



How to Handle Buyer's Remorse as Interest Rates Rise

2022 CSMFO Conference

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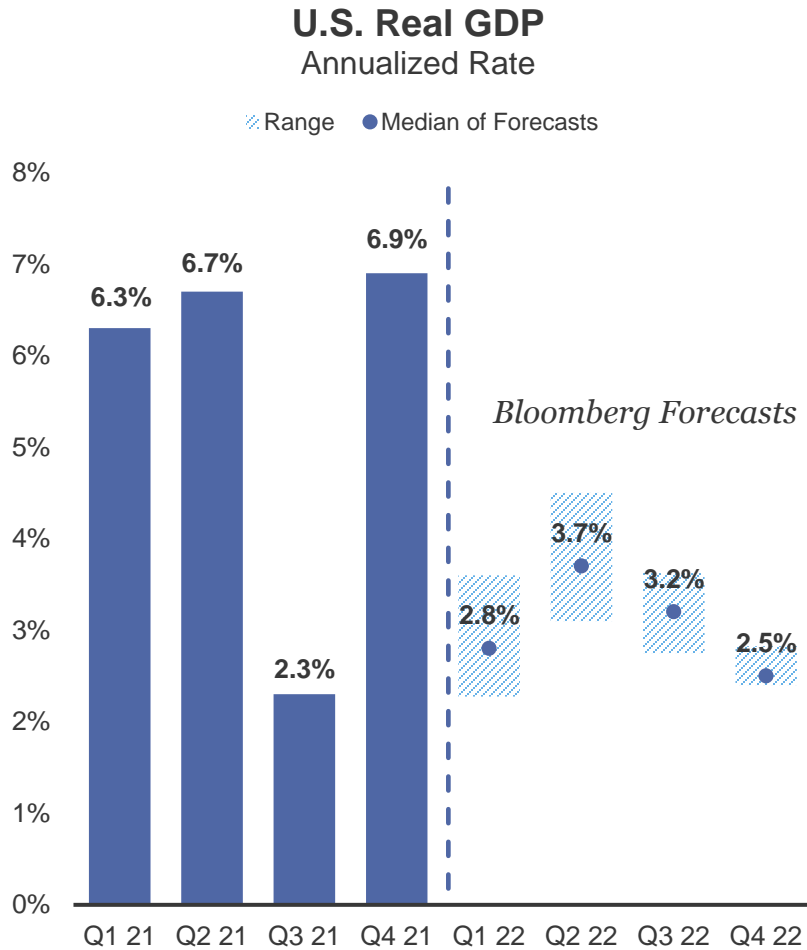
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Unprecedented Fiscal and Monetary Support Has Supported Strong Economic Recovery



Congressional Actions
\$7.8 billion Coronavirus Preparedness and Response Supplemental Appropriations Act
\$15.4 billion Families First Coronavirus Response Act (FFCRA)
\$2.1 trillion Coronavirus Aid, Relief, and Economic Security (CARES) Act
\$483 billion Paycheck Protection Program and Health Care Enhancement Act
\$900 billion Coronavirus Response and Relief Supplemental Appropriations (CRRSA) Act
\$1.9 trillion American Rescue Plan (ARP) Act of 2021
\$1.2 trillion Infrastructure Bill

Source: (left) Bloomberg, as of January 2022; (right) <https://www.pandemicoversight.gov/track-the-money>.

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Supply Chain Disruptions in 2021

Shipping Container Costs

Drewry Container Composite Index



A record 96 container ships waiting outside the nation's busiest port



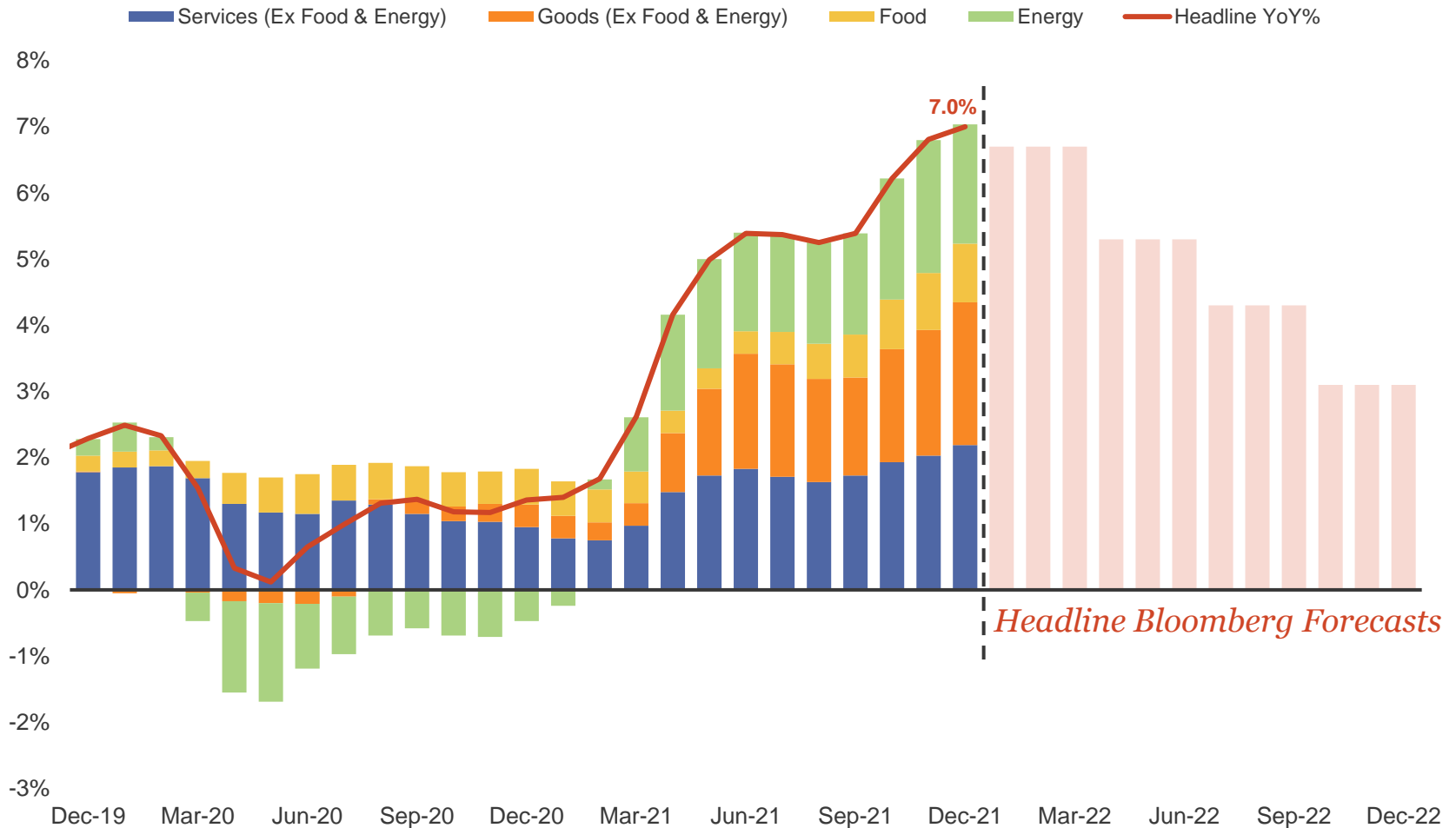
Industrial rents rose 7.1% on the year



Driver shortage worsened by over 30% since the pandemic

Inflation at 40-Year High

Top-Line Contributions and CPI Year over Year



Headline Bloomberg Forecasts

Source: Bloomberg, as of December 2021.

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Takeaways

- ▶ Economic growth in 2021 has been strong, supported by the Federal Reserve and Congress.
- ▶ Pandemic-related headwinds remain, including supply issues.
- ▶ Prices are high across all sectors, including food and energy, and inflation is at a 40-year high.

What's going on with interest rates?

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A Step Back...How Did We Get Here?

Fed Funds Target Rate (upper limit)



Source: Federal Reserve, November 30, 2019-January 24, 2022.

