

Great Lakes Water Authority

Investment Performance Report – September 2022



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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 Standard & Poor’s.
- 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 September 30, 2022, approximately 72% of the funds were held in cash and money market accounts maturing overnight. The percentage is higher than the last quarter due to the recent bond issue.
- Return – The overall yield at market increased to 3.09% as of September 30, 2022, versus 1.66% as of June 30, 2022. The higher yield is reflective of the rise in rates that the market is currently experiencing. GLWA earned \$1.7 million (unaudited) in investment income for the first three months of fiscal year 2023 on a book value basis. We expect the investment income for GLWA for FY 2023 to be approximately \$17.4 million (including bond proceeds).

AVAILABLE FUNDS (Unaudited)

Type	Financial Institution	Book Value	Market Value	Yield @ Cost (as of 9/30/22)	Yield @ Market (as of 9/30/22)
Deposit Account	Comerica	\$3,596,417	\$3,596,417	0.01%	0.01%
Deposit Account - Retainage	First Independence	\$21,126,406	\$21,126,406	0.01%	0.01%
Deposit Account – Flint Security Deposit	Chase	\$3,825,436	\$3,825,436	1.23%	1.23%
Deposit Account	Chase	\$6,673,493	\$6,673,493	1.23%	1.23%
Trust Money Market Fund	U.S. Bank	\$234,242,358	\$234,242,358	2.73%	2.73%
Money Market Fund	JP Morgan	\$556,824	\$556,824	1.27%	1.27%
Local Government Investment Pool	GovMIC	\$505,155,768	\$505,155,768	2.97%	2.97%
Managed Funds	PFMAM	\$316,265,024	\$308,674,859	1.58%	3.88%
<u>SEPTEMBER 2022 TOTALS:</u>		<u>\$1,091,441,725</u>	<u>\$1,083,851,561</u>	<u>2.44%</u>	<u>3.09%</u>
<u>PREVIOUS QUARTER TOTALS:</u>		<u>\$799,243,536</u>	<u>\$792,576,633</u>	<u>0.90%</u>	<u>1.66%</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. In addition to the above, there also exists surety bonds in the amount of \$321,909,258 as of 9/30/2022.

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 0.90% as of 6/30/2022 to 2.44% as of 9/30/2022.
- The total portfolio had a market yield of 3.09% at the end of September, compared to 1.66% as of June 30, 2022. Yield at market represents what the market would provide in return if the portfolio was purchased on September 30, 2022 (versus purchased in prior months / years). The higher yield at market is a result of the higher interest rate environment.
 - We utilize a variety of investment sectors, and because of that, this 3.09% yield at market as of 9/30/2022 is beneficial when compared to the 2.76% yield of the 3-Month U.S. Treasury Bill index, which is a comparable market indicator.

PORTFOLIO PERFORMANCE – PROJECTIONS

- GLWA earned over \$1.7 million (unaudited) in income for fiscal year-to-date 2023 (as of 9/30/22) on a book value basis.
- The current period earnings are still in line with budgeted expectations, especially with more Federal Reserve interest rate hikes priced into the market.
- The FY 2023 total interest earnings projection forecast is currently \$17.4 million, consistent with the budget (\$1.8 million in bond funds and \$15.6 million in other funds).

** 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, September 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

- Inflation remains the headline issue as both key measures – CPI and PPI – came in hotter than expected. The consumer price index (“CPI”) rose by 8.2% year-over-year (“YoY”) through September, with key contributions from food, energy, transportation, and shelter costs. Despite the ongoing war in Ukraine, oil has fallen from \$120/barrel earlier in the year to about \$80/barrel, leading to lower gasoline prices. But lower energy prices have failed to cool down “core” CPI, which rose by 6.6% YoY, a new 40-year high for this cycle.
- U.S. economic growth declined at an annual pace of 0.6% in the second quarter of calendar year of 2022, the second consecutive quarter of negative real growth. Although third quarter growth is forecasted to increase by 2.3%, the Fed’s recently updated projections reflect expectations for weaker economic growth over the coming years, with projections for the full calendar year 2022 at just 0.2%, 2023 for 1.2%, and 2024 for 1.7%
- The U.S. labor market has remained strong, adding 263,000 new jobs in September and nearly 3.8 million jobs on the year. The unemployment rate ticked down to 3.5%, while the labor force participation rate improved. Wage growth remained elevated, as average hourly earnings increased by 5% over the past year.
- The housing market is feeling the impact of rising mortgage rates, which reached nearly 7% in September. Sales of existing homes fell to a 10-year low (outside of two months during the pandemic), while home prices – a notoriously lagging indicator – are starting to fall. On the consumer front, retail sales have slowed materially over the last three months.

ECONOMIC IMPACT ON PORTFOLIO

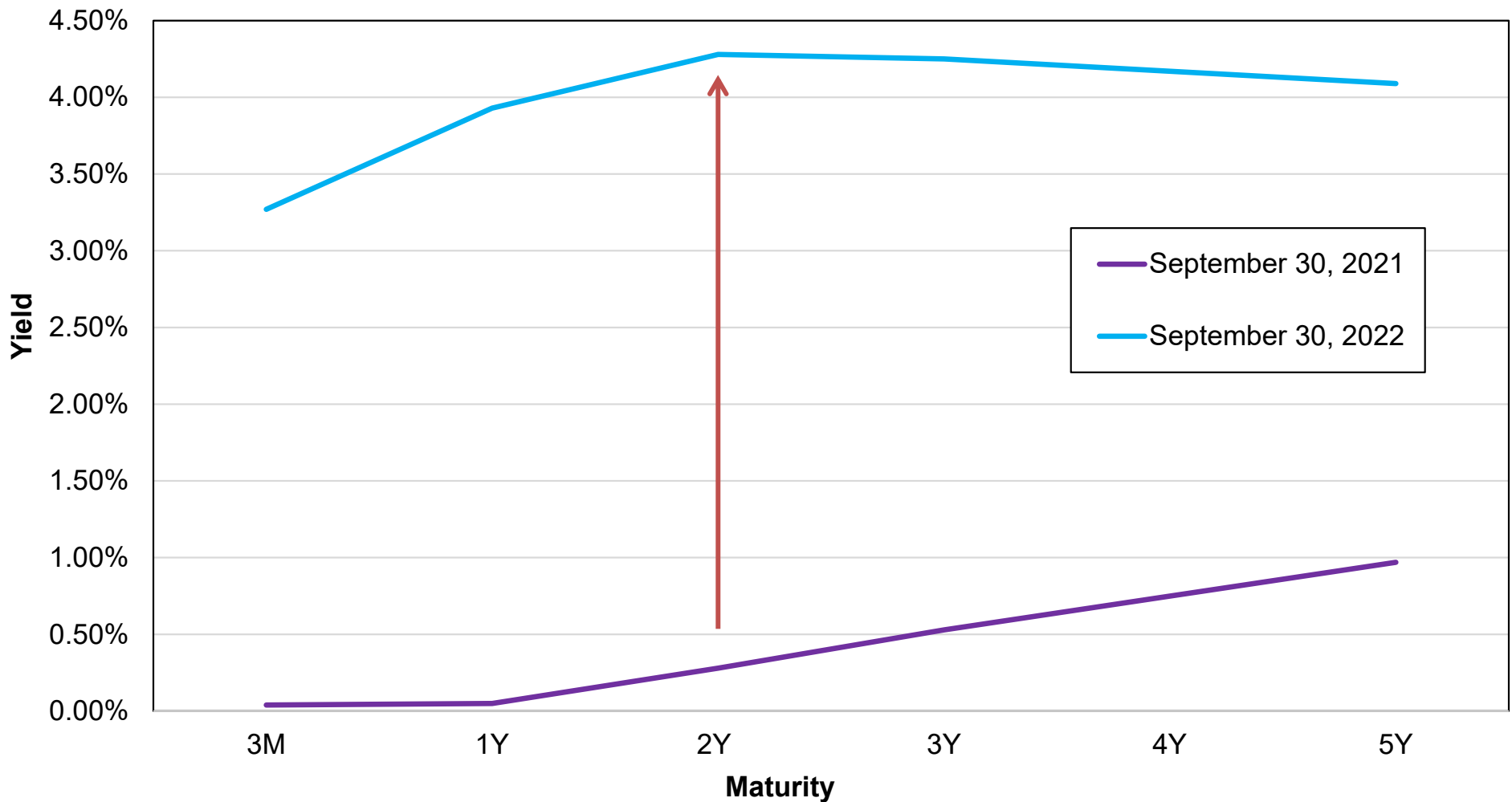
- Persistent inflation has left the U.S. Federal Reserve (the “Fed”) with little choice but to continue its path of aggressive interest rate hikes. As monetary policy moves further into restrictive territory, expectations of a “soft landing” have been grounded at the likely cost of weaker job creation and slower growth.
- Interest rate volatility has been a major theme for fixed-income markets in calendar year 2022 and is expected to remain elevated until there is more clarity regarding the path of inflation and the subsequent pace of Fed monetary policy tightening.
- U.S. Treasury yields continue to climb and test new multi-decade highs. The benchmark 6-month 2-year, and 10-year Treasury yields finished the quarter at 3.90%, 4.28%, and 3.83%, respectively.
- Portfolio Impact: Amid economic uncertainty, elevated bond market volatility, and the expectations for the Fed to continue to raise rates over the near term, we plan to maintain a modest defensive duration bias. While Federal Agency “bullet” securities continue to offer limited value, callable Agency structures remain attractive from a historical spread perspective. With coupons now above 5% on some structures, we will likely continue to nibble at the sector. Short-term credit instruments, including commercial paper, continue to offer exceptionally high yields with less rate sensitivity – and therefore less risk – than longer duration investments.

Summary Market Overview and Outlook

Treasury Yields Continue Their Upward Surge

- It should be noted that the last quarter saw U.S. Treasury yields continuing to climb, with their biggest multi-quarter rise in at least a quarter-century.

