



# Quarterly Investment Report

As of 12/31/2022



# Executive Summary

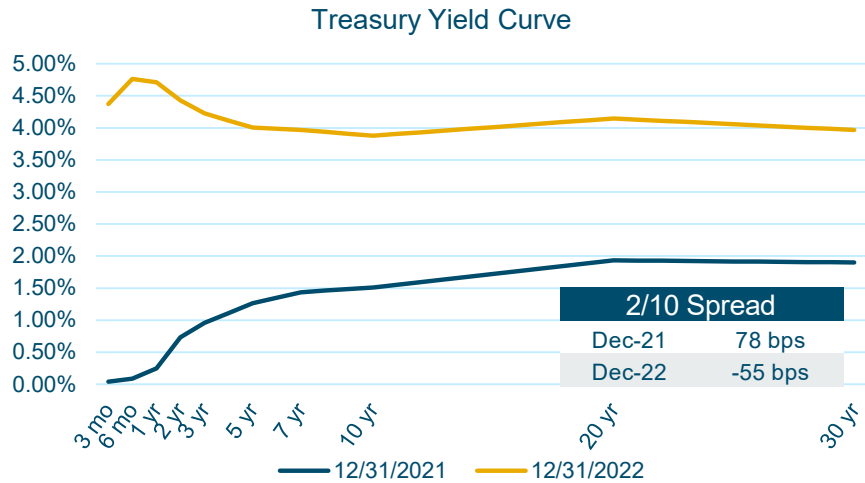
PORTFOLIO STATISTICS:		
Quarter Ending:	09/30/2022	12/31/2022
Tax-Equivalent Book Yield	1.25%	3.33%
Book Value	\$2,869,913	\$752,313
Projected Tax-Equivalent Annual Income	\$35,842	\$25,063
Unrealized Gain	-\$22,468	-\$6,877
YTD Realized Gain	\$0	-\$10,263
Portfolio Duration	0.41	0.59
Average Credit Quality	AAA	AAA

PORTFOLIO ALLOCATION:		
Sector	09/30/2022	12/31/2022
Treasury	86%	100%
Agency	0%	0%
Credit	0%	0%
Exempt Muni	0%	0%
Taxable Muni	0%	0%
MPT	0%	0%
CMO	0%	0%
ABS	0%	0%
CMBS	0%	0%
Short-Term	14%	0%

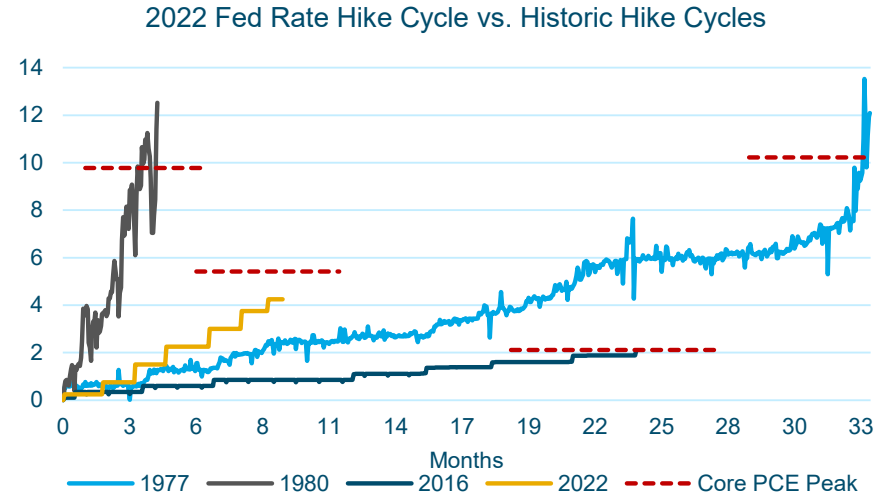
PERFORMANCE:			
Tax-equivalent Performance	Portfolio	Target/Benchmark	Difference
YTD Booked Income	\$12,213	\$7,533	\$4,680
QTD Total Return	0.81%	0.75%	0.06%
YTD Total Return	0.46%	0.44%	0.02%

# Economic Outlook

## Treasury Yields and the Economy



Source: Federal Reserve



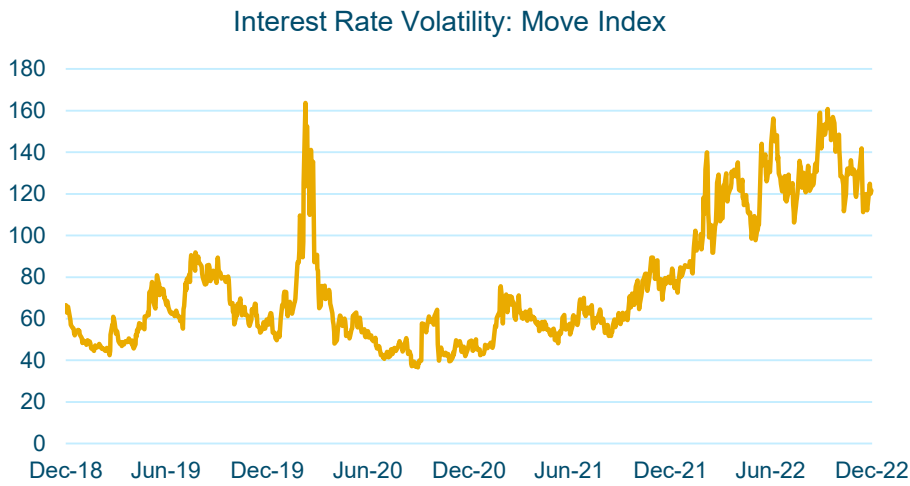
Source: Bloomberg

### Yield Curve & Hike Expectations

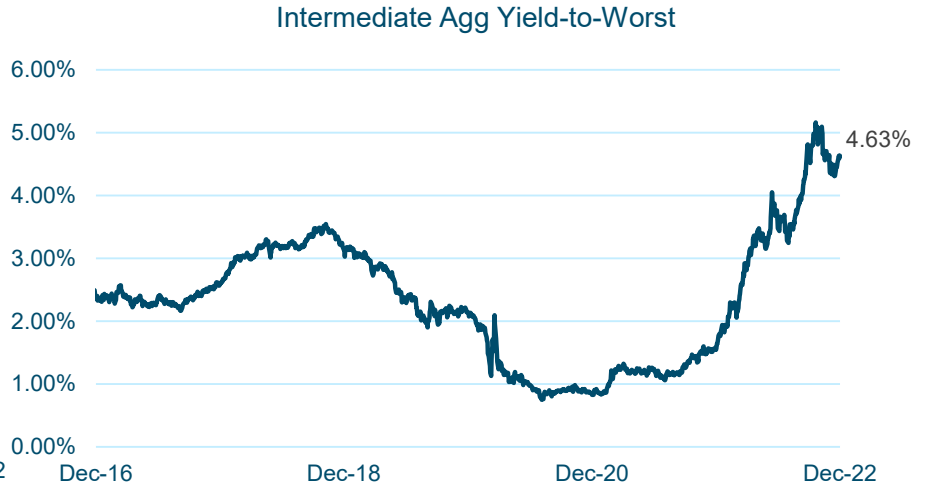
- YTD, yield levels are higher as elevated inflation and solid economic data continue to push the Fed towards further rate hikes.
  - After four consecutive hikes of 75 bps, the Fed slowed their pace to 50 bps at the December meeting but signaled the need for higher terminal rates moving into 2023. While the Fed Funds rate is currently 4.50%, the December Summary of Economic Projections points to a terminal rate of 5.125% next year.
- The Federal Reserve remains resolute that they will do “whatever it takes” to restore price stability, even if it requires a higher unemployment rate and possibly pushing the economy into a recession.
  - As a result, 2-year Treasury yields have risen +369 bps YTD to 4.43%, moving nearly lockstep with Fed Fund rate hikes YTD.
  - 10-year Treasury yields have moved higher as well, but to a lesser extent, reflective of fixed income buyers’ expectations for slower future growth. 10-year yields ended the year at 3.88%, higher by +237 bps YTD.
  - As a result, the curve inversion steepened further in Q4 with the difference between the 2 and 10-year yields ending the year at -55 bps.
- Looking back at previous Fed hiking cycles, a couple items to note:
  - This is the third fastest pace of rate hikes in the last 50 years, only bettered by moves in 1980 and 1972 where core inflation hit double digits.
  - In periods of extremely high inflation, the Fed has been forced to raise the Fed Funds rate through peak core PCE to tame inflation.
    - While the moves this year have been aggressive, peak core inflation reached 5.41% which further supports the belief that the Fed’s hiking cycle is far from complete.

