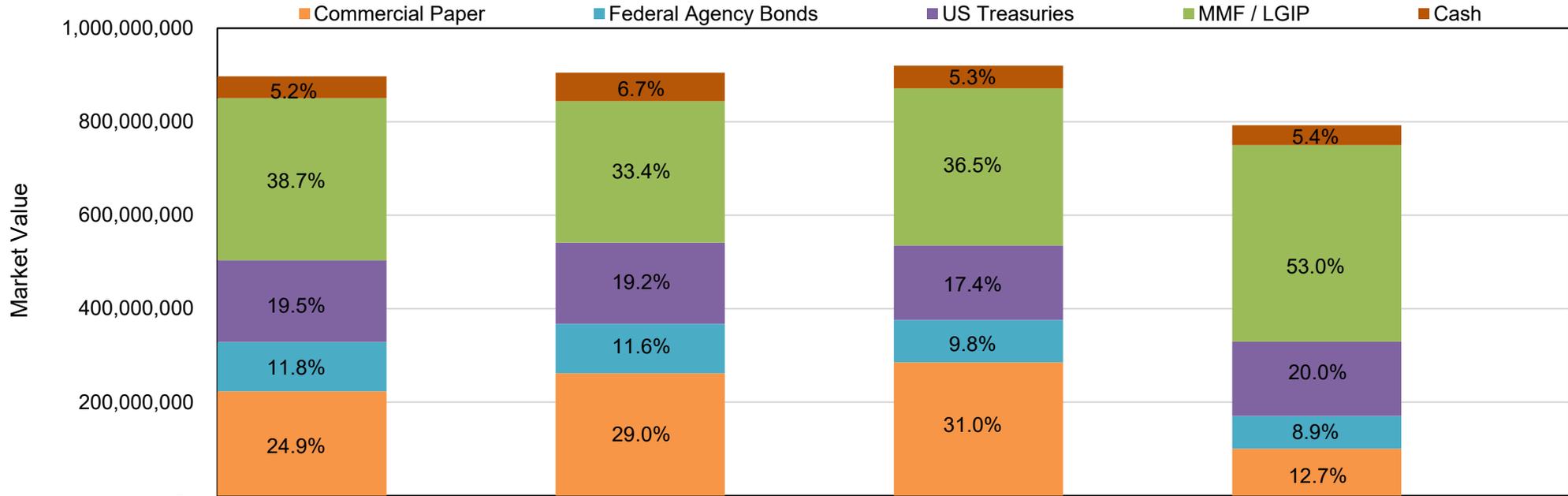
## Portfolio Holdings As of June 30, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
<b>U.S. Treasuries</b>									
T-Note 0.5 3/15/2023	912828ZD5	3,410,000	3/15/2023	3/16/2020	0.59%	3,400,942	258	4,957	3,356,975
T-Note 1.375 1/31/2025	912828Z52	3,346,000	1/31/2025	12/7/2021	0.95%	3,390,570	946	19,064	3,209,149
T-Note 1.5 10/31/2024	912828YM6	3,300,000	10/31/2024	5/28/2021	0.42%	3,421,301	854	8,205	3,188,229
T-Note 1.625 10/31/2023	912828T91	3,300,000	10/31/2023	5/28/2021	0.20%	3,414,082	488	8,889	3,242,910
T-Note 0.125 1/15/2024	91282CBE0	695,000	1/15/2024	1/25/2021	0.18%	693,833	564	398	665,275
T-Note 0.125 10/31/2022	91282CAR2	425,000	10/31/2022	5/27/2021	0.10%	425,133	123	88	422,199
T-Note 0.25 3/15/2024	91282CBR1	340,000	3/15/2024	3/15/2021	0.33%	339,216	624	247	324,635
T-Note 0.375 12/31/2025	91282CBC4	685,000	12/31/2025	1/25/2021	0.43%	683,047	1,280	-	624,288
T-Note 0.375 4/30/2025	912828ZL7	350,000	4/30/2025	3/11/2021	0.61%	346,609	1,035	218	324,832
T-Note 0.5 3/15/2023	912828ZD5	688,000	3/15/2023	3/16/2020	0.59%	686,173	258	1,000	677,302
T-Note 1.375 1/31/2025	912828Z52	740,000	1/31/2025	12/6/2021	0.94%	749,973	946	4,216	709,734
T-Note 1.5 10/31/2024	912828YM6	450,000	10/31/2024	5/27/2021	0.42%	466,523	854	1,119	434,759
T-Note 1.625 10/31/2023	912828T91	425,000	10/31/2023	5/27/2021	0.20%	439,676	488	1,145	417,648
T-Note 1.75 12/31/2024	912828YY0	5,550,000	12/31/2024	8/30/2021	0.49%	5,780,672	915	-	5,378,727
T-Note 2.625 6/30/2023	9128284U1	11,350,000	6/30/2023	8/30/2021	0.19%	11,855,430	365	-	11,319,809
T-Note 1.5 9/15/2022	912828YF1	5,950,000	9/15/2022	12/14/2021	0.22%	6,006,943	77	25,950	5,947,918
T-Note 1.5 9/15/2022	912828YF1	4,479,000	9/15/2022	5/5/2022	1.23%	4,483,374	77	19,535	4,477,432
T-Note 0.125 1/15/2024	91282CBE0	5,790,000	1/15/2024	1/25/2021	0.18%	5,780,275	564	3,319	5,542,362
T-Note 0.375 12/31/2025	91282CBC4	5,750,000	12/31/2025	1/25/2021	0.43%	5,733,604	1,280	-	5,240,378
T-Note 0.375 4/30/2025	912828ZL7	3,965,000	4/30/2025	8/24/2021	0.59%	3,934,488	1,035	2,465	3,679,877
T-Note 0.5 3/15/2023	912828ZD5	5,765,000	3/15/2023	3/16/2020	0.59%	5,749,687	258	8,381	5,675,354
T-Note 1.375 1/31/2025	912828Z52	5,664,000	1/31/2025	12/7/2021	0.95%	5,739,446	946	32,271	5,432,342
T-Note 1.5 10/31/2024	912828YM6	5,500,000	10/31/2024	5/28/2021	0.42%	5,702,168	854	13,675	5,313,715
T-Note 1.625 10/31/2023	912828T91	5,500,000	10/31/2023	5/28/2021	0.20%	5,690,137	488	14,815	5,404,850