U.S. Treasury Yield Curve



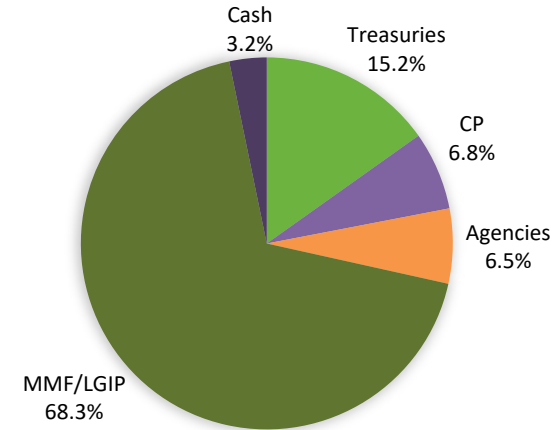
Portfolio Snapshot

Overall Portfolio Composition Summary

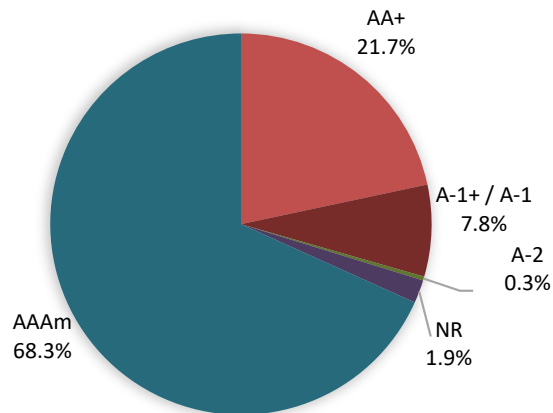
PORTFOLIO STATISTICS

Invested Amount	\$1.084 Billion
Duration	0.22 Years
Yield at Cost	2.44%
Yield at Market	3.09%

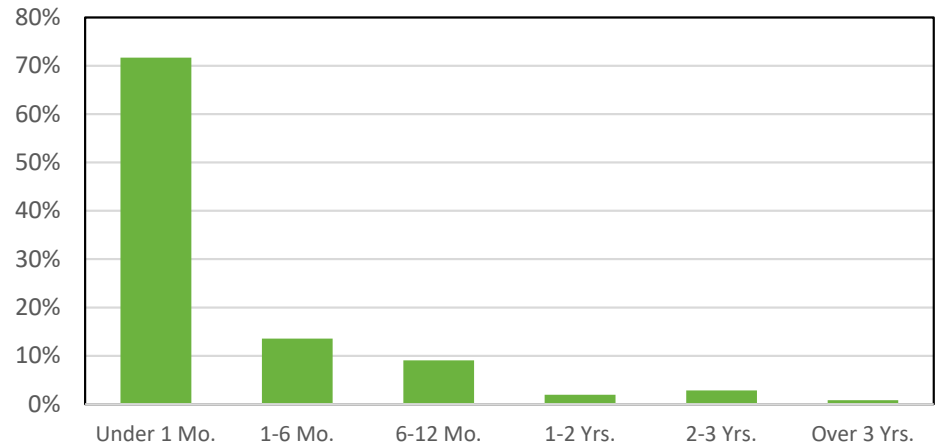
SECTOR ALLOCATION



CREDIT QUALITY



MATURITY DISTRIBUTION

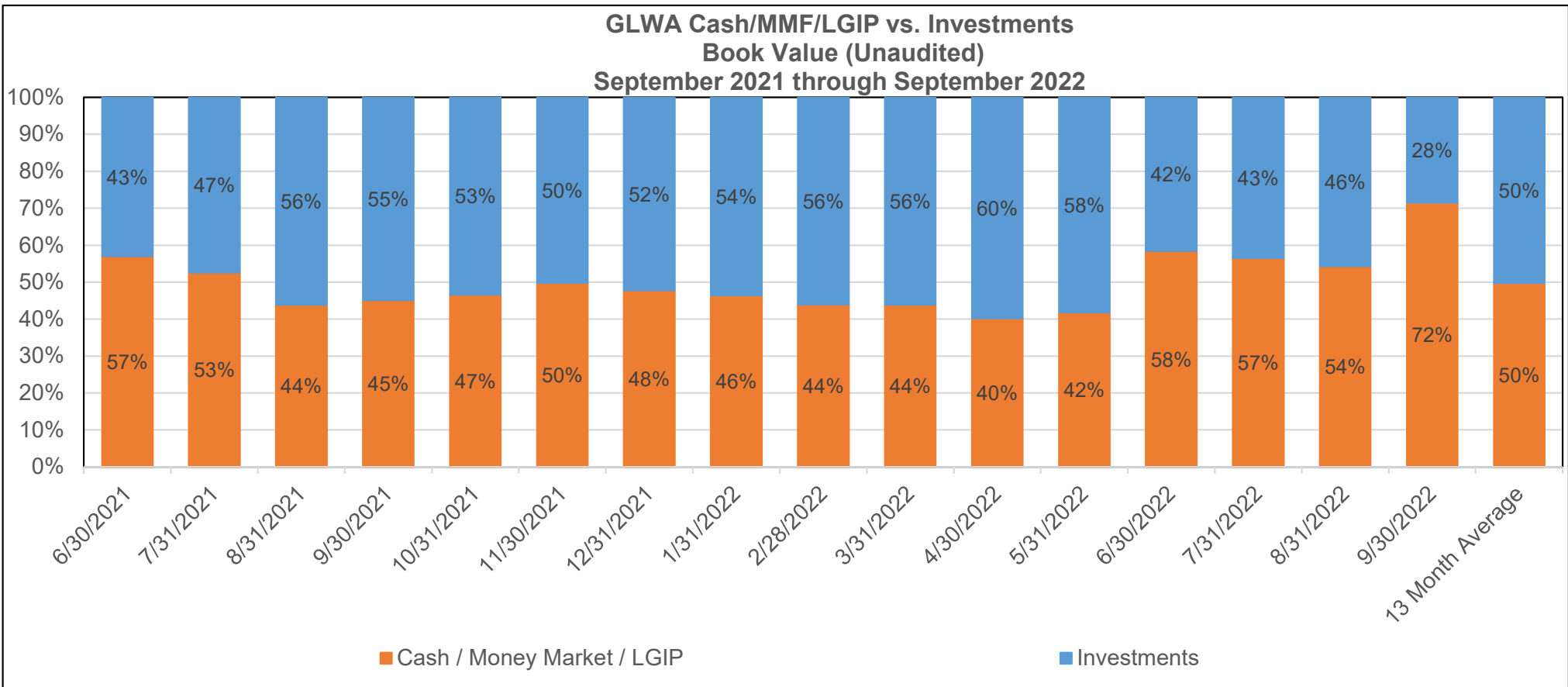


In addition to the totals listed above, there also exists surety bonds in the amount of \$321,909,258 as of September 30, 2022.

Portfolio Snapshot

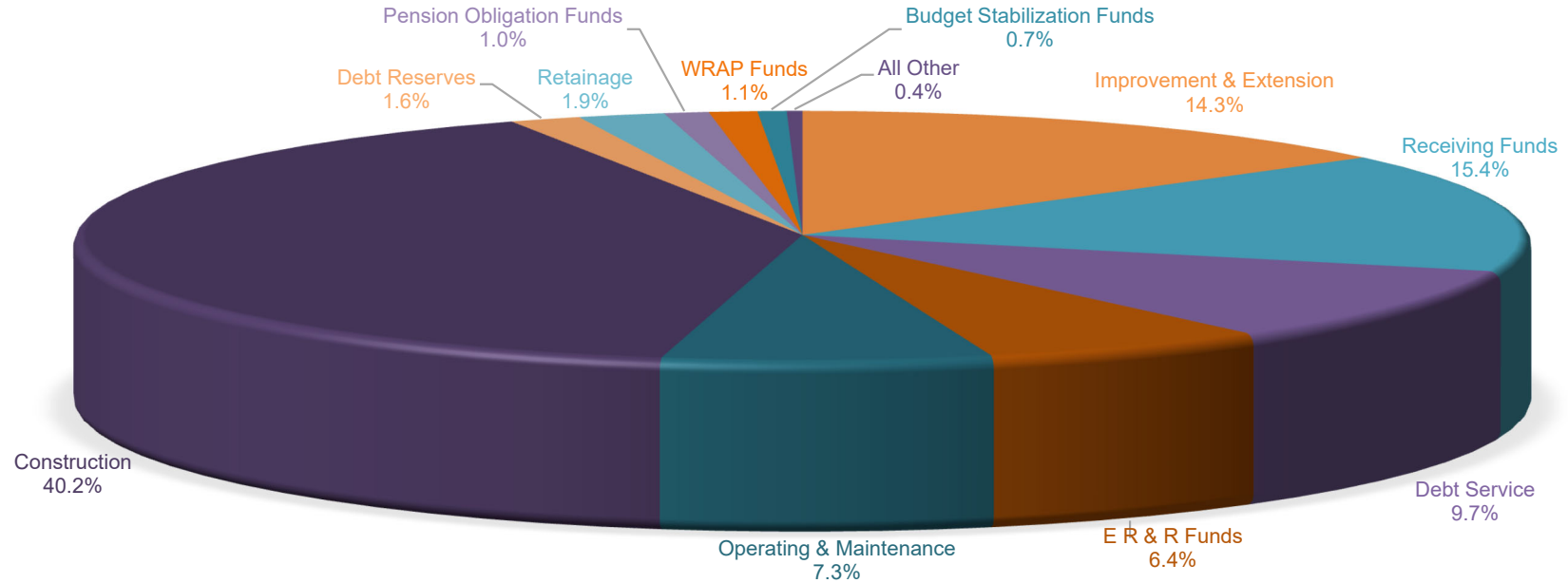
Portfolio Mix – Cash / Money Market vs. Investments

- 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 September of 2022, 72% of the overall portfolio was invested in cash, LGIP, and/or overnight money market fund accounts. This is higher than usual due to the recent bond issue by GLWA that took place in September.