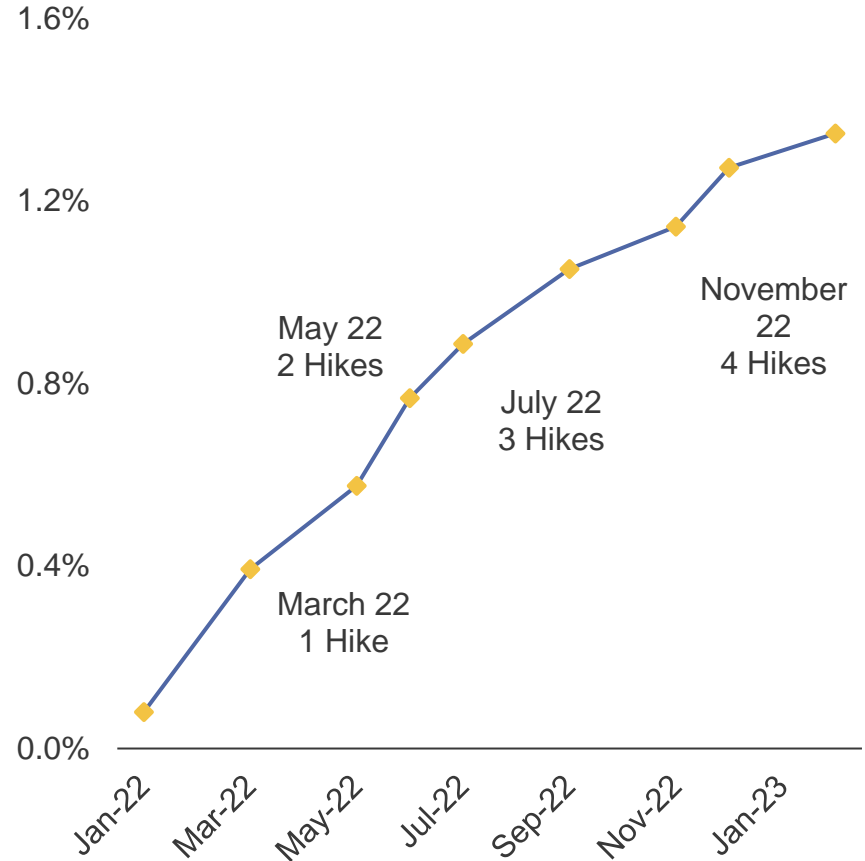
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Fed is set to raise interest rates in 2022...

2 Year U.S. Treasury Yield December 31, 2020 – January 23, 2022



Implied Fed Funds Rate



Source: Bloomberg as of 1/23/22.

Takeaways

- ▶ In March 2020, the Federal Reserve cut the fed funds target rate to 0%-0.25% to help the economy withstand the impacts of the coronavirus.
- ▶ Interest rates on securities with maturities under five years followed suit and sank to historically low levels.
- ▶ After almost two years of interest rates near historic lows, rates are now moving higher.
- ▶ Interest rates are moving up in anticipation of the Federal Reserve raising the Fed funds target rate, with the first hike coming next month.



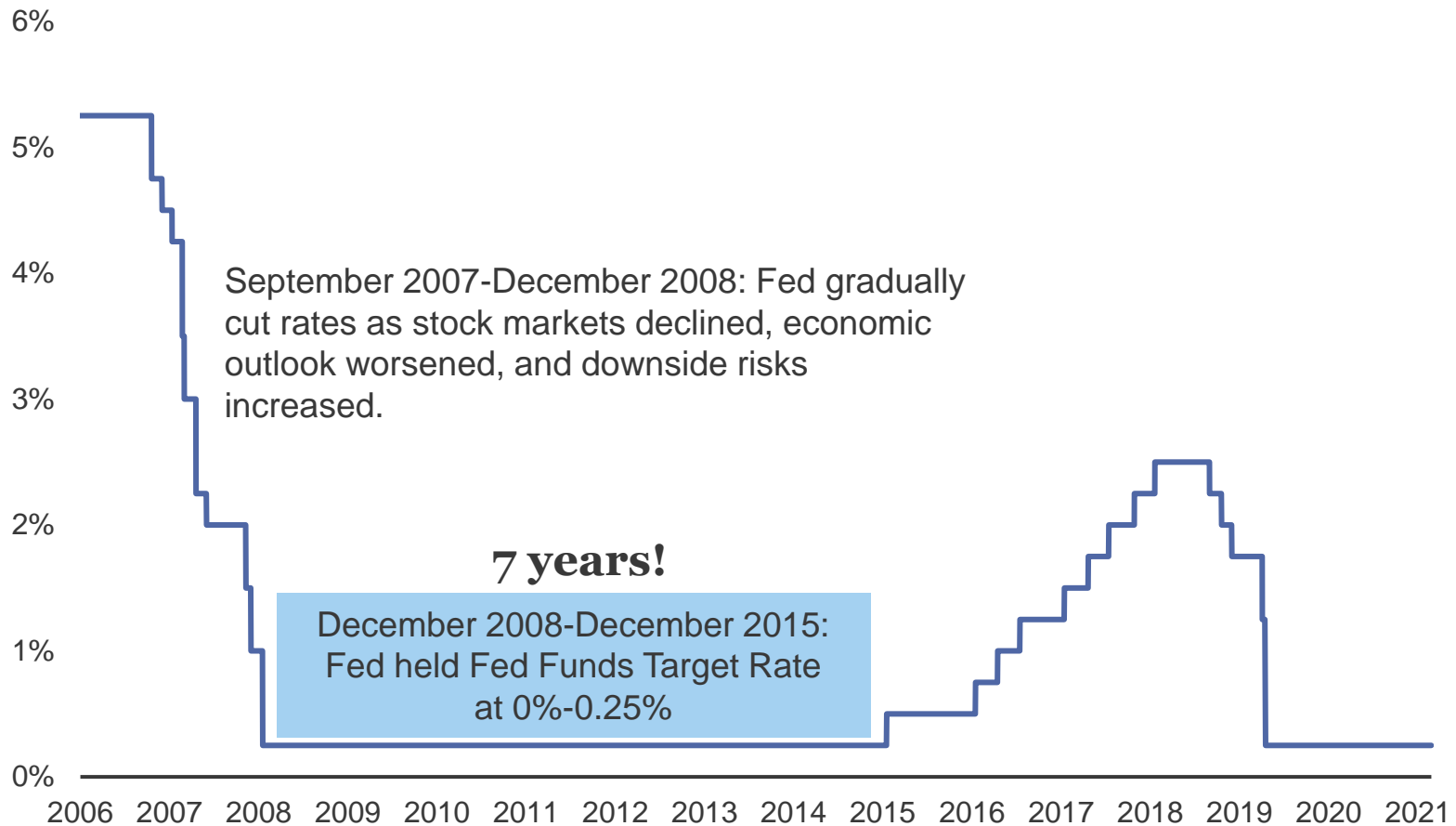
Why does this sound familiar?

