# **Great Lakes Water Authority**

Investment Performance Report – December 2021





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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 12/31/2021, approximately 48% 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 January 1st debt payments.
- > Return The overall yield at market increased to 0.28% as of December 31, 2021, versus 0.13% as of September 30, 2021. The higher yield is reflective of the rise in interest rates that the market is currently experiencing. GLWA earned around \$1.9 million (unaudited) in investment income for the first six months of fiscal year 2022 on a book value basis. The budgeted investment income for GLWA for FY 2022 is approximately \$3.0 million.

AVAILABLE FUNDS (Unaudited)											
Туре	Financial Book Value Market Value		Yield @ Cost (as of 12/31/21)	Yield @ Market (as of 12/31/21)							
Deposit Account	Comerica	\$14,793,195	\$14,793,195	0.01%	0.01%						
Deposit Account - Retainage	First Independence	\$22,181,281	\$22,181,281	0.01%	0.01%						
Deposit Account – Flint Security Deposit	Chase	\$3,814,115	\$3,814,115	0.01%	0.01%						
Deposit Account	Chase	\$53,567,838	\$53,567,838	0.01%	0.01%						
Trust Money Market Fund	U.S. Bank	\$281,185,674	\$281,185,674	0.02%	0.02%						
Money Market Fund	JP Morgan	\$44,765,701	\$44,765,701	0.02%	0.02%						
Local Government Investment Pool	GovMIC	\$1,757,883	\$1,757,883	0.03%	0.03%						
Managed Funds	PFM	\$461,445,583	\$461,203,342	0.72%	0.52%						
DECEMBER 2021 TOTALS:		<u>\$883,511,270</u>	<u>\$883,269,029</u>	<u>0.38%</u>	<u>0.28%</u>						
PREVIOUS QUARTER TOTALS:		<u>\$843,649,837</u>	<u>\$845,295,099</u>	<u>0.44%</u>	<u>0.13%</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 \$323,059,258 as of 12/31/2021.



## **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 0.44% as of 9/30/2021 to 0.38% as of 12/31/2021; the lower yield is a result of reinvesting the proceeds of higher-yielding securities that have matured in a low interest rate environment.
- ➤ The total portfolio had a market yield of 0.28% at the end of December. Yield at market represents what the market would provide in return if the portfolio was purchased on December 31, 2021 (versus purchased in prior months / years).
  - This 0.28% yield at market as of 12/31/2021 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 over \$1.9 million (unaudited) in investment income so far in FY 2022 (as 12/31/2021) on a book value basis.
- ➤ Though earnings may come in slightly above the figure for the budget, there is still a lot of uncertainty surrounding the interest rate environment for the remainder of the 2022 fiscal year.
- > The current budgeted forecast for total interest earnings for FY 2022 is \$3.0 million; however, based on current estimated cash flows, earnings will most likely be closer to \$3.8 million.

<sup>\*</sup> 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, 2021) 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**

- ➤ The surge of Covid-19 cases due to the Omicron variant reached an all-time high. Some hospitals are once again running near full capacity, although the death rate held steady at around 1,300 per day in the U.S. Meanwhile, businesses are once again dealing with staffing issues, higher costs, and reduced customer traffic.
- ➤ In light of the strengthening labor market and elevated inflation pressures, the Federal Reserve decided to speed up tapering, implying that their bond purchases would end in March, several months sooner than previously expected. In its updated economic projections, Federal Open Market Committee participants revised their forecast for the unemployment rate lower and inflation higher for the coming year. The market is keenly focused on the timing and pace of potential Fed rate hikes. The median projection for the appropriate level of the Federal Funds rate now shows at least three hikes occurring during calendar year 2022.
- According to Mastercard, retail sales during the holiday shopping season rose by 8.5% compared to last year, with online sales surging by 11%. Due to supply chain worries, the majority of consumers shopped earlier than usual. Apparel and jewelry were the strongest categories.

#### **ECONOMIC IMPACT ON PORTFOLIO**

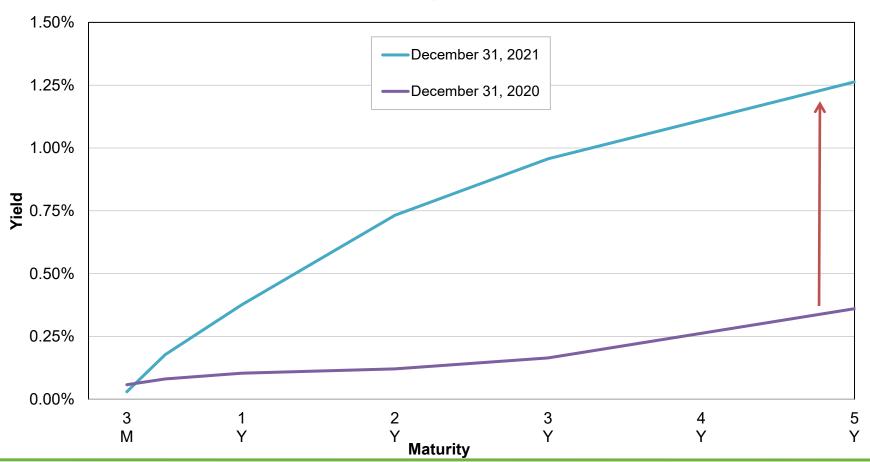
- ➤ Looking ahead, economists expect U.S. real gross domestic product to register a strong 6% for the fourth quarter of calendar year 2021 and an above-trend rate of 3.9% for 2022 before falling back to 2.5% in 2023. Inflation is expected to remain elevated in 2022, with gradual improvement each quarter.
- ➤ U.S. Treasury yields moved higher, particularly with 1 5-year yields rising. This was the market's reaction to the risk of Fed rate hikes being pulled forward in 2022. Yields moved higher at an even faster pace in the first weeks of the new year as it became clear that the Fed may reduce its balance sheet even more aggressively than their announced tapering plan would indicate. As a result of higher yields, Treasury returns have recently been negative.
- ➤ As the Fed attempts to engineer a pivot from easy policy to supply a pandemic recovery to tighter policy that curbs inflation, the markets appear poised for increased volatility. Most investors expect Treasury yields to continue to move higher in lock-step with expectations around Fed rate hikes. However, most of 2022's expected rate increases are arguably already built into today's U.S. Treasury yield curve.
- ➤ In short-term money markets, wider spreads and a steeper yield curve offer value in 6 12-month maturities. This is a welcome development after nearly two years of near-zero short-term rates. Commercial paper and CD rates gravitated higher throughout the past quarter as market expectations for rate hikes sent short maturities higher, creating opportunities to add. Yields have moved sharply higher and offer significant value versus overnight investments, which remain anchored near zero.
- ➤ Portfolio Impact: PFMAM will continue to maintain a modestly defensive duration bias relative to benchmarks.



