

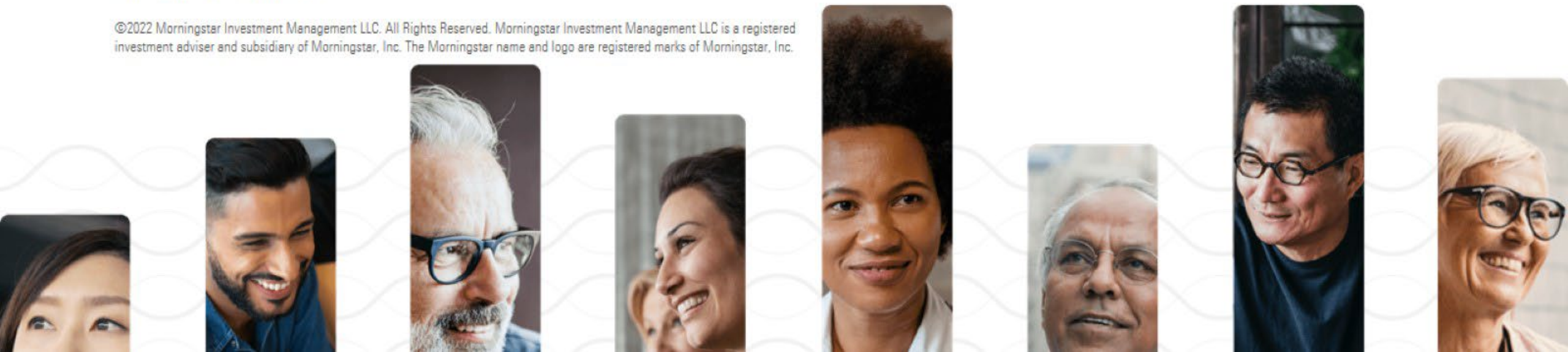


# 10 Charts to Explain Today's Market

## Current Volatility & Longer-Term Perspective

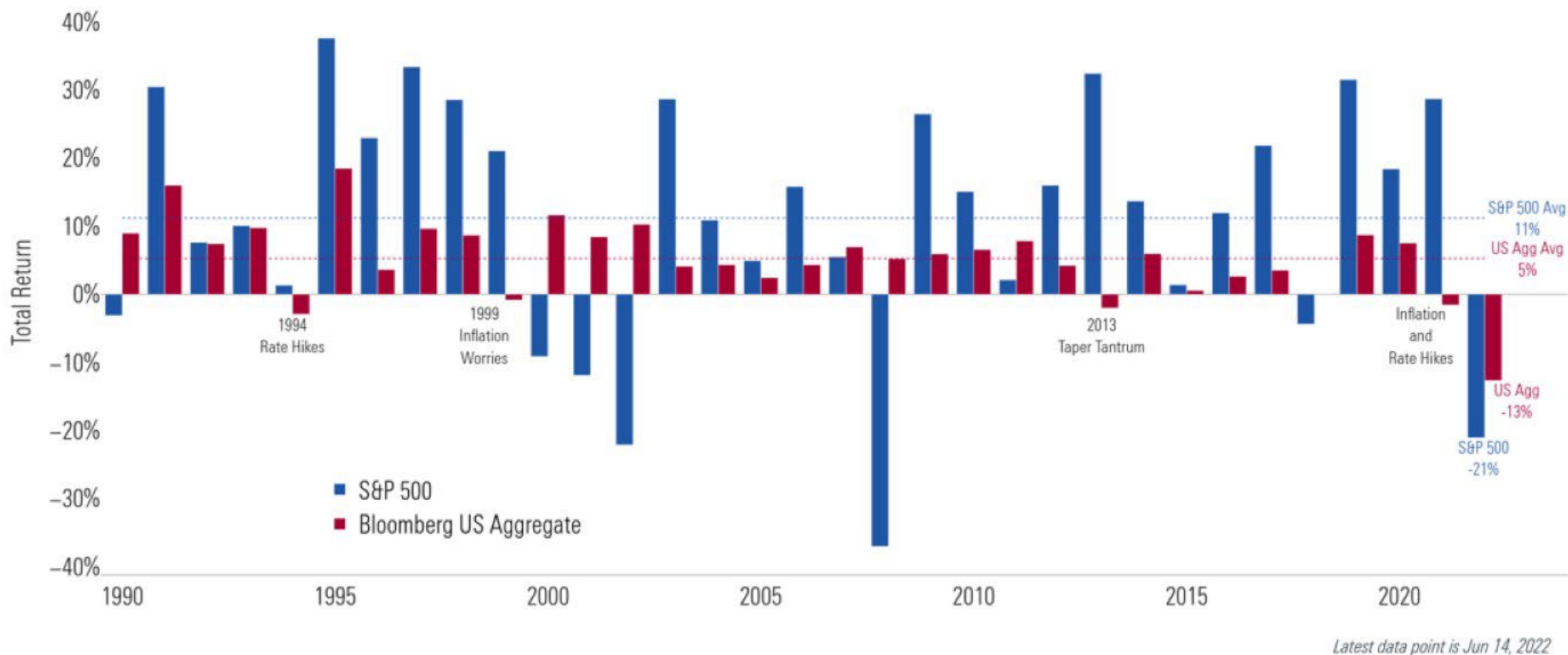
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# For the First Time in 30+ Years: Stocks & Bonds are Falling Together

