

November, 2022

# Far from “normal”...

## Perspective on today’s extraordinary investment

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# Discussion outline

A great time to review  
“Investing  
101”...

Atypically,  
stocks and  
bonds have  
gotten  
crushed YTD

Investment  
themes to  
watch...

And a  
potential  
“silver lining”  
on the other  
side of 2022

# Price to Earnings – The “multiple” of a stock and the market

$$\frac{\text{Share or overall market price}}{\text{Earnings per share or of the overall market}} = \text{P/E} \quad \frac{3,588}{204.09} = 17.59 \times$$

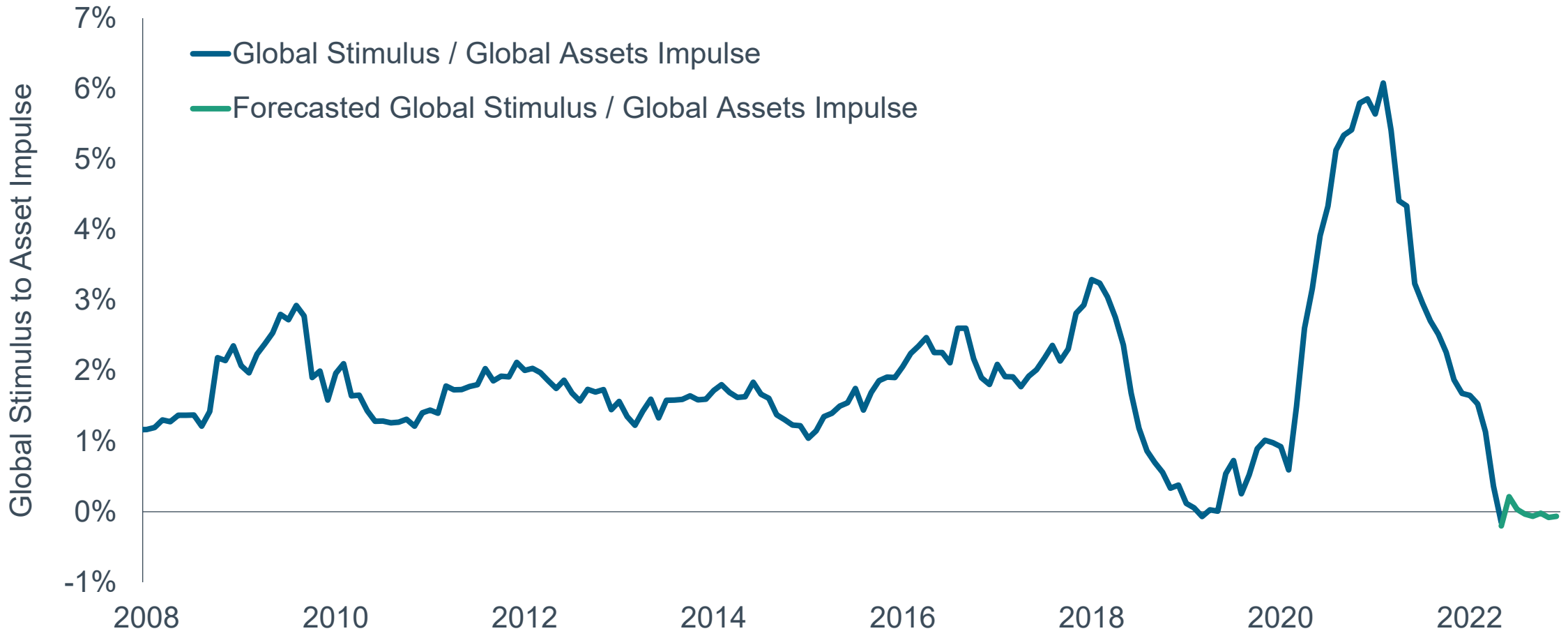
As of 10/11/2022 for the S&P 500

Source: Bloomberg, L.P.

The price/earnings ratio is a metric that indicates how much a company or the market is worth. The P/E ratio is calculated by taking the stock (or market) price divided by the company’s (or market’s) earnings per share for a period like the past 12 months. The P/E ratio conveys how much investors will pay per share for \$1 of earnings.