# Summary Market Overview and Outlook Treasury Yield Curve Shifts Higher

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

#### **U.S. Treasury Yield Curve**



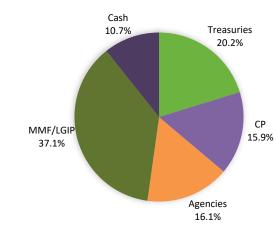


# Portfolio Snapshot Overall Portfolio Composition Summary

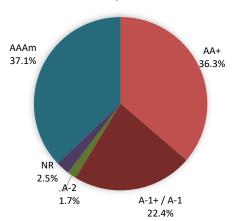
#### **PORTFOLIO STATISTICS**

Invested Amount	\$883.269 Million			
Duration	0.57 Years			
Yield at Cost	0.38%			
Yield at Market	0.28%			

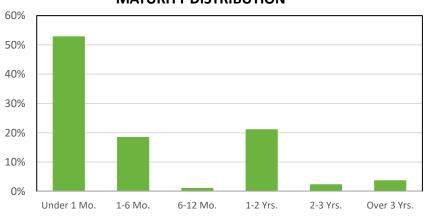
#### **SECTOR ALLOCATION**



#### **CREDIT QUALITY**



#### **MATURITY DISTRIBUTION**



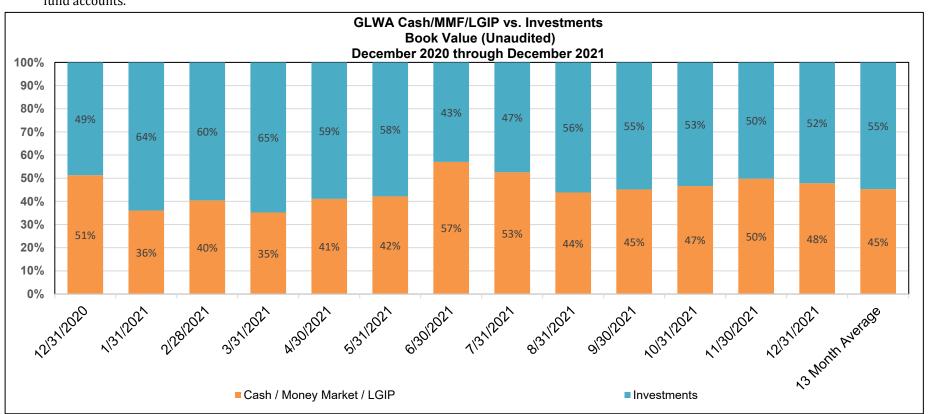
 $In addition \ to \ the \ totals \ listed \ above, there \ also \ exists \ surety \ bonds \ in \ the \ amount \ of \$323,059,258 \ as \ of \ December \ 31,2021.$ 



### **Portfolio Snapshot**

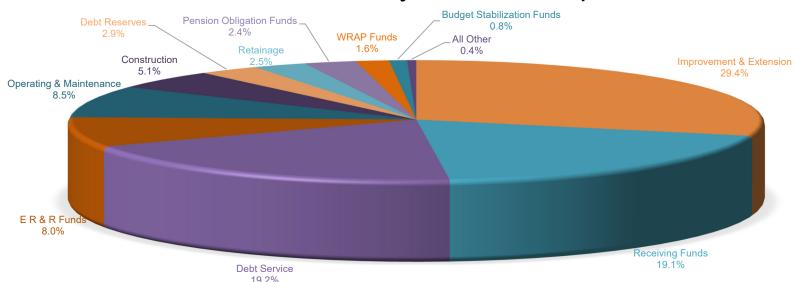
# Portfolio Mix – Cash / Money Market vs. Investments

- > 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 2021, 48% of the overall portfolio was invested in cash, LGIP, and/or overnight money market fund accounts.





# Portfolio Snapshot Investments – By Account Purpose

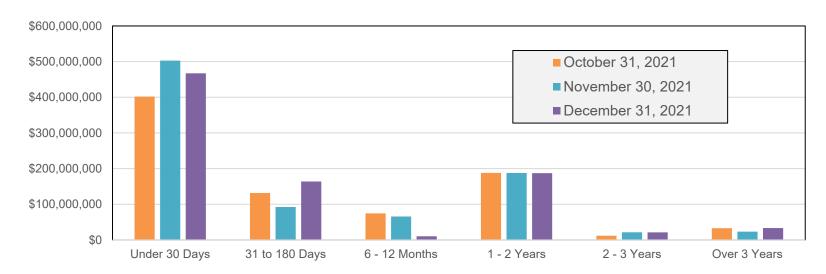


	Value	Allocation	Cost	Market	
Account Purpose	Market	%	Yield at	Yield at	Duration
Improvement & Extension	\$ 259,369,263	29.4%	0.94%	0.42%	0.795 Years
Debt Service	\$ 169,334,451	19.2%	0.17%	0.23%	0.270 Years
Receiving Funds (includes lockbox account)	\$ 168,743,843	19.1%	0.02%	0.02%	0.003 Years
Operating & Maintenance	\$ 75,396,336	8.5%	0.02%	0.02%	0.003 Years
Extraordinary Repair & Replacement Funds	\$ 70,806,206	8.0%	0.46%	0.82%	2.432 Years
Construction	\$ 45,426,179	5.1%	0.05%	0.05%	0.039 Years
Debt Reserves	\$ 25,320,114	2.9%	0.28%	0.69%	1.882 Years
Retainage	\$ 22,181,281	2.5%	0.01%	0.01%	0.003 Years
Pension Obligation Funds	\$ 21,536,051	2.4%	0.24%	0.36%	0.398 Years
WRAP Funds	\$ 13,913,147	1.6%	0.22%	0.26%	0.246 Years
Budget Stabilization Funds	\$ 7,428,042	0.8%	0.44%	0.78%	2.284 Years
Flint Security Deposit Account	\$ 3,814,115	0.4%	0.01%	0.01%	0.003 Years
Total	\$ 883,269,028	100.0%	0.38%	0.28%	0.570 Years



# Portfolio Snapshot Investments – By Maturity

Maturity Distribution	October 31, 2021	%	November 30, 2021	%	December 31, 2021	%
Under 30 Days	\$ 401,778,391	47.8%	\$ 502,776,297	56.3%	\$ 467,171,884	52.9%
31 to 180 Days	131,663,370	15.7%	92,388,122	10.3%	163,808,766	18.5%
6 - 12 Months	74,523,364	8.9%	65,697,456	7.4%	10,243,438	1.2%
1 - 2 Years	187,864,922	22.3%	187,718,549	21.0%	187,289,130	21.2%
2 - 3 Years	11,859,100	1.4%	21,414,595	2.4%	21,350,578	2.4%
Over 3 Years	32,937,278	3.9%	23,339,636	2.6%	33,405,232	3.8%
Totals	\$ 840,626,426	100.0%	\$ 893,334,655	100.0%	\$ 883,269,029	100.0%