## S&P 500 & U.S. Aggregate Bond Index



Source: Cleareconomics, Standard & Poor's, Bloomberg

Past performance is no guarantee of future results. This is for illustrative purposes only and not indicative of any investment. An investment cannot be made directly in an index. References to specific asset classes should not be viewed as a recommendation to buy or sell any specific security in those asset classes.

# This is a Global Challenge

The Magnitude and Timing of the Setback Varies Across Markets



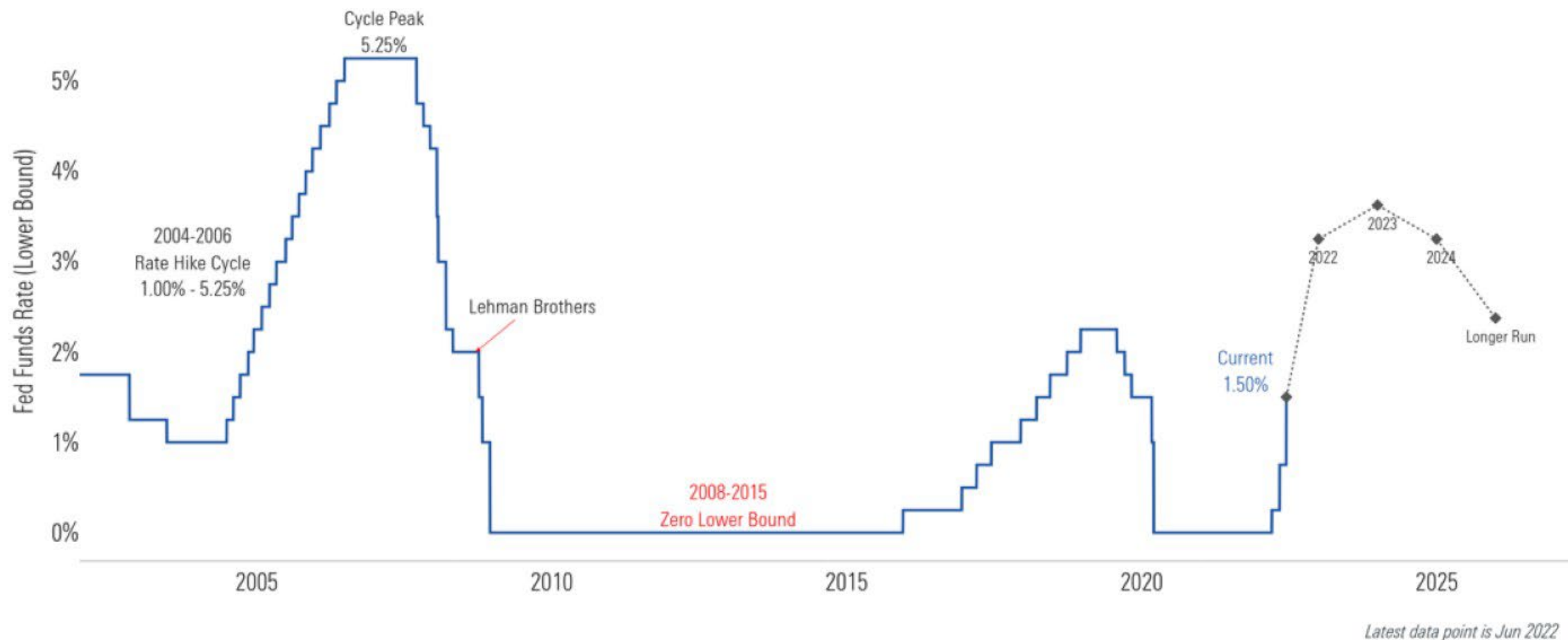
Latest data point is Jun 14, 2022

Source: Clearnomics, MSCI, Standard and Poor's, Refinitiv

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# Why? Interest Rates are Rising Amid an Inflation Spike

