Great Lakes Water Authority

Investment Performance Report – December 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 97% 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 12/31/2022, approximately 49% of the funds were held in cash and money market accounts maturing overnight. The percentage is slightly lower than last quarter due to higher short-term commercial paper rates.
- ➤ Return The overall yield at market increased to 4.33% as of December 31, 2022, versus 3.09% as of September 30, 2022. The higher yield is reflective of the rise in interest rates that the market has experienced. GLWA earned \$11.2 million (unaudited) in investment income for the first six months of fiscal year 2023 on a book value basis. We expect the investment income for GLWA for FY 2023 to be approximately \$32.5 million (including bond proceeds).

AVAILABLE FUNDS (Unaudited)

Туре	Financial Institution	Book Value	Market Value	Yield @ Cost (as of 12/31/22)	Yield @ Market (as of 12/31/22)
Deposit Account	Comerica	\$7,414,943	\$7,414,943	0.01%	0.01%
Deposit Account - Retainage	First Independence	\$23,663,892	\$23,663,892	0.01%	0.01%
Deposit Account – Flint Security Deposit	Chase	\$3,845,762	\$3,845,762	2.43%	2.43%
Deposit Account	Chase	\$22,274,358	\$22,274,358	2.43%	2.43%
Trust Money Market Fund	U.S. Bank	\$352,876,213	\$352,876,213	4.06%	4.06%
Money Market Fund	JP Morgan	\$4,276,265	\$4,276,265	2.47%	2.47%
Local Government Investment Pool	GovMIC	\$153,681,768	\$153,681,768	4.28%	4.28%
Managed Funds	PFMAM	\$601,211,921	\$595,298,468	3.61%	4.82%
DECEMBER 2022 TOTALS:		<u>\$1,169,245,122</u>	<u>\$1,163,331,669</u>	<u>3.71%</u>	<u>4.33%</u>
PREVIOUS QUARTER TOTALS:		<i>\$1,091,441,725</i>	<i>\$1,083,851,561</i>	<u>2.44%</u>	<u>3.09%</u>

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..



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 2.44% as of 9/30/2022 to 3.71% as of 12/31/2022; the higher yield is a result of reinvesting proceeds of lower-yielding securities that have matured in a higher interest rate environment.
- ➤ The total portfolio had a market yield of 4.33% at the end of December. Yield at market represents what the market would provide in return if the portfolio was purchased on December 31, 2022 (versus purchased in prior months / years).
 - This 4.33% yield at market as of 12/31/2022 is higher than in the prior quarter as the increase in short and intermediate-term yields during the calendar 2022 year resulted in a shift in the yield at market of the portfolio higher.

PORTFOLIO PERFORMANCE - PROJECTIONS

- ➤ GLWA earned over \$11.2 million (unaudited) in investment income for fiscal year-to-date 2023 (as of 12/31/22) on a book value basis.
- > The current period earnings are higher than budgeted expectations, mainly due to more Federal Reserve interest rate hikes priced into the market.
- ➤ The FY 2023 total interest earnings projection forecast is estimated to be approximately \$32.5 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, December 31, 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

- At its December meeting, the Federal Open Market Committee ("FOMC") raised the Fed Funds rate by 50 basis points to a new target range of 4.25% to 4.50%, which was a downshift following four consecutive 75 basis point hikes. The updated summary of economic projections points toward lower growth, higher inflation, and a higher unemployment rate in 2023. Fed Chair Jerome Powell commented that the Federal Reserve (the "Fed") has "more work to do" and that "restoring price stability will likely require maintaining a restrictive policy stance for some time."
- ➤ The year-over-year change in the Consumer Price Index ("CPI") fell to 6.5% in December, down from 7.1% a month earlier. Overall prices declined for the month, the first such decrease since May of 2020. Falling gasoline, fuel oil, and car prices were the largest contributors. Shelter costs remained elevated, but they typically lag. After peaking at 9.1% in June, headline CPI has now moderated for six consecutive months.
- ➤ The labor market remained strong, as the economy added 223,000 jobs in December. The unemployment rate fell back to 3.5%, matching a 50+ year low. Wage growth moderated, but remained above trend, while the labor force participation rate improved.
- ➤ The housing market continued to cool. Existing home sales declined by nearly 8% in November, falling for the tenth consecutive month to a 12-year low (outside of one month during the pandemic). Building permits fell and were down 29% through November.
- > Business activity slowed, as the services sector joined the manufacturing sector in contraction, as measured by the Institute for Supply Management ("ISM") purchasing manager surveys.

ECONOMIC IMPACT ON PORTFOLIO

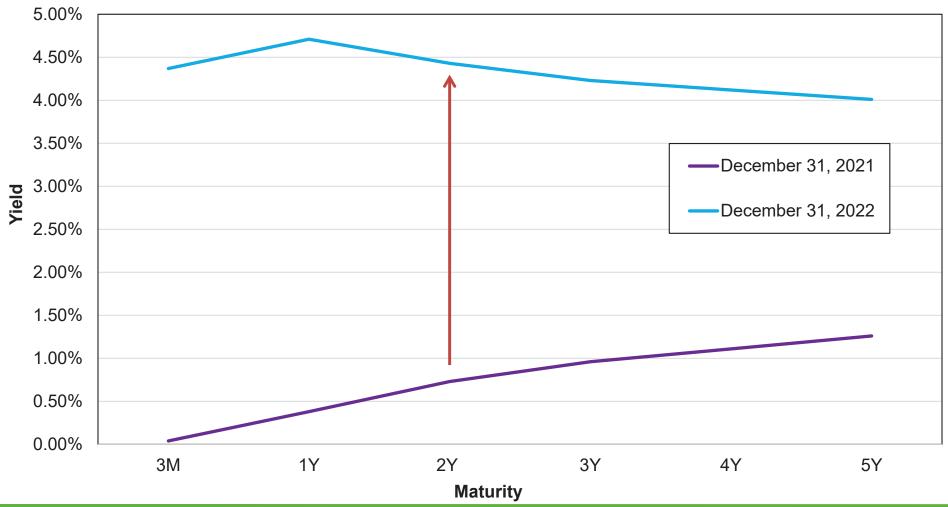
- > Treasury yields generally traded within their broader calendar year 2022 fourth quarter ranges at the end of the quarter. That reversed quickly in the first two weeks of January, as lower expectations for inflation combined with growing concerns about an economic slowdown pushed longer-term rates to the lower end of the range.
- ➤ For all of 2022, interest rates were sharply higher. For reference, the yield on the 2-year Treasury was 370 basis points higher for the calendar year. The benchmark 3-month, 2-year, and 10-year U.S. Treasury yields finished December at 4.34%, 4.43%, and 3.88%, respectively.
- ➤ Portfolio Impact: Amid economic growth uncertainty, and with additional Fed rate hikes still expected, PFMAM plans to maintain its modestly defensive posture, with portfolio durations shorter than benchmarks for now. The market's expectation for rate cuts in late 2023 conflicts with the Fed's publicly stated position of holding rates in restrictive territory. That battle will play out in 2023. Federal Agency yield spreads widened a touch, presenting some opportunities, but weaker liquidity (wider bid/ask spreads) persists as a headwind. Money market spreads narrowed in December but continue to offer excellent value and very attractive absolute yields, in many cases fully compensating for additional potential rate hikes.



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.