 $In addition \ to \ the \ totals \ listed \ above, there \ also \ exists \ surety \ bonds \ in \ the \ amount \ of \$323,059,258 \ as \ of \ December \ 31,2021.$ 



## **Portfolio Snapshot**

### Investment Accounts – Yield at Cost & Market

	As of Decem	nber 31, 2021	As of Septen	nber 30, 2021
	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	0.01%	0.01%	0.01%	0.01%
JP Morgan Chase	0.01%	0.01%	0.01%	0.01%
Sub-Total Bank Deposits	0.01%	0.01%	0.01%	0.01%
Money Market Funds / LGIPs				
GovMIC	0.03%	0.03%	0.03%	0.03%
U.S. Bank - First American MMF	0.02%	0.02%	0.02%	0.02%
JP Morgan Securities - Blackrock MMF	0.02%	0.02%	0.03%	0.03%
Sub-Total MMF / LGIPs	0.02%	0.02%	0.02%	0.02%
Investment Portfolios				
Sewage SR Debt Serv 5403	0.29%	0.39%	0.12%	0.12%
Sewage SR Res 5400	0.29%	0.70%	0.29%	0.33%
Sew SRF Debt Serv 5410	0.21%	0.26%	0.15%	0.19%
Sewage ER & R	0.46%	0.82%	0.54%	0.42%
Sewer Improvement & Extension	1.18%	0.49%	1.26%	0.20%
Sewer Pension Obligation	0.24%	0.37%	0.18%	0.22%
Sewer Wrap Fund	0.27%	0.31%	0.15%	0.11%
Sewer Budget Stabilization Fund	0.44%	0.78%	0.52%	0.39%
Sewer O&M Pension Sub Account	0.25%	0.34%	0.17%	0.19%
Water SR Debt Ser 5503	0.29%	0.40%	0.12%	0.12%
Water SR Reserve 5500	0.27%	0.69%	0.27%	0.32%
Water SRF Debt Serv 5575	0.22%	0.27%	0.00%	0.00%
Water ER & R	0.46%	0.82%	0.53%	0.43%
Water Improvement & Extension	1.15%	0.49%	1.21%	0.19%
Water Pension Obligation	0.24%	0.37%	0.18%	0.22%
Water Wrap Fund	0.23%	0.28%	0.15%	0.11%
Water Budget Stabilization Fund	0.44%	0.77%	0.52%	0.38%
Water O&M Pension Sub Account	0.25%	0.34%	0.17%	0.19%
Sub-Total Investment Portfolios	0.72%	0.52%	0.79%	0.23%
Grand Total	<u>0.38%</u>	<u>0.28%</u>	<u>0.44%</u>	0.13%

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 low rates on the short end of the curve 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	ber 31, 2021	
	Mark et Value	YTM @ Mark et	Effective Duration	Weighted Average Maturity
GLWA				
Great Lakes Water Authority	\$883,269,029	0.28%	0.57 Years	208 Days
Short/Intermediate-Term Indices				
S&P Rated Government Investment Pool Index		0.03%	0.08 Years	30 Days
BoA / ML 3-Month Treasury Index		0.03%	0.15 Years	58 Days
BoA / ML 6-Month Treasury Index		0.09%	0.40 Years	146 Days
BoA / ML 1-Year Treasury Index		0.37%	0.91 Years	336 Days
BoA / ML 1-3 Year Treasury Index		0.68%	1.82 Years	675 Days
BoA / ML 1-5 Year Treasury Index		0.85%	2.58 Years	964 Days
Peer Analysis (Water Entities / Utilities)				
District of Columbia Water & Sewer Authority, DC	\$173,089,722	0.70%	1.64 Years	650 Days
DuPage Water Commission, IL	\$175,697,784	0.94%	2.18 Years	1,050 Days
Fairfax County Water Authority, VA	\$171,193,604	0.74%	1.90 Years	723 Days
Metro Wastewater Reclamation District, CO	\$315,450,642	0.74%	1.87 Years	730 Days
Metropolitan Water District of Southern California, CA	\$1,185,961,186	0.57%	0.87 Years	390 Days
Philadelphia Water Department, PA	\$230,029,782	0.41%	0.87 Years	319 Days
San Bernardino Valley Municipal Water District, CA	\$384,962,988	0.75%	1.80 Years	683 Days
Tohopekaliga Water Authority, FL	\$201,616,845	0.85%	1.80 Years	832 Days
Truckee Meadows Water Authority, NV	\$103,020,823	0.81%	2.23 Years	844 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)

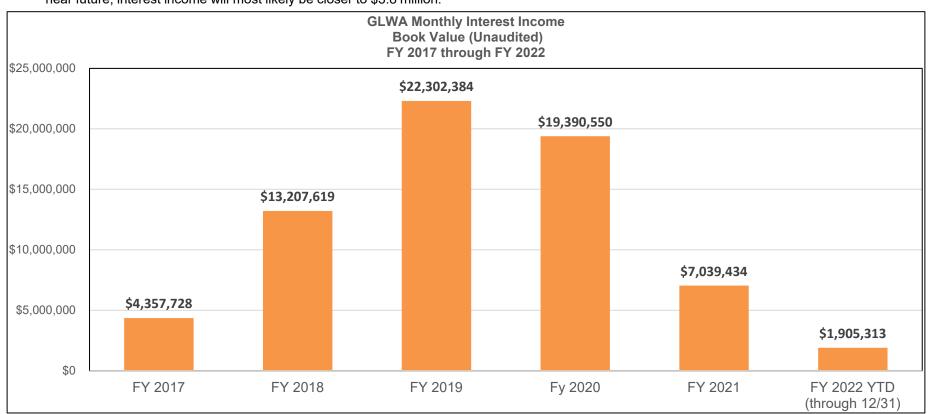
#### FY 2022 INVESTMENT INCOME BY MONTH (Unaudited)

Month	Interest Earned During Period (in thousands)	Realized Gain / Loss (in thousands)	Investment Income (in thousands)		
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		
FY 2022 Y-T-D	<u>\$1,796.6</u>	<u>\$108.7</u>	<u>\$1,905.3</u>		



## Portfolio Snapshot Year-Over-Year Investment Income

- > GLWA earned \$1,905,313 in investment income for the first half of fiscal year 2022 on a book value basis compared to \$4,185,073 for the first six months of fiscal year 2021.
- ➤ The budgeted total investment income for fiscal year 2022 is conservatively projected to be approximately \$3.0, which is below what was seen in previous years; however, based on current estimated cash flows and the market's anticipation of an increase in the Fed Funds target rate in the near future, interest income will most likely be closer to \$3.8 million.