U.S. Interest Rates are Rising at the Fastest Rate in 28 Years



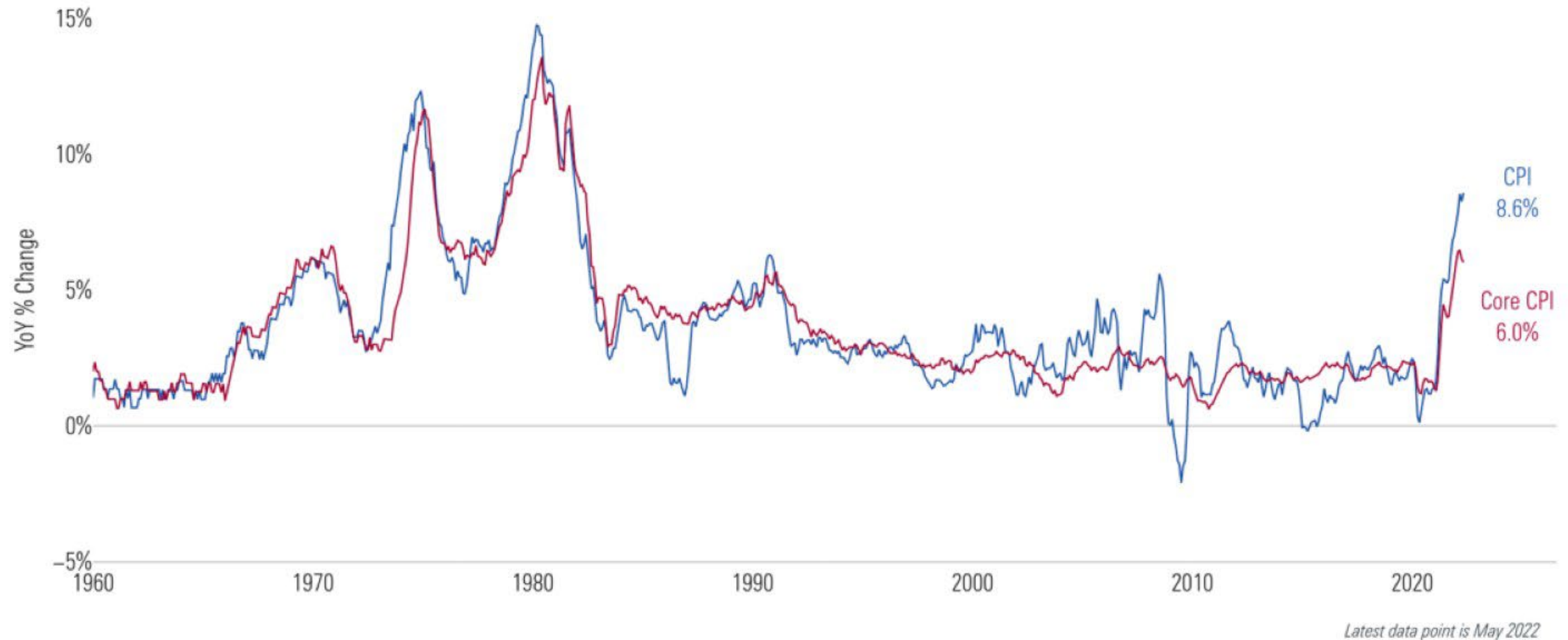
Source: Clearnomics, Federal Reserve

This is for illustrative purposes only.



# The Cause: Unexpected Inflation at 40+ Year