# Economic Outlook

## Treasury Yields and the Economy



Source: Bloomberg



Source: Bloomberg

### Interest Rate Volatility

- With the Fed taking a flexible, “data dependent” approach to monetary policy, markets have experienced extremely high interest rate volatility this year as investors speculate on the impact that each economic release will have on the Fed’s reaction function.
  - Market volatility measures are running at levels not experienced since the onset of the pandemic and the Great Financial Crisis.
- Uncertainty has also stemmed from the war in the Ukraine, ongoing Chinese lockdowns and significant quarterly changes to Fed economic projections.
  - At the December FOMC meeting, the Fed released their latest Summary of Economic Projections (SEP) which has consistently followed the same pattern over the course of the last year. Each quarterly projection has slowed the recovery of inflation to target levels, extended the period required for higher rates for Fed funds, and reduced economic growth expectations.
  - With these changes, the Fed has consistently walked market expectations for terminal rates higher over the course of the year.
    - Market pricing for terminal rates began the year under 1% and ended the year at approximately 5% by May/June.

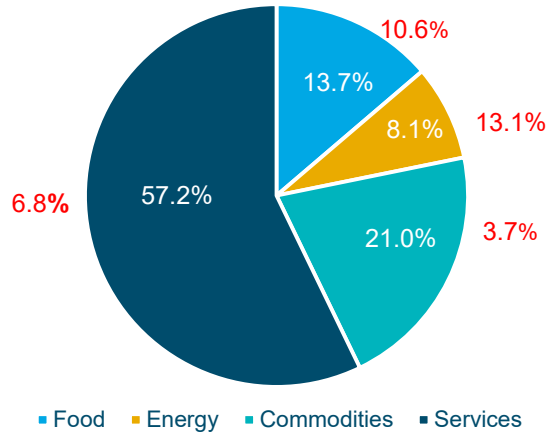
### Investment Yields

- On a positive note, rising market yields continue to provide better reinvestment opportunities, reversing downward pressure on portfolio book yields.
- The yield to worst for the Bloomberg Intermediate Aggregate ended Q4 at 4.63%, which is well above its average of 2.19% over the past decade

# Economic Outlook

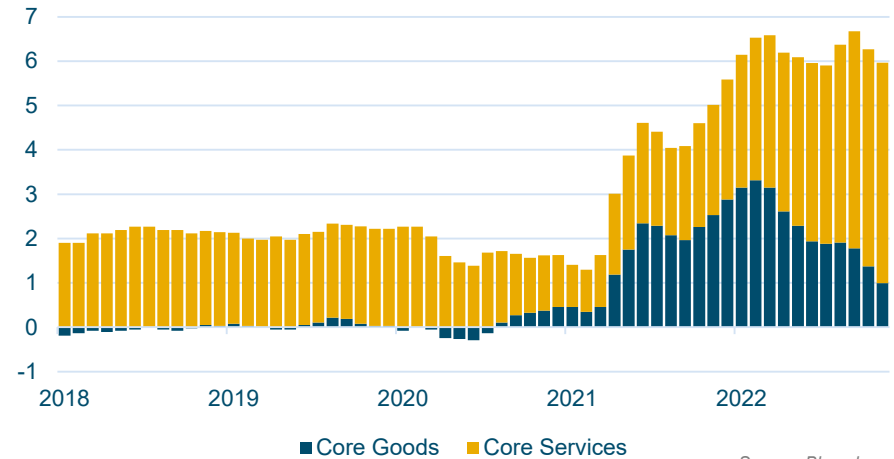
## Market Indicators

Components of Headline CPI & Inflation YoY %



Source: BLS, Bloomberg

Contribution to US Core CPI Inflation YoY%



Source: Bloomberg

### Components of Headline CPI

- While headline CPI has fallen on the year (from a high of 9.1% to 7.1% in Nov), major components within the measure remain uncomfortably high.
  - Food & energy, which are stripped from core inflation measures, makeup ~22% of headline CPI and have contributed 2.5% to the y/y rate.
  - Commodities (autos, apparel, household furnishings, etc.) have declined the fastest at 3.7% contributing 0.8% to the headline number.
  - Services, which is heavily dominated by shelter components, has led the way adding 3.9% to the y/y rate.

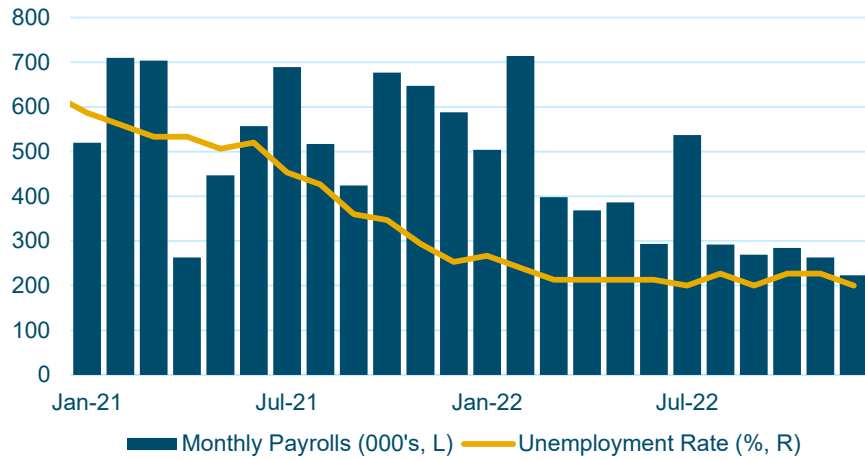
### Core Inflation

- While there has been modest reprieve in headline inflation measures with the decline in commodities, core inflation also remains stubbornly high.
- Unfortunately, this has not provided the Fed comfort that inflation is under control nor that it is returning to target levels.
  - Core PCE inflation remains near 40-year highs at 4.7% y/y (Nov), far from Fed target levels of 2.0%.
  - While core goods components have started to ease with the “reopening” of global economies and lower commodity prices, core service inflation remains elevated.
    - The largest contributors to service inflation include shelter (owners equivalent rent, “OER”) and wages. Given the sticky nature of these components, they will remain supportive of higher core levels in the foreseeable future.
      - Given the lag from the peak of home prices to cost of shelter (~1 year), OER will provide a floor to elevated core inflation.
      - Wage pressures will continue to remain at elevated levels until labor market imbalances subside.
  - Reducing pressures from both wage and shelter is a key part of the Fed’s fight on inflation.
    - Rate hikes in 2022 have resulted in modest progress in these measures, however, are expected to improve as we move into 2023.

# Economic Outlook

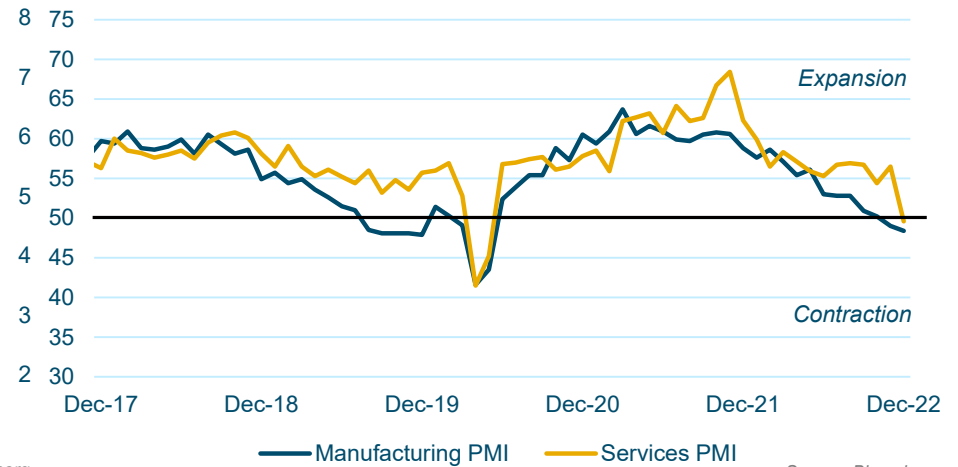
## Market Indicators

NFP Monthly Change vs Unemployment Rate



Source: Bloomberg

U.S. ISM Purchase Managers Index



Source: Bloomberg

### Employment

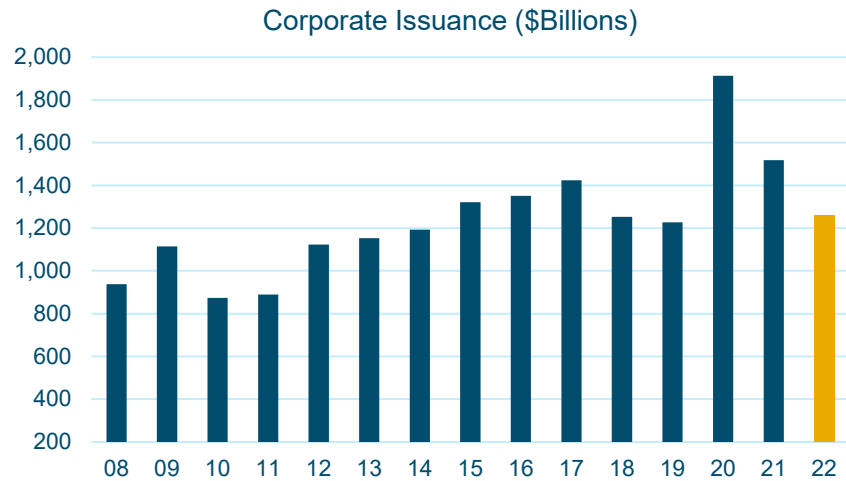
- Tight labor market conditions remain one of the key factors adding to inflationary pressures within the U.S. economy. As a result, wage growth continues to accelerate as demand exceeds supply.
  - While the pace has slowed on a month over month basis, hiring remains resilient and exceeds the 3-year average monthly growth experienced prior to the pandemic.
  - With the unemployment rate near 50-year lows and job openings at the upper end of all-time highs, wage pressures will continue to be a challenge for the Fed as they strive to lower inflation in 2023.