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Another Step Back...We've Been Here Before

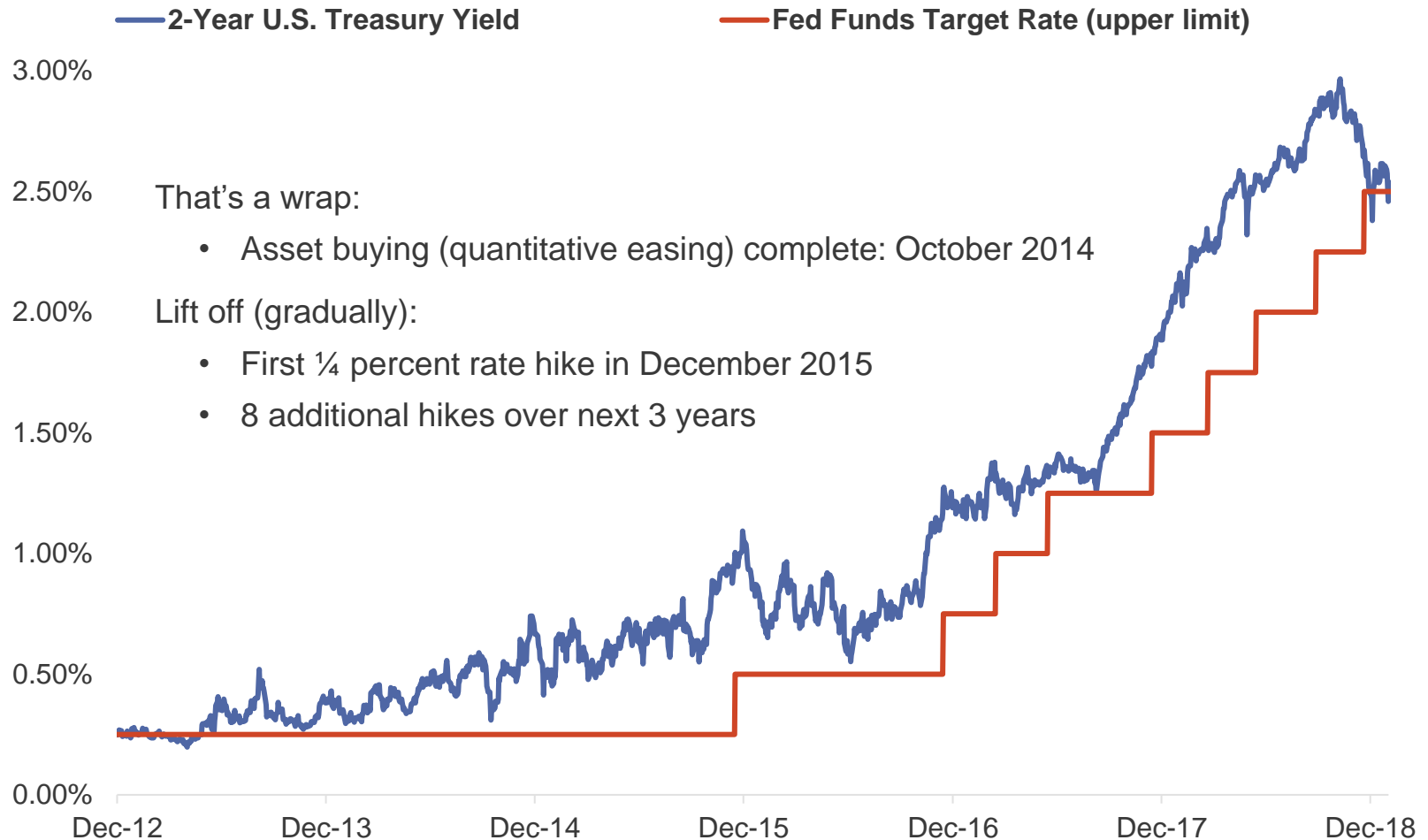
Fed Funds Target Rate (upper limit)



Source: Federal Reserve, June 30, 2006 – January 25, 2022.

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Rate Hikes the Last Time Around



What may happen this time around?

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First Let's Compare the Economic Situations

	2015	2021
Inflation	0.7% yoy December	7% yoy December
Pandemic impacts	None	Many
Unemployment Rate	Trending lower 5% in December	Trending lower 3.9% in December
GDP	3.1%	5.5%
2-Year Treasury yield (12/31)	1.06%	0.73%
Most recent recession	Ended: June 2009 Lasted: 19 months	Ended: April 2020 Lasted: 2 months



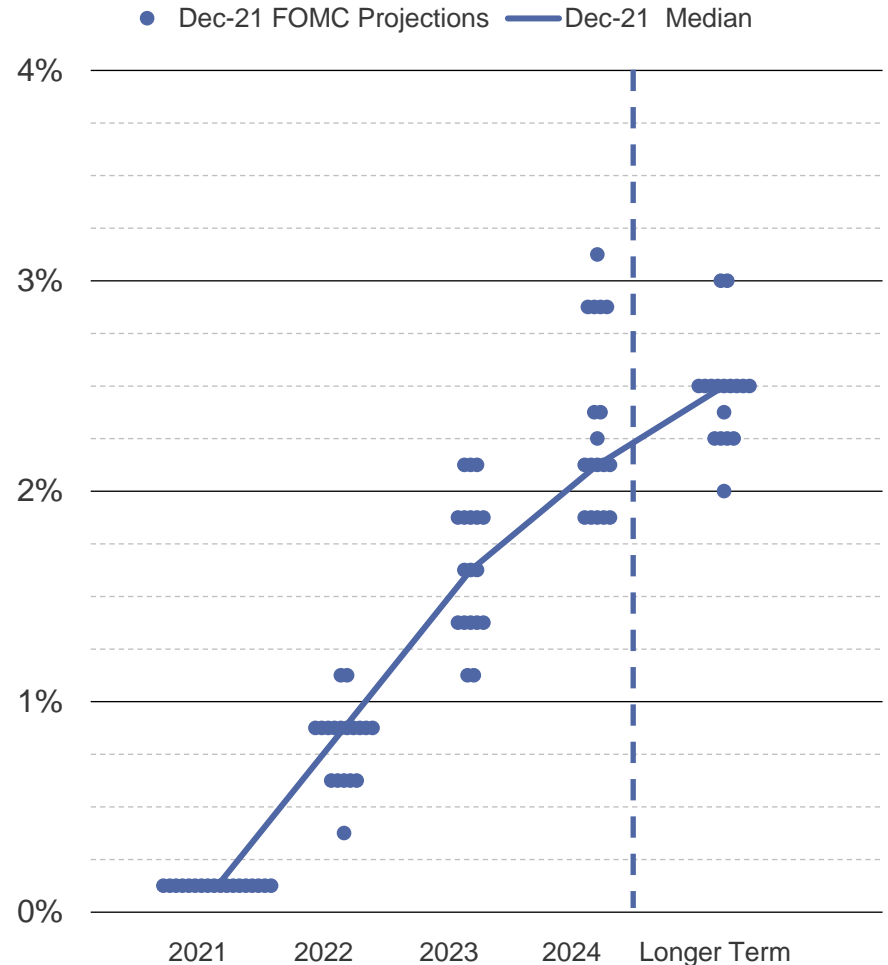
Now Let's See What The Fed is Telling Us

Federal Reserve's Changing Stance on Inflation and Monetary Policy

- ▶ **April 2021:** Fed characterizes inflationary pressure as “transitory”
- ▶ **June 2021:** 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 2021:** Signals tapering of asset purchases could begin later in the year, but rates will remain near zero
- ▶ **November 2021:** Retires the term “transitory,” announces tapering of bond purchases; signals 2-3 rate hikes in 2022
- ▶ **December 2021:** Announces accelerated tapering; sees three rate hikes in 2022
- ▶ **March 2022:** Expected completion of tapering; likely first rate hike
- ▶ **2022 Q2:** Expectation for more rate hikes; possible reduction in Fed balance sheet

Fed Funds Target Rate Expectations

Fed Participants' Assessments of “Appropriate” Monetary Policy



Source: Federal Reserve and Bloomberg, as of 12/31/2021. Individual dots represent each Fed members' judgement of the midpoint of the appropriate target range for the federal funds rate at each year end.