In addition to the totals listed above, there also exists surety bonds in the amount of \$323,059,258 as of June 30, 2022.

# Portfolio Snapshot

## Investments – By Security Type

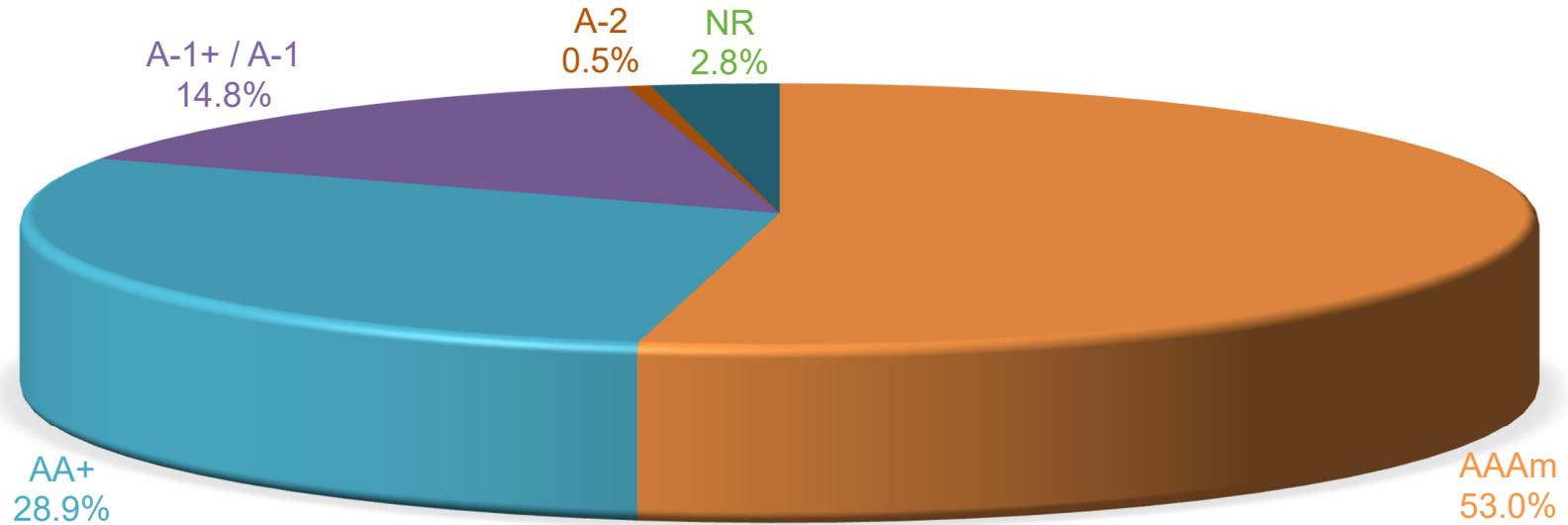


Security Type	March		April		May		June	
	Market Value	Asset Allocation						
Commercial Paper	223,323,067	24.9%	261,982,829	29.0%	285,316,015	31.0%	100,728,265	12.7%
Federal Agencies	105,605,764	11.8%	105,385,799	11.6%	90,487,228	9.8%	70,183,237	8.9%
U.S. Treasuries	174,841,002	19.5%	174,101,666	19.2%	159,666,992	17.4%	158,764,067	20.0%
MMF / LGIP	346,814,603	38.7%	302,440,124	33.4%	335,569,586	36.5%	420,056,654	53.0%