### Purchasing Managers Index

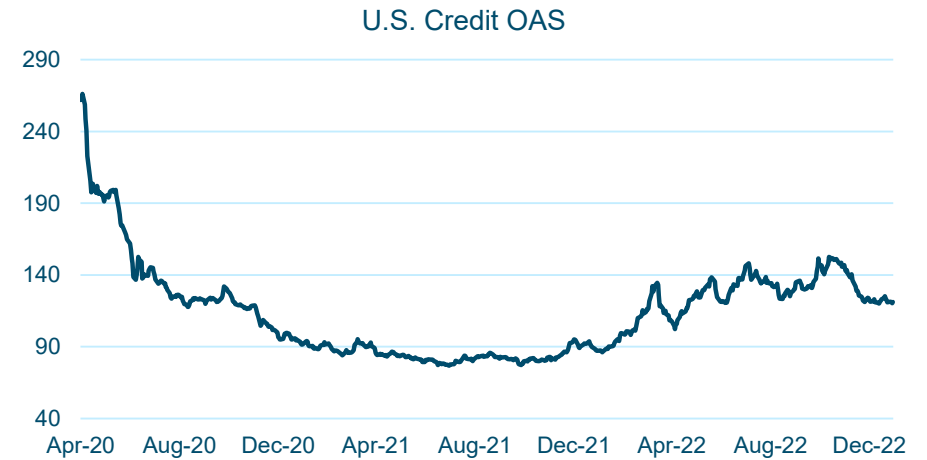
- Macro business conditions have moved into unfavorable territory, driven by persistently high inflation, weakened consumer sentiment, and tightening lending conditions. Globally, businesses are feeling the pressure of the higher rate environment and the impact on future growth prospects.
- As a result, key business surveys, such as the ISM purchase managers index has declined significantly this year from peaks witnessed in 2021.
  - Manufacturing in November fell to a 30-month low, contracting for the first time since the start of the pandemic.
  - While service sectors had remained in expansion throughout the year, in December the index dipped into contraction.
- Declines in both measures point to slowing business profitability and potential credit risk to bond holders.
  - Moving into 2023, credit spreads should trend wider as investors demand higher yields to compensate them for the taking on these elevated risks in a recessionary environment.
  - We advocate focusing on credit quality to insulate portfolios from credit disruptions until spreads provide better compensation for risk.

# Economic Outlook

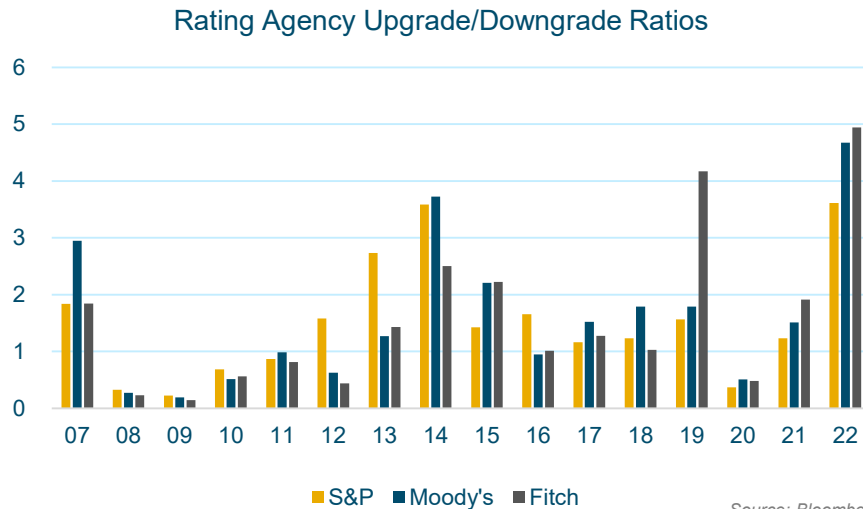
## Corporates



Source: Bloomberg



Source: Bloomberg

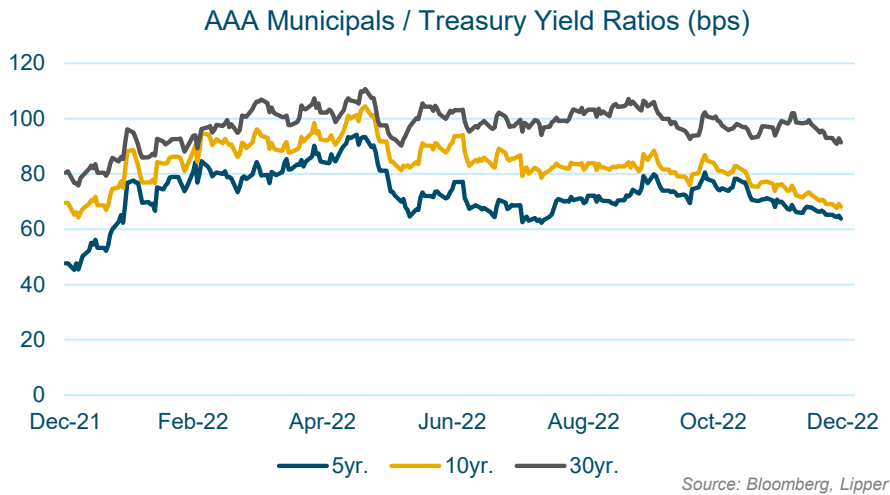
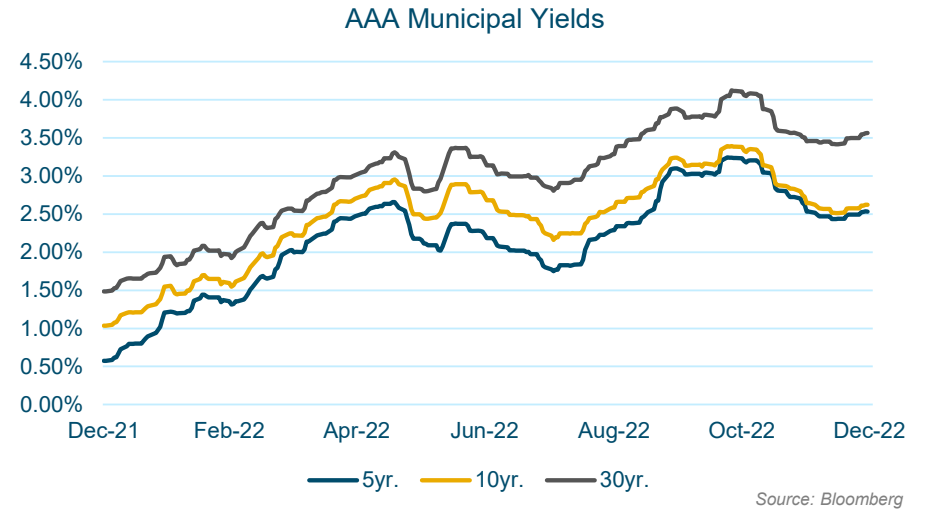
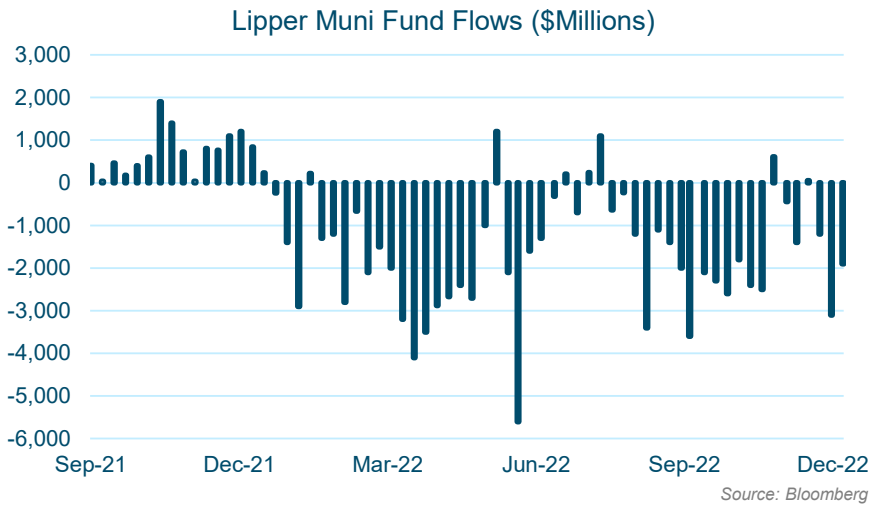


Source: Bloomberg

- IG spreads snapped 25bps tighter in Q4'22, closing the year at +121, 31bps off the wides of the year. Interest rate volatility subsided over the course of the quarter, and market participants continued to look for a Fed pivot, despite the continued hawkish messaging from the FOMC.
- 2022 IG issuance slowed dramatically, falling 17% y/y (-31% q/q) to \$1,259bn. A hawkish Fed, interest rate volatility, and increasing recessionary fears resulted in a record 45 days of no IG supply, compared to 33 in 2008.
- Corporate fundamentals continued to show sequential weakening, albeit from strong levels. Given the inflationary and global growth outlooks, we would expect operating performance to weaken moving forward.
- We retain our tactical overweight to corporates with a high-quality bias.