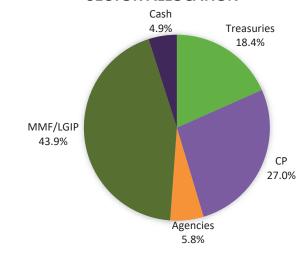


Portfolio Snapshot Overall Portfolio Composition Summary

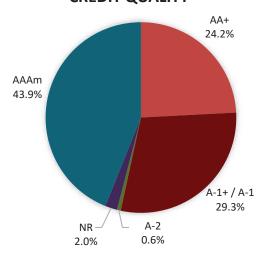
PORTFOLIO STATISTICS

Invested Amount	\$1.163 Billion
Duration	0.31 Years
Yield at Cost	3.71%
Yield at Market	4.33%

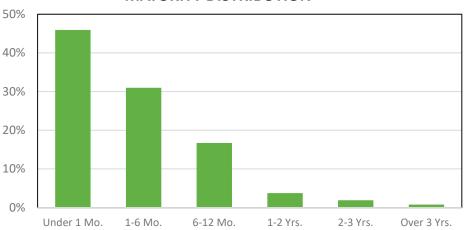
SECTOR ALLOCATION



CREDIT QUALITY



MATURITY DISTRIBUTION

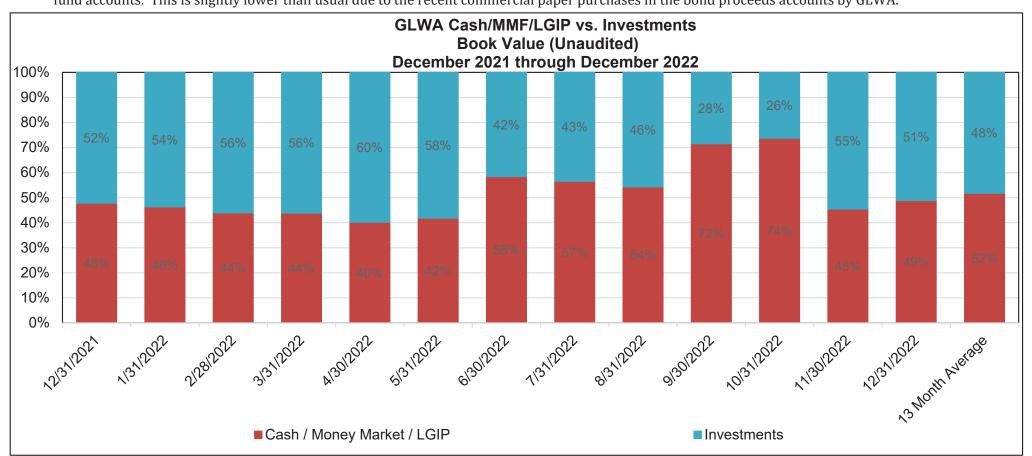




Portfolio Snapshot

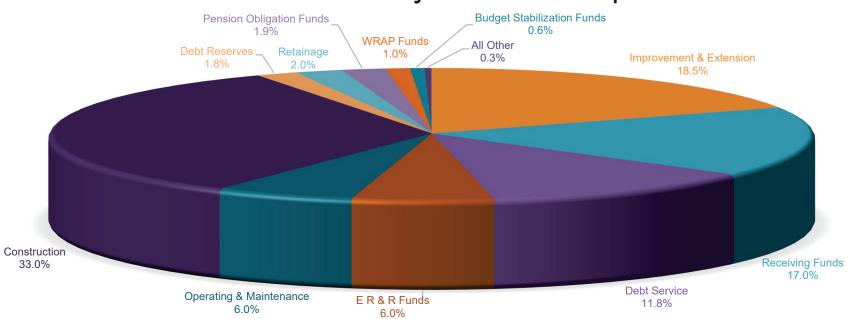
Portfolio Mix - Cash / Money Market vs. Investments

- > 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 December of 2022, 49% of the overall portfolio was invested in cash, LGIP, and/or overnight money market fund accounts. This is slightly lower than usual due to the recent commercial paper purchases in the bond proceeds accounts by GLWA.





Portfolio Snapshot Investments – By Account Purpose

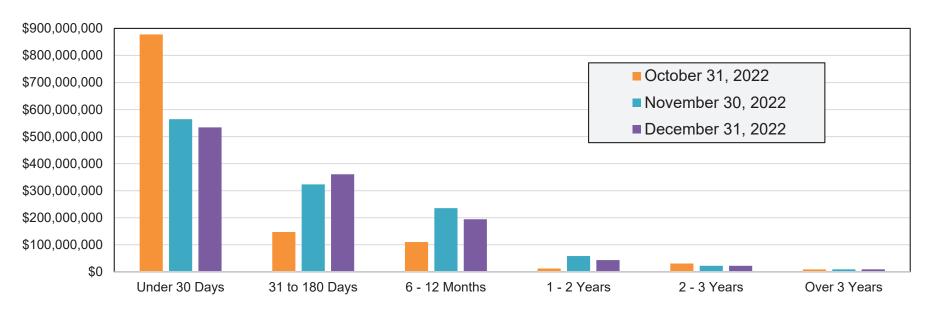


	6.0%				
	Value	Allocation	Cost	Market	
Account Purpose	Market	<u></u> %	Yield at	Yield at	Duration
Construction	\$ 384,342,461	33.0%	5.03%	4.89%	0.399 Years
Improvement & Extension	\$ 215,563,528	18.5%	2.51%	4.34%	0.149 Years
Receiving Funds (includes lockbox account)	\$ 198,330,900	17.0%	3.51%	3.51%	0.003 Years
Debt Service	\$ 137,381,087	11.8%	4.86%	4.75%	0.324 Years
Extraordinary Repair & Replacement Funds	\$ 69,520,521	6.0%	0.55%	4.51%	1.394 Years
Operating & Maintenance	\$ 69,219,586	6.0%	3.81%	3.81%	0.003 Years
Retainage	\$ 23,663,892	2.0%	0.01%	0.01%	0.003 Years
Pension Obligation Funds	\$ 21,756,829	1.9%	4.04%	4.82%	0.442 Years
Debt Reserves	\$ 20,444,791	1.8%	0.96%	4.46%	0.920 Years
WRAP Funds	\$ 12,138,982	1.0%	4.20%	4.89%	0.158 Years
Budget Stabilization Funds	\$ 7,123,330	0.6%	0.77%	4.49%	1.297 Years
Flint Security Deposit Account	\$ 3,845,762	0.3%	2.43%	2.43%	0.003 Years
Total	\$ 1,163,331,669	100.0%	3.71%	4.33%	0.316 Years



Portfolio Snapshot Investments – By Maturity

Maturity Distribution	October 31, 2022	%	November 30, 2022	%	December 31, 2022	%
Under 30 Days	\$ 877,666,080	74.0%	\$ 564,289,293	46.6%	\$ 534,189,017	45.9%
31 to 180 Days	147,052,005	12.4%	323,039,613	26.7%	360,431,102	31.0%
6 - 12 Months	109,989,917	9.3%	235,239,924	19.4%	194,366,459	16.7%
1 - 2 Years	12,072,888	1.0%	58,336,911	4.8%	43,364,796	3.7%
2 - 3 Years	30,692,110	2.6%	21,983,073	1.8%	21,973,130	1.9%
Over 3 Years	8,895,285	0.7%	9,027,650	0.7%	9,007,166	0.8%
Totals	\$ 1,186,368,285	100.0%	\$ 1,211,916,465	100.0%	\$ 1,163,331,669	100.0%





Portfolio Snapshot Investment Accounts – Yield at Cost & Market

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	As of Decen	nber 31, 2022	As of Septer	nber 30, 2022	
	YTM @ Cost	YTM @ Market	YTM @ Cost	YTM @ Market	
Bank Deposits					
Comerica	0.01%	0.01%	0.01%	0.01%	
First Indenpedence	0.01%	0.01%	0.01%	0.01%	
Flint Deposit Account	2.43%	2.43%	1.23%	1.23%	
JP Morgan Chase	2.43%	2.43%	1.23%	1.23%	
Sub-Total Bank Deposits	1.12%	1.12%	0.37%	0.37%	
Money Market Funds / LGIPs					
GovMIC	4.28%	4.28%	2.97%	2.97%	
U.S. Bank - First American MMF	4.06%	4.06%	2.73%	2.73%	
JP Morgan Securities - Blackrock MMF	2.47%	2.47%	1.27%	1.27%	
Sub-Total MMF / LGIPs	4.11%	4.11%	2.89%	2.89%	
Investment Portfolios					
Sewage SR Debt Serv 5403	5.20%	5.00%	3.18%	3.62%	
Sewage SR Res 5400	0.32%	4.51%	0.32%	4.17%	
Sew 2nd Debt Serv 5403	4.97%	4.93%	0.00%	0.00%	
Sewage 2nd Res 5481	4.17%	4.51%	4.17%	4.17%	
Sew SRF Debt Serv 5410	4.80%	4.83%	3.12%	3.40%	
Sewage ER & R	0.46%	4.52%	0.46%	4.19%	
Sewer Improvement & Extension	0.91%	4.70%	0.91%	3.86%	
Sewer Pension Obligation	4.11%	4.80%	3.19%	4.14%	
Sewer Wrap Fund	4.13%	5.02%	2.70%	3.71%	
Sewer Budget Stabilization Fund	0.47%	4.53%	0.44%	4.10%	
Sewer Bond Fund	5.00%	4.86%	0.00%	0.00%	
Sewer O&M Pension Sub Account	3.97%	4.78%	3.06%	4.14%	
Water SR Debt Ser 5503	5.20%	5.02%	3.10%	3.54%	
Water SR Reserve 5500	0.70%	4.57%	0.70%	4.18%	
Water 2nd Debt Serv 5503	5.27%	4.94%	0.00%	0.00%	
Water 2nd Res 5581	4.18%	4.57%	4.18%	4.18%	
Water SRF Debt Serv 5575	4.64%	4.83%	3.47%	4.02%	
Water ER & R	0.45%	4.53%	0.45%	4.19%	
Water Improvement & Extension	0.38%	4.67%	0.38%	3.98%	
Water Pension Obligation	4.09%	4.79%	3.17%	4.14%	
Water Wrap Fund	4.30%	4.93%	2.82%	3.60%	
Water Budget Stabilization Fund	0.47%	4.53%	0.43%	4.07%	
Water Bond Fund	5.17%	4.96%	0.00%	0.00%	
Water O&M Pension Sub Account	3.97%	4.78%	3.06%	4.14%	
Sub-Total Investment Portfolios	3.61%	4.82%	1.58%	3.88%	
Grand Total	<u>3.71%</u>	<u>4.33%</u>	2.44%	3.09%	