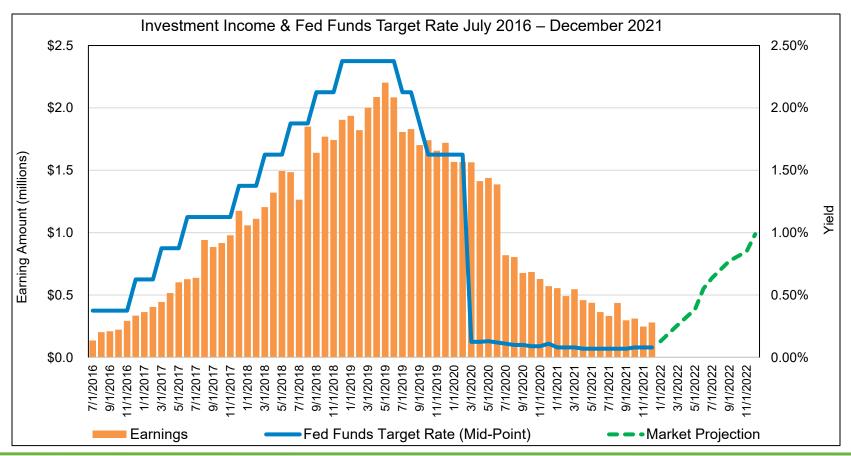




## **Portfolio Snapshot**

## Monthly Investment Income Compared to Fed Funds Rate

- > Due to 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 the implied effective Fed Funds futures rate, the market expects the first interest rate hike of the overnight lending rate to occur in March of 2022 and is pricing in a possibility of five rate hikes during the 2022 calendar year; as a result of this, earned investment income expectations for FY 2022 may come in higher than expected at approximately \$3.8 million.





## **Portfolio Snapshot**

## Pooling of Cash / Investment Accounts

> PFM & 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



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

- Second Lien Accounts



# 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		\$ 14,793,195	1/1/2022	12/31/2021	0.01% \$	14,793,195	1	\$ -	\$ 14,793,195
FIRST INDEPENDENCE BANK		22,181,281	1/1/2022	12/31/2021	0.01%	22,181,281	1	-	22,181,281
FLINT DEPOSIT ACCOUNT		3,814,115	1/1/2022	12/31/2021	0.01%	3,814,115	1	-	3,814,115
JP MORGAN CHASE		53,567,838	1/1/2022	12/31/2021	0.01%	53,567,838	1	-	53,567,838
GovMIC		1,757,883	1/1/2022	12/31/2021	0.03%	1,757,883	1	-	1,757,883
U.S. BANK - FIRST AMERICAN MMF		281,185,674	1/1/2022	12/31/2021	0.02%	281,185,674	1	-	281,185,674
JP MORGAN SECURITIES - BLACKROCK MMF		44,765,701	1/1/2022	12/31/2021	0.02%	44,765,701	1	-	44,765,701



DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Commercial Paper									
Collat CP Co 0 3/4/2022	19424JC46	\$ 5,000,000	3/4/2022	6/9/2021	0.17% \$	4,993,672	63	\$ - \$	4,998,206
Collat CP Co 0 3/4/2022	19424JC46	5,000,000	3/4/2022	6/9/2021	0.17%	4,993,672	63	-	4,998,206
Collat CP Co 0 6/14/2022	19424JFE1	3,432,750	6/14/2022	12/13/2021	0.35%	3,426,643	165	-	3,428,905
Toronto Dominion Bank 0 6/17/2022	89119BFH4	3,908,376	6/17/2022	10/20/2021	0.21%	3,902,904	168	-	3,903,881
Westpac Securities 0 6/17/2022	96122HFH1	4,306,385	6/17/2022	12/14/2021	0.33%	4,299,082	168	-	4,301,433
Collat CP Co 0 6/14/2022	19424JFE1	6,567,250	6/14/2022	12/13/2021	0.35%	6,555,566	165	-	6,559,895
Toronto Dominion Bank 0 6/17/2022	89119BFH4	10,376,624	6/17/2022	10/20/2021	0.21%	10,362,097	168	-	10,364,691
Westpac Securities 0 6/17/2022	96122HFH1	8,238,615	6/17/2022	12/14/2021	0.33%	8,224,644	168	-	8,229,141
LMA Americas LLC 0 3/18/2022	53944RCJ5	1,600,000	3/18/2022	12/13/2021	0.22%	1,599,071	77	-	1,599,504
Collat CP Co 0 3/8/2022	19424JC87	400,000	3/8/2022	8/23/2021	0.15%	399,672	67	-	399,750
Collat CP Co 0 5/20/2022	19424JEL6-2	390,000	5/20/2022	8/23/2021	0.18%	389,474	140	-	389,351
MacQuarie Bank LTD 0 6/13/2022	55607LFD1-1	1,915,000	6/13/2022	12/7/2021	0.30%	1,912,000	164	-	1,911,986
Svenska Handel Sbanken 0 5/27/2022	86960KET5-2	505,000	5/27/2022	9/3/2021	0.17%	504,366	147	-	504,488
Collat CP Co 0 5/20/2022	19424JEL6-1	2,200,000	5/20/2022	8/23/2021	0.18%	2,197,030	140	-	2,198,152
MacQuarie Bank LTD 0 3/8/2022	55607LC85	400,000	3/8/2022	12/6/2021	0.25%	399,744	67	-	399,892
MacQuarie Bank LTD 0 6/13/2022	55607LFD1-2	2,310,000	6/13/2022	12/7/2021	0.30%	2,306,381	164	-	2,307,413
Svenska Handel Sbanken 0 5/27/2022	86960KET5-1	435,000	5/27/2022	9/3/2021	0.17%	434,454	147	-	434,617
LMA Americas LLC 0 5/4/2022	53944RE46	1,175,000	5/4/2022	12/7/2021	0.27%	1,173,696	124	-	1,174,131
MacQuarie Bank LTD 0 3/2/2022	55607LC28	1,175,000	3/2/2022	12/7/2021	0.24%	1,174,334	61	-	1,174,789
Old Line Funding LLC 0 4/4/2022	67983UD42	1,175,000	4/4/2022	12/7/2021	0.22%	1,174,153	94	-	1,174,436
Ridgefield Funding Co 0 2/3/2022	76582KB34	1,175,000	2/3/2022	12/7/2021	0.18%	1,174,659	34	-	1,174,894
Collat CP Co 0 6/14/2022	19424JFE1	2,636,940	6/14/2022	12/13/2021	0.35%	2.632.248	165	-	2.633.987
Natixis Bank NY 0 6/17/2022	63873KFH5	1,318,470	6/17/2022	12/14/2021	0.31%	1,316,370	168	-	1,316,954
Toronto Dominion Bank 0 6/17/2022	89119BFH4	4,452,385	6/17/2022	10/20/2021	0.21%	4,446,151	168	-	4,447,264
Westpac Securities 0 6/17/2022	96122HFH1	3,284,309	6/17/2022	12/14/2021	0.33%	3,278,739	168	-	3,280,532
Collat CP Co 0 6/14/2022	19424JFE1	7,363,060	6/14/2022	12/13/2021	0.35%	7,349,960	165	-	7,354,813
Natixis Bank NY 0 6/17/2022	63873KFH5	3,681,530	6/17/2022	12/14/2021	0.31%	3,675,665	168	-	3,677,296
Toronto Dominion Bank 0 6/17/2022	89119BFH4	11,002,615	6/17/2022	10/20/2021	0.21%	10,987,212	168	-	10,989,962
Westpac Securities 0 6/17/2022	96122HFH1	9,170,691	6/17/2022	12/14/2021	0.33%	9,155,139	168	-	9,160,145
LMA Americas LLC 0 3/18/2022	53944RCJ5	4,495,000	3/18/2022	9/3/2021	0.15%	4,491,329	77	-	4,493,607
LMA Americas LLC 0 3/18/2022	53944RCJ5	8,590,000	3/18/2022	12/13/2021	0.22%	8,585,013	77	-	8,587,337
Manhattan Asset Funding 0 3/16/2022	56274MCG5	2,910,000	3/16/2022	12/13/2021	0.22%	2,908,346	75	-	2,909,127
Collat CP Co 0 3/8/2022	19424JC87	650,000	3/8/2022	8/23/2021	0.15%	649,466	67	-	649.593
Collat CP Co 0 5/20/2022	19424JEL6-2	830,000	5/20/2022	8/23/2021	0.18%	828,880	140	-	828.618
MacQuarie Bank LTD 0 6/13/2022	55607LFD1-1	3,360,000	6/13/2022	12/7/2021	0.30%	3,354,736	164	-	3,354,711
Svenska Handel Sbanken 0 5/27/2022	86960KET5-2	905,000	5/27/2022	9/3/2021	0.17%	903,863	147	_	904,082
Collat CP Co 0 5/20/2022	19424JEL6-1	2,950,000	5/20/2022	8/23/2021	0.18%	2,946,018	140	_	2,947,522
MacQuarie Bank LTD 0 3/8/2022	55607LC85	650,000	3/8/2022	12/6/2021	0.25%	649.585	67	-	649.825
Old Line Funding LLC 0 4/4/2022	67983UD42	1,025,000	4/4/2022	12/7/2021	0.22%	1,024,261	94	_	1,024,508
LMA Americas LLC 0 5/4/2022	53944RE46	1,025,000	5/4/2022	12/7/2021	0.27%	1,023,862	124	_	1,024,242
Svenska Handel Sbanken 0 5/27/2022	86960KET5-1	575,000	5/27/2022	9/3/2021	0.17%	574,278	147	_	574,494
MacQuarie Bank LTD 0 6/1/2022	55607LF17	1,025,000	6/1/2022	12/7/2021	0.30%	1,023,497	152	_	1,024,067
MacQuarie Bank LTD 0 6/13/2022	55607LFD1-2	3,070,000	6/13/2022	12/7/2021	0.30%	3,065,190	164	_	3,066,562
Svenska Handel Sbanken 0 7/1/2022	86960KG14	1,025,000	7/1/2022	12/7/2021	0.30%	1,023,240	182	-	1,023,729
Ridgefield Funding Co 0 2/3/2022	76582KB34	1,025,000	2/3/2022	12/7/2021	0.18%	1,024,703	34	-	1,024,908
MacQuarie Bank LTD 0 3/2/2022	55607LC28	1,025,000	3/2/2022	12/7/2021	0.24%	1,024,419	61	_	1,024,816
Natixis Bank NY 0 8/1/2022	63873KH18	1,025,000	8/1/2022	12/7/2021	0.35%	1,022,638	213	-	1,023,268
Tables Dalle 111 0 0/ 1/2022	00070101110	1,020,000	5/ 1/2022	12/1/2021	0.0070	1,022,000	213	=	1,020,200



DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Federal Agencies									
FHLB 2.125 6/10/2022	313379Q69	\$ 10,000,000	6/10/2022	7/11/2019	1.92% \$	10,059,200	161	\$ 12,396	10,082,400
FHLMC 0.375 5/5/2023	3137EAER6	6,000,000	5/5/2023	6/5/2020	0.38%	6,000,060	490	3,500	5,986,560
FHLMC 2.375 1/13/2022	3137EADB2	10,000,000	1/13/2022	7/11/2019	1.89%	10,118,700	13	110,833	10,006,500
FNMA 0.25 5/22/2023	3135G04Q3	10,000,000	5/22/2023	6/5/2020	0.36%	9,968,400	507	2,708	9,958,000
FNMA 0.25 7/10/2023	3135G05G4	1,250,000	7/10/2023	7/16/2020	0.29%	1,248,425	556	1,484	1,243,188
FHLB 2.125 6/10/2022	313379Q69	25,000,000	6/10/2022	7/11/2019	1.92%	25,148,000	161	30,990	25,206,000
FHLMC 0.375 5/5/2023	3137EAER6	14,650,000	5/5/2023	6/5/2020	0.38%	14,650,147	490	8,546	14,617,184
FHLMC 2.375 1/13/2022	3137EADB2	25,000,000	1/13/2022	7/11/2019	1.89%	25,296,750	13	277,083	25,016,250
FNMA 0.25 5/22/2023	3135G04Q3	25,000,000	5/22/2023	6/5/2020	0.36%	24,921,000	507	6,771	24,895,000
FNMA 0.25 7/10/2023	3135G05G4	1,650,000	7/10/2023	7/16/2020	0.29%	1,647,921	556	1,959	1,641,008
FNMA 0.25 5/22/2023	3135G04Q3	240,000	5/22/2023	6/5/2020	0.35%	239,292	507	65	238,992
FNMA 0.25 5/22/2023	3135G04Q3	3,400,000	5/22/2023	6/5/2020	0.35%	3,389,970	507	921	3,385,720
FNMA 0.25 5/22/2023	3135G04Q3	670,000	5/22/2023	6/5/2020	0.35%	668,024	507	181	667,186
FHLMC 0.25 6/26/2023	3137EAES4	3,150,000	6/26/2023	7/2/2020	0.29%	3,146,189	542	109	3,134,849
FNMA 0.25 5/22/2023	3135G04Q3	5,750,000	5/22/2023	6/5/2020	0.35%	5,733,038	507	1,557	5,725,850