Cash	46,273,771	5.2%	60,798,877	6.7%	48,869,694	5.3%	42,844,410	5.4%
<b>Total</b>	<b>896,858,207</b>	<b>100.0%</b>	<b>904,709,294</b>	<b>100.0%</b>	<b>919,909,515</b>	<b>100.0%</b>	<b>792,576,633</b>	<b>100.0%</b>

In addition to the totals listed above, there also exists surety bonds in the amount of \$323,059,258 as of June 30, 2022.

# Portfolio Snapshot

## Investments – By Credit Quality



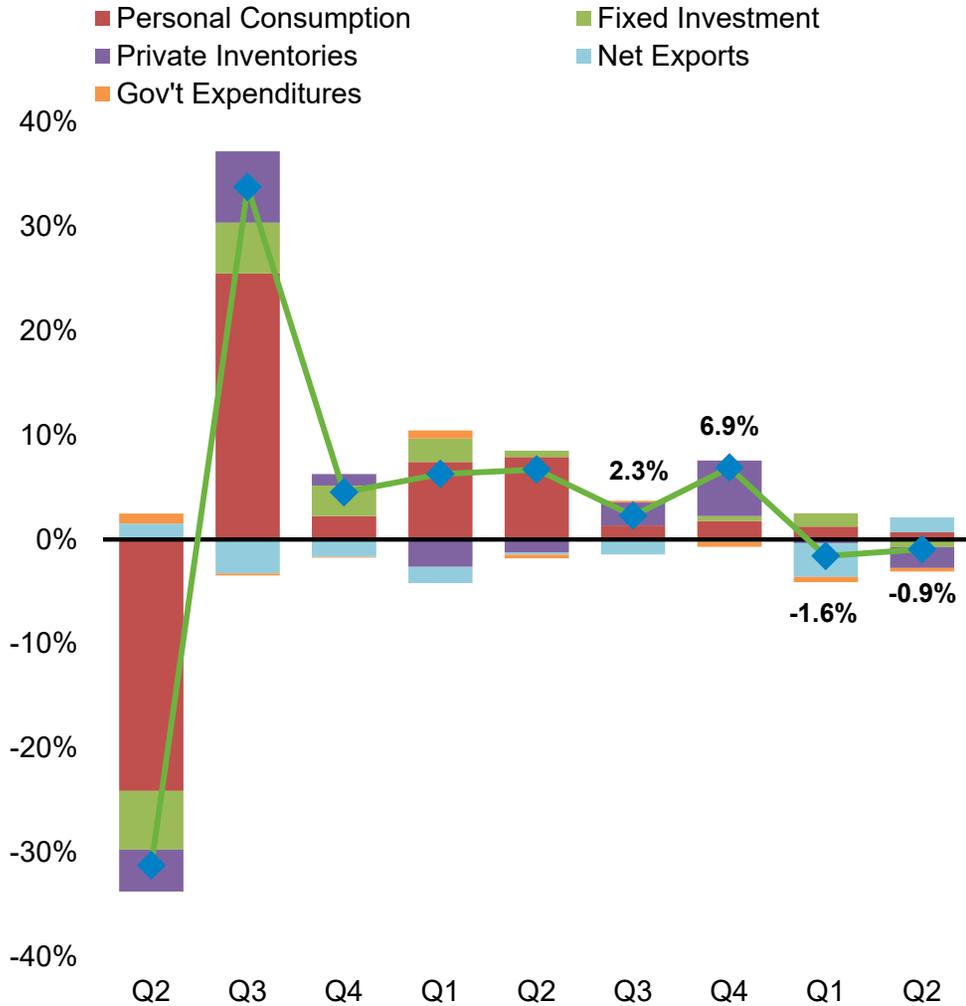
Credit Quality	Market Value	Asset Allocation
<b>Ratings</b>		
AAAm	420,056,654	53.0%
AA+	228,932,224	28.9%
A-1 + / A-1	117,417,891	14.8%
A-2	4,145,870	0.5%
NR	22,023,994	2.8%
<b>Totals</b>	<b>792,576,633</b>	<b>100.0%</b>