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 Decem	nber 31, 2022	
	Market Value	YTM @ Market	Effective Duration	Weighted Average Maturity
GLWA				
Great Lakes Water Authority	\$1,163,331,669	4.33%	0.31 Years	111 Days
Short/Intermediate-Term Indices				
S&P Rated Government Investment Pool Index		3.91%	0.08 Years	30 Days
BoA / ML 3-Month Treasury Index		4.17%	0.14 Years	51 Days
BoA / ML 6-Month Treasury Index		4.59%	0.38 Years	139 Days
BoA / ML 1-Year Treasury Index		4.68%	0.82 Years	299 Days
BoA / ML 1-3 Year Treasury Index		4.50%	1.74 Years	635 Days
BoA / ML 1-5 Year Treasury Index		4.34%	2.48 Years	905 Days
Peer Analysis (Water Entities / Utilities)				
District of Columbia Water & Sewer Authority, DC	\$509,266,251	4.64%	0.80 Years	318 Days
DuPage Water Commission, IL	\$177,991,840	4.44%	1.96 Years	970 Days
Fairfax County Water Authority, VA	\$192,332,676	4.43%	1.77 Years	677 Days
Metro Wastewater Reclamation District, CO	\$230,077,415	4.44%	1.85 Years	741 Days
Metropolitan Water District of Southern California, C	CA \$949,636,254	4.55%	0.86 Years	408 Days
Philadelphia Water Department, PA	\$198,832,363	4.78%	0.90 Years	343 Days
San Bernardino Valley Municipal Water District, CA	\$332,899,989	4.63%	1.58 Years	619 Days
Tohopekaliga Water Authority, FL	\$194,903,667	4.39%	1.66 Years	835 Days
Truckee Meadows Water Authority, NV	\$94,948,871	4.51%	1.97 Years	748 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 2023 INVESTMENT INCOME BY MONTH (Unaudited)

Month	Interest Earned During Period (in thousands)	Realized Gain / Loss (in thousands)	Investment Income (in thousands)
July 2022	\$567.7	(\$310.2)*	\$257.5
August 2022	\$807.7	\$0.0	\$807.7
September 2022	\$1,638.1	(\$192.9)*	\$1,445.3
October 2022	\$2,191.1	(\$0.0)	\$2,191.1
November 2022	\$3,032.8	\$0.0	\$3,032.8
December 2022	\$3,493.9	\$0.0	\$3,493.9
FY 2023 Y-T-D	<u>\$11,731.3</u>	<u>(\$503.0)</u>	<u>\$11,228.2</u>

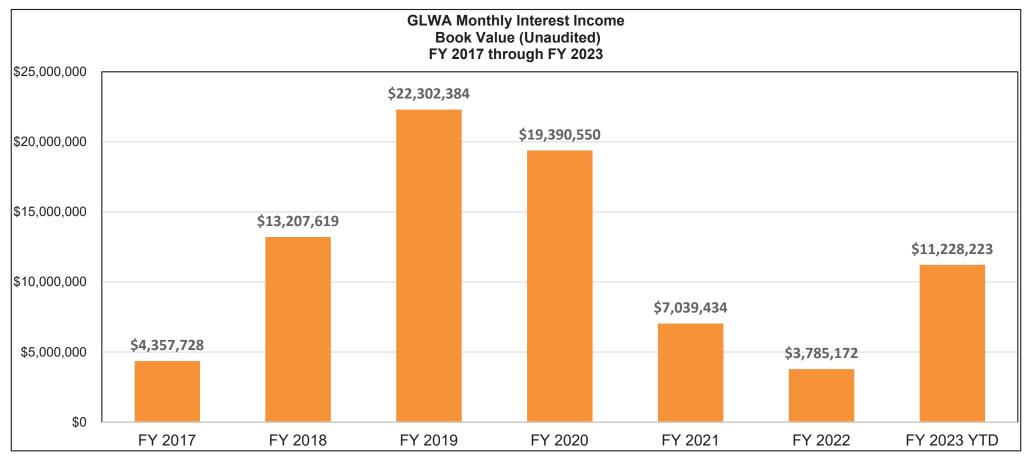
^{*} The realized loss in July of 2022 was due to the sale of investments in the Water I&E account in anticipation of liquidity requirements. The realized loss in September of 2022 was due to the sale of investments to fund the Debt Service Reserve Fund ("DSRF") releases.

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

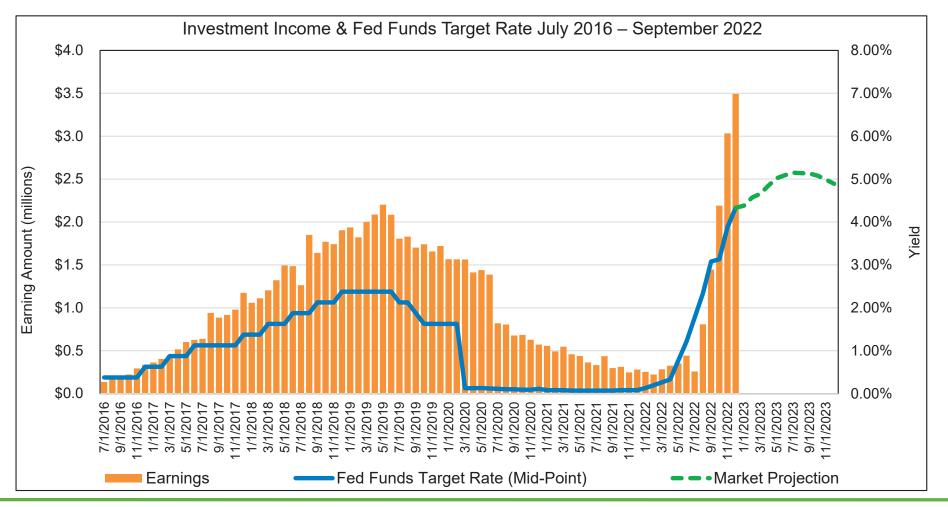
- ➤ GLWA earned \$11,228,223 in investment income for the first half of fiscal year 2023 on a book value basis compared to \$1,905,313 for the first six months of fiscal year 2022.
- ➤ Based on current market assumptions and the addition of assets and proceeds from GLWA's most recent bond fund issue, projected investment income for fiscal year 2023 is forecasted to be around \$32.5 million, as the market expects the overnight lending rate to continue to increase 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 income has consistently followed the trend of the Fed Funds rate.
- According to effective Fed Funds futures, the market is pricing in at least one more Fed rate hike; based on the historical trend, a Fed Funds target range of around 5.00% will translate into higher interest earnings for GLWA in fiscal year 2023 and beyond.