Portfolio Snapshot

Investments – By Account Purpose



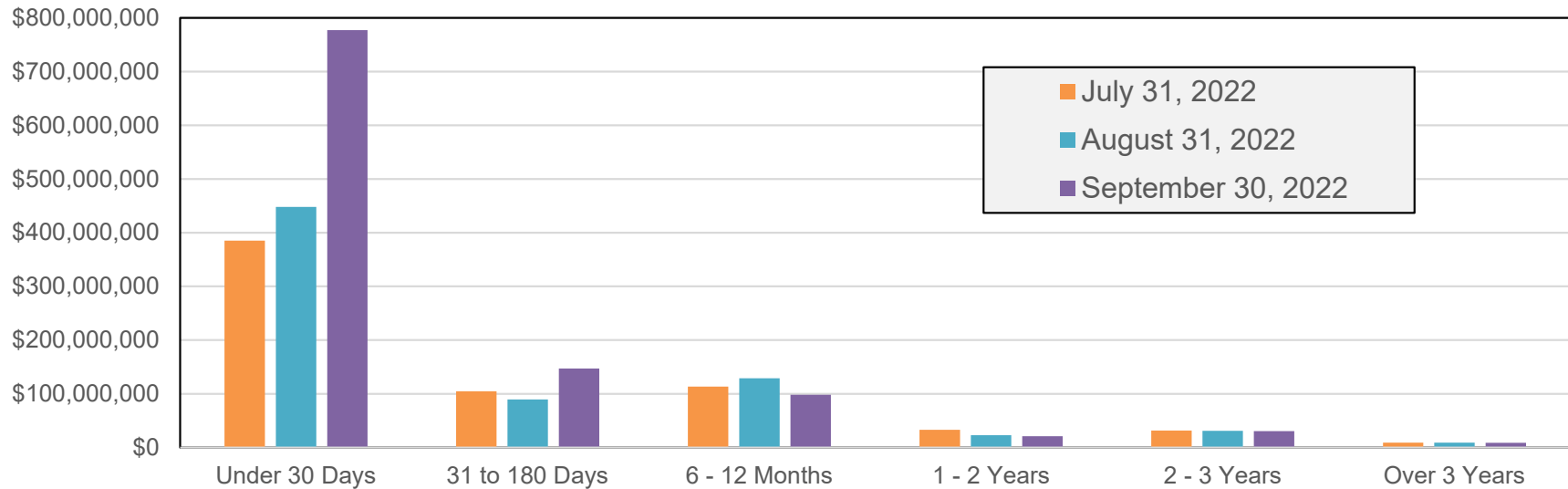
Account Purpose	Value Market	Allocation %	Cost Yield at	Market Yield at	Duration
Construction	\$ 435,856,765	40.2%	2.96%	2.96%	0.003 Years
Receiving Funds (includes lockbox account)	\$ 166,934,183	15.4%	2.44%	2.44%	0.003 Years
Improvement & Extension	\$ 154,865,399	14.3%	1.83%	3.77%	0.364 Years
Debt Service	\$ 105,324,397	9.7%	3.12%	3.53%	0.230 Years
Operating & Maintenance	\$ 79,583,914	7.3%	2.74%	2.74%	0.003 Years
Extraordinary Repair & Replacement Funds	\$ 69,123,028	6.4%	0.52%	4.15%	1.639 Years
Retainage	\$ 21,126,406	1.9%	0.01%	0.01%	0.003 Years
Debt Reserves	\$ 17,364,998	1.6%	0.43%	4.17%	1.327 Years
WRAP Funds	\$ 11,800,657	1.1%	2.67%	3.50%	0.155 Years
Pension Obligation Funds	\$ 10,964,062	1.0%	3.12%	4.13%	0.680 Years
Budget Stabilization Funds	\$ 7,082,315	0.7%	0.44%	4.09%	1.536 Years
Flint Security Deposit Account	\$ 3,825,436	0.4%	1.23%	1.23%	0.003 Years
Total	\$ 1,083,851,561	100.0%	2.44%	3.09%	0.221 Years

In addition to the totals listed above, there also exists surety bonds in the amount of \$321,909,258 as of September 30, 2022.

Portfolio Snapshot

Investments – By Maturity

Maturity Distribution	July 31, 2022	%	August 31, 2022	%	September 30, 2022	%
Under 30 Days	\$ 385,135,290	56.8%	\$ 447,998,351	61.4%	\$ 777,282,900	71.7%
31 to 180 Days	104,841,676	15.5%	89,781,012	12.3%	147,338,561	13.6%
6 - 12 Months	113,534,379	16.8%	129,042,043	17.7%	98,385,804	9.1%
1 - 2 Years	33,241,073	4.9%	22,930,421	3.1%	21,176,058	2.0%
2 - 3 Years	31,633,713	4.7%	31,236,214	4.3%	30,750,891	2.8%
Over 3 Years	9,287,655	1.4%	9,101,713	1.2%	8,917,347	0.8%
Totals	\$ 677,673,785	100.0%	\$ 730,089,753	100.0%	\$ 1,083,851,561	100.0%



In addition to the totals listed above, there also exists surety bonds in the amount of \$321,909,258 as of September 30, 2022.

Portfolio Snapshot

Investment Accounts – Yield at Cost & Market

	As of September 30, 2022		As of June 30, 2022	
	YTM @ Cost	YTM @ Market	YTM @ Cost	YTM @ Market
Bank Deposits				
Comerica	0.01%	0.01%	0.01%	0.01%
First Independence	0.01%	0.01%	0.01%	0.01%
Flint Deposit Account	1.23%	1.23%	0.26%	0.26%
JP Morgan Chase	1.23%	1.23%	0.30%	0.30%
Sub-Total Bank Deposits	0.37%	0.37%	0.12%	0.12%
Money Market Funds / LGIPs				
GoMIC	2.97%	2.97%	1.11%	1.11%
U.S. Bank - First American MMF	2.73%	2.73%	1.26%	1.26%
JP Morgan Securities - Blackrock MMF	1.27%	1.27%	0.44%	0.44%
Sub-Total MMF / LGIPs	2.89%	2.89%	1.16%	1.16%
Investment Portfolios				
Sewage SR Debt Serv 5403	3.18%	3.62%	0.76%	1.69%
Sewage SR Res 5400	0.32%	4.17%	0.29%	2.94%
Sewage 2nd Res 5481	4.17%	4.17%	0.00%	0.00%
Sew SRF Debt Serv 5410	3.12%	3.40%	1.12%	2.03%
Sewage ER & R	0.46%	4.19%	0.46%	2.96%
Sewer Improvement & Extension	0.91%	3.86%	0.91%	2.75%
Sewer Pension Obligation	3.19%	4.14%	0.00%	0.00%
Sewer Wrap Fund	2.70%	3.71%	1.26%	2.14%
Sewer Budget Stabilization Fund	0.44%	4.10%	0.44%	2.89%
Sewer O&M Pension Sub Account	3.06%	4.14%	0.00%	0.00%
Water SR Debt Ser 5503	3.10%	3.54%	0.58%	1.66%
Water SR Reserve 5500	0.70%	4.18%	0.27%	2.94%
Water 2nd Res 5581	4.18%	4.18%	0.00%	0.00%
Water SRF Debt Serv 5575	3.47%	4.02%	0.94%	1.97%
Water ER & R	0.45%	4.19%	0.45%	2.96%
Water Improvement & Extension	0.38%	3.98%	0.51%	2.78%
Water Pension Obligation	3.17%	4.14%	0.00%	0.00%
Water Wrap Fund	2.82%	3.60%	1.58%	2.13%
Water Budget Stabilization Fund	0.43%	4.07%	0.43%	2.87%
Water O&M Pension Sub Account	3.06%	4.14%	0.00%	0.00%
Sub-Total Investment Portfolios	1.58%	3.88%	0.67%	2.50%
Grand Total	2.44%	3.09%	0.90%	1.66%

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 September 30, 2022				
	Market Value	YTM @ Market	Effective Duration	Weighted Average Maturity
GLWA				
Great Lakes Water Authority	\$1,083,851,561	3.09%	0.22 Years	79 Days
Short/Intermediate-Term Indices				
S&P Rated Government Investment Pool Index		0.18%	0.08 Years	30 Days
BoA / ML 3-Month Treasury Index		2.76%	0.15 Years	55 Days
BoA / ML 6-Month Treasury Index		3.59%	0.39 Years	142 Days
BoA / ML 1-Year Treasury Index		4.30%	0.90 Years	329 Days
BoA / ML 1-3 Year Treasury Index		4.29%	1.76 Years	642 Days
BoA / ML 1-5 Year Treasury Index		4.25%	2.48 Years	905 Days
Peer Analysis (Water Entities / Utilities)				
District of Columbia Water & Sewer Authority, DC	\$361,884,863	4.02%	0.87 Years	352 Days
DuPage Water Commission, IL	\$171,688,672	4.15%	2.06 Years	1,009 Days
Fairfax County Water Authority, VA	\$186,149,085	4.15%	1.85 Years	707 Days
Metro Wastewater Reclamation District, CO	\$245,915,172	4.15%	1.80 Years	730 Days
Metropolitan Water District of Southern California, CA	\$911,661,822	3.85%	0.79 Years	384 Days
Philadelphia Water Department, PA	\$197,176,270	4.24%	0.87 Years	332 Days
San Bernardino Valley Municipal Water District, CA	\$350,244,703	4.29%	1.57 Years	613 Days
Tohopekaliga Water Authority, FL	\$192,720,558	4.14%	1.69 Years	842 Days
Truckee Meadows Water Authority, NV	\$96,219,135	4.19%	1.90 Years	722 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 2022	\$567.7	(\$310.2)*	\$257.5
August 2022	\$807.7	\$0.0	\$807.7
September 2022	\$859.7	(\$192.9)*	\$666.9
<u>FY 2023 Y-T-D</u>	<u>\$2,235.2</u>	<u>\$503.0</u>	<u>\$1,732.1</u>