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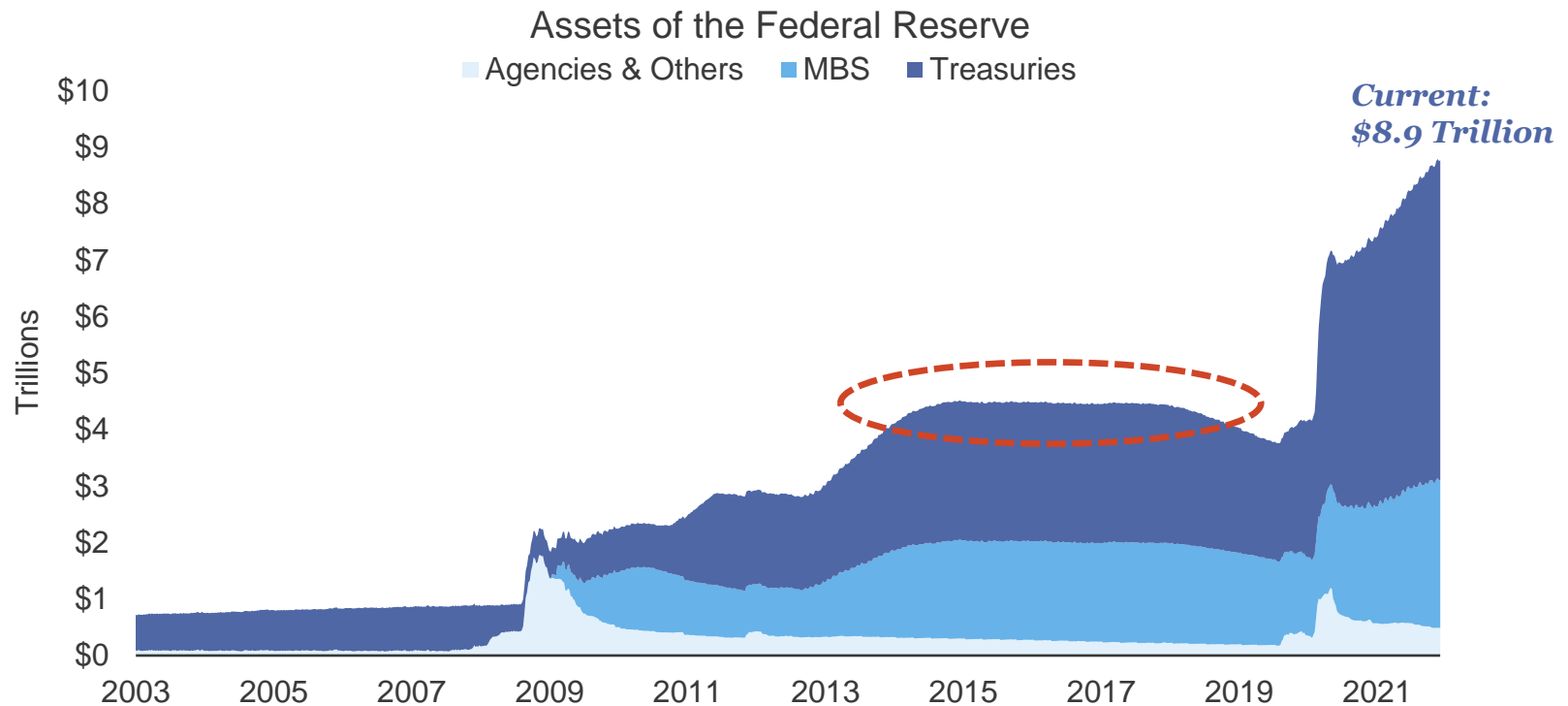
Balance Sheet Expectations for 2022

Like last time...

- Balance sheet size was maintained, providing sustained support

Unlike last time...

- Federal Reserve has indicated that balance sheet reduction is likely imminent

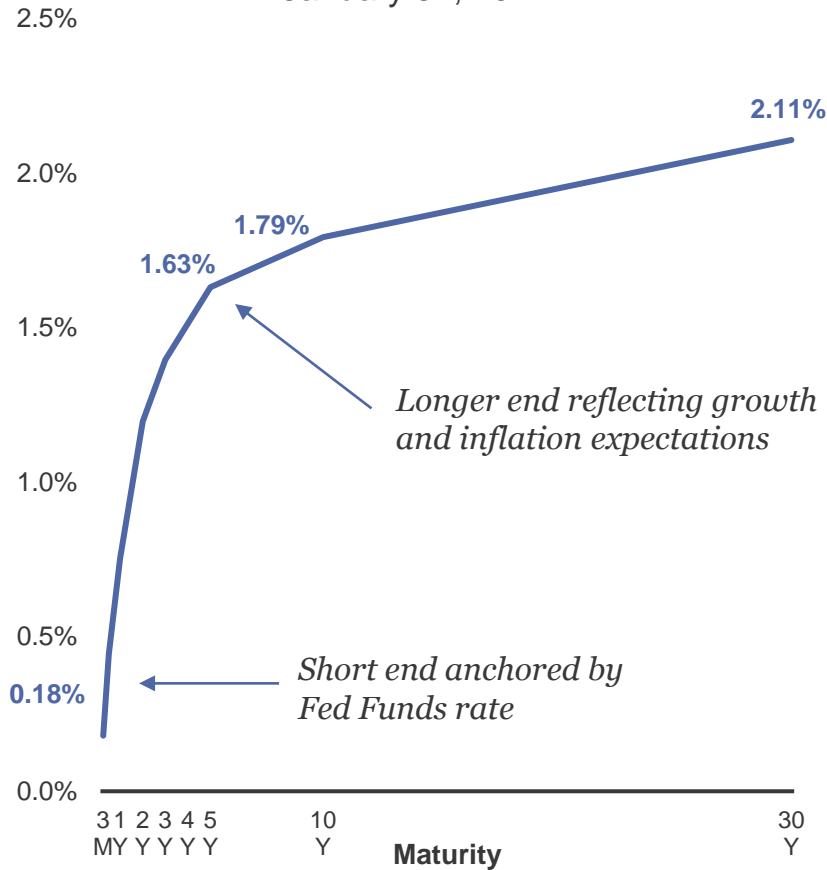


Source: Bloomberg, World Interest Rate Probabilities as of 1/18/2022. Rate hikes are based on an assumed rate move of 25 basis points (0.25%).

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As Fed Raises Rate Curve May Become Flatter

U.S. Treasury Yield Curve
January 31, 2021



U.S. Treasury Yield Spread
12 month vs 5 year



Source: Bloomberg

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Takeaways

- ▶ Unlike the last time the Fed raised interest rates, inflation is high!
- ▶ The Fed's view of the elevated inflation has shifted from being described as "transitory" to being something they need to address...and quickly.
- ▶ To combat high inflation, the Fed has accelerated their asset tapering (to end by March); it is set to follow up immediately with a reduction of their balance sheet and is expected to raise Fed funds target rate at a steep pace.
- ▶ The yield curve is currently steep, but it will likely start to flatten (become inverted?) as the Fed starts raising interest rates.



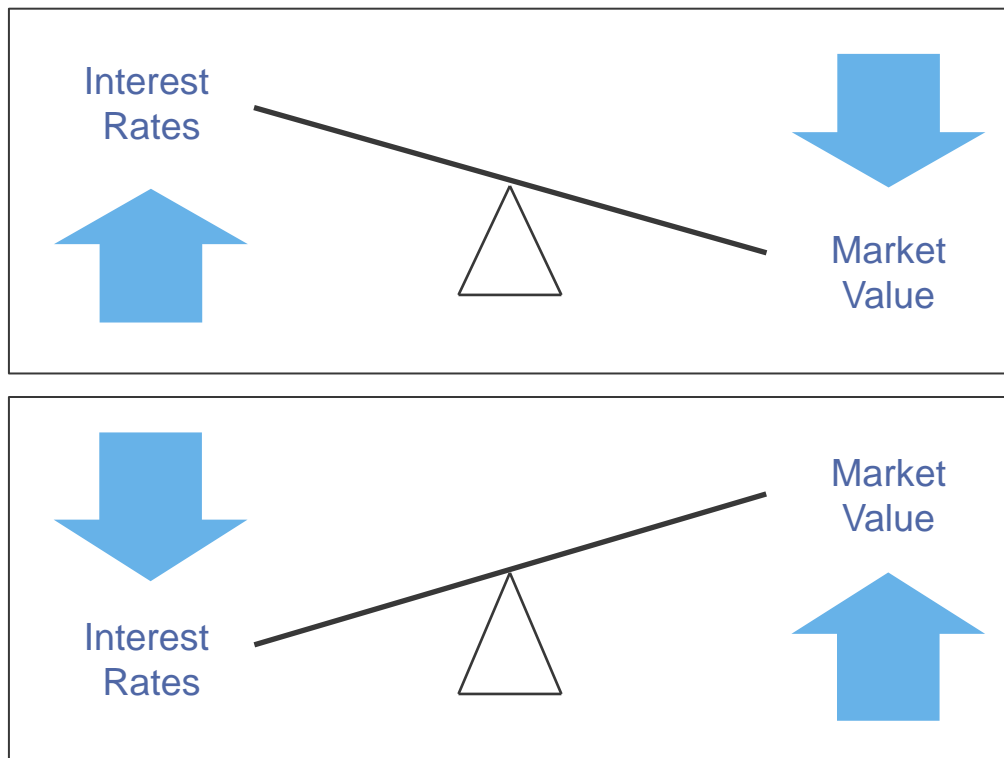
How will my investment program be impacted?