# Massive stimulus drove the market “multiple” in 2020

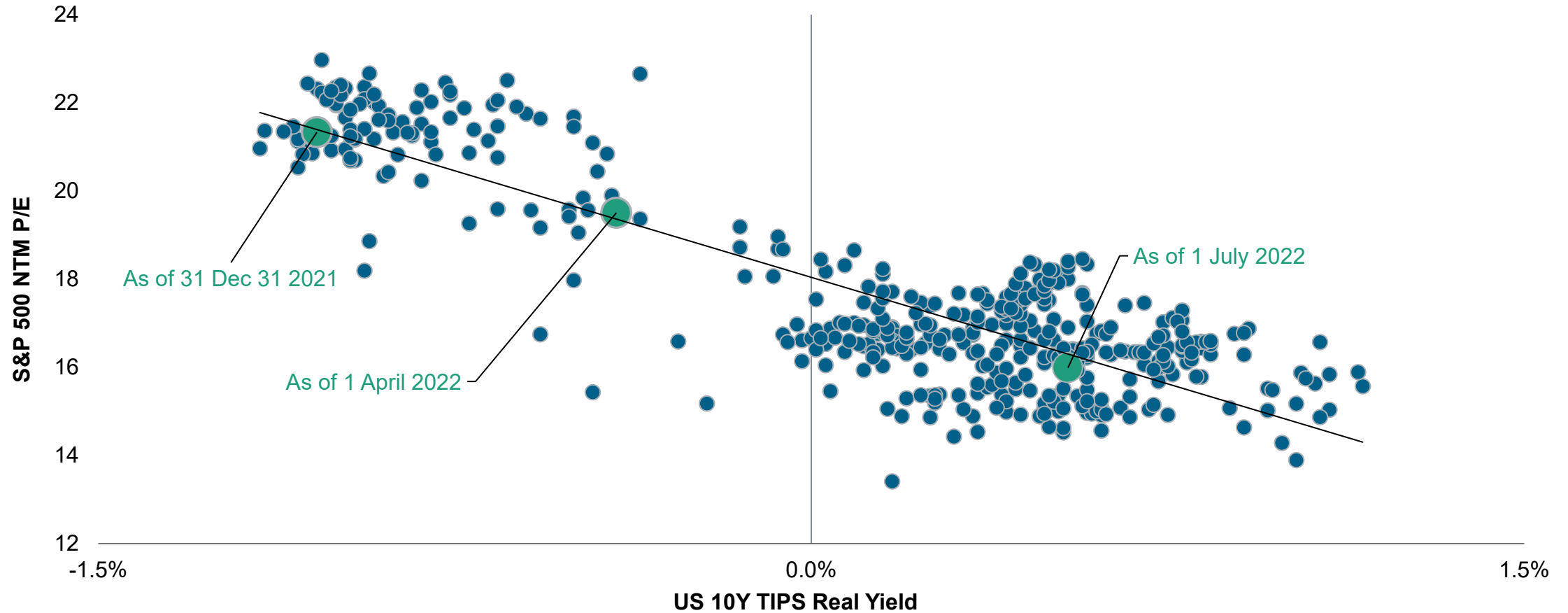
As of 30 June 2022



There is no guarantee that any forecasts made will come to pass.  
Source: Bloomberg Finance L.P. Analysis done by T. Rowe Price.

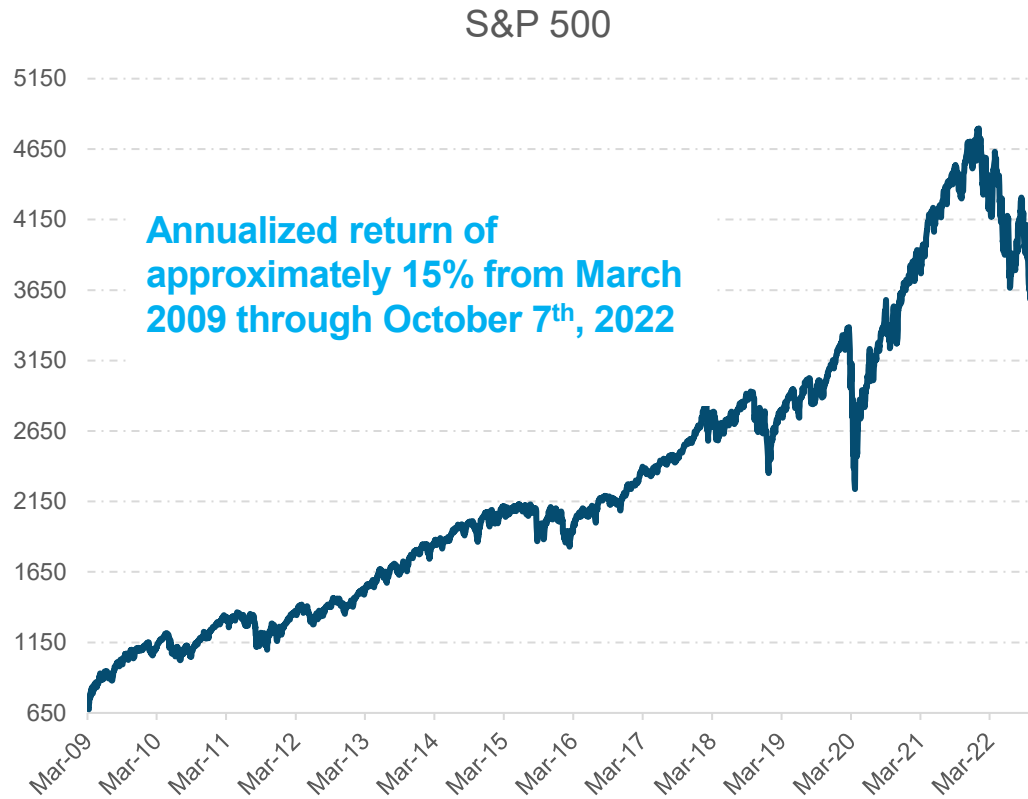
# Equity valuations have suffered as yields have risen

Weekly, 3 January 2014 through 1 July 2022

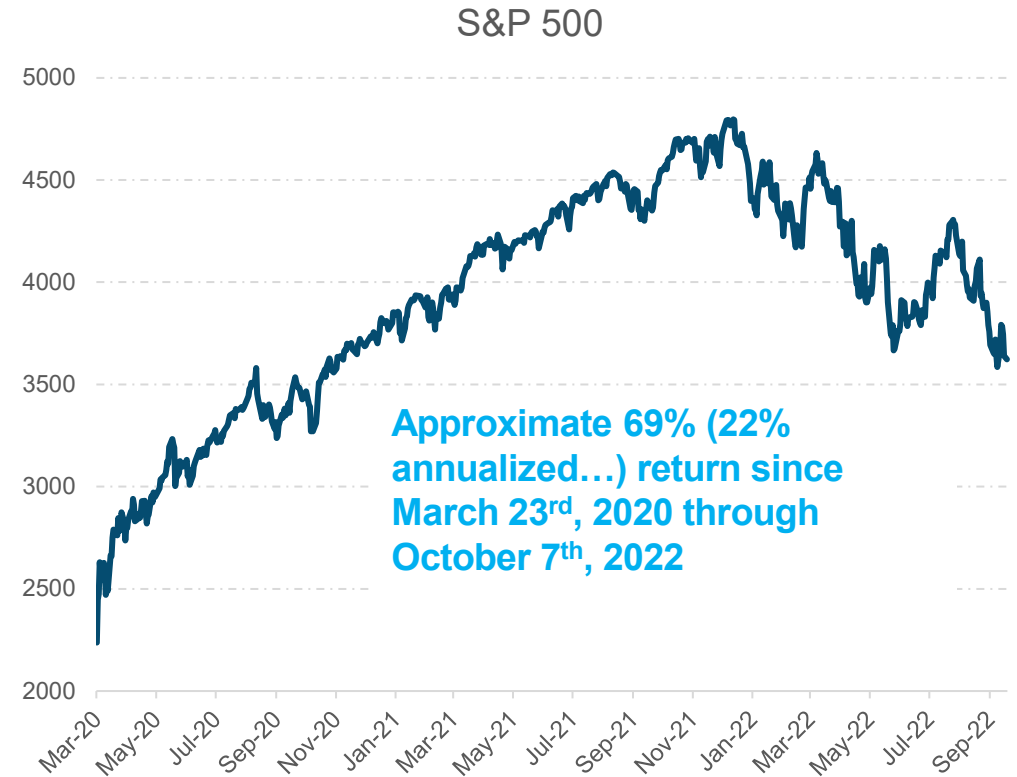


Sources: Standard and Poor's, T. Rowe Price analysis using data from FactSet Research Systems Inc. All rights reserved. Please see Additional Disclosures page for more information about this Standard and Poor's information.