*In addition to the totals listed above, there also exists surety bonds in the amount of \$323,059,258 as of June 30, 2022.*

# Appendix II: Economic Update

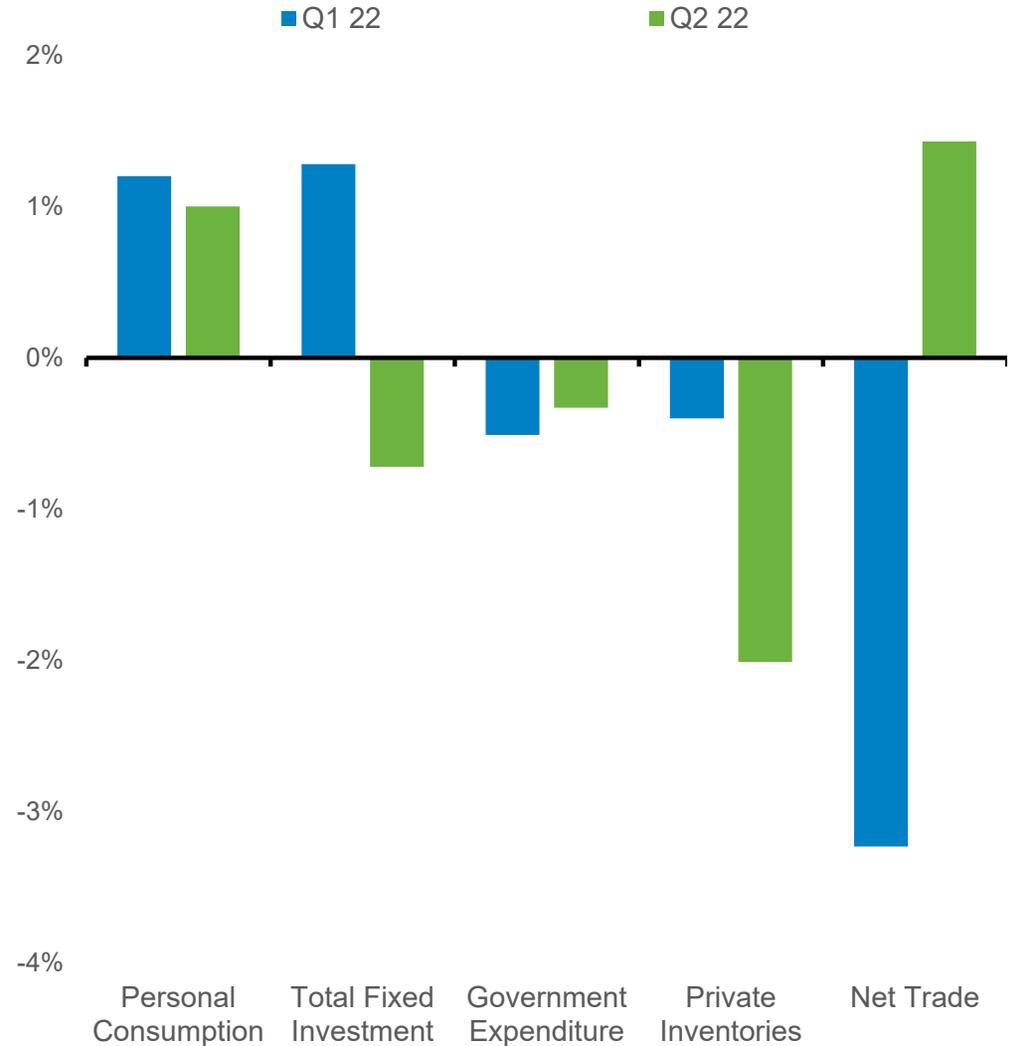