# Economic Outlook

## Municipals



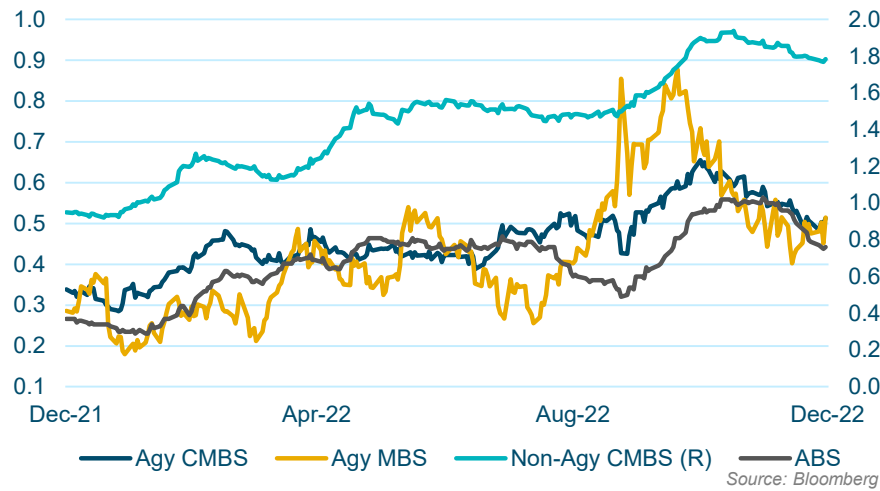
- Bloomberg Municipal Index experienced positive returns of +4.11% for the quarter and outperformed the taxable alternatives with the Aggregate index posting +1.87%.
- The ratio of pre-tax yields to similar maturity treasuries moved to the richer side of fair value throughout quarter.
- January is often a good month for municipal bonds: issuance is usually light, and investors typically have coupon and principal payments to reinvest, so supply is often light while demand is usually relatively high.
- We will continue to layer in purchases across many of the portfolios we manage when ratios improve, and additional new issue supply comes to market throughout the quarter.