# A period of “mean reversion” has arrived...



Source: Bloomberg, L.P.



Source: Bloomberg, L.P.

Even with current market angst, it has still been a remarkable decade and “covid recovery” for the S&P500 !

# In an “earnings driven” market, Discounted Cash Flow (DCF) matters

Here is the equation:

$$\text{DCF} = \frac{\text{CF}_1}{(1+r)^1} + \frac{\text{CF}_2}{(1+r)^2} + \dots + \frac{\text{CF}_n}{(1+r)^n}$$

Let's break that down.

- **DCF** is the sum of all future discounted cash flows that the investment is expected to produce. This is the fair value that we're solving for.
- **CF** is the total cash flow for a given year. CF1 is for the first year, CF2 is for the second year, and so on.
- **r** is the discount rate in decimal form. The discount rate is basically the target rate of return that you want on the investment.

Source: <https://www.lynaalden.com/discounted-cash-flow-analysis/>

DCF “translates future cash flows that you will likely receive from an investment into their present value to you today, based on the compounded rate of return you could reasonably achieve with your money today...”

# DCF can also be used to calculate the price of a bond...

$$\text{Bond Price} = \frac{\text{Coupon}_1}{(1+i)^1} + \frac{\text{Coupon}_2}{(1+i)^2} + \dots + \frac{\text{Value at Maturity}}{(1+i)^n}$$

- **Bond Price** refers to what investors are currently willing to pay for a bond.
- The **Coupon** refers to the payments made as part of the bond agreement to the bondholder for each year.
- **i** is the interest rate in decimal form. This is the yield to maturity that the bond buyer is targeting.
- **Value at Maturity** is the final payment the bondholder gets back at the end, or the “par value” of the bond.

Source: <https://www.lynalden.com/discounted-cash-flow-analysis/>

## Two key highlights of DCF:

- The lower the price of money or the “discount rate” the higher the current price of the asset...and vice versa...
- A low discount rate amplifies the value of an asset’s “terminal” value



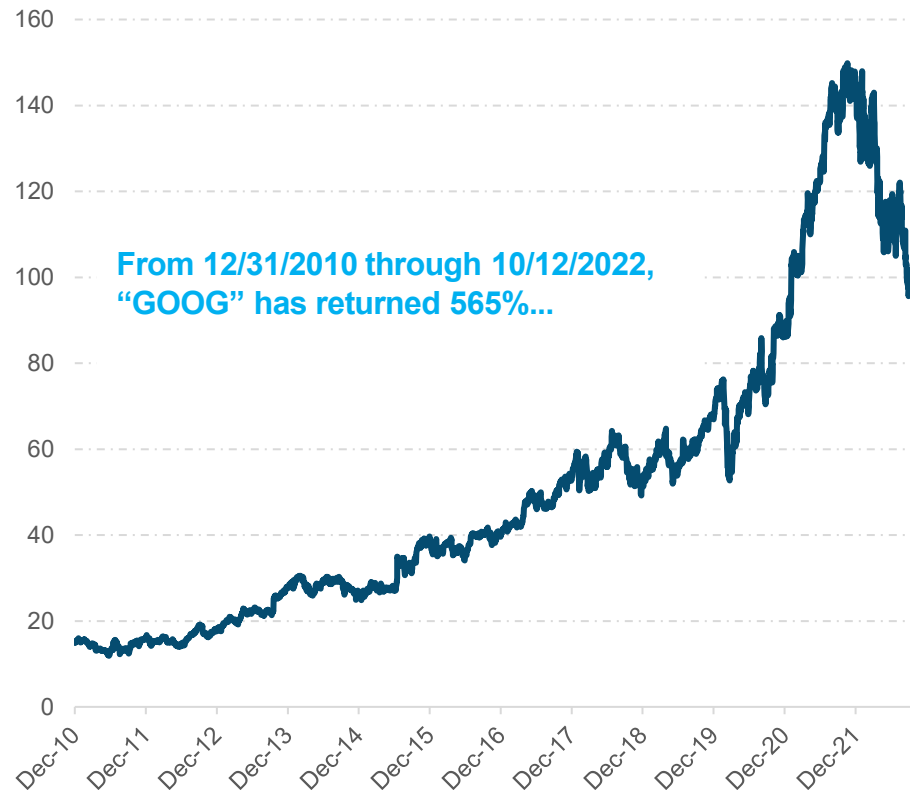
# The “terminal” value for some stocks just took a wild ride



Source: Bloomberg, L.P.

# Two different ways to invest in Alphabet (GOOG)

## Alphabet (GOOG)



Source: Bloomberg, L.P.