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Impact on Portfolio Holdings

Market Values of Current Holdings Will Fall



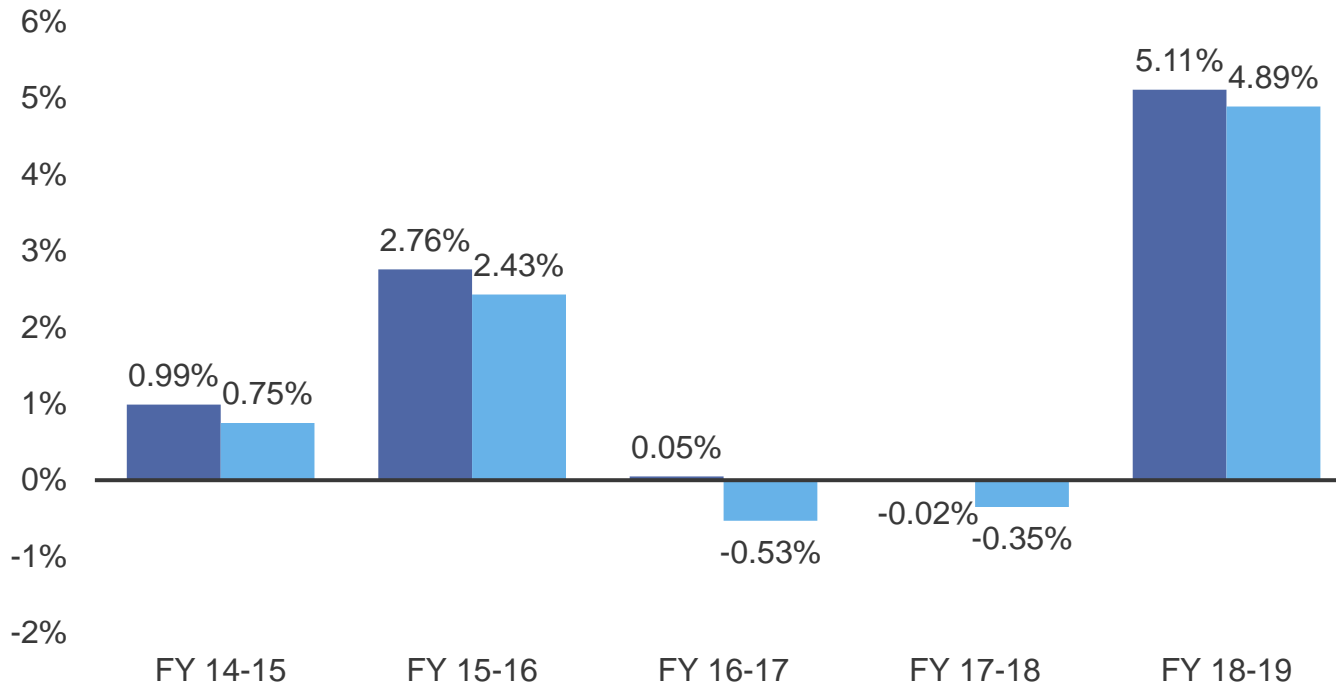
Market values
move inversely
to interest rates

What Happened Last Time?

Periods of Negative Total Returns

Total Return Performance

■ City of Brentwood ■ Market Benchmark



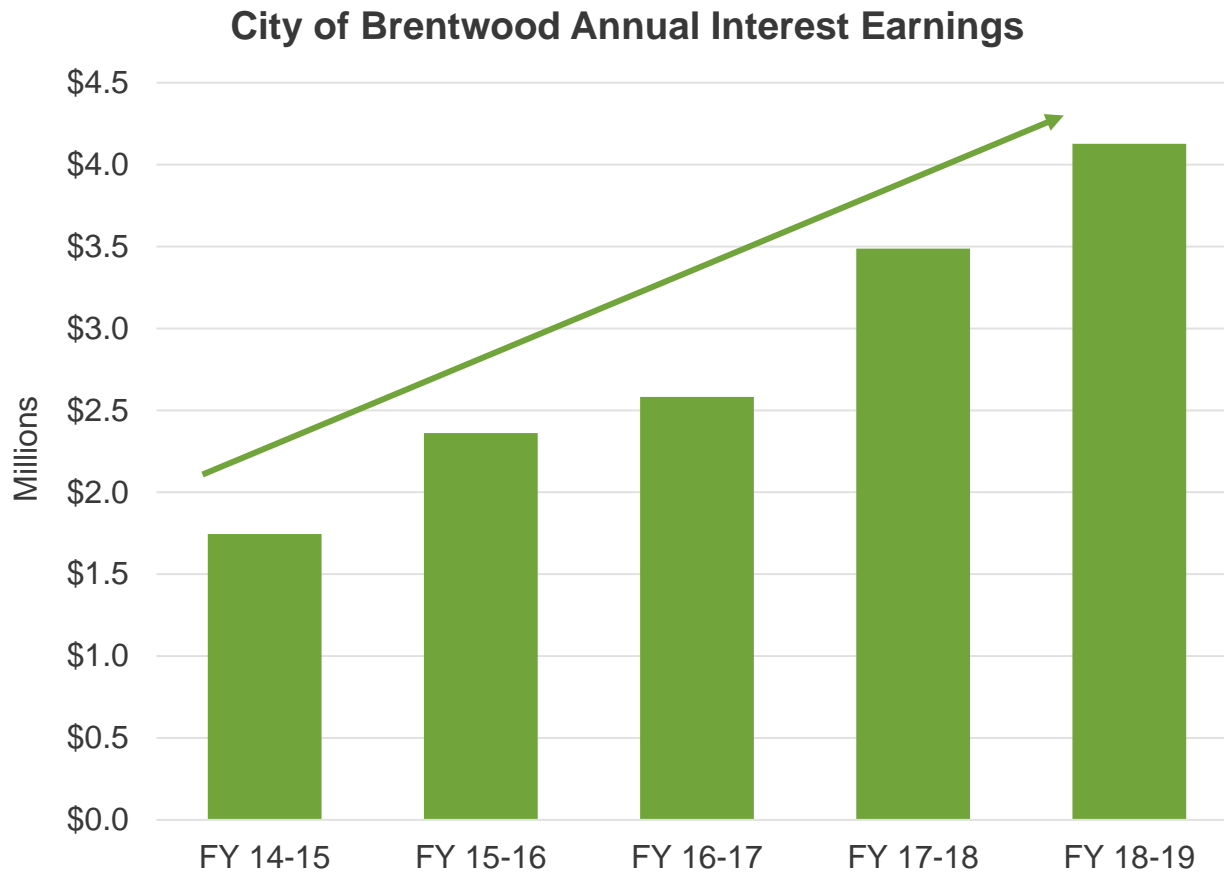
of rate hikes during fiscal year

FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
0	1	3	3	2



Impact on Portfolio Holdings

New Investments Purchased At Higher Yields



Takeaways

- ▶ On fixed income securities, yields and prices move inversely, so when interest rates rise, prices (market values) of fixed income portfolios/indices fall.
- ▶ Rising rates/falling prices can lead to negative total returns, when unrealized market value losses are greater than realized earnings.
- ▶ But, as new investments are purchased in the higher interest rate environment, rising interest rates result in increased interest earnings.



How do I explain negative returns and earnings to my stakeholders?