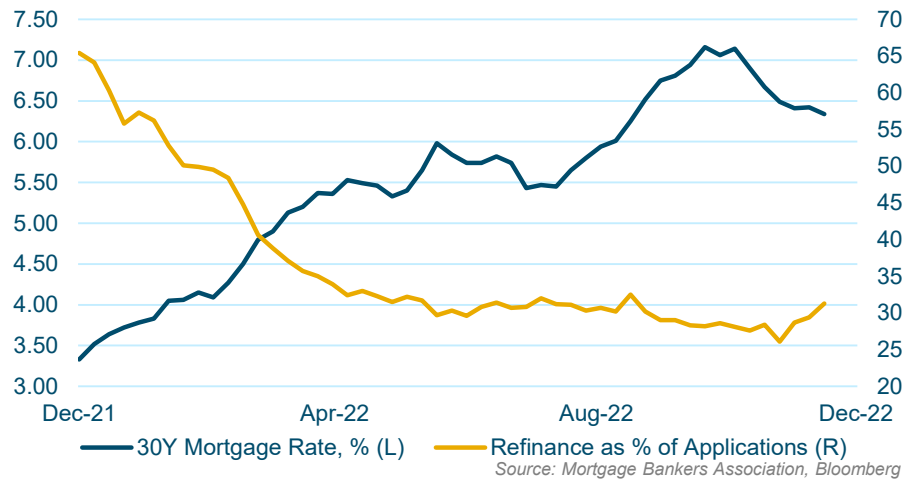
# Economic Outlook

## Structured Product

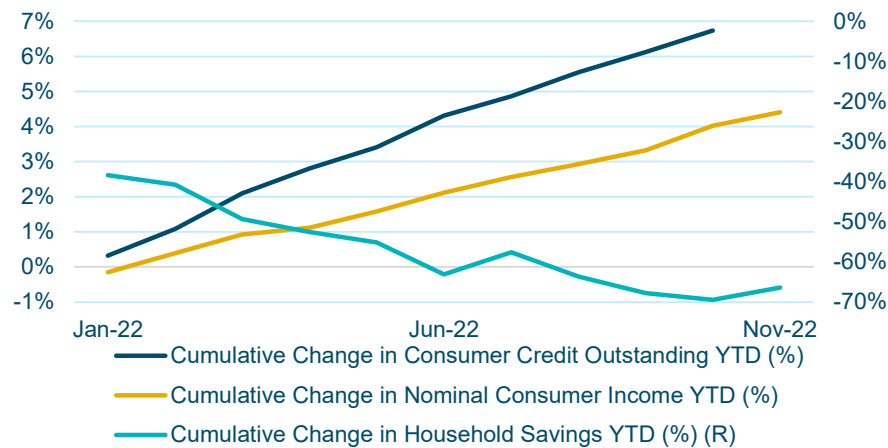
Structured Product Spreads



Mortgage Rates and Refinance Applications



US Consumer Health

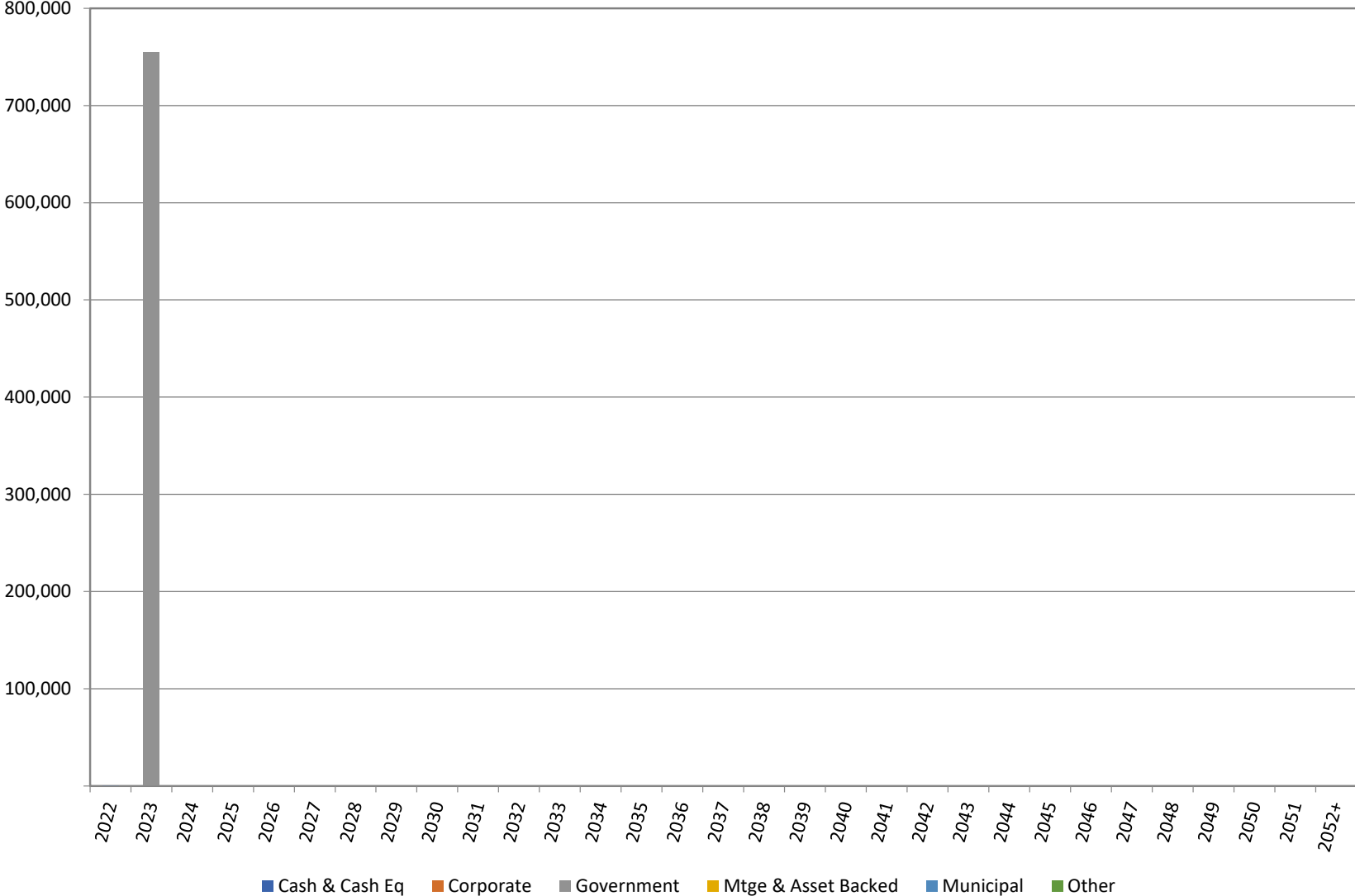


- MBS spreads tightened 18bps over the quarter on weaker core inflation numbers as the market anticipated a Fed pivot. ABS and Non-Agency CMBS widened 16bps and 20bps respectively, mostly on liquidity concerns. Agency CMBS was relative unchanged at just 1bp tighter.
- In mid-October 30Y mortgages had climbed over 380bps since the start of 2022, leaving recent borrowers with historically high rates and payments. By mid-November, refinance as a percentage of applications had declined from 65% to 26%. However, a recent 80bp reprieve in rates has allowed refinancers who feared they had missed the boat to seize the opportunity, and the percentage of refinances has ticked back up to 31%.
- No one has felt the toll of inflation more keenly in 2022 than consumers. While various forms for COVID relief and economic stimulus pushed household savings to record-highs in 2020, the follow-on effects of inflation over the subsequent years saw that number decline by almost 2/3 in 2022. Meanwhile, nominal consumer incomes, which grew 4.4% through November, could not keep pace with 6.7% increase in consumer credit outstanding during the same period.

# Portfolio Statistics

Security Type	Book Value	Market Value	Gain / (Loss)	Tax- Equivalent Book Yield	Tax- Equivalent Market Yield	Effective Duration	Convexity	Securities at Gain		Securities at Loss	
								#	Amount	#	Amount
<b>Fixed Income</b>											
Treasury	752,076	745,199	(6,877)	3.33	4.61	0.59	0.01	0	0	3	(6,877)
Agency	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Corporate	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Taxable Municipal	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Tax-exempt Municipal	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Mortgage Pass-Through	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
CMOs	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
ARMs	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Asset Backed	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
CMBS	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Other	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
<b>Total</b>	<b>752,076</b>	<b>745,199</b>	<b>(6,877)</b>	<b>3.33</b>	<b>4.61</b>	<b>0.59</b>	<b>0.01</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>(6,877)</b>
<b>Short Term</b>											
Sweep Money Market	237	237	0	0.00	0.00	0.00	0.00	0	0	0	0
Commercial Paper	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
(Payable)/Receivable	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
<b>Total</b>	<b>237</b>	<b>237</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Fixed Income &amp; Short Term</b>											
<b>Total</b>	<b>752,313</b>	<b>745,436</b>	<b>(6,877)</b>	<b>3.33</b>	<b>4.60</b>	<b>0.59</b>	<b>0.01</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>(6,877)</b>
<b>Equity</b>											
Common Stock	0	0	0					0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>					<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Grand Total</b>											
<b>Total</b>	<b>752,313</b>	<b>745,436</b>	<b>(6,877)</b>					<b>0</b>	<b>0</b>	<b>3</b>	<b>(6,877)</b>

# Maturity Schedule By Weighted Average Life



# Effective Maturity Schedule

Year	Book Value	Tax Equiv. Book Yield	% of Total Book Value
2022	0	0.00	0%
2023	752,076	3.33	100%
2024+	0	0.00	0%
<b>Subtotal</b>	<b>752.076</b>	<b>3.33</b>	<b>100%</b>
<i>(inc. ABS, Agcy, CMBS, Corp, Muni, UST)</i>			
MBS	0	0.00	0%
<b>TOTAL</b>	<b>752.076</b>	<b>3.33</b>	<b>100%</b>

# Performance

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**Tax-Equivalent Total Return  
as of 12/31/2022  
Inception Date: 08/01/2014**

	<b>Portfolio</b>	<b>Benchmark</b>	<b>Difference</b>
Quarter to Date	0.81%	0.75%	0.05%
Year to Date	0.46%	0.44%	0.02%
Since Inception	0.98%	1.00%	-0.02%

**Benchmark Composition:**

100.0% PEJIF Duration Matched Treasury

# Bond Purchases

Trade Date	Description	Security Type	S&P Rating	Moody's Rating	Coupon	Maturity Date	Call Date	Price	Cost	Pre-Tax Book Yield	Tax-Equivalent Book Yield
10/04/2022	US TREASURY N/B	Treasury	AA+	Aaa	2.875	09/30/2023	N/A	98.81	237,150	4.12	4.12
<b>Total</b>									<b>237,150</b>	<b>4.12</b>	<b>4.12</b>

## Bond Sales, Calls & Maturities

Trade Date	Trade Type	Description	Security Type	S&P Rating	Moody's Rating	Coupon	Effective Maturity	Maturity Date	Price	Book Value	Realized Gain/(Loss)	Pre-Tax Book Yield	Tax-Equivalent Book Yield
10/31/2022	Maturity	US TREASURY N/B	Treasury	AA+	Aaa	0.125	10/31/2022	10/31/2022	100.00	250,000	0	0.13	0.13
11/15/2022	Maturity	US TREASURY N/B	Treasury	AA+	Aaa	1.625	11/15/2022	11/15/2022	100.00	225,000	0	0.32	0.32
11/22/2022	Sell	US TREASURY N/B	Treasury	AA+	Aaa	0.125	12/31/2022	12/31/2022	99.57	199,994	(853)	0.15	0.15
12/27/2022	Sell	US TREASURY N/B	Treasury	AA+	Aaa	1.750	01/31/2023	01/31/2023	99.78	225,340	(841)	0.11	0.11
12/27/2022	Sell	US TREASURY N/B	Treasury	AA+	Aaa	1.500	03/31/2023	03/31/2023	99.26	200,464	(1,940)	0.59	0.59
12/27/2022	Sell	US TREASURY N/B	Treasury	AA+	Aaa	1.625	04/30/2023	04/30/2023	99.08	149,740	(1,117)	2.14	2.14
12/27/2022	Sell	US TREASURY N/B	Treasury	AA+	Aaa	1.750	05/15/2023	05/15/2023	98.91	249,674	(2,399)	2.10	2.10
12/27/2022	Sell	US TREASURY N/B	Treasury	AA+	Aaa	2.500	08/15/2023	08/15/2023	98.67	238,421	(1,608)	3.56	3.56
12/27/2022	Sell	US TREASURY N/B	Treasury	AA+	Aaa	0.125	02/28/2023	02/28/2023	99.29	224,896	(1,504)	0.40	0.40
<b>Total</b>										<b>1,963,528</b>	<b>(10,263)</b>	<b>1.05</b>	<b>1.05</b>

# ***Appendix***

## Detailed Portfolio Report



# Portfolio Holdings Report

CUSIP	Date Acquired	S&P Rating	Moody's Rating	Quantity	Description	Coupon	Effective Maturity	Maturity	Original Cost	Book Value	Market Value	Unrealized Gain/(Loss)	Book Yield	Market Yield	Effective Duration	Avg Life	Convexity
<b>Money Market</b>																	
711990333	12/28/2022			237	TD BK DEP	0.00			237	237	237	0	0.00	0.00	0.00	0.00	
<b>Total Money Market</b>				<b>237</b>					<b>237</b>	<b>237</b>	<b>237</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	
<b>Treasury</b>																	
9128284U1	07/07/2022	AA+	Aaa	250,000	US TREASURY N/B	2.63	06/30/2023	06/30/2023	249,277	249,631	247,130	(2,501)	2.93	4.58	0.48	0.49	0.00
9128285D8	10/04/2022	AA+	Aaa	240,000	US TREASURY N/B	2.88	09/30/2023	09/30/2023	237,150	237,842	236,371	(1,471)	4.12	4.58	0.72	0.75	0.01
912828Y61	08/02/2022	AA+	Aaa	265,000	US TREASURY N/B	2.75	07/31/2023	07/31/2023	264,327	264,604	261,698	(2,906)	3.01	4.65	0.56	0.58	0.01
<b>Total Treasury</b>				<b>755,000</b>					<b>750,754</b>	<b>752,076</b>	<b>745,199</b>	<b>(6,877)</b>	<b>3.33</b>	<b>4.61</b>	<b>0.59</b>	<b>0.60</b>	<b>0.01</b>
<b>Grand Total</b>				<b>755,237</b>					<b>750,992</b>	<b>752,313</b>	<b>745,436</b>	<b>(6,877)</b>	<b>3.33</b>	<b>4.60</b>	<b>0.59</b>	<b>0.60</b>	<b>0.01</b>