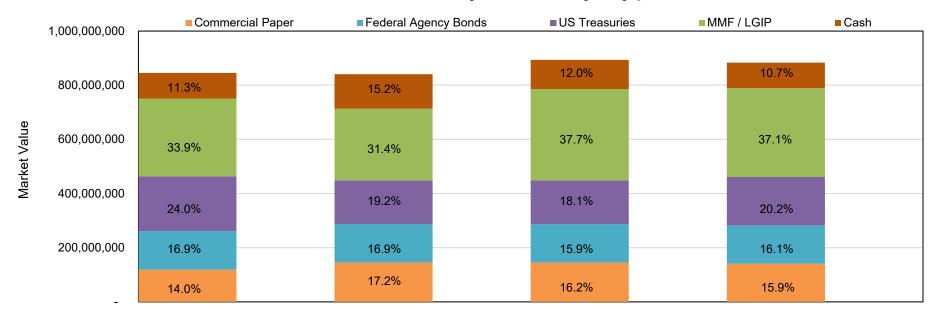
DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
U.S. Treasuries									
T-Note 0 8/15/2023		\$ 10,500,000	8/15/2023	2/7/2020	1.41% \$	9,992,745	592		10,402,875
T-Note 0.5 3/15/2023	912828ZD5	10,000,000	3/15/2023	3/16/2020	0.58%	9,977,344	439	14,779	10,003,900
T-Note 1.5 1/15/2023	912828 <b>Z</b> 29	15,000,000	1/15/2023	2/7/2020	1.39%	15,045,703	380	103,329	15,163,500
T-Note 0 8/15/2023	912833LM0	10,500,000	8/15/2023	2/7/2020	1.41%	9,992,745	592	-	10,402,875
T-Note 0.5 3/15/2023	912828ZD5	20,000,000	3/15/2023	3/16/2020	0.58%	19,954,688	439	29,558	20,007,800
T-Note 1.5 1/15/2023	912828 <b>Z</b> 29	15,000,000	1/15/2023	2/7/2020	1.39%	15,045,703	380	103,329	15,163,500
T-Note 0.125 1/15/2024	91282CBE0	260,000	1/15/2024	1/25/2021	0.18%	259,563	745	149	256,719
T-Note 0.125 10/31/2022	91282CAR2	200,000	10/31/2022	5/27/2021	0.10%	200,063	304	42	199,664
T-Note 0.25 3/15/2024	91282CBR1	125,000	3/15/2024	3/15/2021	0.33%	124,712	805	92	123,506
T-Note 0.375 12/31/2025	91282CBC4	250,000	12/31/2025	1/25/2021	0.43%	249,287	1,461	-	242,325
T-Note 0.375 4/30/2025	912828ZL7	125,000	4/30/2025	3/11/2021	0.61%	123,789	1,216	79	122,226
T-Note 0.5 3/15/2023	912828ZD5	250,000	3/15/2023	3/16/2020	0.59%	249,336	439	369	250,098
T-Note 1.375 1/31/2025	912828Z52	280,000	1/31/2025	12/6/2021	0.94%	283,773	1,127	1,601	283,195
T-Note 1.5 10/31/2024	912828YM6	130,000	10/31/2024	5/27/2021	0.42%	134,773	1,035	329	132,036
T-Note 1.625 10/31/2023	912828T91	130,000	10/31/2023	5/27/2021	0.20%	134,489	669	356	132,184
T-Note 1.75 12/31/2024	912828YY0	715,770	12/31/2024	8/30/2021	0.49%	745,519	1,096	-	732,097
T-Note 2.625 6/30/2023	9128284U1	2,114,775	6/30/2023	8/30/2021	0.19%	2,208,949	546	-	2,178,789
T-Note 1.75 12/31/2024	912828YY0	384,230	12/31/2024	8/30/2021	0.49%	400,200	1,096	-	392,994
T-Note 2.625 6/30/2023	9128284U1	1,135,225	6/30/2023	8/30/2021	0.19%	1,185,778	546	-	1,169,588
T-Note 1.5 9/15/2022	912828YF1	1,560,000	9/15/2022	12/14/2021	0.22%	1,574,930	258	6,917	1,573,354
T-Note 0.125 1/15/2024	91282CBE0	3,420,000	1/15/2024	1/25/2021	0.18%	3,414,255	745	1,963	3,376,840
T-Note 0.375 12/31/2025	91282CBC4	3,400,000	12/31/2025	1/25/2021	0.43%	3,390,305	1,461	-	3,295,620
T-Note 0.375 4/30/2025	912828ZL7	2,400,000	4/30/2025	8/24/2021	0.59%	2,381,531	1,216	1,517	2,346,744
T-Note 0.375 7/15/2024	91282CCL3	1,345,000	7/15/2024	8/23/2021	0.42%	1,343,266	927	2,316	1,328,403
T-Note 0.5 3/15/2023	912828ZD5	3,410,000	3/15/2023	3/16/2020	0.59%	3,400,942	439	5,040	3,411,330



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 1.375 1/31/2025	912828Z52	3,346,000	1/31/2025	12/7/2021	0.95%	3,390,570	1,127	19,128	3,384,178
T-Note 1.5 10/31/2024	912828YM6	3,300,000	10/31/2024	5/28/2021	0.42%	3,421,301	1,035	8,341	3,351,678
T-Note 1.625 10/31/2023	912828T91	3,300,000	10/31/2023	5/28/2021	0.20%	3,414,082	669	9,036	3,355,440
T-Note 0.125 1/15/2024	91282CBE0	695,000	1/15/2024	1/25/2021	0.18%	693,833	745	399	686,229
T-Note 0.125 10/31/2022	91282CAR2	425,000	10/31/2022	5/27/2021	0.10%	425,133	304	90	424,286
T-Note 0.25 3/15/2024	91282CBR1	340,000	3/15/2024	3/15/2021	0.33%	339,216	805	251	335,937
T-Note 0.375 12/31/2025	91282CBC4	685,000	12/31/2025	1/25/2021	0.43%	683,047	1,461	-	663,971
T-Note 0.375 4/30/2025	912828ZL7	350,000	4/30/2025	3/11/2021	0.61%	346,609	1,216	221	342,234
T-Note 0.5 3/15/2023	912828ZD5	688,000	3/15/2023	3/16/2020	0.59%	686,173	439	1,017	688,268
T-Note 1.375 1/31/2025	912828Z52	740,000	1/31/2025	12/6/2021	0.94%	749,973	1,127	4,230	748,443
T-Note 1.5 10/31/2024	912828YM6	450,000	10/31/2024	5/27/2021	0.42%	466,523	1,035	1,137	457,047
T-Note 1.625 10/31/2023	912828T91	425,000	10/31/2023	5/27/2021	0.20%	439,676	669	1,164	432,140
T-Note 1.75 12/31/2024	912828YY0	1,996,335	12/31/2024	8/30/2021	0.49%	2,079,308	1,096	-	2,041,871
T-Note 2.625 6/30/2023	9128284U1	4,082,595	6/30/2023	8/30/2021	0.19%	4,264,398	546	-	4,206,175
T-Note 1.75 12/31/2024	912828YY0	3,553,665	12/31/2024	8/30/2021	0.49%	3,701,364	1,096	-	3,634,724
T-Note 2.625 6/30/2023	9128284U1	7,267,405	6/30/2023	8/30/2021	0.19%	7,591,032	546	-	7,487,389
T-Note 1.5 9/15/2022	912828YF1	5,950,000	9/15/2022	12/14/2021	0.22%	6,006,943	258	26,381	6,000,932
T-Note 0.125 1/15/2024	91282CBE0	5,790,000	1/15/2024	1/25/2021	0.18%	5,780,275	745	3,324	5,716,930
T-Note 0.375 12/31/2025	91282CBC4	5,750,000	12/31/2025	1/25/2021	0.43%	5,733,604	1,461	-	5,573,475
T-Note 0.375 4/30/2025	912828ZL7	3,965,000	4/30/2025	8/24/2021	0.59%	3,934,488	1,216	2,506	3,877,017
T-Note 0.5 3/15/2023	912828ZD5	5,765,000	3/15/2023	3/16/2020	0.59%	5,749,687	439	8,520	5,767,248
T-Note 1.375 1/31/2025	912828Z52	5,664,000	1/31/2025	12/7/2021	0.95%	5,739,446	1,127	32,379	5,728,626
T-Note 1.5 10/31/2024	912828YM6	5,500,000	10/31/2024	5/28/2021	0.42%	5,702,168	1,035	13,902	5,586,130
T-Note 1.625 10/31/2023	912828T91	5,500,000	10/31/2023	5/28/2021	0.20%	5,690,137	669	15,060	5,592,400