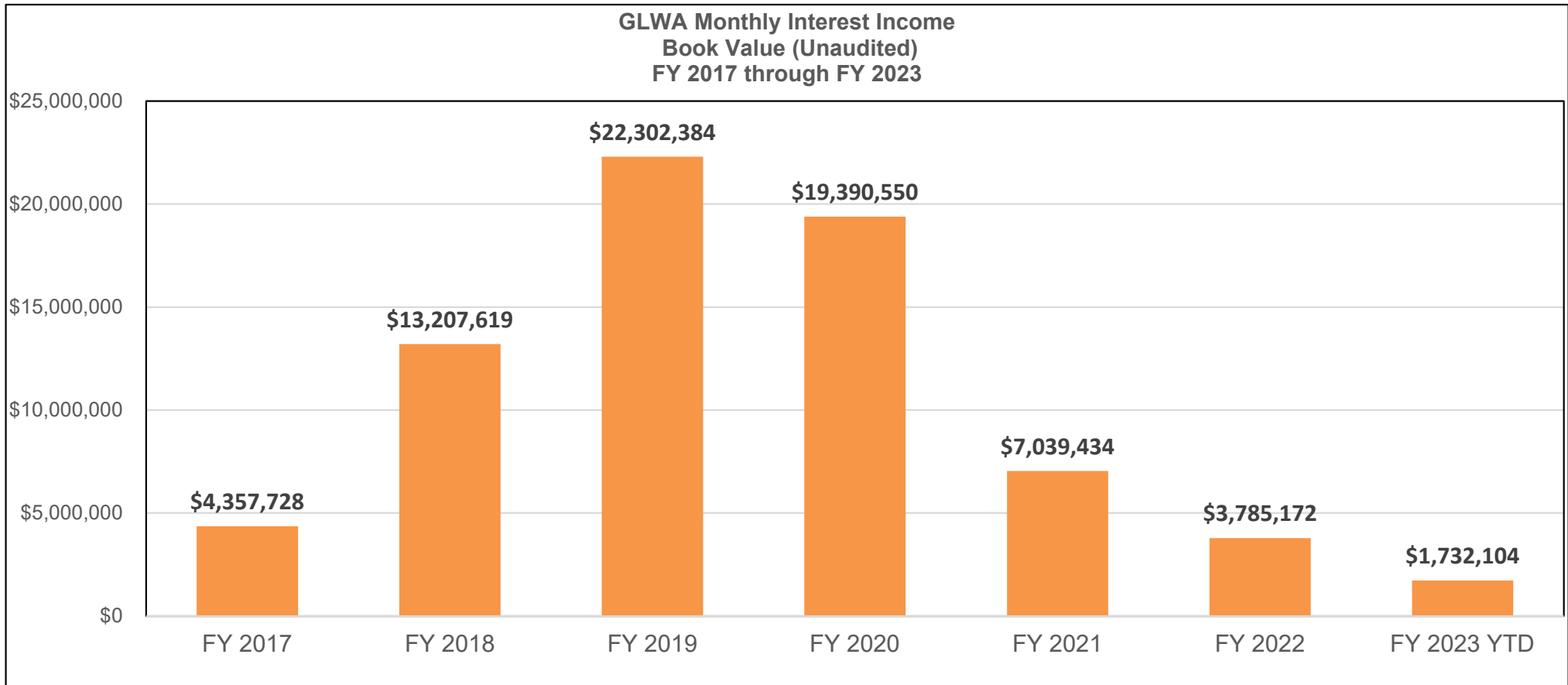
* The realized loss in July of 2022 was due to the sale of investments in the Water I&E account in anticipation of liquidity requirements. The realized loss in September of 2022 was due to the sale of investments to fund the Debt Service Reserve Fund ("DSRF") releases.

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

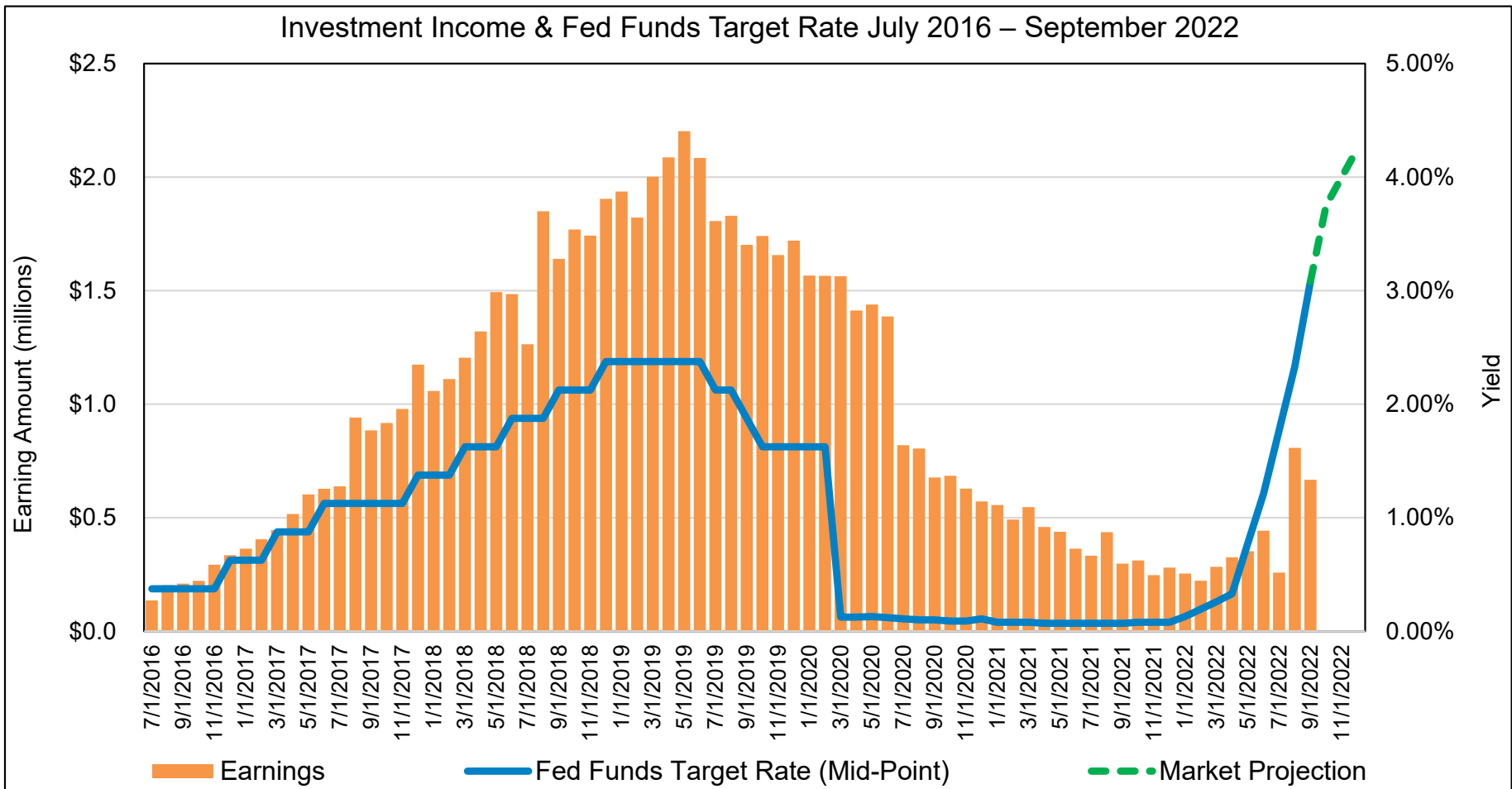
- GLWA earned \$1,732,104 in investment income for the first three months of fiscal year 2023 on a book value basis compared to \$1,066,611 for the first three months of fiscal year 2022.
- Based on current market assumptions and the addition of assets and proceeds from GLWA’s most recent bond fund issue, projected investment income for fiscal year 2023 is forecasted to be around \$17.4 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 rate; the chart below shows that GLWA’s income has consistently followed the trend of the Fed Funds rate.
- The Federal Reserve raised its policy rate again in September, bringing the “summer of 75” to a close after three consecutive 75 basis point hikes. With more hikes in the cards, the Fed’s own projections call for rates in the 4.25% to 4.50% by calendar year-end, with perhaps one more 0.25% hike in early 2023. Based on the historical trend, this will translate into higher interest earnings and investment income for GLWA in fiscal year 2023 and beyond.



Appendix I: Portfolio Holdings

Portfolio Holdings As of September 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		\$ 3,596,417	10/1/2022	9/30/2022	0.01%	\$ 3,596,417	1	\$ -	\$ 3,596,417
FIRST INDEPENDENCE BANK		21,126,406	10/1/2022	9/30/2022	0.01%	21,126,406	1	-	21,126,406
FLINT DEPOSIT ACCOUNT		3,825,436	10/1/2022	9/30/2022	1.23%	3,825,436	1	-	3,825,436
JP MORGAN CHASE		6,673,493	10/1/2022	9/30/2022	1.23%	6,673,493	1	-	6,673,493
GovMIC		505,155,768	10/1/2022	9/30/2022	2.97%	505,155,768	1	-	505,155,768
U.S. BANK - FIRST AMERICAN MMF		234,242,358	10/1/2022	9/30/2022	2.73%	234,242,358	1	-	234,242,358
JP MORGAN SECURITIES - BLACKROCK MMF		556,824	10/1/2022	9/30/2022	1.27%	556,824	1	-	556,824

In addition to the totals listed above, there also exists surety bonds in the amount of \$321,909,258 as of September 30, 2022.