# GDP Annualized Quarter-over-Quarter

## U.S. Real GDP Contributors and Detractors



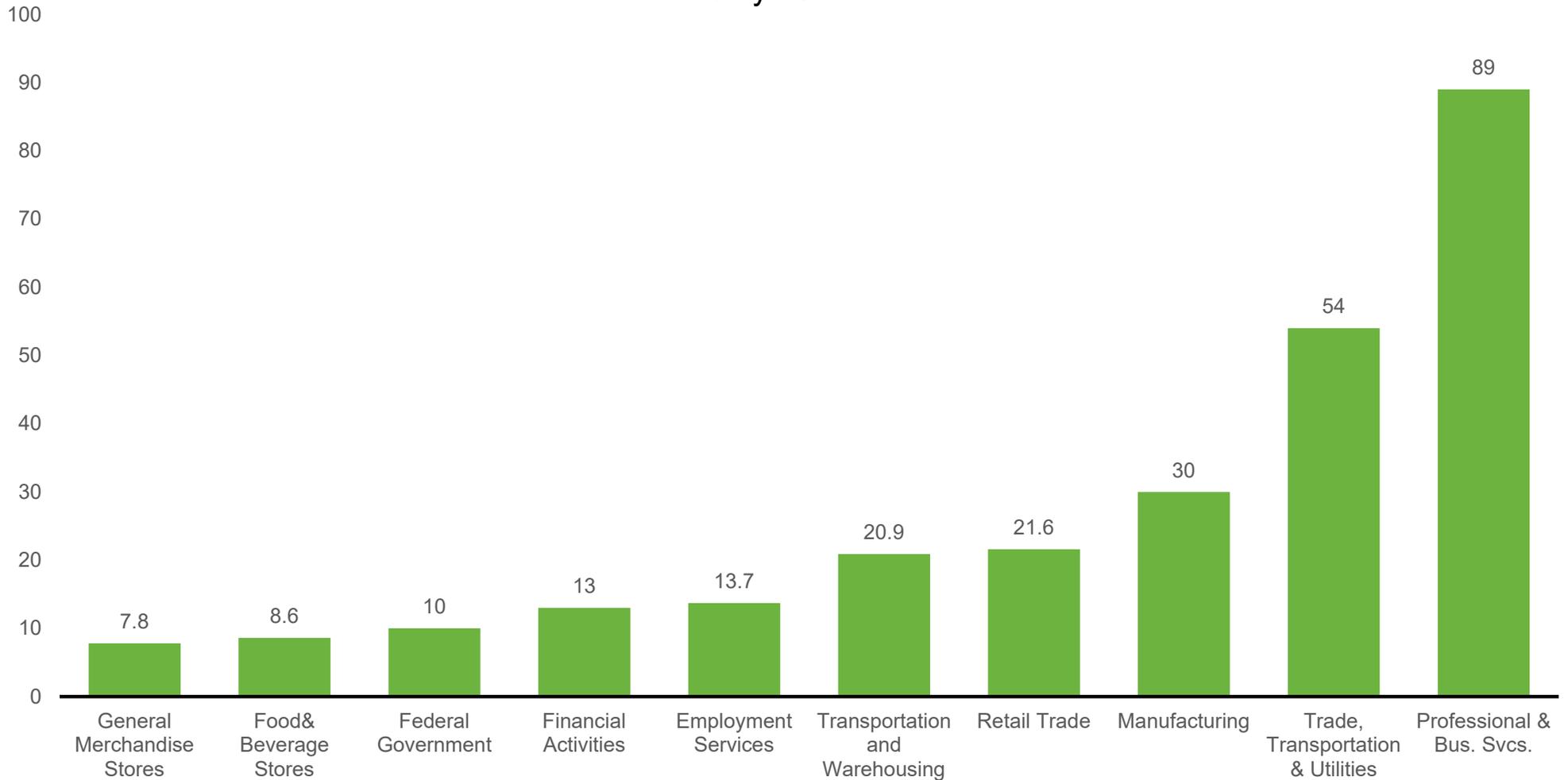
Source: Bloomberg, as of Q2 2022.