# Portfolio Holdings Investments – By Security Type

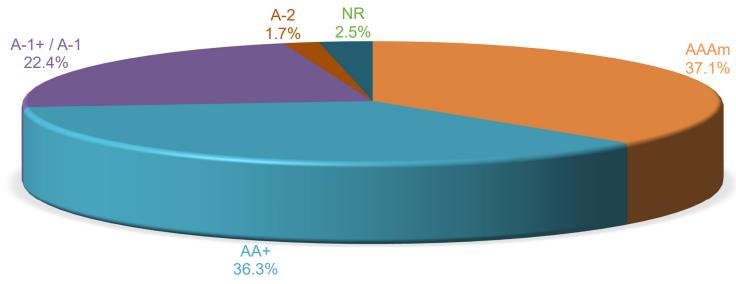


	September		October		November		December	
Security Type	Market Value	Asset Allocation	Market Value	Asset Allocation		Asset Allocation		Asset Allocation
Commercial Paper	118,733,224	14.0%	144,980,089	17.2%	144,995,845	16.2%	140,558,113	15.9%
Federal Agencies	142,538,553	16.9%	142,238,934	16.9%	142,101,246	15.9%	141,811,811	16.1%
U.S. Treasuries	202,474,847	24.0%	161,629,012	19.2%	161,457,843	18.1%	178,749,200	20.2%
MMF / LGIP	286,302,269	33.9%	264,350,777	31.4%	337,196,847	37.7%	327,709,258	37.1%
Cash	95,246,206	11.3%	127,427,615	15.2%	107,582,874	12.0%	94,440,647	10.7%
Total	845,295,099	100.0%	840,626,426	100.0%	893,334,655	100.0%	883,269,029	100.0%

 $In addition \ to \ the \ totals \ listed \ above, there \ also \ exists \ surety \ bonds \ in \ the \ amount \ of \$323,059,258 \ as \ of \ December \ 31,2021.$ 



# Portfolio Holdings Investments – By Credit Quality



Credit Quality	Market Value	Asset Allocation	
Ratings			
AAAm	327,709,258	37.1%	
AA+	320,579,615	36.3%	
A-1 + / A-1	198,005,680	22.4%	
A-2	14,793,195	1.7%	
NR	22,181,281	2.5%	
Totals	883,269,029	100.0%	

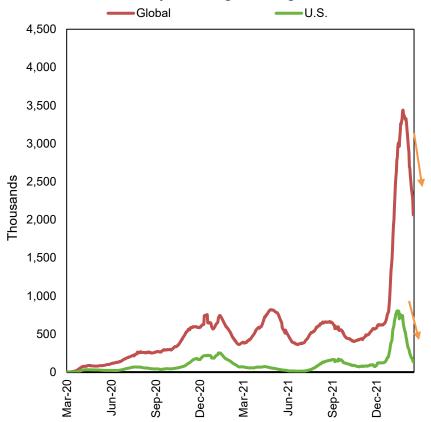


# Appendix II: Economic Update

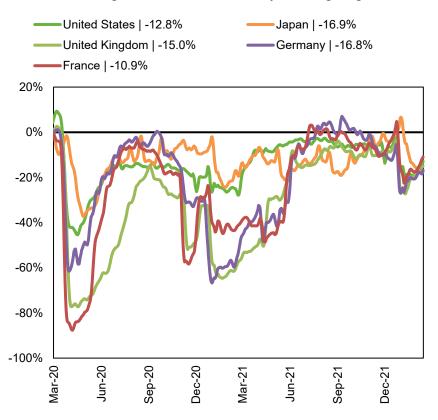


# COVID Cases Are Falling, But Variant Fears Have Stifled Consumer Activity





# National Mobility Data Trips to Retail & Recreation % change from baseline, 5-day moving avg.

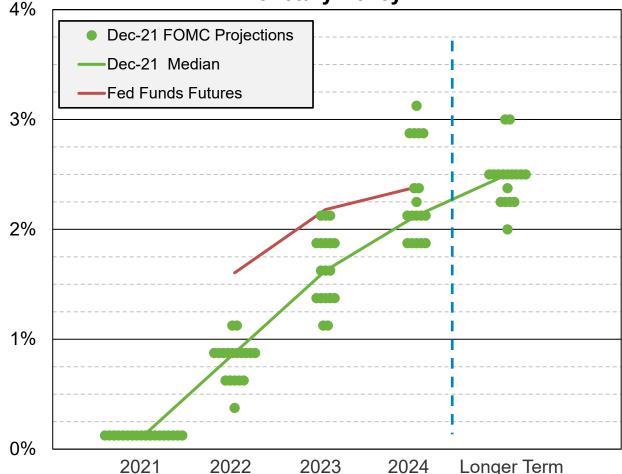


Source: Bloomberg, John Hopkins University Coronavirus Resource Center, as of 2/16/2022. Google COVID-19 Community Mobility Reports, as of 2/10/2022. Data shows how visitors to (or time spent in) categorized places change compared to baseline days. A baseline day represents a normal value for that day of the week. Baseline day is the median value from the 5-week period Jan 3 - Feb 6, 2020.