# Glossary of Terms

Security Types	
<b>Adjustable Rate Mortgage (ARM)</b>	A mortgage in which the interest rate is changed at regular intervals to reflect fluctuations in market interest rates. Because the borrower takes some of the risk of rising interest rates, the initial rate may be lower than that on a fixed-rate mortgage. There are often limitations on the interest rate change from one period to the next, with a rate cap for the life of the loan.
<b>Agency</b>	A fixed income security issued by a government-sponsored agency, such as Ginnie Mae, Freddie Mac, or the Tennessee Valley Authority. Depending on the issuer, these bonds may or may not be backed by the full faith and credit of the U.S. government.
<b>Asset-Backed Security (ABS)</b>	A fixed income security backed by the cash flows from loans or leases. Auto loans, home equity loans, and credit card receivables are the most common assets backing these securities. Principal and interest payments made by borrowers are redirected to owners of ABS to meet the scheduled coupon and principal payments.
<b>Collateralized Mortgage Obligation (CMO)</b>	A security similar to a mortgage-pass through. In a CMO, the principal and interest received from borrowers is split into different classes called tranches. The structure of CMO payment tranches makes the timing of cash flows more certain for owners of some tranches and less certain for owners of other tranches. More uncertain tranches typically provide higher yields.
<b>Commercial Mortgage-Backed Security (CMBS)</b>	A fixed income security backed by the cash flows from commercial real estate mortgages. All principal and interest from the mortgages flow to bond holders in a defined sequence. Common types of real estate involved are apartment buildings, office and retail space, hotels, and health care facilities.
<b>Corporate (Corp)</b>	A fixed income security issued by a private corporation.
<b>Mortgage Pass-Through (MPT)</b>	A fixed income security backed by the cash flows from residential mortgages. Monthly principal and interest payments made by borrowers are redirected to owners of MPTs as they are received. Because borrowers may prepay their mortgages (perhaps due to refinancing or selling the house), the timing of cash flows on these securities is uncertain.
<b>Preferred Stock (Preferred)</b>	Capital stock having priority over a corporation's common stock in the distribution of dividends. In the event of a liquidation, preferred stock's claim on assets ranks above that of common stock but below that of bank loans or corporate bonds.
<b>Tax-exempt Municipal (ExMuni)</b>	A fixed income security, issued by a state or municipality, paying interest that is exempt from federal income tax. Interest may or may not be exempt from state and local tax.
<b>Taxable Municipal (TaxMuni)</b>	A fixed income security, issued by a state or municipality, paying interest that is subject to federal income tax. Typically issued much less commonly than tax-exempt municipals.
<b>Treasury</b>	A marketable fixed income security issued by the U.S. Department of the Treasury and backed by the full faith and credit of the U.S. government.

# Glossary of Terms

Definitions	
<b>Average Life</b>	The dollar-weighted average time to maturity of a stream of principal cash flows. Also referred to as “weighted average life” or “WAL”.
<b>Basis Point (bp)</b>	1/100 of 1% (or equivalently .0001).
<b>Benchmark</b>	<p>An index against which performance can be measured. Attributes of a good benchmark include:</p> <p><i>Objective:</i> The index should be identified ahead of the time, it should be easily understood, and the construction rules should be clearly defined.</p> <p><i>Replicable:</i> The manager should be able to replicate the returns passively.</p> <p><i>Relevant:</i> The index should represent the manager’s neutral position. In other words, without the manager’s input, the index should represent a reasonable portfolio the company would purchase.</p> <p><i>Tax Adjusted:</i> The benchmark should adjust for the different tax rates on various security types</p>
<b>Book Income</b>	Dollars of investment income that flow through an insurance company’s income statement. This is equal to coupon received plus any accretion/ (amortization) of book value. It can also include any <u>realized</u> gains or losses in the portfolio.
<b>Book Value</b>	The value of a security that is reflected on an insurance company’s balance sheet. For fixed income securities on a statutory and tax basis this is the amortized value. The amortized value periodically writes up any accrual of purchase discount (or writes down amortization of premium) over the life of the security. The amortized value holds the underlying “book yield” constant and therefore does not swing with movements in the market.
<b>Book Yield</b>	The average annual yield which a bond purchased and held to maturity will earn over the period it is owned. This is generally fixed at the time of purchase of the security. The book yield can be used to calculate the book value of the security at any time between purchase and maturity.
<b>Cash Flow</b>	Interest and principal payments from the securities in a fixed income portfolio. A bullet (non-callable) bond will typically pay a coupon payment every 6 months, with a return of principal at maturity. For mortgage-backed securities and asset-backed securities, cash flows generally arrive monthly from both interest and principal. This principal portion contains both the planned return of principal and prepayment of principal due to reasons such as mortgage refinancing.
<b>Convexity</b>	Describes the sensitivity of a bond’s duration to a change in yield. As yields decrease, duration increases on bonds with positive convexity and decreases on bonds with negative convexity. This causes bonds with negative convexity to underperform when yields increase or decrease by large amounts.
<b>Credit Risk</b>	The risk that the issuer of a fixed income security may default and be unable to make timely interest and principal payments on the security.
<b>Duration</b>	The sensitivity of a bond’s price to a change in yield. Duration generally increases for bonds with longer maturities, meaning these bonds are more sensitive to yield changes. Bond price and yield move in opposite directions. Example: A bond with a duration of 5.0 would experience a price decrease of 5% for every 1% (100 bps) increase in interest rates.

# Glossary of Terms

Definitions (cont.)	
<b>DYCARR<sup>SM</sup></b>	A proprietary model designed specifically for P/C insurance companies to maximize investment income while managing interest rate risk (see definition.) The model applies stress tests to projected operational cash flow and finds the likelihood that bonds in the portfolio will need to be liquidated in order to meet cash flow needs (such as the payment of losses). This may allow a company to invest in longer duration securities with higher yields.
<b>FICO Score</b>	A generic credit score developed by Fair, Isaac and Company, Inc., designed to predict the likelihood of borrowers becoming delinquent in their credit obligations.
<b>Gross Domestic Product (GDP)</b>	The total market value of all final goods and services produced in a country in a given year; it is equal to total consumer, investment, and government spending, plus exports, minus imports.
<b>Interest Rate Risk</b>	The risk to a bondholder that an increase in interest rates will cause bond prices to fall. Interest rates and market prices for fixed income securities generally move in opposite directions. Interest rate changes are the largest cause of changes in the market value of a bond portfolio.
<b>Loan to Value (LTV)</b>	A lending risk assessment ratio used in mortgage lending. LTV is calculated by dividing the mortgage amount by the lesser of appraised value or selling price. Residential mortgage loans conforming to agency guidelines have LTV ratios of 80% or lower at origination. Lenders will frequently require lower LTV ratios for commercial or investment properties.
<b>Market Value</b>	Estimated value of the bond based on current market price. This value fluctuates continually with interest rates and perceived risk of the issuer. Reflects the amount that could be received by selling the bond.
<b>Option Adjusted Spread (OAS)</b>	The portion of a bond's yield which is attributable to the credit risk of a bond as perceived by the market. This allows for comparison between bonds with or without embedded options such as calls, puts, and prepayment features.
<b>Realized Gain/(Loss)</b>	Difference between market and book value when a bond is sold. If market is greater than book value the bond was sold at a realized capital gain. Realized capital gains/(losses) flow through an insurer's income statement.
<b>Tax Equivalent Yield</b>	Yield adjusted for taxes, which allows for comparison of taxable bonds to tax-exempt bonds. Calculated by dividing after-tax yield by 0.65 (1 minus 35%).
<b>Total Return</b>	The return on a security or portfolio that reflects both income and price change. Assumes that the security or portfolio is priced using fair value at the end of the evaluation period.
<b>Unrealized Gain/(Loss)</b>	The difference between market value and book value on a bond. If market value is greater than book value the bond is at an unrealized gain. Under statutory accounting rules, changes in unrealized gain/(loss) do not affect income.
<b>Volatility Adjusted Duration</b>	A portfolio duration which has been adjusted for the lower observed price volatility seen in tax-exempt municipal bonds. Historically municipals appear to have about 15% lower price volatility than their stated durations suggest; this measure takes that observance into account.
<b>Whole Loan</b>	An original residential mortgage loan; distinct from a pooled pass-through which contains multiple loans. Non-agency CMOs use whole loans as collateral. They usually include jumbo mortgages and other mortgages which do not conform to the standards required for securitization by the agencies (GNMA, FNMA, FHLMC).
<b>Yield</b>	The implied return achievable for purchasing a bond at a given price.