## GDP Contributors



# Employment Report

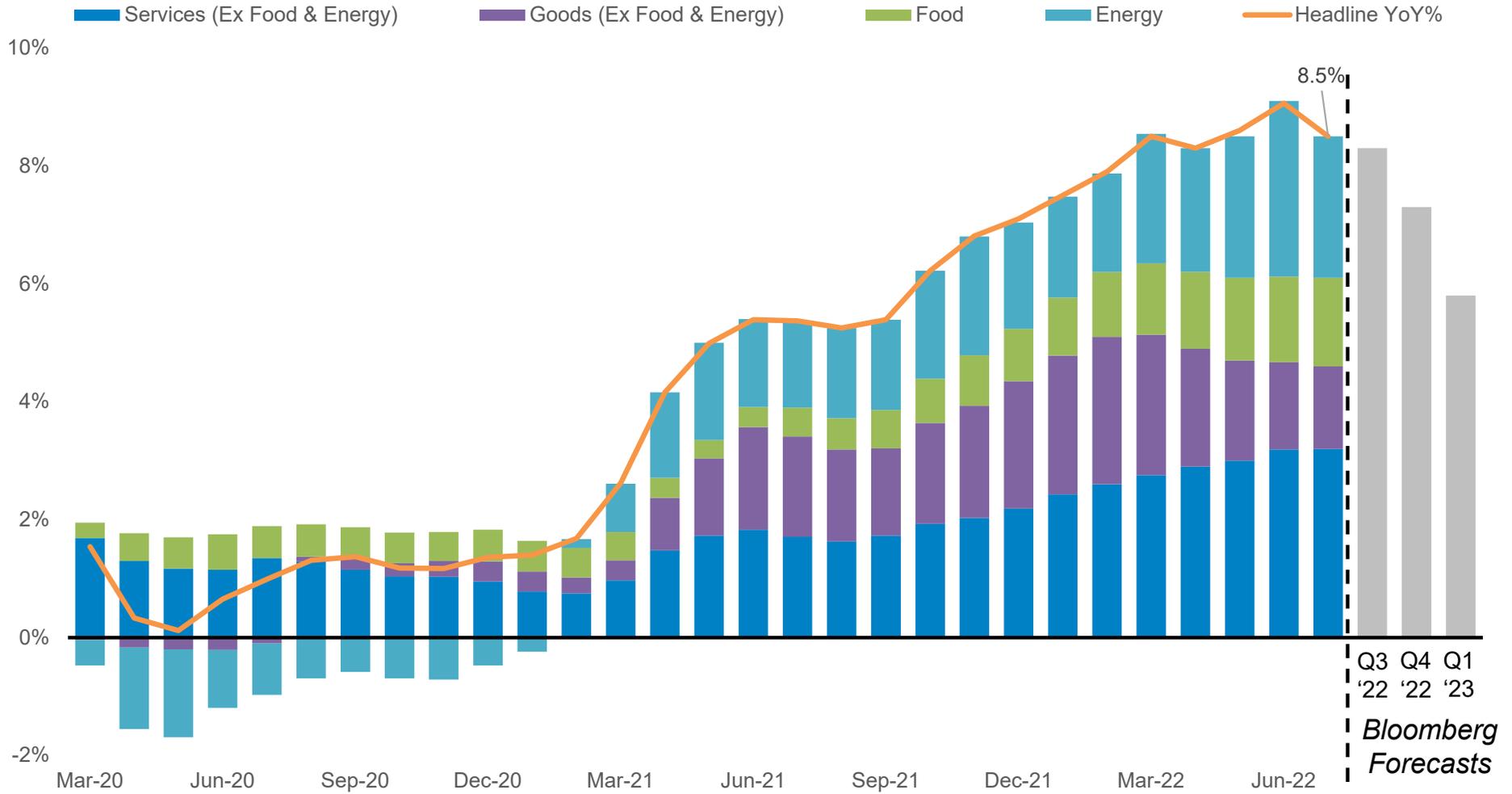
## Change in Nonfarm Payrolls July 2022



Source: Bloomberg, as of June 2022. Data is seasonally adjusted.