## Google 2060 Maturity Bond

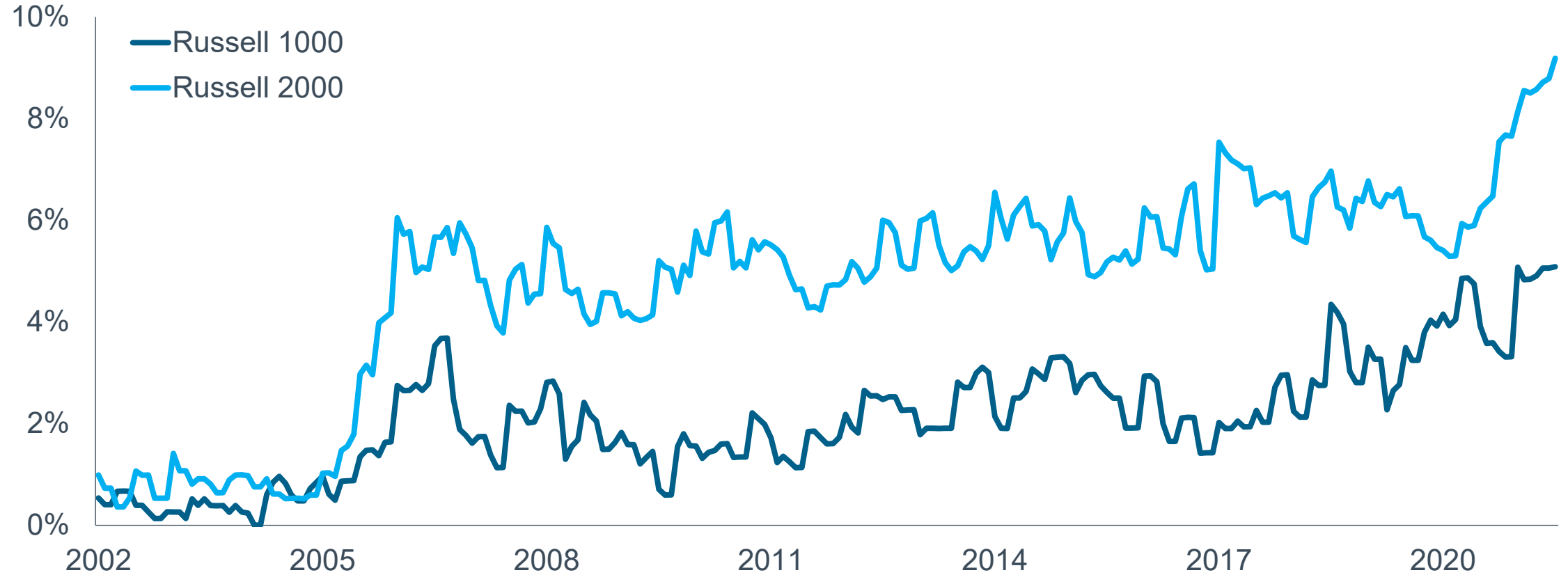


Source: Bloomberg, L.P.

# Stock-based compensation trends warrant analysis

31 December 2022 to 30 June 2022

## Percentage of stocks where stock-based compensation turns cashflows negative

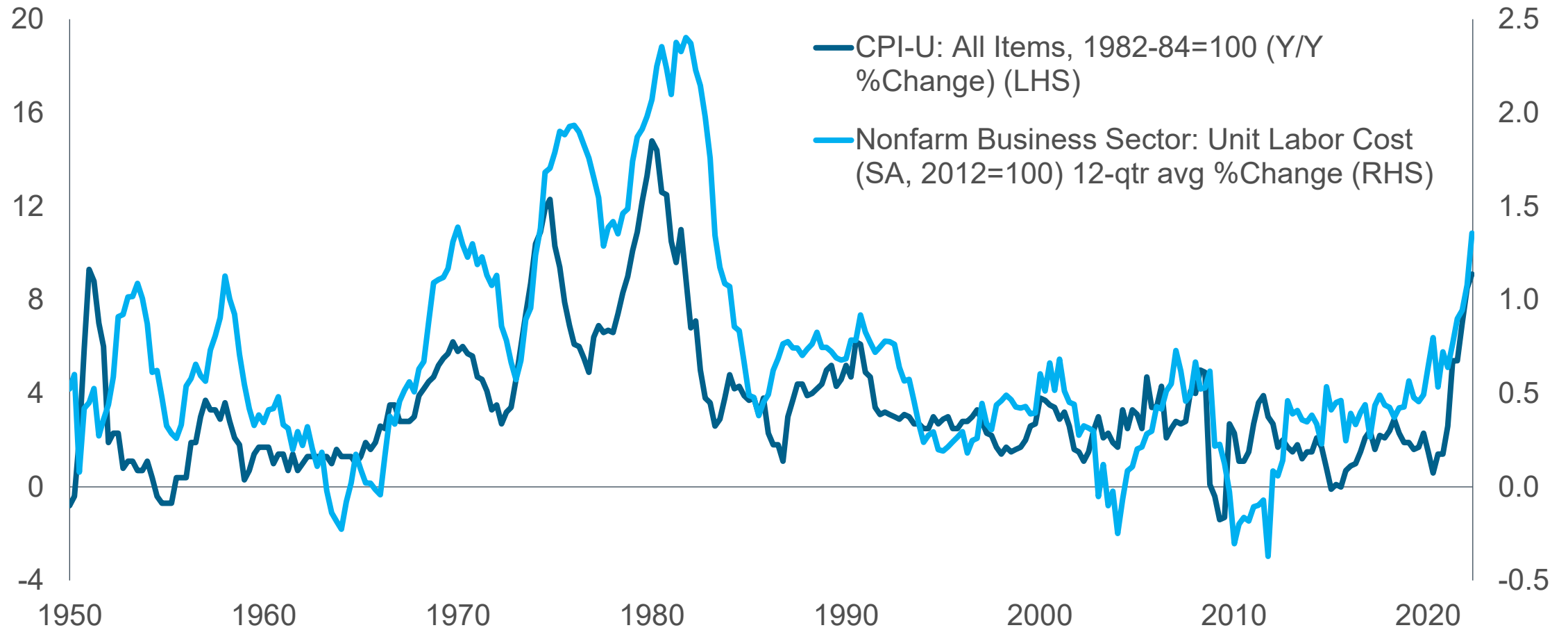


**Past performance is not a reliable indicator of future performance.**

Sources: Russell, T. Rowe Price analysis using data from FactSet Research Systems Inc. All rights reserved. Please see Additional Disclosures page for more information.