Appendix I: Portfolio Holdings



DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Short-Term Bank Deposits / MMF / LGIP									
COMERICA BANK FIRST INDEPENDENCE BANK FLINT DEPOSIT ACCOUNT JP MORGAN CHASE GoWIIC U.S. BANK - FIRST AMERICAN MMF JP MORGAN SECURITIES - BLACKROCK MMF		\$ 7,414,943 23,663,892 3,845,762 22,274,358 100,436,768 352,876,213 4,276,265	10/1/2022 10/1/2022 10/1/2022 10/1/2022 10/1/2022 10/1/2022 10/1/2022	9/30/2022 9/30/2022 9/30/2022 9/30/2022 9/30/2022 9/30/2022 9/30/2022	0.01% \$ 0.01% 2.43% 2.43% 4.28% 4.06% 2.47%	7,414,943 23,663,892 3,845,762 22,274,358 100,436,768 352,876,213 4,276,265	1 1 1 1 1 1	\$	\$ 7,414,943 23,663,892 3,845,762 22,274,358 100,436,768 352,876,213 4,276,265
GovMIC TERM									
TERM GovMIC 4.47 2/14/2023 TERM GovMIC 4.82 4/17/2023 TERM GovMIC 4.47 2/14/2023 TERM GovMIC 4.62 3/10/2023 TERM GovMIC 4.82 4/17/2023	TERM-02-14-2023 TERM-04-17-2023 TERM-02-14-2023 TERM-03-10-2023 TERM-04-17-2023	\$ 5,670,000 9,330,000 13,670,000 13,025,000 11,550,000	2/14/2023 4/17/2023 2/14/2023 3/10/2023 4/17/2023	11/10/2022 11/16/2022 11/10/2022 11/14/2022 11/16/2022	4.47% \$ 4.82% 4.47% 4.62% 4.82%	5,670,000 9,330,000 13,670,000 13,025,000 11,550,000	45 107 45 69 107	\$ 35,413 55,443 85,379 77,486 68,635	\$ 5,670,000 9,330,000 13,670,000 13,025,000 11,550,000



DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	T	OTAL VALUE
Commercial Paper										
Barclays Capital Inc 0 6/13/2023	06743VTD2	\$ 4,740,000	6/13/2023	11/8/2022	5.41% \$	4,590,284	164	\$ -	\$	4,632,340
BOA Securities 0 8/1/2023	06054PV11	6,860,000	8/1/2023	11/7/2022	5.52%	6,590,345	213	-		6,652,300
CA Imperial Bank 0 7/31/2023	13608BUX0	6,860,000	7/31/2023	11/7/2022	5.46%	6,593,889	212	-		6,653,356
Charta LLC 0 3/13/2023	16115WQD2	6,740,000	3/13/2023	11/8/2022	4.99%	6,625,326	72	-		6,674,211
CRC Funding LLC 0 3/14/2023	12619UQE4	470,000	3/14/2023	11/10/2022	4.93%	462,148	73	-		465,504
JPMorgan Securities 0 4/10/2023	46640QRA1	4,000,000	4/10/2023	11/10/2022	4.80%	3,921,144	100	-		3,947,028
JPMorgan Securities 0 5/8/2023	46640QS85	6,860,000	5/8/2023	11/7/2022	5.10%	6,687,635	128	-		6,741,500
LMA Americas LLC 0 2/9/2023	53944RP93	3,250,000	2/9/2023	11/8/2022	4.76%	3,210,540	40	-		3,232,928
LMA Americas LLC 0 5/4/2023	53944RS41	3,460,000	5/4/2023	11/7/2022	5.25%	3,372,408	124	-		3,400,696
MacQuarie Bank LTD 0 6/30/2023	55607LTW4	6,860,000	6/30/2023	11/8/2022	5.43%	6,626,348	181	-		6,686,641
Manhattan Asset Funding 0 3/3/2023	56274MQ39	6,740,000	3/3/2023	11/10/2022	4.79%	6,640,143	62	-		6,685,851
MUFG Bank LTD NY 0 7/31/2023	62479MUX9	6,860,000	7/31/2023	11/7/2022	5.51%	6,591,862	212	-		6,660,923
Natixis Bank NY 0 8/1/2023	63873KV12	6,860,000	8/1/2023	11/7/2022	5.57%	6,587,801	213	-		6,655,414
Ridgefield Funding Co 0 3/9/2023	76582KQ95-2	6,740,000	3/9/2023	11/9/2022	4.88%	6,632,160	68	-		6,678,093
Royal Bank of Canada 0 8/1/2023	78015DV15	6,860,000	8/1/2023	11/8/2022	5.44%	6,594,903	213	-		6,661,664
Sumitomo Mitsubishi Trust 0 2/7/2023	86563HP79	6,710,000	2/7/2023	11/7/2022	4.66%	6,631,120	38	-		6,677,745
Toronto Dominion Bank 0 7/31/2023	89119BUX2	2,685,000	7/31/2023	11/8/2022	5.47%	2,581,038	212	-		2,607,261
Barclays Capital Inc 0 6/13/2023	06743VTD2	6,600,000	6/13/2023	11/8/2022	5.41%	6,391,535	164	-		6,450,094
BOA Securities 0 8/1/2023	06054PV11	6,600,000	8/1/2023	11/7/2022	5.52%	6,340,565	213	-		6,400,172
CA Imperial Bank 0 7/31/2023	13608BUX0	6,600,000	7/31/2023	11/7/2022	5.46%	6,343,975	212	-		6,401,188
Charta LLC 0 3/13/2023	16115WQD2	6,480,000	3/13/2023	11/8/2022	4.99%	6,369,750	72	-		6,416,749
JPMorgan Securities 0 5/8/2023	46640QS85	6,600,000	5/8/2023	11/7/2022	5.10%	6,434,168	128	-		6,485,992
LMA Americas LLC 0 5/4/2023	53944RS41	6,540,000	5/4/2023	11/7/2022	5.25%	6,374,436	124	-		6,427,904
MacQuarie Bank LTD 0 6/30/2023	55607LTW4	6,600,000	6/30/2023	11/8/2022	5.43%	6,375,204	181	-		6,433,211
MUFG Bank LTD NY 0 7/31/2023	62479MUX9	6,600,000	7/31/2023	11/7/2022	5.51%	6,342,024	212	-		6,408,468
Natixis Bank NY 0 8/1/2023	63873KV12	6,600,000	8/1/2023	11/7/2022	5.57%	6,338,118	213	-		6,403,168
Old Line Funding LLC 0 5/2/2023	67983US20	1,850,000	5/2/2023	11/10/2022	4.97%	1,806,882	122	-		1,819,179
Ridgefield Funding Co 0 3/9/2023	76582KQ95-2	6,480,000	3/9/2023	11/9/2022	4.88%	6,376,320	68	-		6,420,481
Royal Bank of Canada 0 8/1/2023	78015DV15	6,600,000	8/1/2023	11/8/2022	5.44%	6,344,950	213	-		6,409,181
Skandinav Enskilda Bank 0 6/6/2023	83050UT65	1,910,000	6/6/2023	11/9/2022	5.27%	1,853,337	157	-		1,867,630
Sumitomo Mitsubishi Trust 0 2/7/2023	86563HP79	6,460,000	2/7/2023	11/7/2022	4.66%	6,384,059	38	-		6,428,947
Svenska Handel Sbanken 0 5/8/2023	86960KS86	5,500,000	5/8/2023	11/14/2022	5.05%	5,368,191	128	-		5,407,633
Toronto Dominion Bank 0 5/31/2023	89119BSX5	3,500,000	5/31/2023	11/10/2022	5.27%	3,399,449	151	-		3,430,046
Toronto Dominion Bank 0 7/31/2023	89119BUX2	6,600,000	7/31/2023	11/8/2022	5.47%	6,344,452	212	-		6,408,910
MUFG Bank LTD NY 0 6/30/2023	62479MTW3-1	4,565,000	6/30/2023	12/19/2022	5.22%	4,440,675	181	_		4,452,838
Toronto Dominion Bank 0 6/16/2023	89119BTG1	5,250,000	6/16/2023	11/10/2022	5.32%	5,086,273	167	-		5,131,140



DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Commercial Paper									
Cooperatieve Centrale 0 6/30/2023	21687BTW1	13,000,000	6/30/2023	11/10/2022	5.31%	12,570,220	181	-	12,680,590
Nordea Bank ABP 0 6/16/2023	65558KTG9	11,260,000	6/16/2023	12/19/2022	4.97%	10,988,462	167	-	11,005,074
Toronto Dominion Bank 0 6/16/2023	89119BTG1	9,475,000	6/16/2023	11/10/2022	5.32%	9,179,512	167	-	9,260,486
LMA Americas LLC 0 3/17/2023	53944RQH4	805,000	3/17/2023	12/19/2022	4.70%	795,850	76	-	797,505
MetLife Short Term 0 3/17/2023	59157UQH6	855,000	3/17/2023	8/4/2022	3.47%	836,831	76	-	847,040
Ridgefield Funding Co 0 3/9/2023	76582KQ95-1	3,250,000	3/9/2023	11/9/2022	4.88%	3,198,000	68	-	3,223,058
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-2	520,000	6/15/2023	11/3/2022	5.30%	503,402	166	-	508,473
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-2	520,000	6/15/2023	12/5/2022	5.17%	506,050	166	-	508,473
Toyota Motor Credit 0 6/15/2023	89233HTF1-2	520,000	6/15/2023	10/4/2022	4.51%	503,967	166	-	508,008
MUFG Bank LTD NY 0 3/10/2023	62479MQA4	400,000	3/10/2023	7/5/2022	3.28%	391,155	69	-	396,636
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-1	920,000	6/15/2023	11/3/2022	5.30%	890,634	166	-	899,300
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-1	917,000	6/15/2023	12/5/2022	5.17%	892,400	166	-	896,368
Toyota Motor Credit 0 6/15/2023	89233HTF1-1	960,000	6/15/2023	10/4/2022	4.51%	930,401	166	-	938,400
Bedford Row Funding 0 1/5/2023	07644BN57	1,125,000	1/5/2023	10/4/2022	3.89%	1,113,811	5	-	1,124,730
Collat CP Co 0 1/30/2023	19423KNW0	1,100,000	1/30/2023	9/1/2022	3.59%	1,083,667	30	-	1,096,359
Gotham Funding Corp 0 3/1/2023	38346MQ15	1,125,000	3/1/2023	11/1/2022	4.88%	1,107,000	60	-	1,117,024
Manhattan Asset Funding 0 4/3/2023	56274MR38	1,125,000	4/3/2023	12/2/2022	4.83%	1,106,891	93	-	1,112,096
Nordea Bank ABP 0 6/16/2023	65558KTG9	3,320,000	6/16/2023	12/19/2022	4.97%	3,239,937	167	-	3,244,835
Cooperatieve Centrale 0 6/30/2023	21687BTW1	13,000,000	6/30/2023	11/10/2022	5.31%	12,570,220	181	-	12,680,590
Nordea Bank ABP 0 6/16/2023	65558KTG9	13,120,000	6/16/2023	12/19/2022	4.97%	12,803,608	167	-	12,822,963
Toronto Dominion Bank 0 6/16/2023	89119BTG1	13,175,000	6/16/2023	11/10/2022	5.32%	12,764,123	167	-	12,876,718
LMA Americas LLC 0 3/17/2023	53944RQH4	4,480,000	3/17/2023	12/19/2022	4.70%	4,429,077	76	-	4,438,291
Old Line Funding LLC 0 3/16/2023	67983UQG1	10,400,000	3/16/2023	11/14/2022	4.84%	10,232,236	75	-	10,304,528
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-2	935,000	6/15/2023	11/3/2022	5.30%	905,155	166	-	914,274
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-2	927,000	6/15/2023	12/5/2022	5.17%	902,132	166	-	906,451
Toyota Motor Credit 0 6/15/2023	89233HTF1-2	930,000	6/15/2023	10/4/2022	4.51%	901,326	166	-	908,553
MUFG Bank LTD NY 0 3/10/2023	62479MQA4	650,000	3/10/2023	7/5/2022	3.28%	635,626	69	-	644,534
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-1	1,265,000	6/15/2023	11/3/2022	5.30%	1,224,621	166	-	1,236,538
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-1	1,257,000	6/15/2023	12/5/2022	5.17%	1,223,279	166	-	1,228,718
Toyota Motor Credit 0 6/15/2023	89233HTF1-1	1,310,000	6/15/2023	10/4/2022	4.51%	1,269,609	166	-	1,280,525
CitiGroup Global Markets 0 4/27/2023	17327BRT4	1,100,000	4/27/2023	8/1/2022	3.66%	1,070,739	117	-	1,083,555
Collat CP Co 0 1/30/2023	19423KNW0	1,050,000	1/30/2023	9/1/2022	3.59%	1,034,409	30	-	1,046,525
Credit Suisse NY 0 1/5/2023	2254EBN56	1,050,000	1/5/2023	7/5/2022	3.09%	1,033,685	5	-	1,049,748
Gotham Funding Corp 0 3/1/2023	38346MQ15	1,100,000	3/1/2023	11/1/2022	4.88%	1,082,400	60	_	1,092,201
MUFG Bank LTD NY 0 4/3/2023	62479MR39	1,100,000	4/3/2023	10/4/2022	4.35%	1,076,440	93	_	1,087,383
MUFG Bank LTD NY 0 5/30/2023	62479MSW4	425,000	5/30/2023	12/2/2022	5.10%	414,497	150	_	416,568
National Bank of Canada 0 5/30/2023	63307MSW0	675,000	5/30/2023	12/6/2022	5.38%	657,794	150	-	661,608



DESCRIPTION	CUSIP	PAI	R AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY AC	CCRUED INTEREST	TOTAL VALUE
Federal Agencies										
FHLMC 0.375 5/5/2023	3137EAER6	\$	6,000,000	5/5/2023	6/5/2020	0.38% \$	6,000,060	125 \$	3,500 \$	5,917,020
FNMA 0.25 5/22/2023	3135G04Q3		10,000,000	5/22/2023	6/5/2020	0.36%	9,968,400	142	2,708	9,833,200
FNMA 0.25 7/10/2023	3135G05G4		1,250,000	7/10/2023	7/16/2020	0.29%	1,248,425	191	1,484	1,220,688
FHLMC 0.375 5/5/2023	3137EAER6		14,650,000	5/5/2023	6/5/2020	0.38%	14,650,147	125	8,546	14,447,391
FNMA 0.25 5/22/2023	3135G04Q3	:	25,000,000	5/22/2023	6/5/2020	0.36%	24,921,000	142	6,771	24,583,000
FNMA 0.25 7/10/2023	3135G05G4		1,650,000	7/10/2023	7/16/2020	0.29%	1,647,921	191	1,959	1,611,308
FNMA 0.25 5/22/2023	3135G04Q3		240,000	5/22/2023	6/5/2020	0.35%	239,292	142	65	235,997
FNMA 0.25 5/22/2023	3135G04Q3		3,400,000	5/22/2023	6/5/2020	0.35%	3,389,970	142	921	3,343,288
FNMA 0.25 5/22/2023	3135G04Q3		670,000	5/22/2023	6/5/2020	0.35%	668,024	142	181	658,824
FNMA 0.25 5/22/2023	3135G04Q3		5,750,000	5/22/2023	6/5/2020	0.35%	5,733,038	142	1,557	5,654,090