# U.S. Inflation Decelerates in July, Driven by Lower Energy Prices

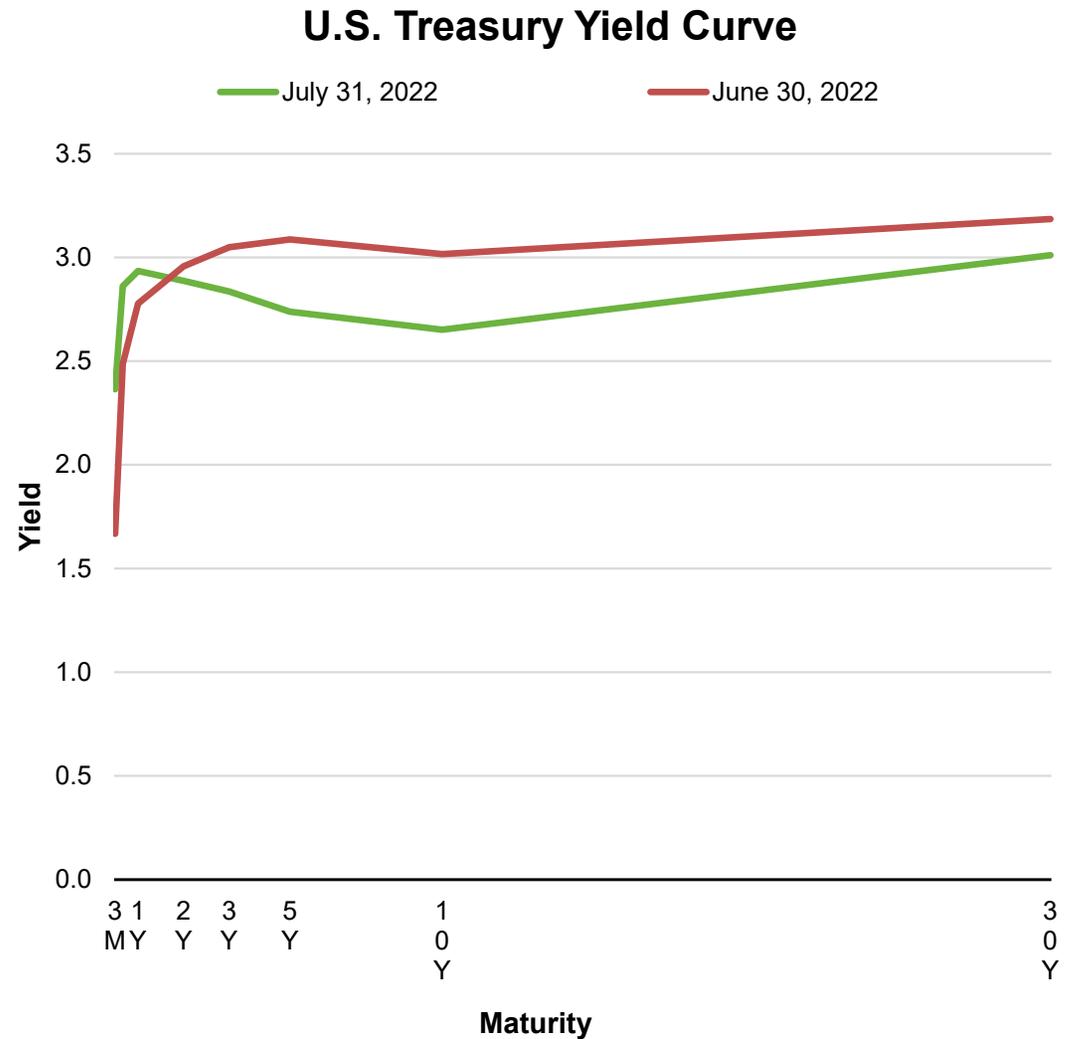
Consumer Prices (CPI)  
Top-Line Contributions and Year over Year Reading