Highs

Globally, We've Witnessed Supply-Led Issues, Creating Rising Prices for Goods and Services

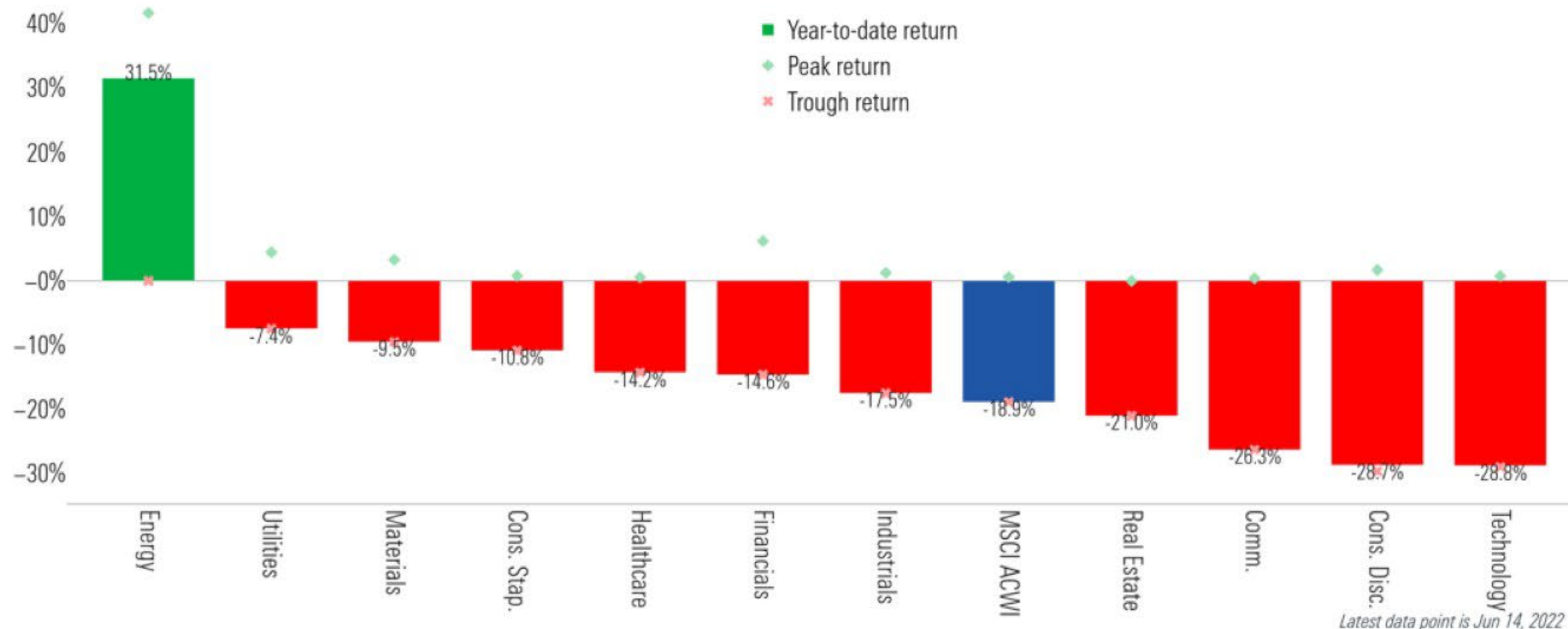


Source: Cleonomics, U.S. Bureau of Labor Statistics

This is for illustrative purposes only.