# ***Appendix***

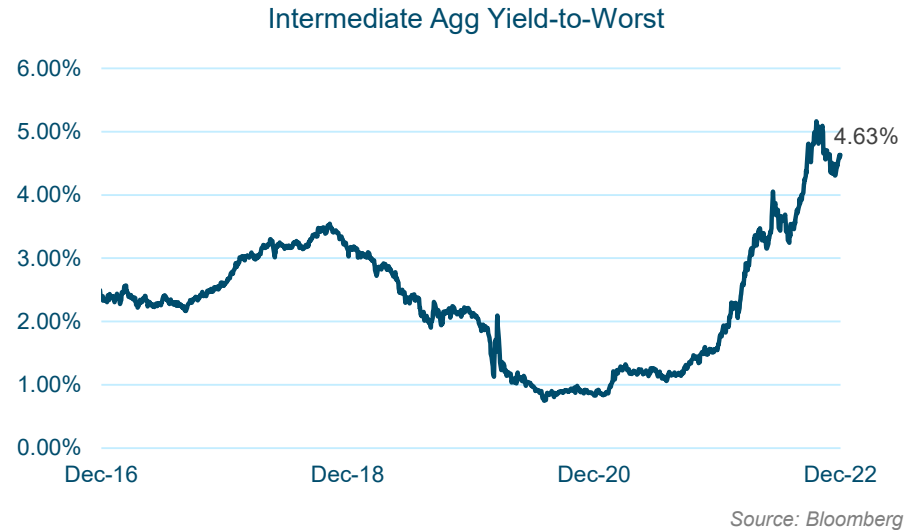
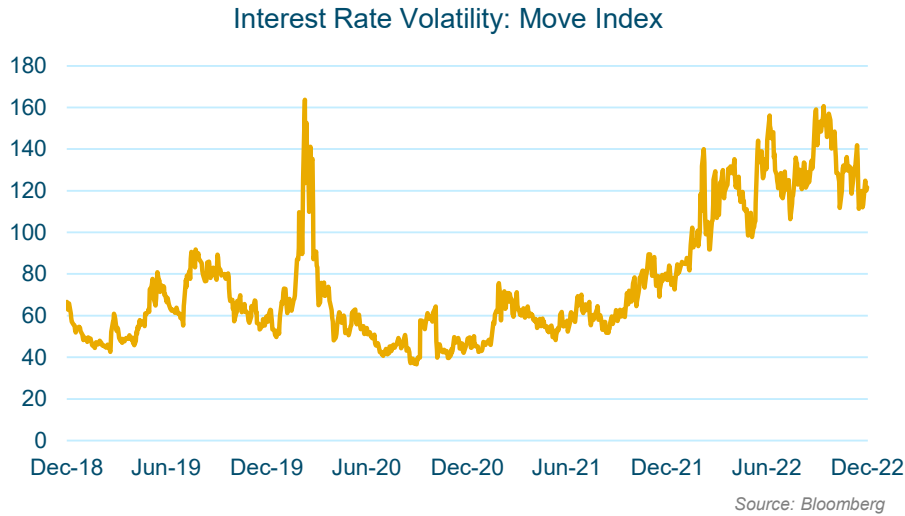
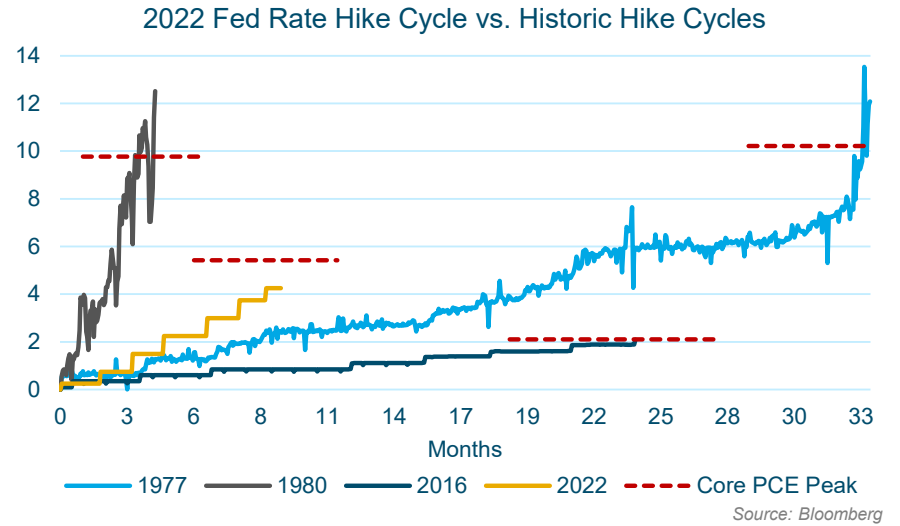
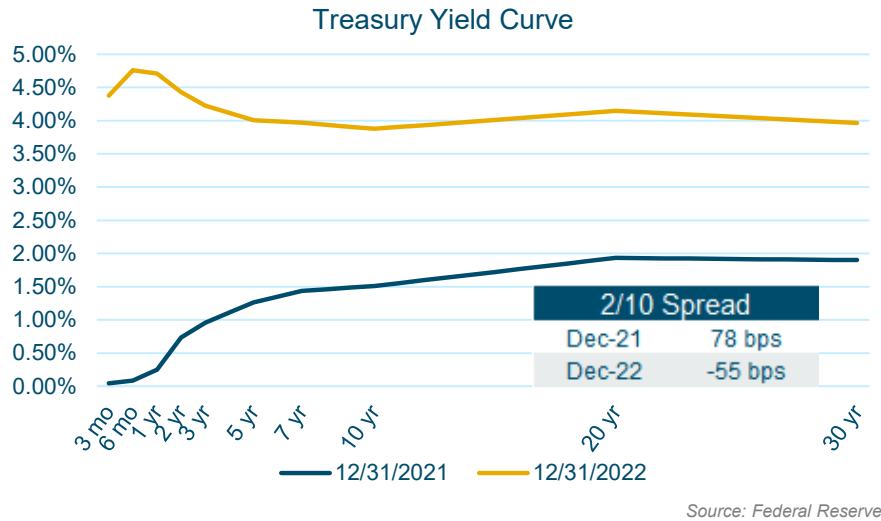
## Presentation Overview

## Overview

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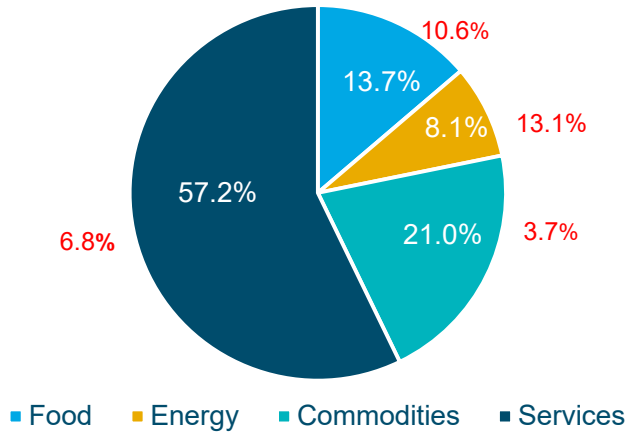
- Economic overview and market update
- Portfolio review
- Performance