Portfolio Holdings As of September 30, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Commercial Paper									
Barclays US 0 12/30/2022	06744GHP0	\$ 7,600,000	12/30/2022	8/4/2022	3.21%	\$ 7,500,955	91	\$ -	\$ 7,530,688
Starbird Funding Corp 0 12/19/2022	85520MMK6	12,250,000	12/19/2022	7/14/2022	3.14%	12,083,332	80	-	12,152,245
Sumitomo Mitsubishi Trust 0 12/29/2022	86563HMV9	7,875,000	12/29/2022	8/8/2022	3.21%	7,775,838	90	-	7,804,046
MetLife Short Term 0 3/17/2023	59157UQH6	855,000	3/17/2023	8/4/2022	3.47%	836,831	168	-	838,148
MUFG Bank LTD NY 0 3/10/2023	62479MQA4	400,000	3/10/2023	7/5/2022	3.28%	391,155	161	-	392,452
BPCE 0 11/1/2022	05571CL17	1,100,000	11/1/2022	7/5/2022	2.67%	1,090,364	32	-	1,097,250
Collat CP Co 0 1/30/2023	19423KNW0	1,100,000	1/30/2023	9/1/2022	3.59%	1,083,667	122	-	1,085,524
Collat CP Co 0 10/3/2022	19424JK39	1,100,000	10/3/2022	6/7/2022	1.89%	1,093,222	3	-	1,100,000
LMA Americas LLC 0 12/2/2022	53944RM21	1,100,000	12/2/2022	8/5/2022	3.13%	1,088,728	63	-	1,093,730
Barclays US 0 12/30/2022	06744GHP0	7,600,000	12/30/2022	8/4/2022	3.21%	7,500,955	91	-	7,530,688
BPCE 0 12/19/2022	05571CMK4	5,875,000	12/19/2022	7/22/2022	3.21%	5,797,401	80	-	5,828,118
Skandinav Enskilda Bank 0 12/19/2022	83050UMK1	12,500,000	12/19/2022	7/21/2022	3.19%	12,334,844	80	-	12,400,250
Sumitomo Mitsubishi Trust 0 12/29/2022	86563HMV9	8,155,000	12/29/2022	8/8/2022	3.21%	8,052,313	90	-	8,081,523
Collat CP Co 0 1/30/2023	19423KNW0	1,050,000	1/30/2023	9/1/2022	3.59%	1,034,409	122	-	1,036,182
MUFG Bank LTD NY 0 3/10/2023	62479MQA4	650,000	3/10/2023	7/5/2022	3.28%	635,626	161	-	637,735
CitiGroup Global Markets 0 4/27/2023	17327BRT4	1,100,000	4/27/2023	8/1/2022	3.66%	1,070,739	209	-	1,072,247
Collat CP Co 0 11/30/2022	19424JLW4	1,050,000	11/30/2022	6/7/2022	2.30%	1,038,347	61	-	1,044,215
Credit Suisse NY 0 1/5/2023	2254EBN56	1,050,000	1/5/2023	7/5/2022	3.09%	1,033,685	97	-	1,039,091
MUFG Bank LTD NY 0 10/4/2022	62479MK44	1,025,000	10/4/2022	4/4/2022	1.49%	1,017,279	4	-	1,024,918
National Australia Bank 0 11/1/2022	63254FL13	1,050,000	11/1/2022	5/4/2022	2.02%	1,039,442	32	-	1,047,375

In addition to the totals listed above, there also exists surety bonds in the amount of \$321,909,258 as of September 30, 2022.

Portfolio Holdings As of September 30, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED 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	217	\$ 9,063	\$ 5,866,680
FNMA 0.25 5/22/2023	3135G04Q3	10,000,000	5/22/2023	6/5/2020	0.36%	9,968,400	234	8,889	9,759,900
FNMA 0.25 7/10/2023	3135G05G4	1,250,000	7/10/2023	7/16/2020	0.29%	1,248,425	283	694	1,212,588
FHLMC 0.375 5/5/2023	3137EAER6	14,650,000	5/5/2023	6/5/2020	0.38%	14,650,147	217	22,128	14,324,477
FNMA 0.25 5/22/2023	3135G04Q3	25,000,000	5/22/2023	6/5/2020	0.36%	24,921,000	234	22,222	24,399,750
FNMA 0.25 7/10/2023	3135G05G4	1,650,000	7/10/2023	7/16/2020	0.29%	1,647,921	283	917	1,600,616
FNMA 0.25 5/22/2023	3135G04Q3	240,000	5/22/2023	6/5/2020	0.35%	239,292	234	213	234,238
FHLB 0 12/19/2022	313385T71	3,500,000	12/19/2022	9/7/2022	2.98%	3,470,459	80	-	3,474,555
FNMA 0.25 5/22/2023	3135G04Q3	3,400,000	5/22/2023	6/5/2020	0.35%	3,389,970	234	3,022	3,318,366
FNMA 0.25 5/22/2023	3135G04Q3	670,000	5/22/2023	6/5/2020	0.35%	668,024	234	596	653,913
FNMA 0.25 5/22/2023	3135G04Q3	5,750,000	5/22/2023	6/5/2020	0.35%	5,733,038	234	5,111	5,611,943

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Portfolio Holdings As of September 30, 2022

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	319	\$ -	\$ 10,134,705
T-Note 0.5 3/15/2023	912828ZD5	10,000,000	3/15/2023	3/16/2020	0.58%	9,977,344	166	2,072	9,848,800
T-Note 1.5 1/15/2023	912828Z29	15,000,000	1/15/2023	2/7/2020	1.39%	15,045,703	107	47,079	14,916,600
T-Note 0.5 3/15/2023	912828ZD5	5,025,000	3/15/2023	3/16/2020	0.58%	5,013,615	166	1,041	4,949,022
T-Note 0.125 1/15/2024	91282CBE0	260,000	1/15/2024	1/25/2021	0.18%	259,563	472	68	246,441
T-Note 0.125 10/31/2022	91282CAR2	200,000	10/31/2022	5/27/2021	0.10%	200,063	31	104	199,598
T-Note 0.25 3/15/2024	91282CBR1	125,000	3/15/2024	3/15/2021	0.33%	124,712	532	13	117,876
T-Note 0.375 12/31/2025	91282CBC4	250,000	12/31/2025	1/25/2021	0.43%	249,287	1,188	234	221,065
T-Note 0.375 4/30/2025	91282ZL7	125,000	4/30/2025	3/11/2021	0.61%	123,789	943	195	113,228
T-Note 0.5 3/15/2023	912828ZD5	250,000	3/15/2023	3/16/2020	0.59%	249,336	166	52	246,220
T-Note 1.375 1/31/2025	912828Z52	280,000	1/31/2025	12/6/2021	0.94%	283,773	854	638	262,259
T-Note 1.5 10/31/2024	912828YM6	130,000	10/31/2024	5/27/2021	0.42%	134,773	762	811	122,932
T-Note 1.625 10/31/2023	912828T91	130,000	10/31/2023	5/27/2021	0.20%	134,489	396	878	126,324
T-Note 1.75 12/31/2024	912828YY0	1,100,000	12/31/2024	8/30/2021	0.49%	1,145,719	823	4,813	1,042,250
T-Note 2.625 12/31/2023	9128285U0	775,000	12/31/2023	7/14/2022	3.11%	769,642	457	5,086	758,895
T-Note 2.625 6/30/2023	9128284U1	3,250,000	6/30/2023	8/30/2021	0.19%	3,394,727	273	21,328	3,214,835
T-Note 0.125 12/31/2022	91282CBD2	11,900,000	12/31/2022	9/7/2022	3.12%	11,789,832	92	3,719	11,803,015
T-Note 2.125 12/31/2022	912828N30	5,600,000	12/31/2022	7/14/2022	2.77%	5,583,375	92	29,750	5,581,016
T-Note 0.125 1/15/2024	91282CBE0	3,420,000	1/15/2024	1/25/2021	0.18%	3,414,255	472	895	3,241,647
T-Note 0.375 12/31/2025	91282CBC4	3,400,000	12/31/2025	1/25/2021	0.43%	3,390,305	1,188	3,188	3,006,484
T-Note 0.375 4/30/2025	912828ZL7	2,400,000	4/30/2025	8/24/2021	0.59%	2,381,531	943	3,742	2,173,968
T-Note 0.375 7/15/2024	91282CCL3	1,345,000	7/15/2024	8/23/2021	0.42%	1,343,266	654	1,055	1,255,840
T-Note 0.5 3/15/2023	912828ZD5	3,410,000	3/15/2023	3/16/2020	0.59%	3,400,942	166	706	3,358,441
T-Note 1.375 1/31/2025	912828Z52	3,346,000	1/31/2025	12/7/2021	0.95%	3,390,570	854	7,626	3,133,997
T-Note 1.5 10/31/2024	912828YM6	3,300,000	10/31/2024	5/28/2021	0.42%	3,421,301	762	20,580	3,120,579
T-Note 1.625 10/31/2023	912828T91	3,300,000	10/31/2023	5/28/2021	0.20%	3,414,082	396	22,295	3,206,676
T-Note 0.25 6/15/2023	912828ZU7-2	710,000	6/15/2023	7/5/2022	2.82%	693,082	258	519	690,919
T-Note 0.25 6/15/2023	912828ZU7-2	520,000	6/15/2023	8/4/2022	3.10%	507,488	258	380	506,025
T-Note 0.25 6/15/2023	912828ZU7-1	515,000	6/15/2023	9/2/2022	3.34%	502,789	258	376	501,162

In addition to the totals listed above, there also exists surety bonds in the amount of \$321,909,258 as of September 30, 2022.