# Suddenly, the world is different...

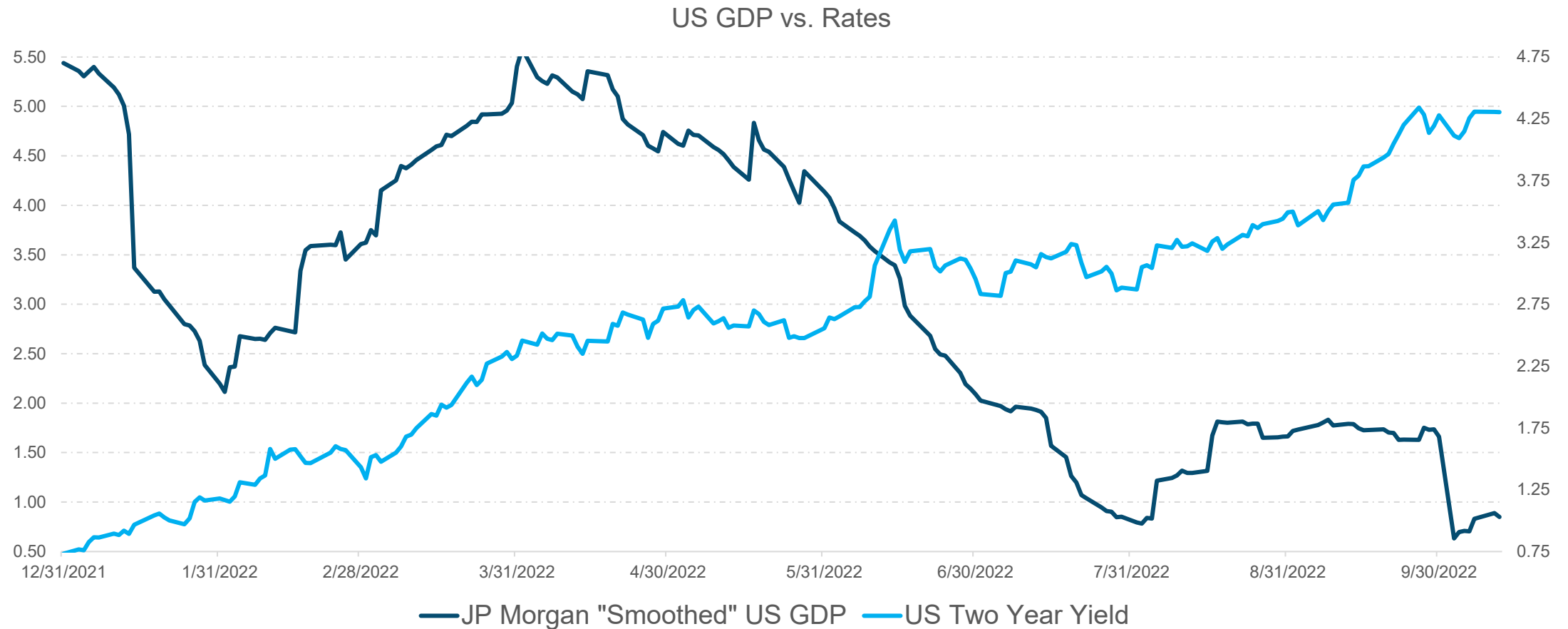
As of 30 June 2022



Past performance is not reliable indicator of future performance.

Source: Haver Analytics, analysis by T. Rowe Price.

# Monetary policy doesn't normally "tighten" while economic growth slows

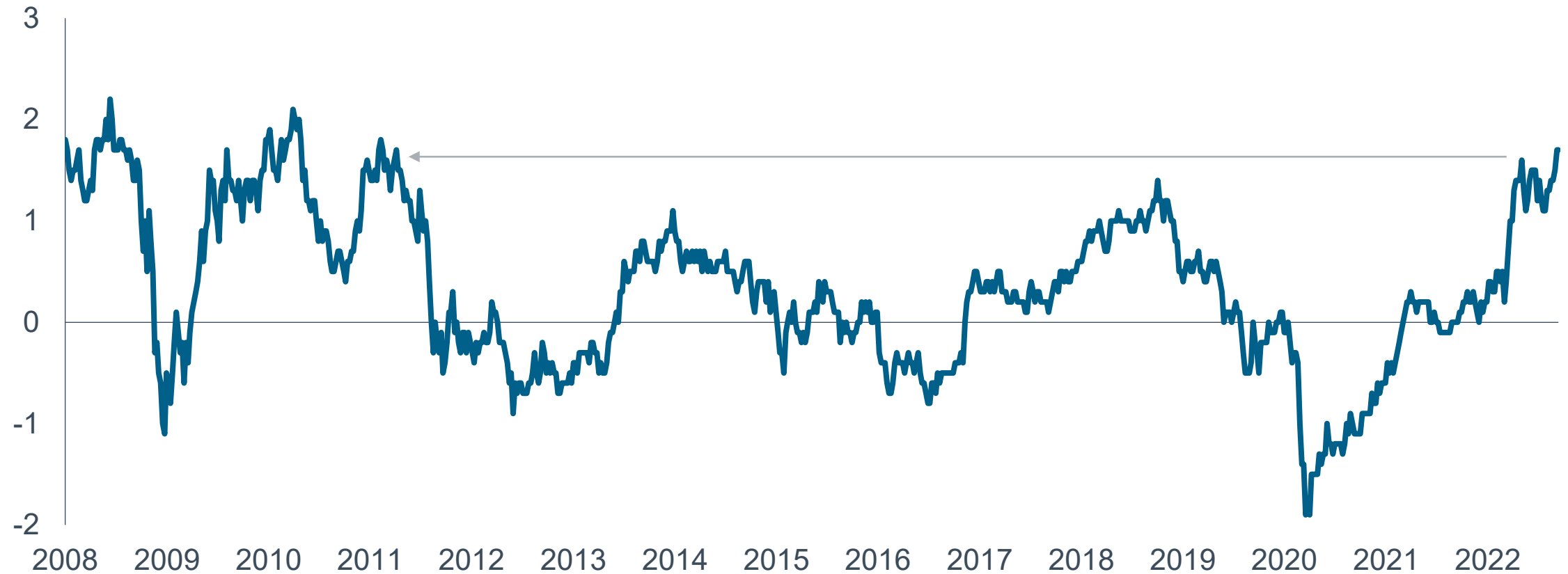


Source: Bloomberg, L.P.