# Treasury Yields and the Economy



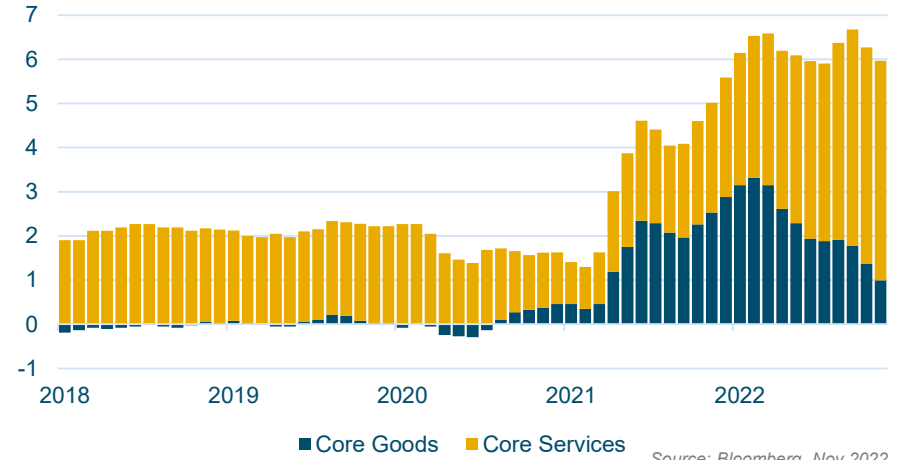
# Market Indicators

Components of Headline CPI & Inflation YoY%



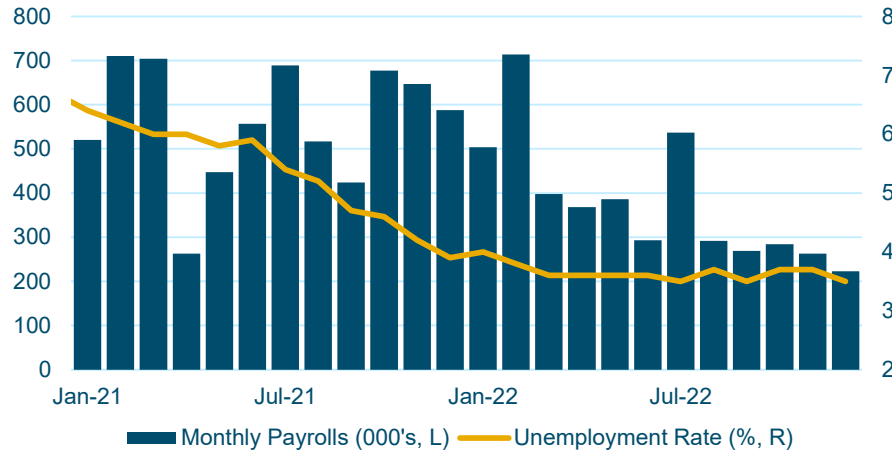
Source: BLS, Bloomberg, Nov 2022

Contribution to US Core CPI Inflation YoY%



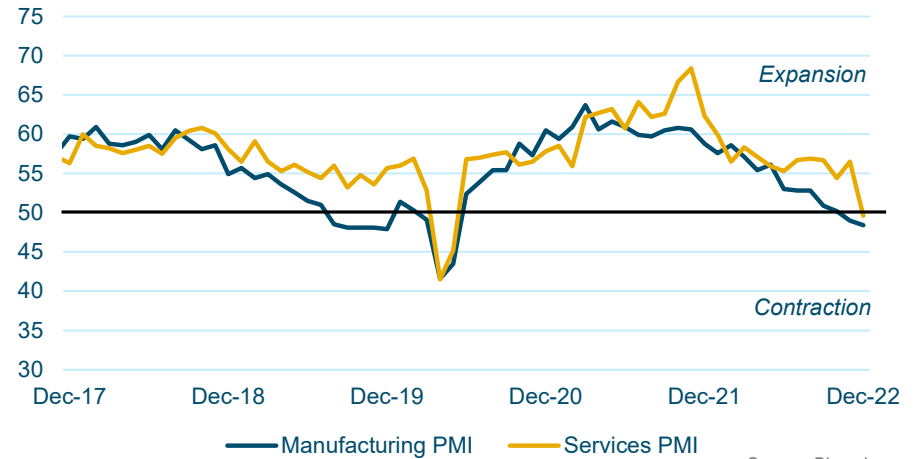
Source: Bloomberg, Nov 2022

NFP Monthly Change vs Unemployment Rate



Source: Bloomberg

U.S. ISM Purchase Managers Index



Source: Bloomberg

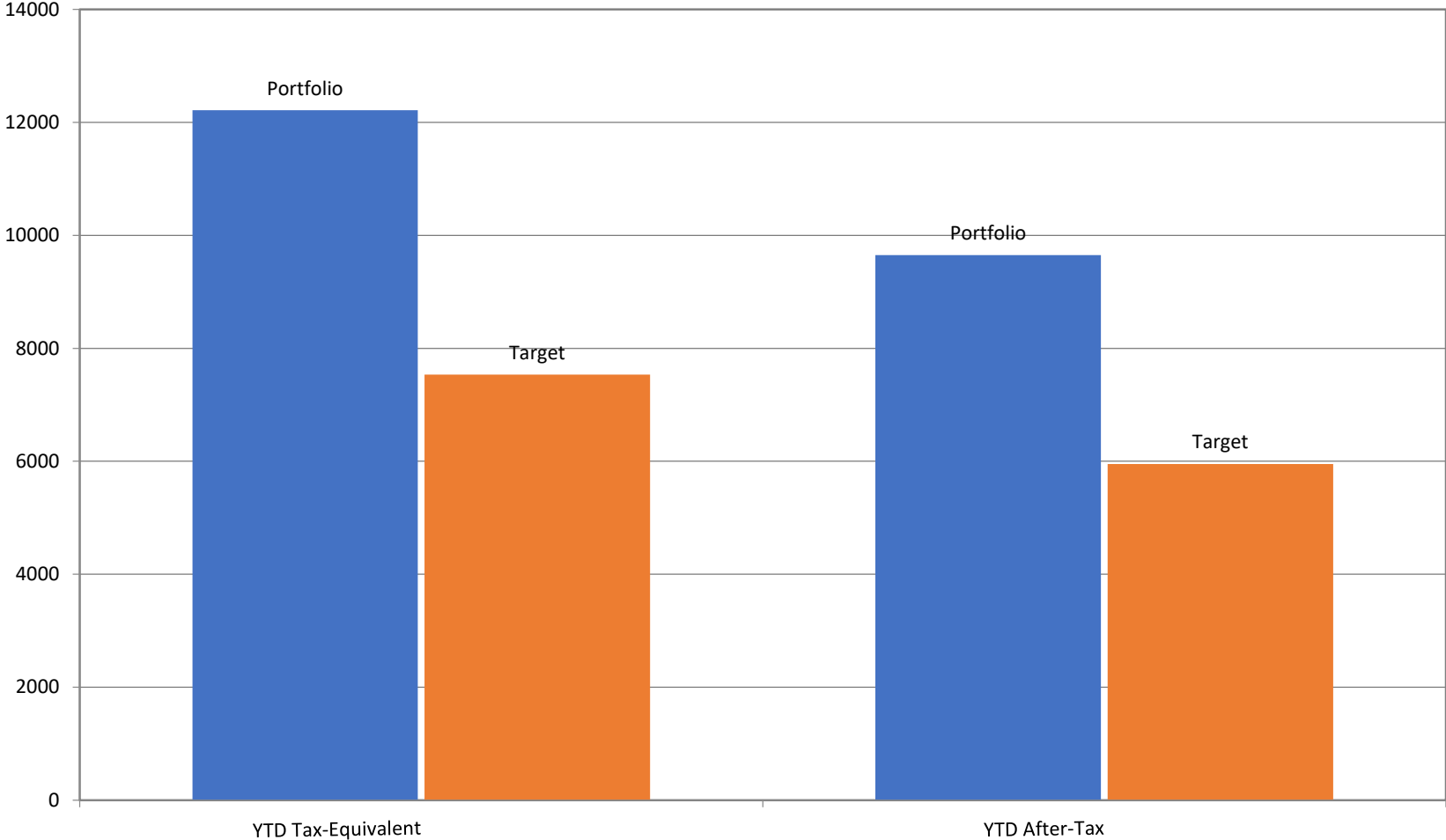


## Portfolio Changes

Public Entity Joint Insurance Fund	12/31/2021	03/31/2022	06/30/2022	09/30/2022	12/31/2022
<b>Treasury Yields</b>					
2 yr Treasury Yield	0.73%	2.32%	2.97%	4.23%	4.40%
5 yr Treasury Yield	1.26%	2.45%	3.04%	4.05%	3.96%
10 yr Treasury Yield	1.50%	2.33%	3.01%	3.79%	3.83%
<b>Book Statistics</b>					
Tax-Equivalent Book Yield	0.14%	0.19%	0.46%	1.25%	3.33%
Book Value (\$)	3,014,985	2,865,342	2,867,561	2,869,913	752,313
Projected Tax-Equivalent Income, next 12 months (\$)	4,239	5,351	13,159	35,842	25,063
Unrealized Gains/(Losses) (\$)	(2,977)	(14,658)	(19,844)	(22,468)	(6,877)
YTD Realized Gains/(Losses) (\$)	226	0	0	0	(10,263)
<b>Portfolio Risk Statistics</b>					
Effective Duration	0.63	0.50	0.40	0.41	0.59
Convexity	0.01	0.01	0.00	0.00	0.01
Weighted Average Life	0.63	0.50	0.40	0.43	0.60
Average Rating	AAA	AAA	AAA	AAA	AAA
<b>Portfolio Sector Allocation</b>					
Treasury	88%	98%	85%	86%	100%
Agency	0%	0%	0%	0%	0%
Corporate	0%	0%	0%	0%	0%
Taxable Municipal	0%	0%	0%	0%	0%
Tax-exempt Municipal	0%	0%	0%	0%	0%
Mortgage Pass-Through	0%	0%	0%	0%	0%
CMOs	0%	0%	0%	0%	0%
ARMs	0%	0%	0%	0%	0%
Asset Backed	0%	0%	0%	0%	0%
CMBS	0%	0%	0%	0%	0%
Cash & Cash Equivalents	12%	2%	15%	14%	0%

# Income Year to Date

Year to Date, as of 12/31/2022



# Performance

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**Tax-Equivalent Total Return  
as of 12/31/2022  
Inception Date: 08/01/2014**

	<b>Portfolio</b>	<b>Benchmark</b>	<b>Difference</b>
Quarter to Date	0.81%	0.75%	0.05%
Year to Date	0.46%	0.44%	0.02%
Since Inception	0.98%	1.00%	-0.02%

**Benchmark Composition:**

100.0% PEJIF Duration Matched Treasury