## Federal Reserve Pivot on Monetary Policy

# Fed Participants' Assessments of 'Appropriate' Monetary Policy



**April '21 :** Fed characterizes inflationary pressure as "transitory"

June '21: Widening dispersion between Fed participants' views on monetary policy as economy improves; more officials indicate rate-lift off is expected by end of 2023

**September '21**: Signals tapering of asset purchases could begin later in the year, but rates will remain near zero

**November '21:** Retires the term "transitory"; announces tapering of bond purchases; signals 2-3 rate hikes in 2022

**December '21 :** Announces accelerated tapering; sees three rate hikes in 2022

January '22: States that "it will soon be appropriate to raise... the federal funds rate," signaling a first rate hike in March

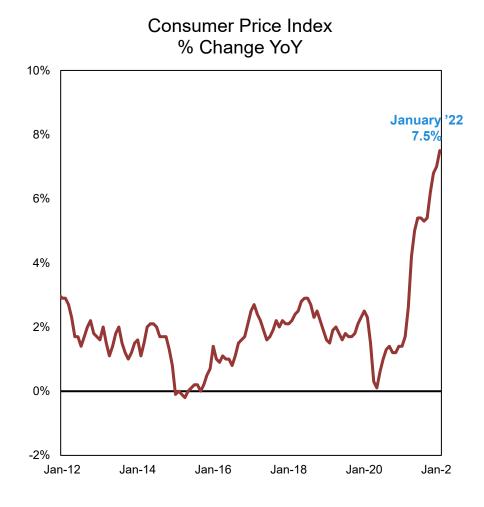
**March '22:** Expected completion of tapering; likely first rate hike

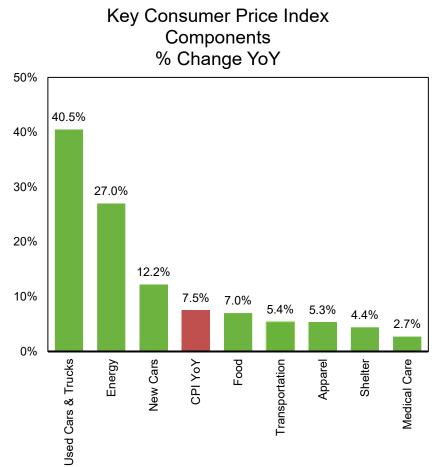
**'22 H2:** Expectation for more rate hikes; possible reduction in Fed balance sheet

Source: Federal Reserve and Bloomberg, as of 2/16/2022. Individual dots represent each Fed members' judgement of the midpoint of the appropriate target range for the federal funds rate at each year-end.



#### Consumer Inflation Rose at Fastest Rate Since 1982



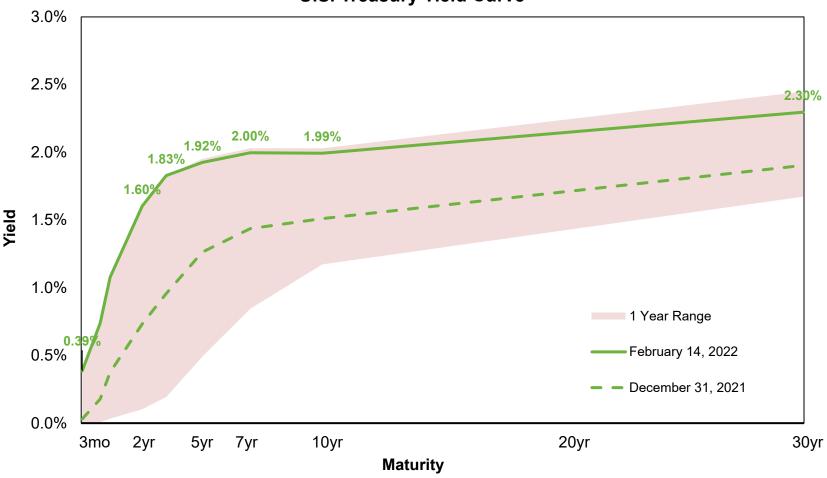


Source: Bloomberg, as of January 2022.



# Treasury Yield Curve Shifts Significantly Higher





Source: Bloomberg, as of 2/14/2022.



# Fixed Income Market Overview and Outlook

#### FIXED INCOME MARKET - ECONOMIC HIGHLIGHTS

- > During the quarter, economic conditions were characterized by:
  - A surge in Covid cases as the Omicron variant spread widely.
  - A sharply falling unemployment rate, rising wages, and a near-record number of job openings.
  - Stickier-than-expected inflation as pent-up consumer demand clashed with continued global supply chain disruptions amid a tight labor market.
  - A pivot by the Fed to remove monetary accommodation more quickly, setting the state for rate hikes to begin sooner than previously expected.
- ➤ U.S. Treasury yields generally rose in the quarter and the yield curve flattened, as short to intermediate-term maturities increased between 30 and 40 basis points, led higher by expectations for faster Fed rate hikes.
  - Meanwhile, rate changes were more muted to modestly lower on the longer end of the curve, which reflected expectations for longer-term normalization of inflation and GDP growth.
  - At quarter-end, the yield on a 3-month U.S. Treasury Bill stood at 0.03%, the 2-year note rose to 0.73%, the 5-year note climbed to 1.26%, the 10-year note increased to 1.51%, while the 30-year ended the quarter at 1.90%.
- Prospects of tighter monetary policy and the Omicron variant weighing on expectations for economic growth will drive the fixed income market going forward.
  - With inflation at three-decade highs, investors are betting on multiple interest rate hikes in calendar year 2022.



# Fixed Income Market Overview and Outlook

#### FIXED INCOME MARKET - ECONOMIC HIGHLIGHTS

- As a result of yield changes over the previous quarter, U.S. Treasury returns were largely negative, except for the shortest and longest tenors:
  - Investment in non-government sectors was a modest detractor to portfolio performance in the quarter as yield spreads on most investment-grade fixed-income sectors widened off recent rock bottom levels.
  - As a result, most investment-grade spread sectors produced negative excess returns for the quarter, underperforming similar-maturity Treasuries.
  - Federal Agencies were not immune to the broad spreads widening experienced in the quarter, generating slightly negative excess returns.
- The public health situation remained precarious with the emergence of the Omicron variant to Covid-19. The surge in new cases affected small businesses already challenged by labor shortages and rising prices due to supply chain challenges. The labor market continued to recover, with the unemployment rate falling to a cyclical low, plentiful job opportunities, and rising wages. Although the economy has largely rebounded from the pandemic-induced recession, the massive monetary and fiscal support from the Fed and Congress has triggered a multi-decade surge in inflation.
  - While growth is forecasted to remain above trend, the real challenge for 2022 is getting inflation down.
  - Mounting inflationary pressures prompted accelerated tapering of bond purchases by the Fed and pulled forward expected rate hikes.
  - Tapering is expected to be complete by mid-March followed by at least three rate hikes in 2022.
  - The Fed may also let some of its \$8.7 trillion balance sheet roll off sometime later in the year.



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