# “Farewell TINA”

As of 14 September 2022

## U.S. 10-year Treasury yield minus S&P 500 Index forward dividend yield

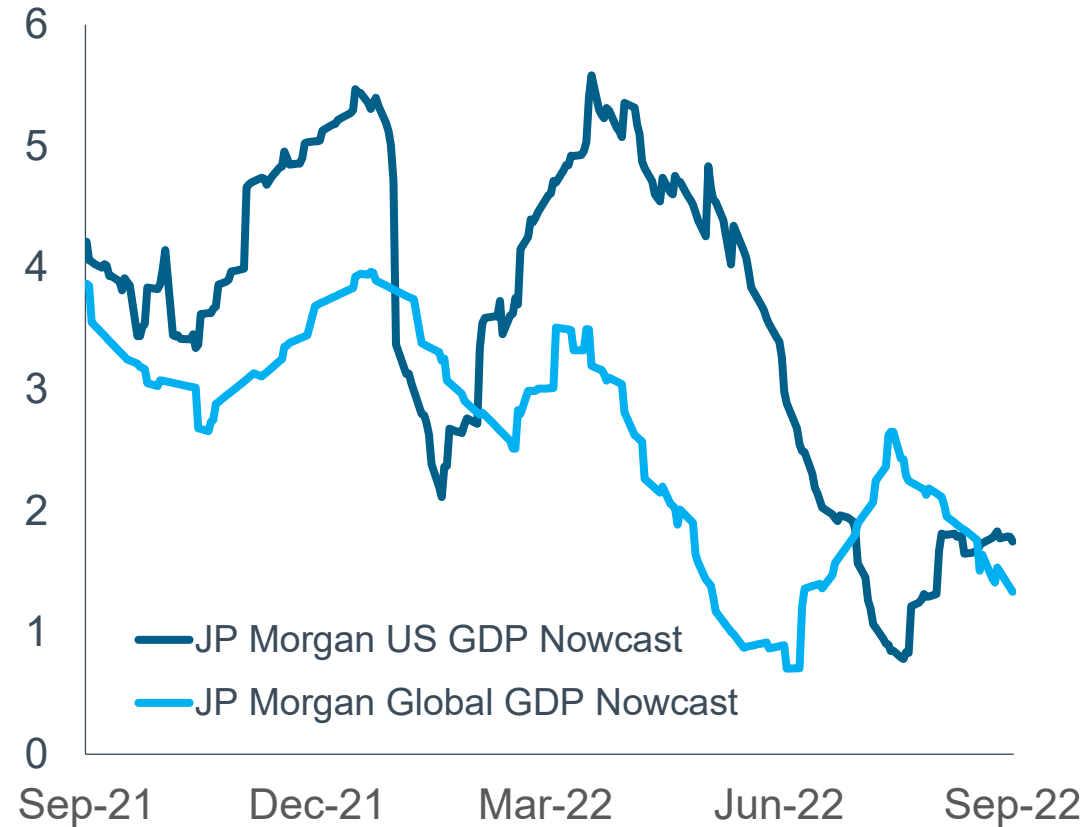


Source: Bloomberg, L.P.

# An active Fed and resilient U.S. economy is driving a strong U.S. Dollar

As of 14 September 2022

## U.S. Economy vs. Global Economy



## U.S. Dollar Index



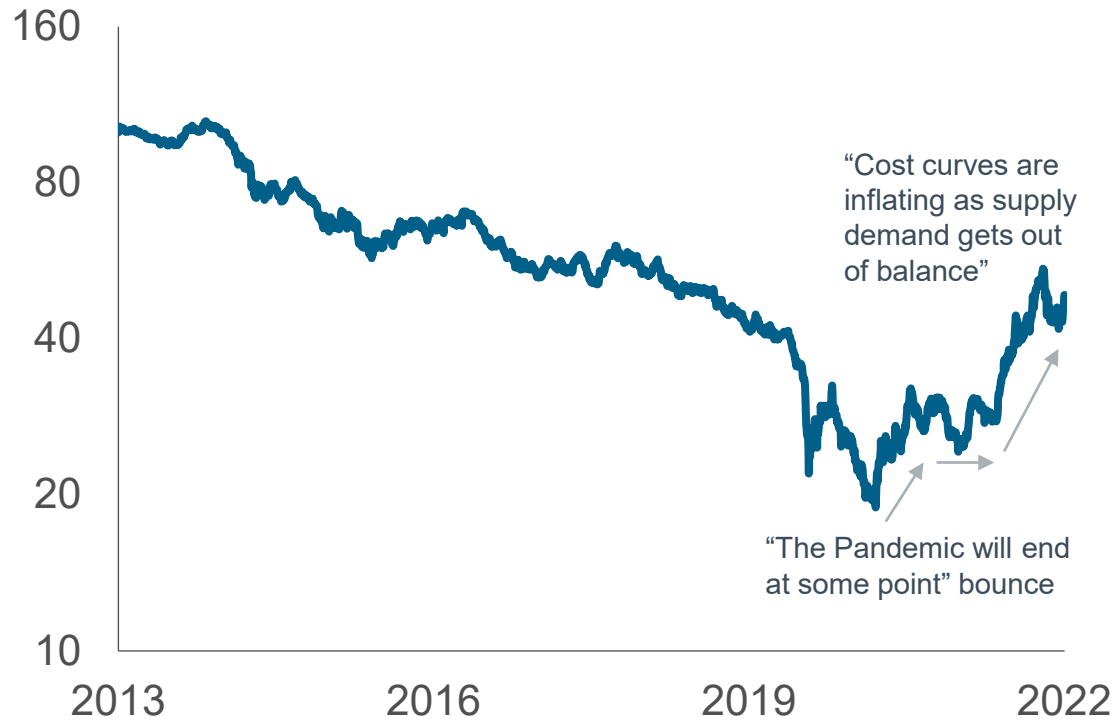
Source: Bloomberg, L.P.