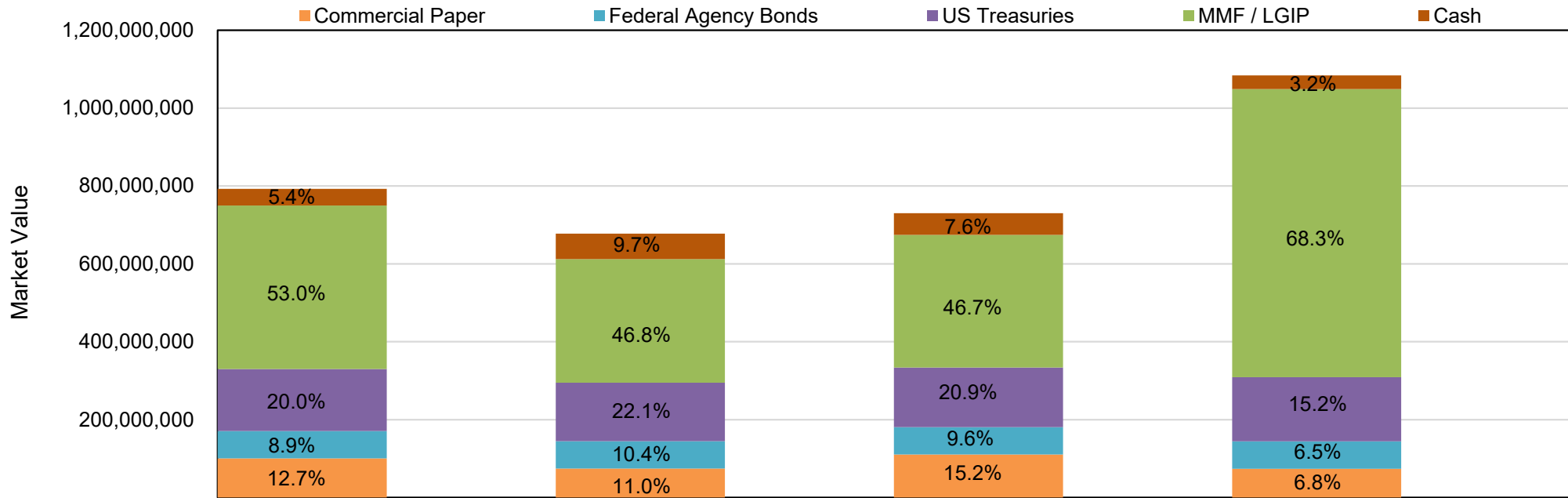
Portfolio Holdings As of September 30, 2022

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 0.25 6/15/2023	912828ZU7-1	485,000	6/15/2023	7/5/2022	2.83%	473,405	258	354	471,968
T-Note 0.25 6/15/2023	912828ZU7-1	900,000	6/15/2023	8/4/2022	3.12%	878,203	258	658	875,817
T-Note 0.25 6/15/2023	912828ZU7-1	925,000	6/15/2023	9/2/2022	3.34%	903,067	258	676	900,145
T-Note 0.125 1/15/2024	91282CBE0	695,000	1/15/2024	1/25/2021	0.18%	693,833	472	182	658,756
T-Note 0.125 10/31/2022	91282CAR2	425,000	10/31/2022	5/27/2021	0.10%	425,133	31	221	424,146
T-Note 0.25 3/15/2024	91282CBR1	340,000	3/15/2024	3/15/2021	0.33%	339,216	532	35	320,623
T-Note 0.375 12/31/2025	91282CBC4	685,000	12/31/2025	1/25/2021	0.43%	683,047	1,188	642	605,718
T-Note 0.375 4/30/2025	91282ZL7	350,000	4/30/2025	3/11/2021	0.61%	346,609	943	546	317,037
T-Note 0.5 3/15/2023	91282ZD5	688,000	3/15/2023	3/16/2020	0.59%	686,173	166	143	677,597
T-Note 1.375 1/31/2025	91282Z52	740,000	1/31/2025	12/6/2021	0.94%	749,973	854	1,687	693,114
T-Note 1.5 10/31/2024	91282YM6	450,000	10/31/2024	5/27/2021	0.42%	466,523	762	2,806	425,534
T-Note 1.625 10/31/2023	91282T91	425,000	10/31/2023	5/27/2021	0.20%	439,676	396	2,871	412,981
T-Note 1.75 12/31/2024	91282YY0	5,550,000	12/31/2024	8/30/2021	0.49%	5,780,672	823	24,281	5,258,625
T-Note 2.625 6/30/2023	9128284U1	7,125,000	6/30/2023	8/30/2021	0.19%	7,442,285	273	46,758	7,047,908
T-Note 0.125 12/31/2022	91282CBD2	11,685,000	12/31/2022	9/7/2022	3.12%	11,576,822	92	3,652	11,589,767
T-Note 0.125 12/31/2022	91282CBD2	4,000,000	12/31/2022	9/7/2022	3.12%	3,962,969	92	1,250	3,967,400
T-Note 0.125 1/15/2024	91282CBE0	5,790,000	1/15/2024	1/25/2021	0.18%	5,780,275	472	1,514	5,488,052
T-Note 0.375 12/31/2025	91282CBC4	5,750,000	12/31/2025	1/25/2021	0.43%	5,733,604	1,188	5,391	5,084,495
T-Note 0.375 4/30/2025	91282ZL7	3,965,000	4/30/2025	8/24/2021	0.59%	3,934,488	943	6,182	3,591,576
T-Note 0.5 3/15/2023	91282ZD5	5,765,000	3/15/2023	3/16/2020	0.59%	5,749,687	166	1,194	5,677,833
T-Note 1.375 1/31/2025	91282Z52	5,664,000	1/31/2025	12/7/2021	0.95%	5,739,446	854	12,909	5,305,129
T-Note 1.5 10/31/2024	91282YM6	5,500,000	10/31/2024	5/28/2021	0.42%	5,702,168	762	34,300	5,200,965
T-Note 1.625 10/31/2023	91282T91	5,500,000	10/31/2023	5/28/2021	0.20%	5,690,137	396	37,159	5,344,460
T-Note 0.25 6/15/2023	912828ZU7-2	1,275,000	6/15/2023	7/5/2022	2.82%	1,244,619	258	932	1,240,734
T-Note 0.25 6/15/2023	912828ZU7-2	925,000	6/15/2023	8/4/2022	3.10%	902,742	258	676	900,141
T-Note 0.25 6/15/2023	912828ZU7-1	925,000	6/15/2023	9/2/2022	3.34%	903,067	258	676	900,145
T-Note 0.25 6/15/2023	912828ZU7-1	470,000	6/15/2023	7/5/2022	2.83%	458,764	258	344	457,371
T-Note 0.25 6/15/2023	912828ZU7-1	1,240,000	6/15/2023	8/4/2022	3.12%	1,209,969	258	906	1,206,681
T-Note 0.25 6/15/2023	912828ZU7-1	1,270,000	6/15/2023	9/2/2022	3.34%	1,239,887	258	928	1,235,875

In addition to the totals listed above, there also exists surety bonds in the amount of \$321,909,258 as of September 30, 2022.

Portfolio Snapshot

Investments – By Security Type

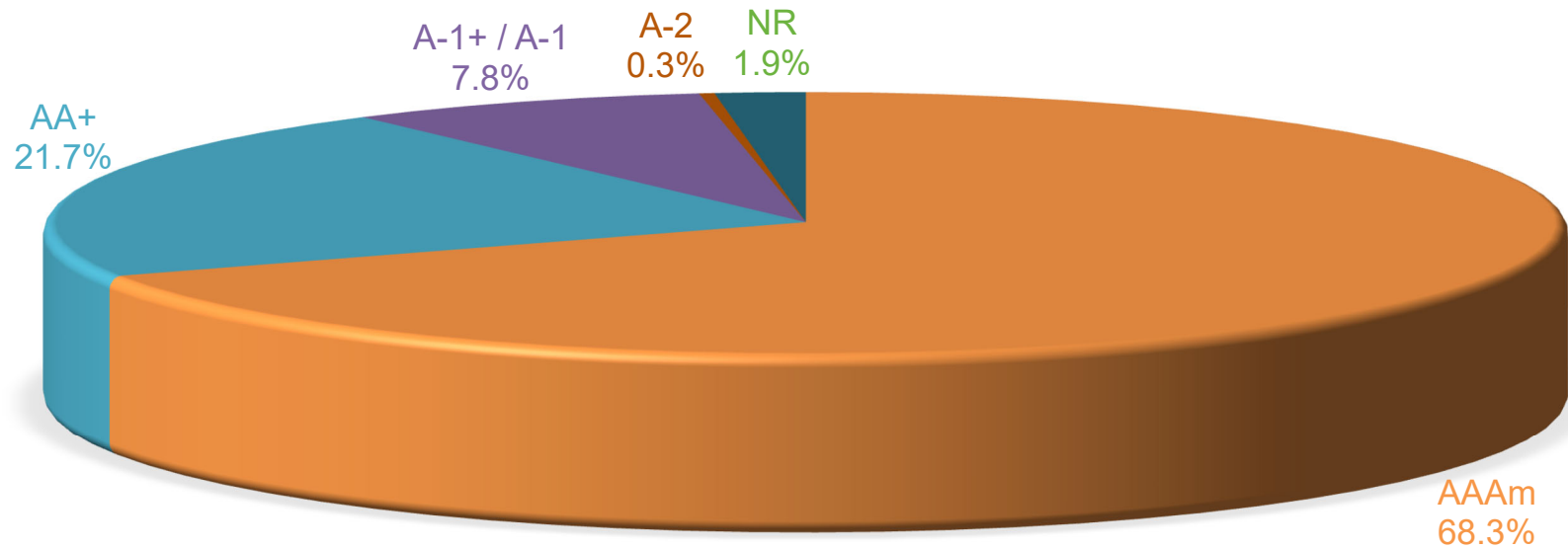


Security Type	June		July		August		September	
	Market Value	Asset Allocation	Market Value	Asset Allocation	Market Value	Asset Allocation	Market Value	Asset Allocation
Commercial Paper	100,728,265	12.7%	74,411,000	11.0%	110,624,125	15.2%	73,827,505	6.8%
Federal Agencies	70,183,237	8.9%	70,326,565	10.4%	70,276,193	9.6%	70,501,408	6.5%
U.S. Treasuries	158,764,067	20.0%	149,925,176	22.1%	152,686,958	20.9%	164,364,067	15.2%
MMF / LGIP	420,056,654	53.0%	317,432,720	46.8%	340,701,371	46.7%	739,954,950	68.3%
Cash	42,844,410	5.4%	65,578,324	9.7%	55,801,106	7.6%	35,203,631	3.2%
Total	792,576,633	100.0%	677,673,785	100.0%	730,089,753	100.0%	1,083,851,561	100.0%