# The Standout: Energy Prices Have Bounced, While Technology Lags

Global Sector Returns Have Experienced Significant Dispersion

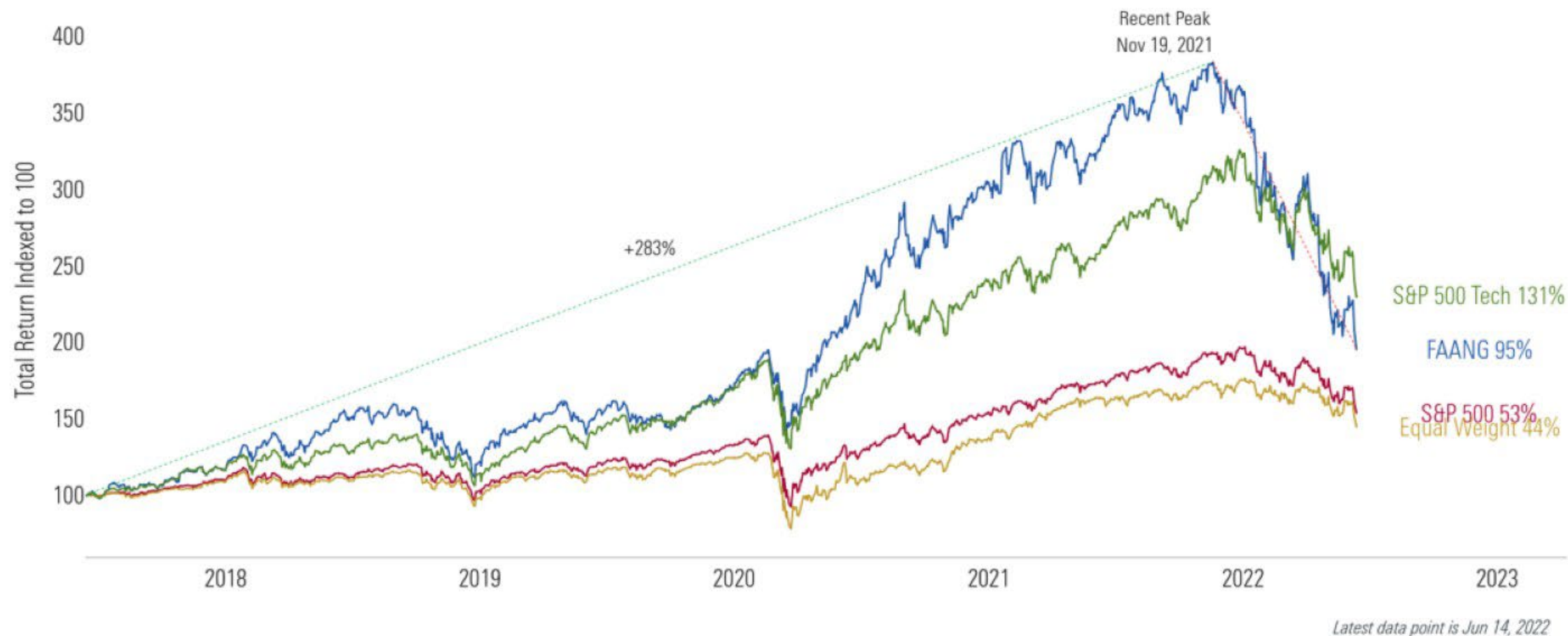


Source: Clearnomics, MSCI

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# Technology Stocks are Pressured by Rising Interest Rates

As Most of the Profits are Expected in the Future, They Get Discounted More Heavily