# Additional considerations—a tale of two energy markets

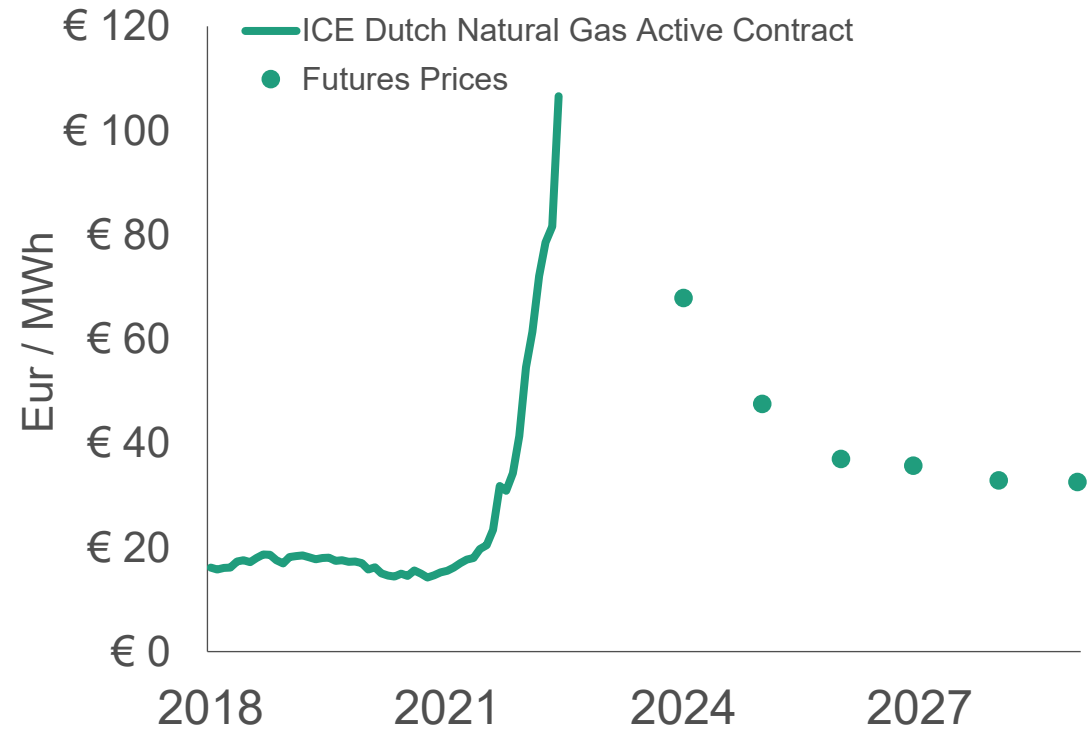
As of 30 June 2022

## Energy Select Sector SPDR Fund— Total Return Relative to S&P 500

24 August 2013 to 24 August 2022



January 2018 to June 2022



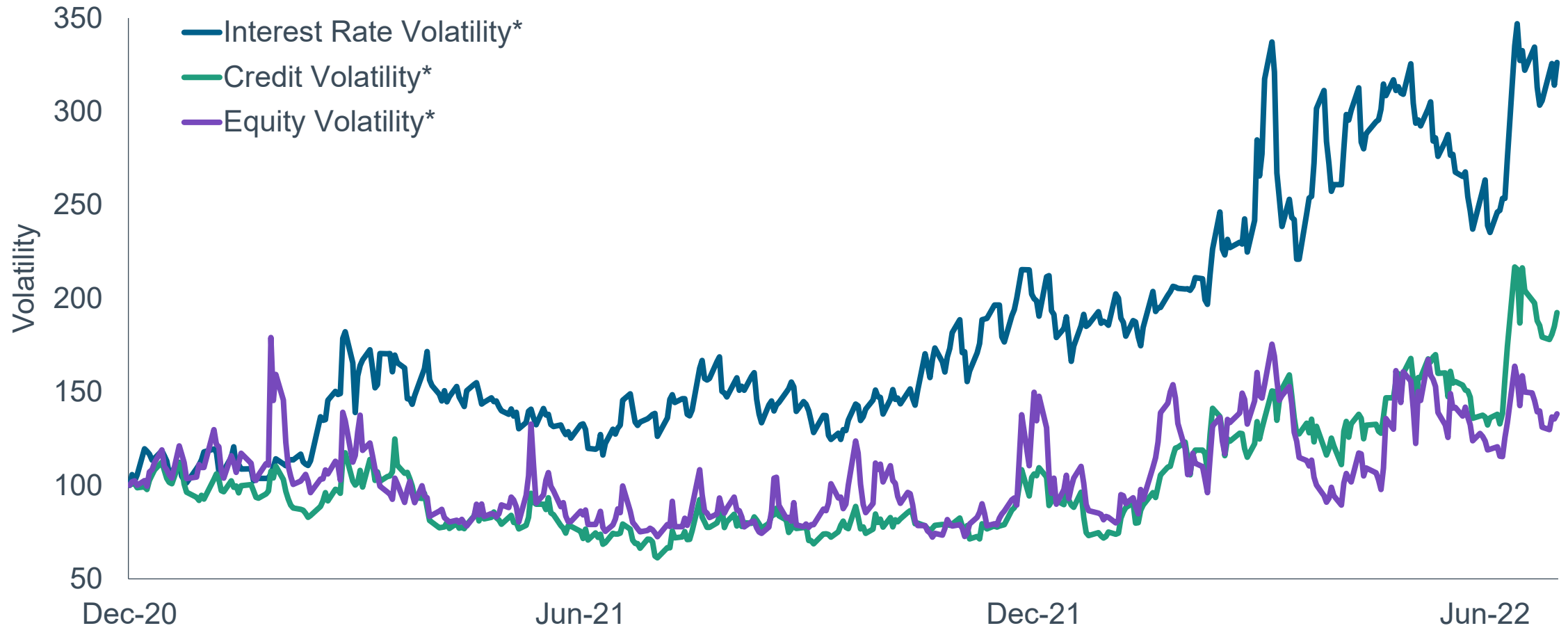
**Past performance is not reliable indicator of future performance.**

Source: Left chart—T. Rowe Price calculations using data from FactSet Research Systems Inc. All rights reserved. Right chart—Bloomberg Financial L.P., data analysis by T. Rowe Price.