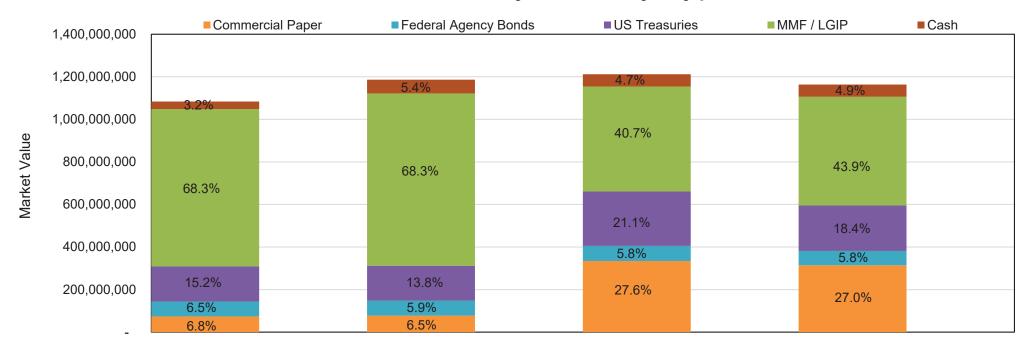
DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
U.S. Treasuries									
T-Note 0 8/15/2023	912833LM0	\$ 10,500,000	8/15/2023	2/7/2020	1.41% \$	9,992,745	227	\$ - 9	10,205,265
T-Note 0.5 3/15/2023	912828ZD5	10,000,000	3/15/2023	3/16/2020	0.58%	9,977,344	74	14,779	9,923,800
T-Note 1.5 1/15/2023	912828Z29	15,000,000	1/15/2023	2/7/2020	1.39%	15,045,703	15	103,329	14,989,050
T-Note 0.125 12/15/2023	91282CBA8	14,975,000	12/15/2023	11/7/2022	4.78%	14,233,854	349	823	14,343,242
T-Note 0.5 11/30/2023	91282CDM0	12,955,000	11/30/2023	11/7/2022	4.78%	12,386,701	334	5,517	12,463,114
T-Note 0.875 1/31/2024	91282CDV0	6,975,000	1/31/2024	11/7/2022	4.87%	6,646,140	396	25,374	6,690,551
T-Note 1.625 10/31/2023	912828T91-2	16,320,000	10/31/2023	11/7/2022	4.85%	15,822,113	304	44,688	15,912,000
T-Note 1.75 1/31/2023	912828P38	6,600,000	1/31/2023	11/8/2022	4.11%	6,564,422	31	48,020	6,586,594
T-Note 2.25 3/31/2024	91282CEG2	725,000	3/31/2024	11/8/2022	4.91%	699,342	456	4,123	703,363
T-Note 2.75 2/15/2024	912828B66	16,045,000	2/15/2024	11/7/2022	4.87%	15,630,086	411	165,464	15,694,016
T-Note 0.5 3/15/2023	912828ZD5	5,025,000	3/15/2023	3/16/2020	0.58%	5,013,615	74	7,426	4,986,710
T-Note 1.75 1/31/2023	912828P38	8,500,000	1/31/2023	11/8/2022	4.11%	8,454,180	31	61,844	8,482,735
T-Note 0.125 1/15/2024	91282CBE0	260,000	1/15/2024	1/25/2021	0.18%	259,563	380	149	247,907
T-Note 0.25 3/15/2024	91282CBR1	125,000	3/15/2024	3/15/2021	0.33%	124,712	440	92	118,501
T-Note 0.375 12/31/2025	91282CBC4	250,000	12/31/2025	1/25/2021	0.43%	249,287	1,096	-	223,428
T-Note 0.375 4/30/2025	912828ZL7	125,000	4/30/2025	3/11/2021	0.61%	123,789	851	79	114,083
T-Note 0.5 3/15/2023	912828ZD5	250,000	3/15/2023	3/16/2020	0.59%	249,336	74	369	248,095
T-Note 1.375 1/31/2025	912828Z52	280,000	1/31/2025	12/6/2021	0.94%	283,773	762	1,601	263,155
T-Note 1.5 10/31/2024	912828YM6	130,000	10/31/2024	5/27/2021	0.42%	134,773	670	329	123,170
T-Note 1.625 10/31/2023	912828T91-1	130,000	10/31/2023	5/27/2021	0.20%	134,489	304	356	126,776
T-Note 1.75 12/31/2024	912828YY0	445,500	12/31/2024	9/30/2022	0.49%	458,001	731	-	422,878
T-Note 2.625 12/31/2023	9128285U0	313,875	12/31/2023	9/30/2022	3.11%	312,021	365	-	307,428
T-Note 2.625 6/30/2023	9128284U1	1,316,250	6/30/2023	9/30/2022	0.20%	1,340,169	181	-	1,303,653
T-Note 1.75 12/31/2024	912828YY0	654,500	12/31/2024	8/30/2021	0.49%	681,703	731	-	621,264
T-Note 2.625 12/31/2023	9128285U0	461,125	12/31/2023	7/14/2022	3.11%	457,937	365	-	451,653
T-Note 2.625 6/30/2023	9128284U1	1,933,750	6/30/2023	8/30/2021	0.19%	2,019,862	181	-	1,915,244
T-Note 0.125 9/15/2023	91282CAK7	1,260,000	9/15/2023	11/9/2022	4.77%	1,211,913	258	466	1,220,474
T-Note 0.125 1/15/2024	91282CBE0	3,420,000	1/15/2024	1/25/2021	0.18%	3,414,255	380	1,963	3,260,936
T-Note 0.375 12/31/2025	91282CBC4	3,400,000	12/31/2025	1/25/2021	0.43%	3,390,305	1,096	-	3,038,614
T-Note 0.375 4/30/2025	912828ZL7	2,400,000	4/30/2025	8/24/2021	0.59%	2,381,531	851	1,517	2,190,384
T-Note 0.375 7/15/2024	91282CCL3	1,345,000	7/15/2024	8/23/2021	0.42%	1,343,266	562	2,316	1,259,942
T-Note 0.5 3/15/2023	912828ZD5	3,410,000	3/15/2023	3/16/2020	0.59%	3,400,942	74	5,040	3,384,016
T-Note 1.375 1/31/2025	912828 Z 52	3,346,000	1/31/2025	12/7/2021	0.95%	3,390,570	762	19,128	3,144,705



DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
U.S. Treasuries									
T-Note 1.5 10/31/2024	912828YM6	3,300,000	10/31/2024	5/28/2021	0.42%	3,421,301	670	8,341	3,126,618
T-Note 1.625 10/31/2023	912828T91-1	3,300,000	10/31/2023	5/28/2021	0.20%	3,414,082	304	9,036	3,218,160
T-Note 0.25 6/15/2023	912828ZU7-2	710,000	6/15/2023	7/5/2022	2.82%	693,082	166	78	696,244
T-Note 0.25 6/15/2023	912828ZU7-2	520,000	6/15/2023	8/4/2022	3.10%	507,488	166	57	509,925
T-Note 0.25 6/15/2023	912828ZU7-2	515,000	6/15/2023	9/2/2022	3.34%	502,789	166	57	505,022
T-Note 0.25 6/15/2023	912828ZU7-1	485,000	6/15/2023	7/5/2022	2.83%	473,405	166	53	475,606
T-Note 0.25 6/15/2023	912828ZU7-1	900,000	6/15/2023	8/4/2022	3.12%	878,203	166	99	882,567
T-Note 0.25 6/15/2023	912828ZU7-1	925,000	6/15/2023	9/2/2022	3.34%	903,067	166	102	907,083
T-Note 0.125 1/15/2024	91282CBE0	695,000	1/15/2024	1/25/2021	0.18%	693,833	380	399	662,676
T-Note 0.25 3/15/2024	91282CBR1	340,000	3/15/2024	3/15/2021	0.33%	339,216	440	251	322,323
T-Note 0.375 12/31/2025	91282CBC4	685,000	12/31/2025	1/25/2021	0.43%	683,047	1,096	-	612,191
T-Note 0.375 4/30/2025	912828ZL7	350,000	4/30/2025	3/11/2021	0.61%	346,609	851	221	319,431
T-Note 0.5 3/15/2023	912828ZD5	688,000	3/15/2023	3/16/2020	0.59%	686,173	74	1,017	682,757
T-Note 1.375 1/31/2025	912828Z52	740,000	1/31/2025	12/6/2021	0.94%	749,973	762	4,230	695,482
T-Note 1.5 10/31/2024	912828YM6	450,000	10/31/2024	5/27/2021	0.42%	466,523	670	1,137	426,357
T-Note 1.625 10/31/2023	912828T91-1	425,000	10/31/2023	5/27/2021	0.20%	439,676	304	1,164	414,460
T-Note 1.75 12/31/2024	912828YY0	355,200	12/31/2024	9/30/2022	0.49%	365,167	731	-	337,163
T-Note 2.625 6/30/2023	9128284U1	456,000	6/30/2023	9/30/2022	0.20%	464,286	181	-	451,636
T-Note 1.75 12/31/2024	912828YY0	5,194,800	12/31/2024	8/30/2021	0.49%	5,410,709	731	-	4,931,008
T-Note 2.625 6/30/2023	9128284U1	6,669,000	6/30/2023	8/30/2021	0.19%	6,965,979	181	-	6,605,178
T-Note 0.125 1/15/2024	91282CBE0	5,790,000	1/15/2024	1/25/2021	0.18%	5,780,275	380	3,324	5,520,707
T-Note 0.375 12/31/2025	91282CBC4	5,750,000	12/31/2025	1/25/2021	0.43%	5,733,604	1,096	-	5,138,833
T-Note 0.375 4/30/2025	912828ZL7	3,965,000	4/30/2025	8/24/2021	0.59%	3,934,488	851	2,506	3,618,697
T-Note 0.5 3/15/2023	912828ZD5	5,765,000	3/15/2023	3/16/2020	0.59%	5,749,687	74	8,520	5,721,071
T-Note 1.375 1/31/2025	912828Z52	5,664,000	1/31/2025	12/7/2021	0.95%	5,739,446	762	32,379	5,323,254
T-Note 1.5 10/31/2024	912828YM6	5,500,000	10/31/2024	5/28/2021	0.42%	5,702,168	670	13,902	5,211,030
T-Note 1.625 10/31/2023	912828T91-1	5,500,000	10/31/2023	5/28/2021	0.20%	5,690,137	304	15,060	5,363,600
T-Note 0.25 6/15/2023	912828ZU7-2	1,275,000	6/15/2023	7/5/2022	2.82%	1,244,619	166	140	1,250,297
T-Note 0.25 6/15/2023	912828ZU7-2	925,000	6/15/2023	8/4/2022	3.10%	902,742	166	102	907,078
T-Note 0.25 6/15/2023	912828ZU7-2	925,000	6/15/2023	9/2/2022	3.34%	903,067	166	102	907,078
T-Note 0.25 6/15/2023	912828ZU7-1	470,000	6/15/2023	7/5/2022	2.83%	458,764	166	52	460,896
T-Note 0.25 6/15/2023	912828ZU7-1	1,240,000	6/15/2023	8/4/2022	3.12%	1,209,969	166	136	1,215,981
T-Note 0.25 6/15/2023	912828ZU7-1	1,270,000	6/15/2023	9/2/2022	3.34%	1,239,887	166	140	1,245,400