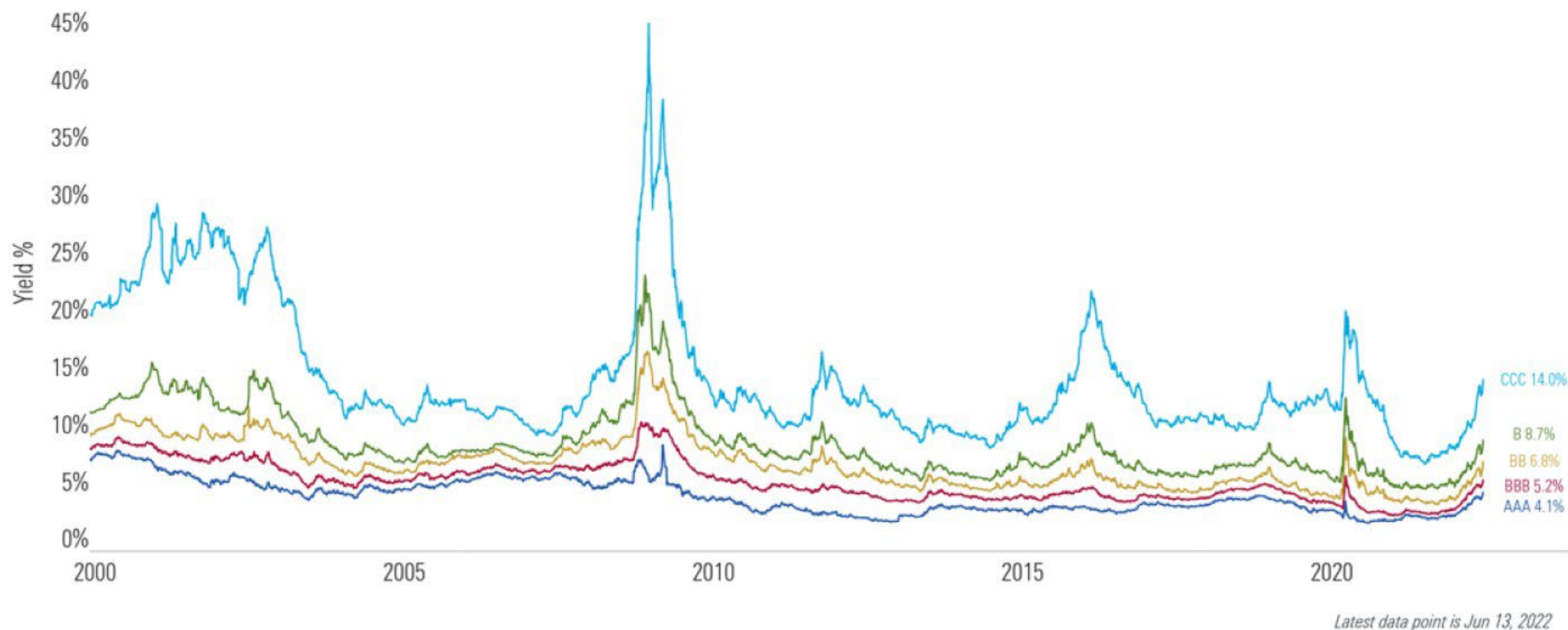


Source: Cleareconomics, Standard & Poor's, Refinitiv

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# A Bad Debt Cycle is Often Feared During a Downturn

The Yield on Corporate Bonds are Already Adjusting & Now Reflect Better Value



Source: Cleareconomics, Merrill Lynch Bond Indices

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# In Bonds, Markets Tend to Front-Run the Economy