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Communication Is Important

- ▶ Ensure that major components of your entity's investment program are conveyed to managers/elected officials
 - ▶ Internal controls
 - ▶ Investment policy/risk tolerances
 - ▶ Overall investment strategy
- ▶ Tailor communications to audience
 - ▶ Elected Officials: Big-picture, 30,000-foot summaries
 - ▶ Manager: Detailed, fact-filled, yet concise reports
- ▶ Be prepared to educate
 - ▶ New market conditions
 - ▶ Market value losses (unrealized/realized)
 - ▶ Initial losses on sales of securities, but overall benefit
 - ▶ Importance of long-term approach



What's the strategy today?

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What Do You Do?!

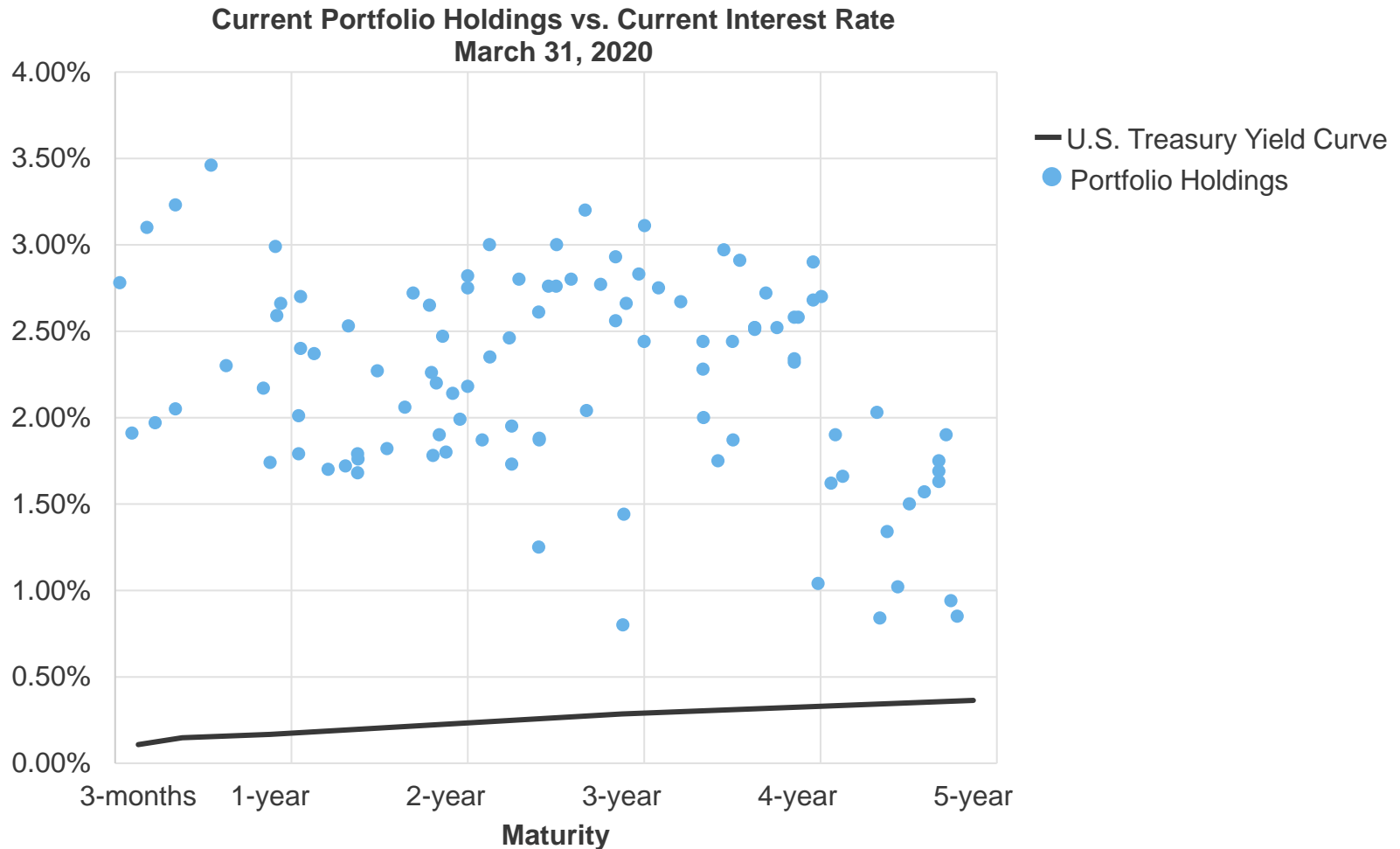
Some Options to Consider:

- ▶ Freak out and sell everything!
- ▶ Shorten duration modestly
- ▶ Maintain a diversified portfolio
- ▶ Capture value offered by steep yield curve



What To Do With a Portfolio of Realized Gains

Sell everything, realize gains, and move to cash? Or stick with a disciplined strategy?

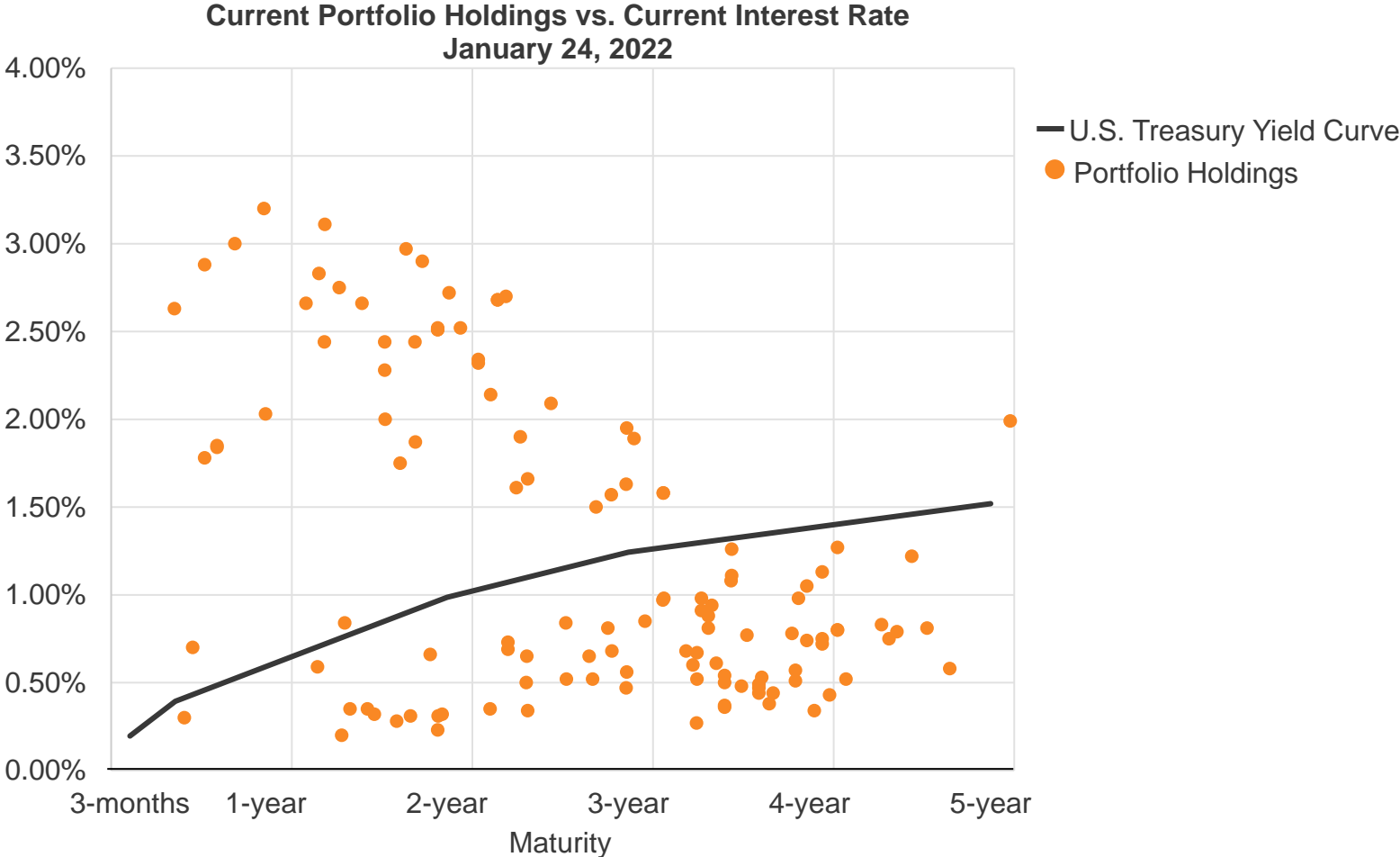


As of March 31, 2020. City of Brentwood PFMAM-managed portfolio.