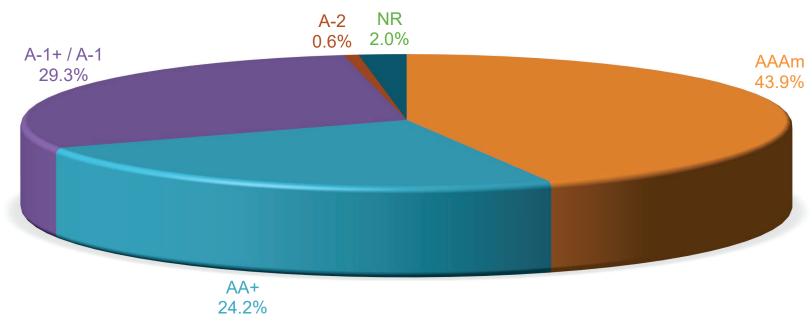
Portfolio Snapshot Investments – By Security Type



	September		October		November		December	
	Market	Asset		Asset		Asset	Market	Asset
Security Type	Value	Allocation	Value	Allocation	Value	Allocation	Value	Allocation
Commercial Paper	73,827,505	6.8%	77,694,688	6.5%	334,377,222	27.6%	314,135,724	27.0%
Federal Agencies	70,501,408	6.5%	70,497,686	5.9%	70,726,638	5.8%	67,460,122	5.8%
U.S. Treasuries	164,364,067	15.2%	163,706,279	13.8%	256,126,570	21.1%	213,595,594	18.4%
MMF / LGIP	739,954,950	68.3%	810,028,689	68.3%	493,308,255	40.7%	510,834,246	43.9%
Cash	35,203,631	3.2%	64,440,943	5.4%	57,377,781	4.7%	57,305,984	4.9%
Total	1,083,851,561	100.0%	1,186,368,285	100.0%	1,211,916,465	100.0%	1,163,331,669	100.0%



Portfolio Snapshot Investments – By Credit Quality



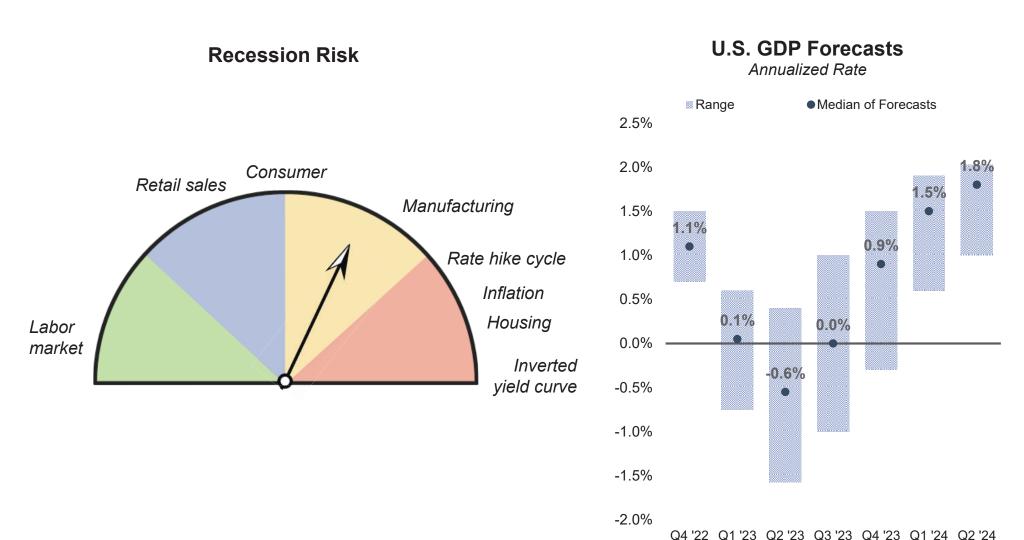
Credit Quality	Market Value	Asset Allocation
Ratings		
AAAm	510,834,246	43.9%
AA+	281,137,358	24.2%
A-1 + / A-1	340,281,231	29.3%
A-2	7,414,943	0.6%
NR	23,663,892	2.0%
Totals	1,163,331,669	100.0%



Appendix II: Economic Update



Uncertainty Grows Around Economic Outlook; While Consumer Holds Firm



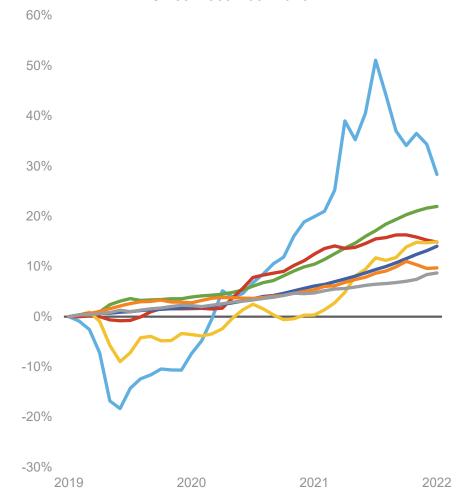
Source: Bloomberg, Economist Forecasts. Recession risk based on most recent economic data as of 1/9/2023.



Growing Disinflation in Goods Sectors Helps Drag Inflation Against Shelter and Transportation Costs

Price Change of Major CPI Components

Since December 2019



CPI Component	12-mo. Change	Weight ¹	Contribution to YoY CPI
Energy	7.0%	7.9%	0.6%
Food	10.4%	13.8%	1.4%
Goods	2.1%	20.9%	0.4%
Transportation	14.6%	6.0%	0.9%
Shelter	7.5%	32.9%	2.5%
Medical services	4.1%	6.8%	0.3%
Other Services ²	3.8%	11.7%	0.4%
Overall	6.5%		

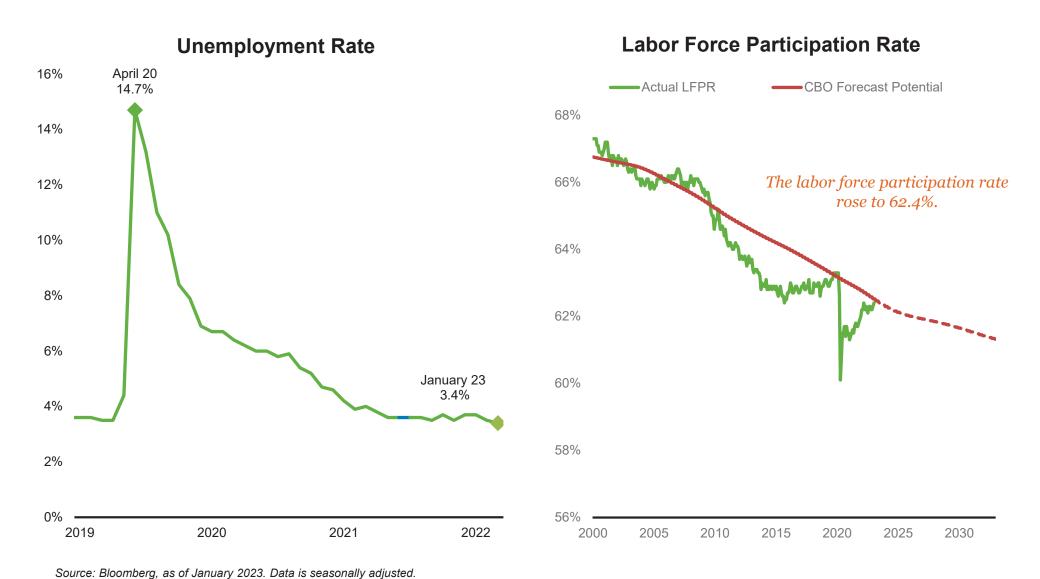
Source: Bloomberg, Bureau of Labor Statistics as of December 2022.