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Portfolio Snapshot

Investments – By Credit Quality



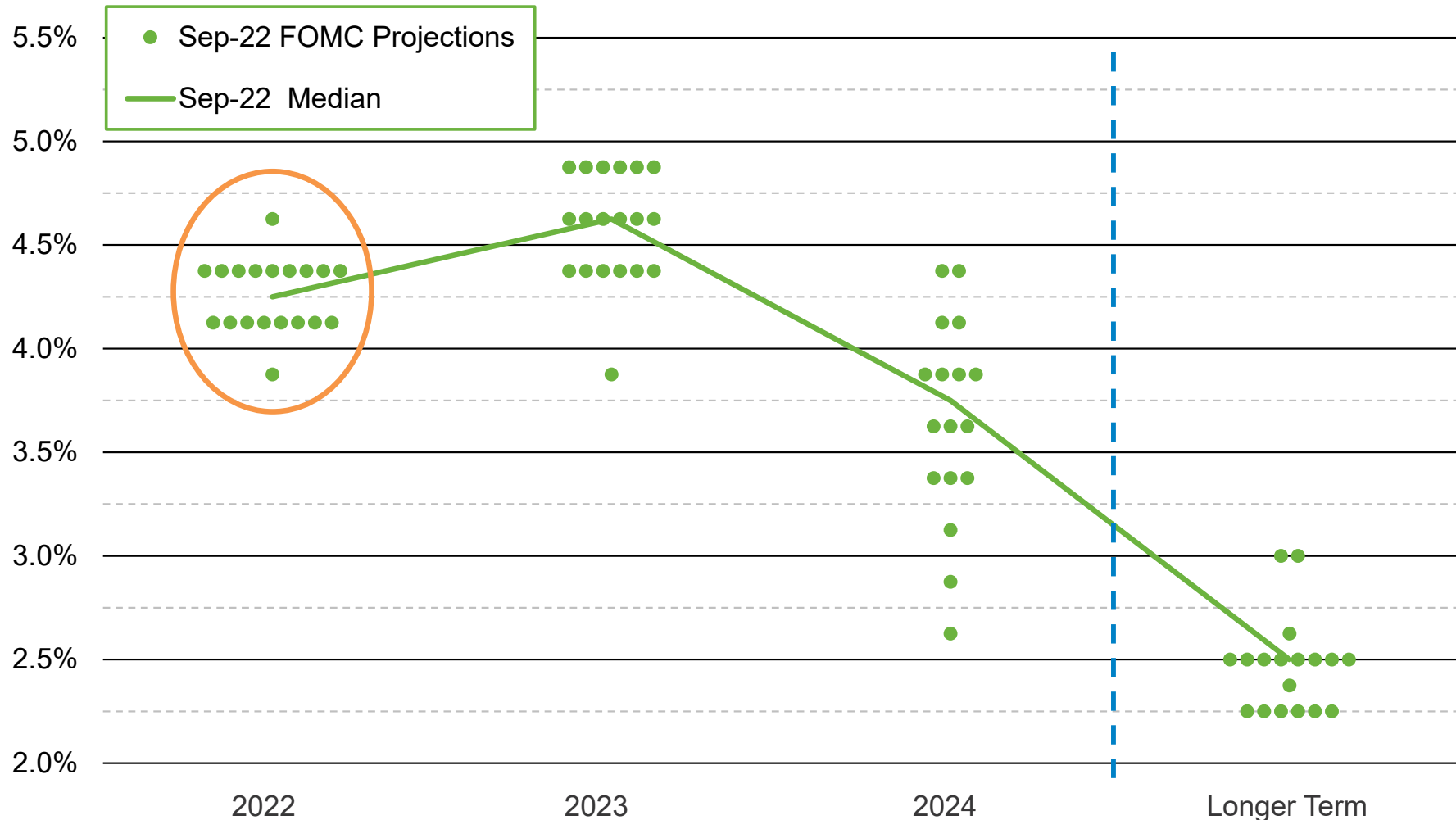
Credit Quality	Market Value	Asset Allocation
Ratings		
AAAm	739,954,950	68.3%
AA+	234,838,436	21.7%
A-1 + / A-1	84,335,353	7.8%
A-2	3,596,417	0.3%
NR	21,126,406	1.9%
Totals	1,083,851,561	100.0%

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Appendix II: Economic Update

Federal Reserve Officials Project Elevated Rates Through the End of 2023

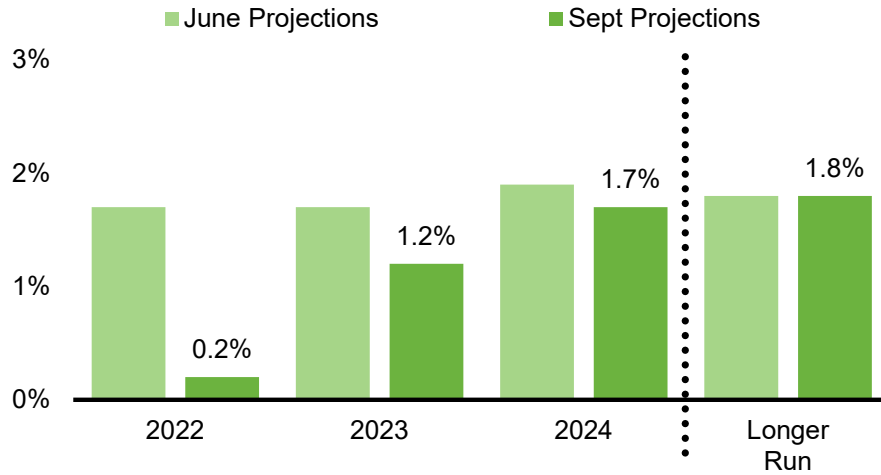
Fed Participants' Assessments of 'Appropriate' Monetary Policy



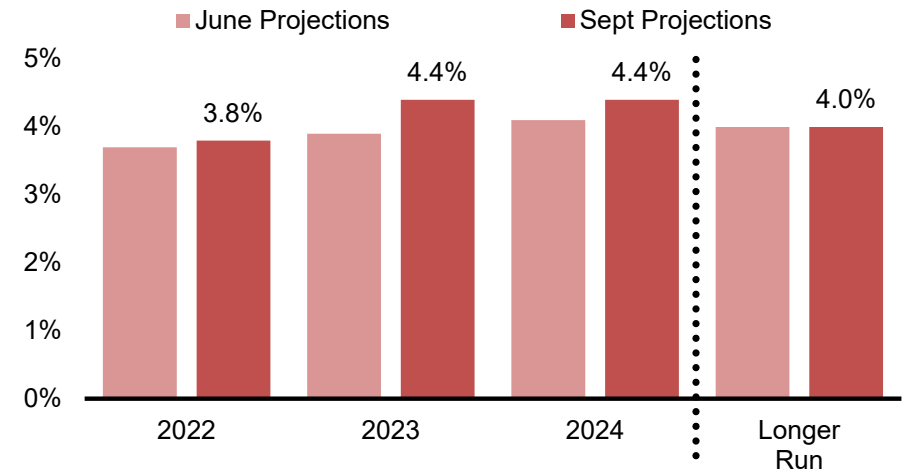
Source: Federal Reserve and Bloomberg. Individual dots represent each Fed members' judgement of the midpoint of the appropriate target range for the federal funds rate at each year-end.

Fed's Projections Reflect Weaker Economic Growth and Extended Timeline for Tighter Policy