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What To Do With Securities “Under Water”

Sell everything underwater, realize losses, but reinvest in higher yields? Or stick with a disciplined strategy?

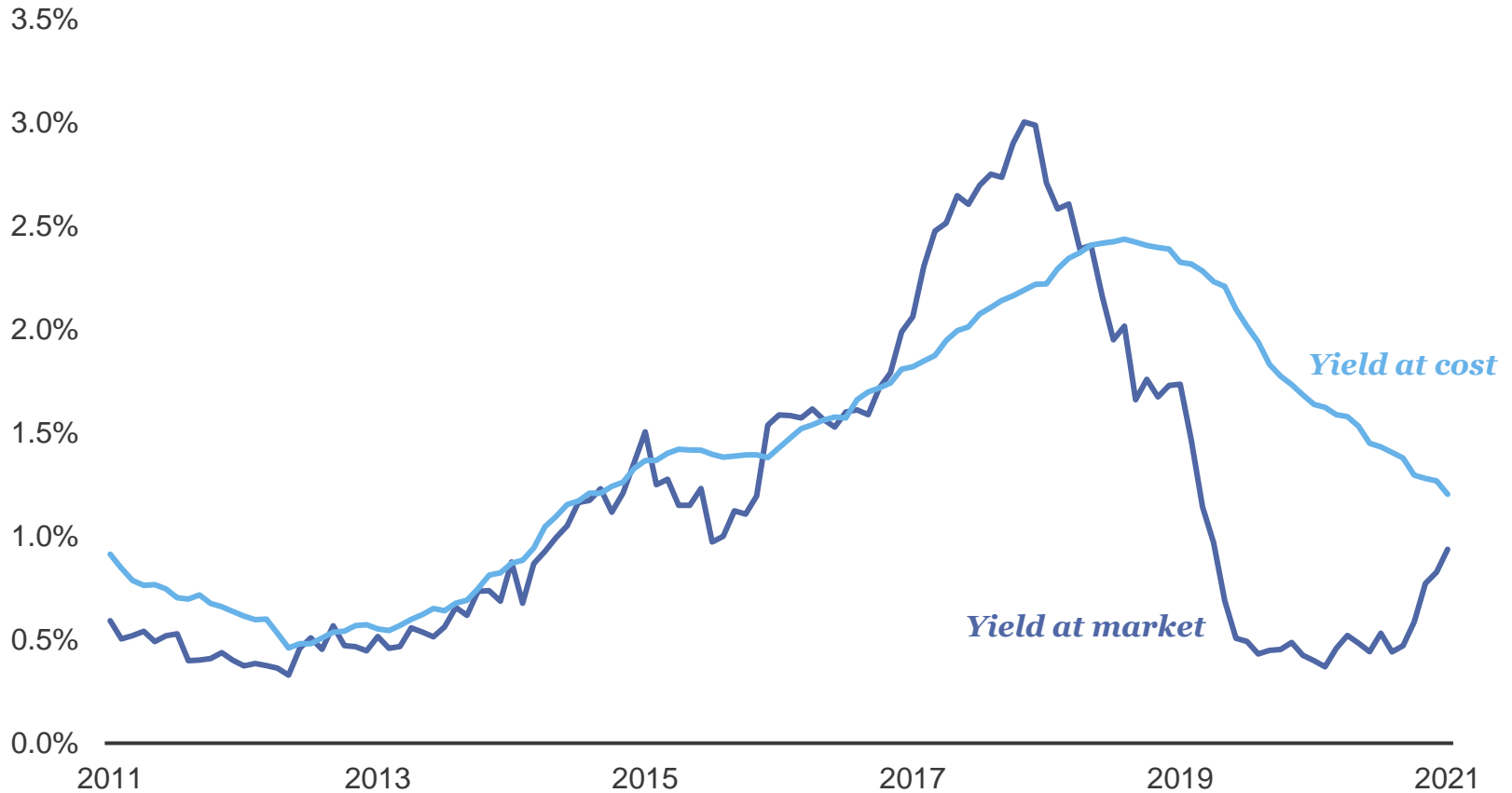


As of January 24, 2022. City of Brentwood PFAMM-managed portfolio.

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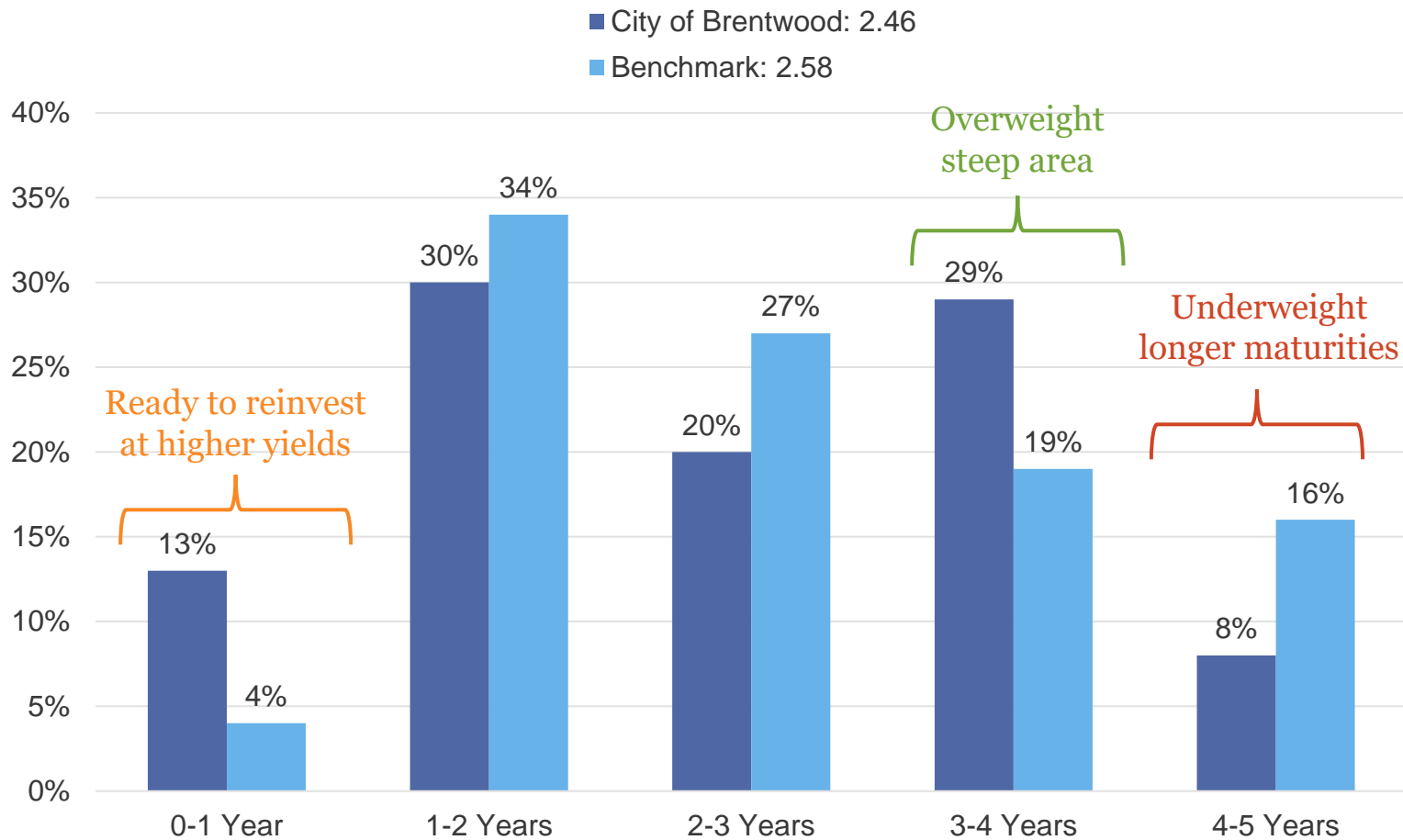
Stick With A Disciplined Strategy