# Volatility will be a constant—adjust expectations...

As of 30 June 2022



**Past performance is not a reliable indicator of future performance.**

\*Rebased to 100. Interest Rate Volatility = MOVE index represents implied volatility on 1-month Treasury options. Equity Volatility = VIX index represents expected volatility of S&P500. Credit Volatility = High Yield 3-month implied volatility represents expected future volatility of iShares iBoxx High Yield Corporate ETF. The ETF is shown for illustrative purposes only to demonstrate HY volatility.

Source: Bloomberg Finance L.P.

# Some good news on the 60 / 40 front...

Model	"Shiller CAPE"	Siegel
<b>Stocks</b>		
Ratio	1/30	1/16
Yield	3.3%	6.3%
Inflation	2.6%	
Return	6.0%	8.9%
Probability	50%	50%
Expected Return	7.4%	

<b>Bonds</b>	
YTW	3.7%

**ILLUSTRATIVE PURPOSES ONLY.**

Shiller P/E and Siegel P/E as of June 30, 2022.

Yield To Worst measured by the Bloomberg U.S. Aggregate Bond Index as of June 30, 2022.

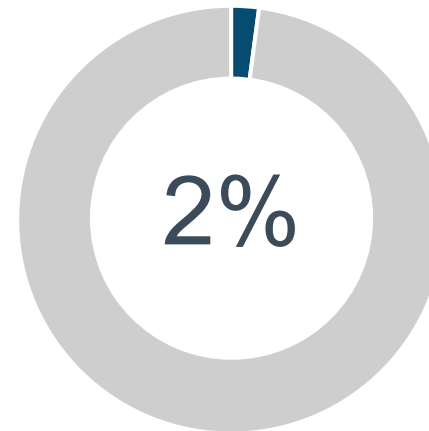
Inflation assumption based on 10-year breakevens as of June 30, 2022. YTW is on the Bloomberg Barclays U.S. Aggregate Bond Index as of June 30, 2022.

Source for historical total returns: Bloomberg Index Services and Standard & Poor's.

Sources: Haver Analytics, FactSet Research Systems. Analysis by T. Rowe Price. Figures calculated in U.S. Dollars.

## Stock Allocation Required for a 6% Return

30 Years Ending  
December 31, 2019

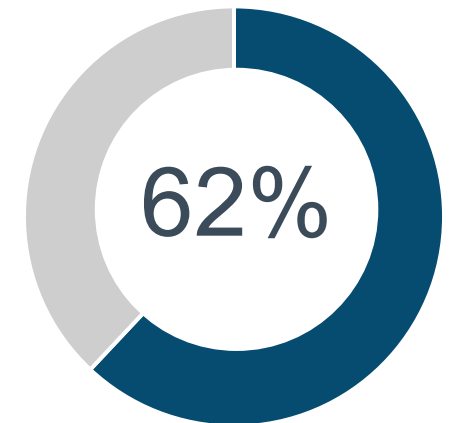


10.0%

5.9%

Next 5–10 Years?

Data as of June 30, 2022



Stocks

Bonds

7.4%

3.7%

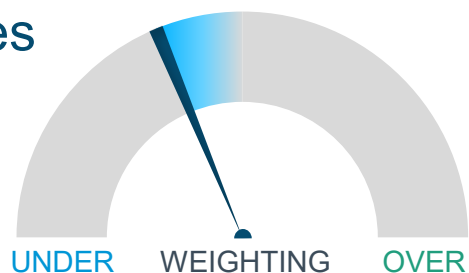
Note: Forecasts, projections and model results are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Investors should not use this information as the sole basis for investment decisions.

# T. Rowe Price Multi-Asset Positioning

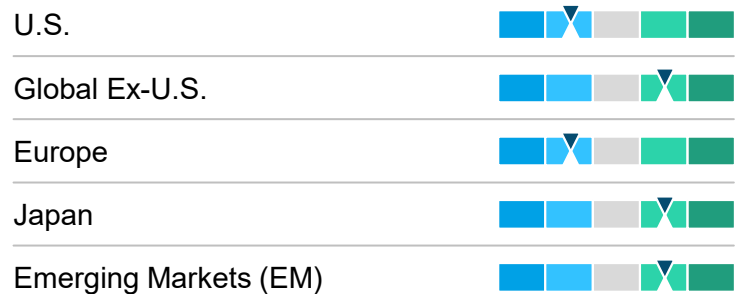
■ Underweight  
■ Overweight

▼ As of 31 August 2022  
△ As of 31 July 2022

## Equities



### REGIONS



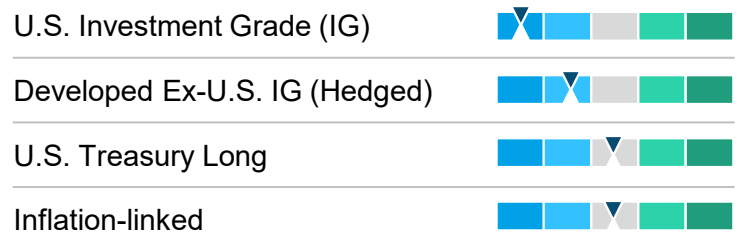
### STYLE & MARKET CAPITALIZATION



### INFLATION-SENSITIVE



## Bonds



<sup>1</sup> For pairwise decisions in style and market capitalization, positioning within boxes represent positioning in the first mentioned asset class relative to the second asset class. The asset classes across the equity and fixed income markets shown are represented in our Multi-Asset portfolios. Certain style & market capitalization asset classes are represented as pairwise decisions as part of our tactical asset allocation framework. This material is not intended to be investment advice or a recommendation to take any particular investment action.

# Conclusions

Volatility is here to stay, for now...

Distortions related to the pandemic and related policy are settling out...

Whatever “new normal” emerges looks to be unique relative to the world left in late 2019...

Say goodbye to “TINA” and hello to a more sustainable investment path forward

# Additional disclosures

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