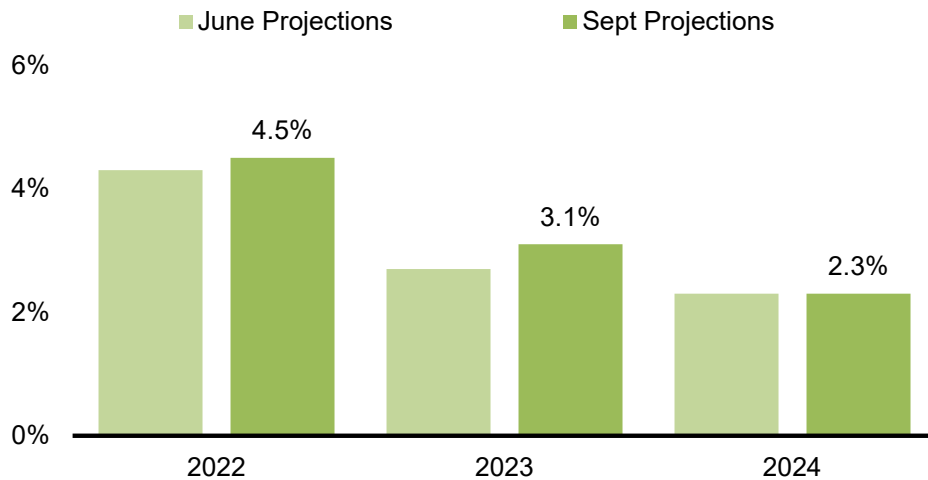
Change in Real GDP



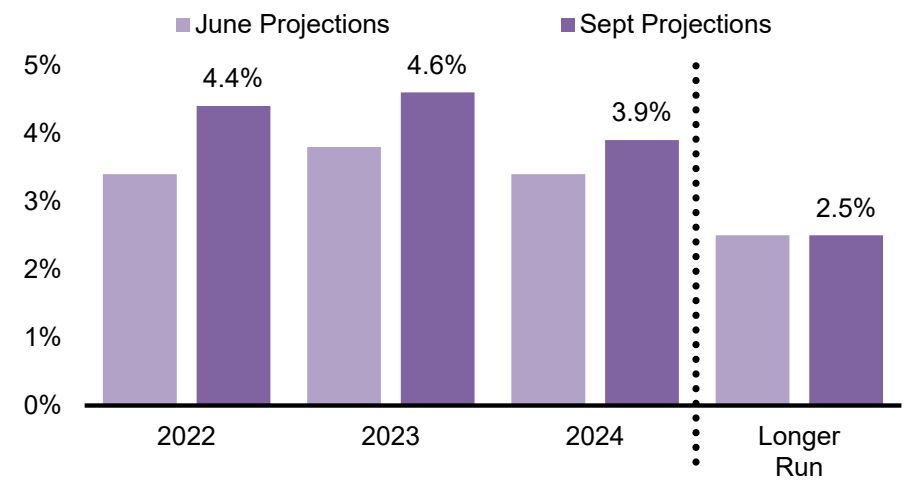
Unemployment Rate



Core PCE Inflation



Federal Funds Rate



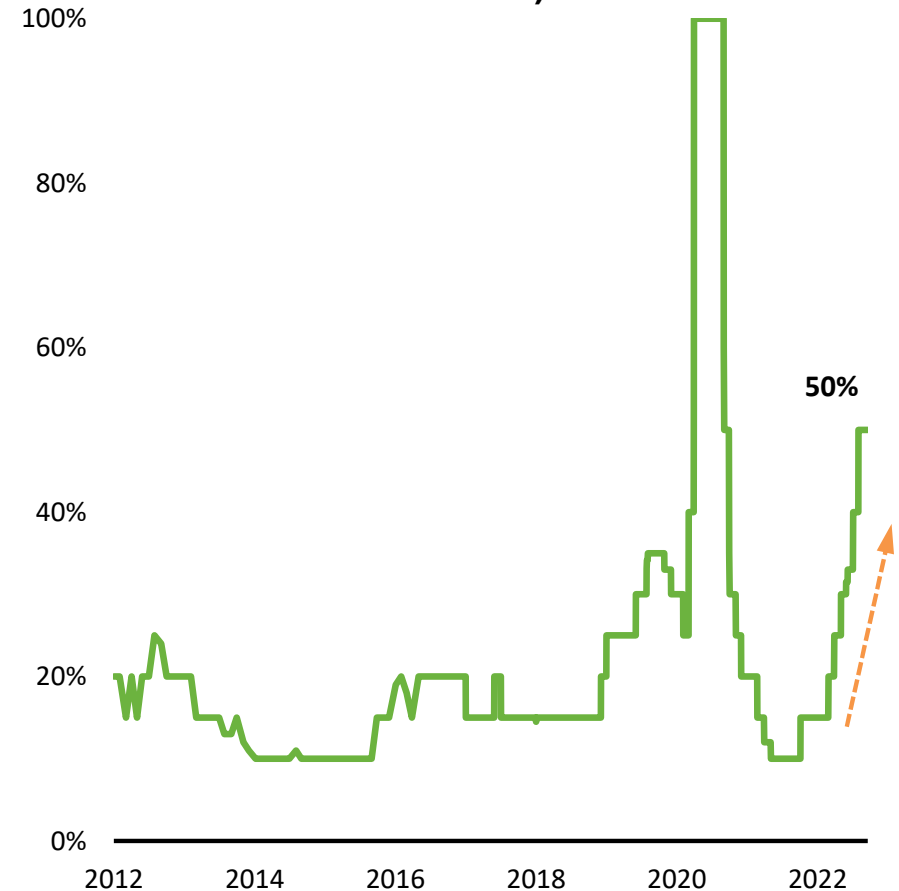
Source: Federal Reserve, latest economic projections as of September 2022.

Uncertainty Grows Around Economic Outlook; While Consumer Holds Firm

GDP Contributors

	Q3 2021	Q4 2021	Q1 2022	Q2 2022
U.S. Real GDP	2.3%	6.9%	-1.6%	-0.6%
<i>Personal Consumption</i>	1.4%	1.8%	1.2%	1.0%
<i>Fixed Investment</i>	-0.2%	0.5%	1.3%	-0.9%
<i>Private Inventories</i>	2.2%	5.3%	-0.4%	-1.8%
<i>Net Exports</i>	-1.3%	-0.2%	-3.2%	1.4%
<i>Gov't Expenditures</i>	0.2%	-0.5%	-0.5%	-0.3%

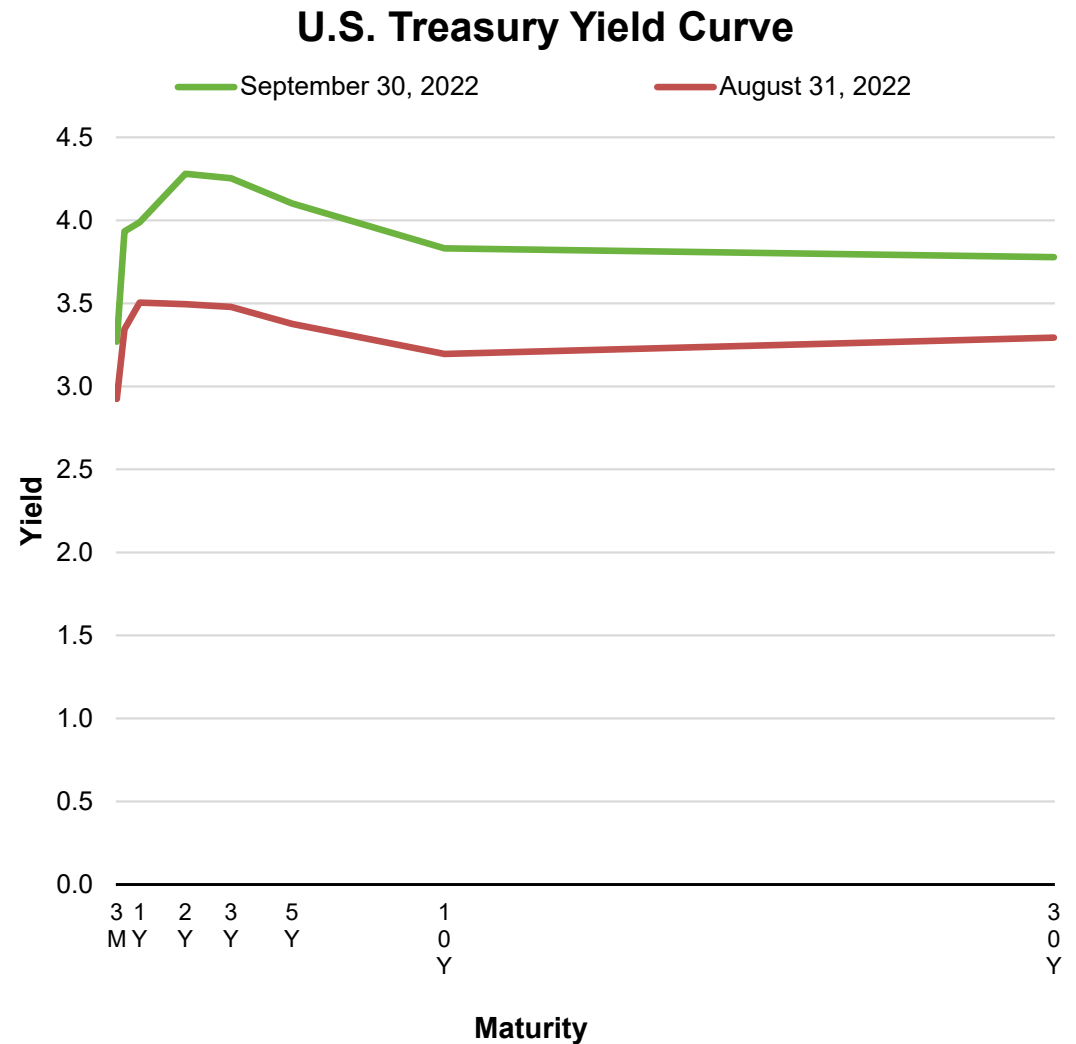
U.S. 1-Year Recession Probability (Bloomberg Median Economist Forecast)



Source: Bloomberg, as of September 2022.

The Fed's Actions Continued to Drive Treasury Yields Up

	08/31/2022	09/30/2022	Change
3 month	2.93%	3.27%	0.35%
6 month	3.35%	3.93%	0.59%
1 year	3.51%	3.99%	0.48%
2 year	3.50%	4.28%	0.79%
3 year	3.48%	4.25%	0.78%
5 year	3.38%	4.10%	0.73%
10 year	3.20%	3.83%	0.64%
30 year	3.29%	3.78%	0.49%



Source: Bloomberg, as of 08/31/2022 and 09/30/2022, as indicated.

Fixed Income Market Overview and Outlook

FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- In the past quarter, U.S. economy were characterized by:
 - Persistently high inflation despite recent energy price declines
 - A deteriorating housing market
 - Continued personal consumption that is impacting household savings and balance sheets
 - Worsening economic outlook that is propped up by a strong labor market

- The Federal Reserve has committed to a heavy-handed policy
 - Expectations have shifted from a soft landing to a moderate / hard landing, with increased recession risks
 - Short-term Fed Funds rate projected to reach 4.25% to 4.50% by year-end
 - Increased pace of quantitative tightening

- Rapidly rising rates negatively impacting valuations and inducing market volatility
 - Yields across the curve have reached their highest levels in fourteen years
 - Treasury yield curve remains inverted, but less so compared to the previous quarter
 - Elevated volatility across all major asset classes

- Interest rates surged in reaction to the Fed’s aggressive rate hikes designed to combat inflation as the U.S. dollar index (“DXY”) had its second strongest year on record and the 10-year U.S. Treasury experienced its largest net yield gain in 35 years
 - Aggressive interest rate hikes by the Fed has led to rising Treasury yields and two-decade-high mortgage rates
 - The market has also seen further weakening of the credit markets and an increasing recession probability

Fixed Income Market Overview and Outlook

FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- The third quarter of calendar year 2022 saw two more aggressive Fed interest rate hikes of 0.75% each – one in July and the other in September
 - The Federal Funds rate now stands at a target range of 3.00% – 3.25%, the highest level since 2008
 - Prior to this cycle, the Fed had not raised its flagship policy rate by 0.75% in any single move since 1994, underscoring its steadfast resolve to fight persistent inflation
 - By quarter-end, the futures market implied that the Fed Funds rate would reach a peak terminal rate of around 4.50% by February or March of 2023

- On the heels of the Fed rate hikes, yields on U.S. Treasuries continued their relentless ascent higher
 - The yield on the 10-year Treasury rose to 3.83% by quarter-end, an increase of 81 basis points (0.81%) from June 30th
 - The 2-year Treasury yield ended the quarter even higher at 4.28%, up 132 basis points (1.32%) from 2.96% at the start of the quarter
 - The yield curve inverted early in the quarter, with the inversion reaching the deepest level since 1982 in September

- The Bloomberg recession probability index, which measures the chance of an economic recession in the U.S. over the next year, has risen to 50%
 - Growth in Europe is an even more serious emerging concern, considering the impact of elevated European natural gas prices headed into winter

- The current economic outlook is for persistently elevated inflation along with expectations for more Fed rate hikes
 - The most recent final results has shown that consumer sentiment has and will continue to improve slightly, reflecting the strong jobs market and falling gasoline prices

Disclosure

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