City of Brentwood Portfolio Yield



Be Strategic With Your Duration and Maturities

Duration Distribution



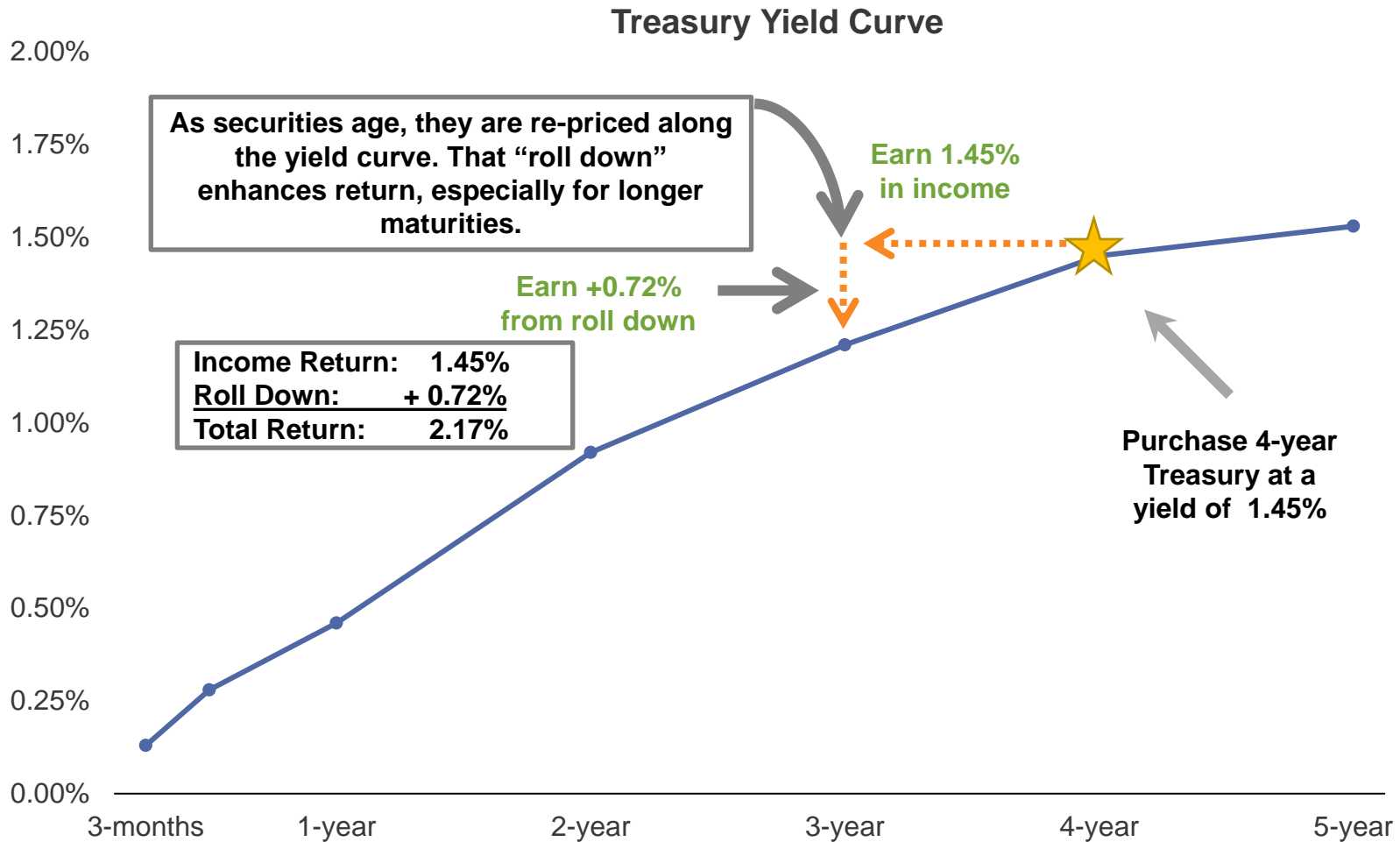
A Steep Yield Curve Is Your Friend



Source: U.S. Treasury, as of 1/10/2022.

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Rolling Down the Yield Curve



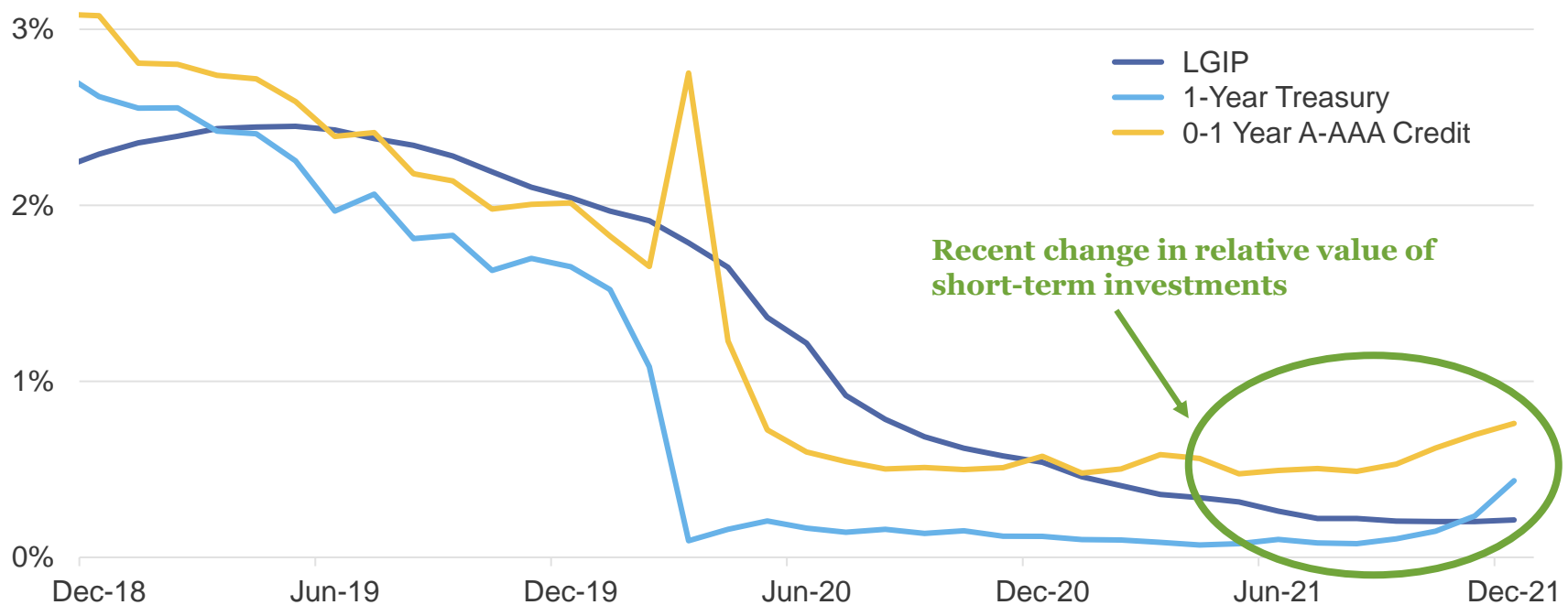
Source: U.S. Treasury Assumes unchanged yield curve over a one-year horizon. Yields as of 1/10/2022. For illustrative purposes.

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Rise In Rates Changes Opportunities In Short-Term Market

- ▶ Evaluate all your options for cash and short-term investments
 - ▶ Bank Deposits and earnings credit rates
 - ▶ Investment Pools (LGIPs)
 - ▶ Short-Term Securities (Portfolio)

Yields on Short-Term Options



Source: Bloomberg, as of 12/31/2021.

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Thank You!
Questions?

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