Source: Bloomberg, as of June 2022.

# Treasury Curve Inverted Further Amid Recession Angst

	<u>06/30/2022</u>	<u>07/31/2022</u>	<u>Change</u>
3 month	1.67%	2.36%	0.69%
6 month	2.49%	2.86%	0.37%
1 year	2.78%	2.94%	0.16%
2 year	2.96%	2.89%	-0.07%
3 year	3.05%	2.84%	-0.21%
5 year	3.09%	2.74%	-0.35%
10 year	3.02%	2.65%	-0.37%
30 year	3.19%	3.01%	-0.18%



Source: Bloomberg, as of 06/30/2022 and 07/31/2022, as indicated.

# Fixed Income Market Overview and Outlook

## FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- The U.S. economy is characterized by:
  - High inflation
  - A strong labor market
  - Depressed consumer confidence
  - Growing potential for economic recession
  
- The Federal Reserve is tightening monetary policy
  - More aggressive rate hikes to battle persistent inflation
  - Short-term Fed Funds rate projected to reach 3.25% to 3.75% by year-end
  - Start of balance sheet reduction; pace to double beginning in September
  
- Asset prices have fallen sharply in 2022 as a result of:
  - The impact of higher rates on bond prices and equity valuations
  - Wider credit spreads
  - High commodity prices, rising labor costs, and the continuing conflict in Ukraine
  - High levels of volatility and uncertainty
  
- The first half of 2022 was one of the most difficult investment environments in the past 40 years due to the pace of interest rate increases and the resulting simultaneous weakness in both bond and stock market returns
  - As the market enters the second half of the calendar year, many of the first half's significant headwinds are still in place: high inflation, tighter Federal Reserve monetary policy, rising rates, wider credit spreads, slowing growth, and lingering geopolitical turmoil

# Fixed Income Market Overview and Outlook

## FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- The Federal Open Market Committee (“FOMC”) raised the Federal Funds rate by 75 basis points in June – the biggest increase since 1994 – to a new target range of 1.50% – 1.75%
  - In their latest iteration of economic projections, the Federal Reserve (“Fed”) increased its expectations for inflation in 2022, lowered its forecast for real gross domestic product (“GDP”) and increased its projection for the year-end Fed Funds rate from 1.5% to 3.4%
  - The Fed arguably remains behind the curve when it comes to taming inflation
  - Also, the FOMC will continue reducing its holding of Treasury securities, Agency debt, and Agency mortgage-backed securities, as described in the plan issued in May
  
- U.S. Treasury yields rose sharply during the quarter
  - The U.S. Treasury yield curve shifted higher as the market digested the anticipated trajectory of more aggressive Fed rate hikes
  - Yields on benchmark 2 and 10-year Treasury notes finished the quarter at 2.96% and 3.02%, respectively
  
- Inflation has remained elevated, reflecting higher energy prices, supply chain disruptions lingering from the pandemic, and continuing strong consumer demand
  - However, outside of oil, many commodities have returned to price levels prior to the Russian invasion of Ukraine
  - The U.S. dollar index (DXY) surged by 2.9%, reaching the highest level in two decades
  
- The market expects a likely path of continued aggressive Fed rate hikes
  - Short-term credit markets for commercial paper and bank CDs offer excellent yields, attractive spreads over Treasuries, and some protection from the unrelenting Fed rate increases
  - Also, short-term investments are a reasonably attractive investment choice in today’s rate environment

## Disclosure

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*Bank Deposits are not managed by PFMAM, and therefore we cannot guarantee the accuracy of holdings.*