Bond Yields Have Spiked in Anticipation of Higher Interest Rates

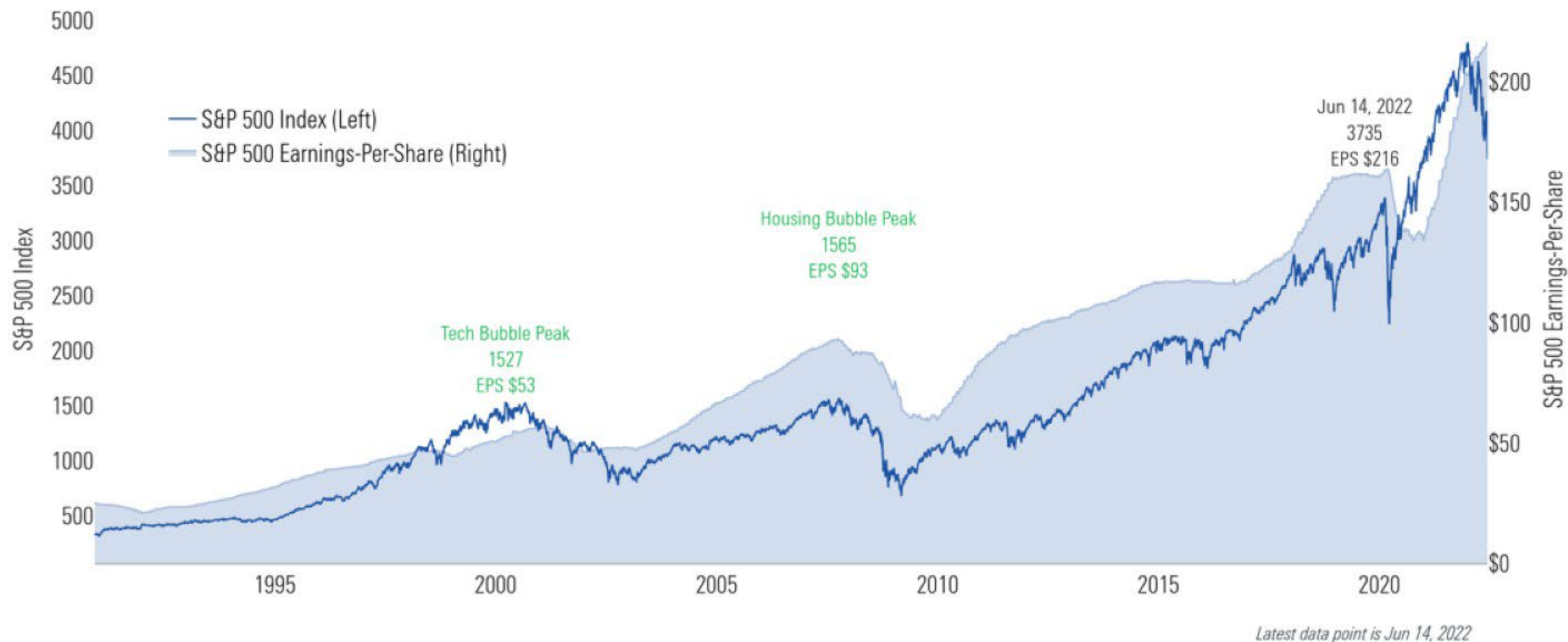


Source: Cleareconomics, Refinitiv, Federal Reserve, NBER

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# In Stocks, Markets Also Tend to Front-Run the Economy

Earnings Downgrades are Starting to Come Through, But Aren't Yet Visible in Aggregate



Source: Cleonomics, Refinitiv, Standard & Poor's

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# Despite the Temptation, Investing for the Long-Term Usually Wins

Market Prices Will Front-Run the Economy on the Way Out Too, So Timing is Incredibly Difficult



Latest data point is Jun 14, 2022

Global Stocks represented via MSCI ACWI. Cash represented via Treasury Bills

Source: Cleartomics, MSCI, Federal Reserve

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The Price/Earnings Ratio or P/E Ratio is a stock's current price divided by the company's trailing 12-month earnings per share from continuous operations.

The CAPE ratio is a valuation measure that uses real earnings per share (EPS) over a 10-year period to smooth out fluctuations in corporate profits that occur over different periods of a business cycle. The ratio is generally applied to broad equity indexes to assess whether the market is undervalued or overvalued.

Individual index performance is provided as a reference only. Each index is unmanaged and is not available for direct investment. Since indexes and/or composition levels may change over time, actual return and risk characteristics may be higher or lower than those presented. Although Index performance data is gathered from reliable sources, Morningstar Investment Management cannot guarantee its accuracy, completeness or reliability.