¹ Index weights are as of December 2022 as they are published on a one-month lag.

² Other services is a weighted blend of Water/Sewer/Trash, Household Operations, Recreation, and Education and Communication services.

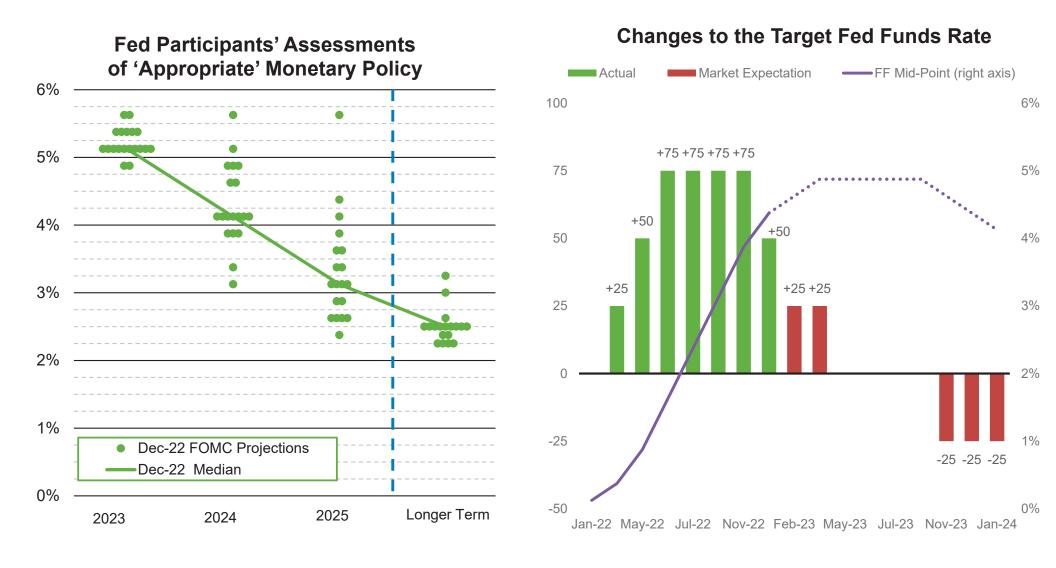


U.S. Economy Added 517,000 Jobs in January; Unemployment Rate Fell to 3.4%





What Could the Fed's Pivot Look Like?



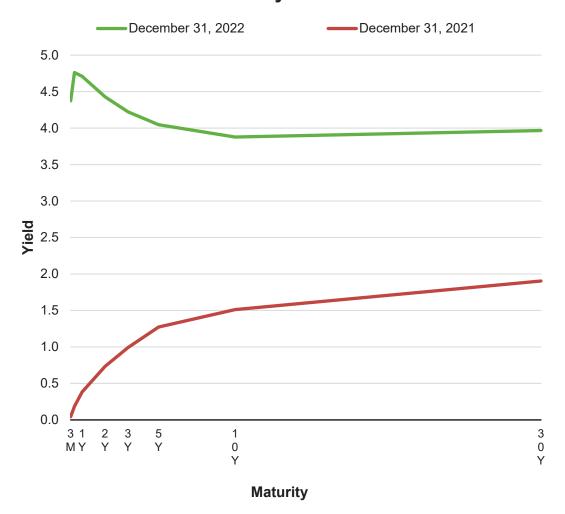
Source: Federal Reserve and Bloomberg. Individual dots represent each Fed members' judgement of the midpoint of the appropriate target range for the Federal Funds rate at each year-end.



Treasury Yield Curve

	11/30/2022	12/31/2022	<u>Change</u>
3 month	4.35%	4.37%	0.02%
6 month	4.68%	4.76%	0.08%
1 year	4.71%	4.71%	0.00%
2 year	4.31%	4.43%	0.12%
3 year	4.09%	4.22%	0.13%
5 year	3.85%	4.05%	0.20%
10 year	3.61%	3.88%	0.27%
30 year	3.74%	3.97%	0.23%

U.S. Treasury Yield Curve



Source: Bloomberg, as of 11/30/2022 and 12/31/2022, as indicated.



Fixed Income Market Overview and Outlook

FIXED INCOME MARKET - ECONOMIC HIGHLIGHTS

- ➤ In the past quarter, the U.S. economy was characterized by:
 - High inflation that shows signs of slowing
 - Continue strong labor market
 - Potentially declining health of U.S. household finances
 - Expectations for a modest yet broad economic downturn
- > The Federal Reserve is expected to wrap up their normalization process
 - Slowing pace of rate hikes
 - Fed projecting short-term Fed Funds rate to reach 5.00% to 5.25% by year-end, with markets expecting rate cuts in the second half of 2023
 - Fed officials reaffirm that restoring price stability is the utmost priority, despite risks of overtightening
- Volatile markets potentially calming
 - Treasury yields in the belly of the curve (3 7 years) ended the quarter slightly lower, while shorter and longer maturities ended higher
 - Yield curve inversion has deepened further since last quarter
 - While still elevated, volatility and liquidity challenges have begun subsiding
- ➤ The Fed remained center stage and focused on increasing overnight interest rates and tightening monetary conditions in its ongoing battle with multi-decade high inflation
 - At its December meeting, the FOMC raised the Fed Funds rate by 50 basis points to a new target range of 4.25% to 4.50%, the highest level since 2007



Fixed Income Market Overview and Outlook

FIXED INCOME MARKET - ECONOMIC HIGHLIGHTS

- In large part due to the Fed's historic pace of rate increases, there were accumulating signs of an economic slowdown in the quarter, including:
 - A steeply inverted yield curve; a sharp reversal in the housing market; weakening in both the manufacturing and services sectors; declining personal savings; tepid consumer confidence; retreating commodity prices; and a falling U.S. dollar
 - On the positive side, employment remains strong, household income is rising, and inflation has begun to moderate; the latter forces are significant and may keep the economy out of a deep recession, but uncertainty remains high
- > After three quarters of surging yields, U.S. Treasuries traded within a range in the quarter, albeit a somewhat wide one
 - Short-term maturities (less than one year) continued to increase in lockstep with adjustments to Fed policy, reflecting the two rate hikes totaling 1.25% in the quarter; yields on longer-term issues were mixed, with yields on 3 – 7-year
 Treasuries lower, while those 10 years and longer rose modestly
 - For example, the yield on 3 and 12-month U.S. Treasury Bills finished the quarter at 4.34% and 4.67%, up 110 basis points and 75 basis points, respectively; meanwhile, as markets digested the potential slower pace of Fed rate increases moving forward, the yield on 3, 5, and 10-year U.S. Treasury Notes ended the quarter-end at 4.22%, 4.01%, and 3.88%, down 6 basis points, down 9 basis points, and up 5 basis points, respectively
 - For all of 2022, rates were sharply higher; for reference, the yield on the 2-year Treasury was 369 basis points higher for the year
 - The yield curve remained steeply inverted, as the spread between the 3-month and 10-year U.S. Treasury yields ended
 the quarter at nearly -50 basis points; only a handful of periods over the past 40 years has the curve reached this level of
 inversion, which has been a classic warning sign of a looming recession
- > Short-term credit instruments, like commercial paper and negotiable bank CDs, provided excellent income opportunities as spreads were elevated and rates moved up with the Fed



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