S&P 500: Market-capitalization-weighted Index of 500 widely held stocks. Member companies are chosen based on market size, liquidity, and industry group representation. Included are the stocks of industrial, financial, utility and transportation companies.

Morningstar US Market: The index is a diversified broad market index that targets 97% market capitalization coverage of the investable universe. The index is float market capitalization weighted, reconstituted semi-annually, and rebalanced quarterly.

Morningstar US Large Cap: The index measures the performance of US large-cap stocks. These stocks represent the largest 70% capitalization of the investable universe.

Morningstar US Mid Cap: The index tracks the performance of US mid-cap stocks that fall between 70th and 90th percentile in market capitalization of the investable universe. In aggregate the Mid Cap Index represents 20% of the investable universe.

Morningstar US Small Cap: The index tracks the performance of US small-cap stocks that fall between 90th and 97th percentile in market capitalization of the investable universe. In aggregate, the Small Cap Index represents 7% of the investable universe.

MSCI ACWI ex USA: The MSCI ACWI ex USA Index captures large and mid-cap representation across 23 Developed Markets (DM) countries (excluding the US) and 26 Emerging Markets (EM) countries.

MSCI EAFE: The MSCI EAFE Index is an equity index which captures large and mid-cap representation across Developed Markets countries around the world, excluding the US and Canada.

MSCI EM: A free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets.

# Important Disclosure Information (con't)

**Bloomberg Barclays US Universal:** The index measures the performance of USD-denominated, taxable bonds that are rated either investment grade or high-yield. It represents the union of the U.S. Aggregate Index, U.S. Corporate High Yield Index, Investment Grade 144A Index, Eurodollar Index, U.S. Emerging Markets Index, and the non-ERISA eligible portion of the CMBS Index.

**Bloomberg Barclays US Agg Bond:** The index measures the performance of investment grade, U.S. dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM passthroughs), ABS, and CMBS. It rolls up into other Barclays flagship indices, such as the multi-currency Global Aggregate Index and the U.S. Universal Index, which includes high yield and emerging markets debt.

**Bloomberg Barclays US Government Bond:** The index measures the performance of the U.S. Treasury and U.S. Agency Indices, including Treasuries and U.S. agency debentures. It is a component of the U.S. Government/Credit Index and the U.S. Aggregate Index.

**Bloomberg Barclays US Corporate Bond:** The index measures the performance of the investment grade, U.S. dollar-denominated, fixed-rate, taxable corporate bond market. It includes USD-denominated securities publicly issued by U.S. and non-U.S. industrial, utility, and financial issuers that meet specified maturity, liquidity, and quality requirements.

**Bloomberg Barclays US Corporate High Yield:** The Index covers the USD-denominated, non-investment grade, fixed rate, taxable corporate bond market. Securities are classified as high-yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below. The index excludes emerging market debt.

**Bloomberg Barclays Gbl Infl Linked US TIPS:** The index tracks inflation-protected securities issued by the U.S. Treasury. In order to prevent the erosion of purchasing power, TIPS are indexed to the non-seasonally adjusted Consumer Price Index for All Urban Consumers.

**Bloomberg Barclays Municipal Managed Money:** The index measures the performance of tax-exempt bond market. All bonds in the National Municipal Bond Index must be rated Aa3/AA- or higher by at least two of the following statistical ratings agencies: Moody's, S&P and Fitch. It is rules-based and market-value weighted.

**Citi WGBI NonUSD:** The index measures the performance of government bonds issued by governments outside the U.S.

**JPM EMBI Plus:** The JP Morgan Emerging Markets Bond Index Plus (EMBI+) tracks total returns for traded external debt instruments (external meaning foreign currency denominated fixed income) in the emerging markets. The regular EMBI Index covers U.S. dollar denominated Brady bonds, loans and Eurobonds. The Index comprises a set of broker-traded debt instruments widely followed and quoted by several market makers.

**JPM GBI-EM Global Diversified:** The index measures the performance of fixed-rate, investment-grade local currency debt securities, including regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure. The GBI-EM Global consists of treasury securities from emerging markets and is diversified weighted.