



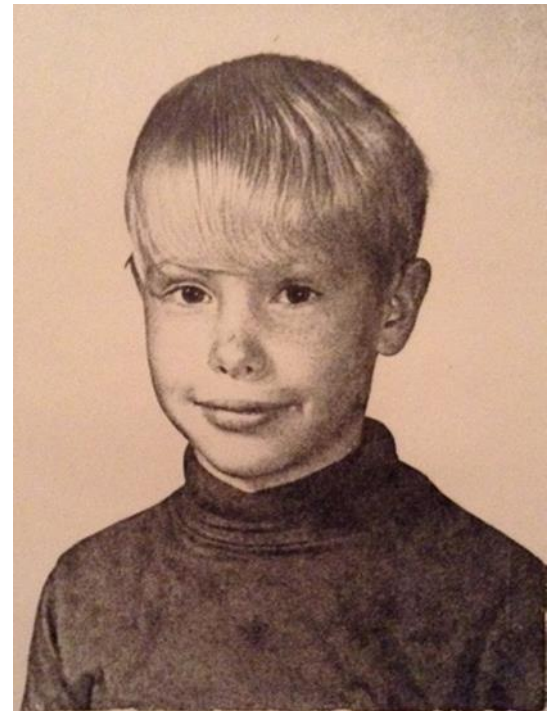
# Just Markets: “I Feel Young Again”

Live Webcast Hosted By:

**Jeffrey Gundlach**

Chief Executive Officer  
DoubleLine Capital

**January 11, 2022**



# Webcast Announcements



## [2022 Webcast Schedule Now Available](#)

Go to DoubleLine.com, under “Webcasts” choose “Click here for DoubleLine’s Webcast Schedule”

### [Asset Allocation Webcast](#) (February 8, 2022, at 1:15 pm PDT/4:15 pm EDT)

Deputy CIO and Portfolio Manager, Jeffrey Sherman will discuss DoubleLine’s Fixed Income Asset Allocation products: Low Duration, Core and Flexible Income

Go to DoubleLine.com, under “Webcasts” choose “Click here for DoubleLine’s Webcast Schedule”

### [Total Return Webcast](#) (March 8, 2022, at 1:15 pm PDT/4:15 pm EDT)

Jeffrey Gundlach and Portfolio Manager Andrew Hsu will share their thoughts on the macro economy and markets related to the Total Return Bond strategy

Go to DoubleLine.Com, under “Webcasts” choose “Click here for DoubleLine’s Webcast Schedule”

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# DoubleLine Media Thought Leadership



## DoubleLine's Round Table Prime Series YouTube

Featuring Industry Titans: Jim Bianco, Danielle DiMartino Booth, Jeffrey Gundlach, Ed Hyman, David Rosenberg moderated by Jeffrey Sherman discussing Macro, Markets and Best Ideas

**Now Available on YouTube/DoubleLine**

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## DoubleLine's Channel 11 YouTube

Hosted by Portfolio Manager Ken Shinoda and available on

 **Twitter: @DLineChannel11**


Email: [channel11@doubleline.com](mailto:channel11@doubleline.com)

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## The Sherman Show Podcast YouTube

Hosted by Deputy CIO Jeffrey Sherman and Portfolio Manager Sam Lau

Available on [www.doubleline.com](http://www.doubleline.com), iTunes, Sound Cloud, Google Podcasts, Spotify and Stitcher. **Visit them on**  **Twitter: @ShermanShowPod**


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## Monday Morning Minutes Podcast

Hosted by Portfolio Managers Sam Lau and Jeff Mayberry

Featuring timely and relevant weekly Macro and Markets recaps.

Posts weekly to [www.doubleline.com](http://www.doubleline.com), iTunes, Sound Cloud, Google Podcasts, Spotify and Stitcher. **Visit them on**  **Twitter: @DLineMinutes**



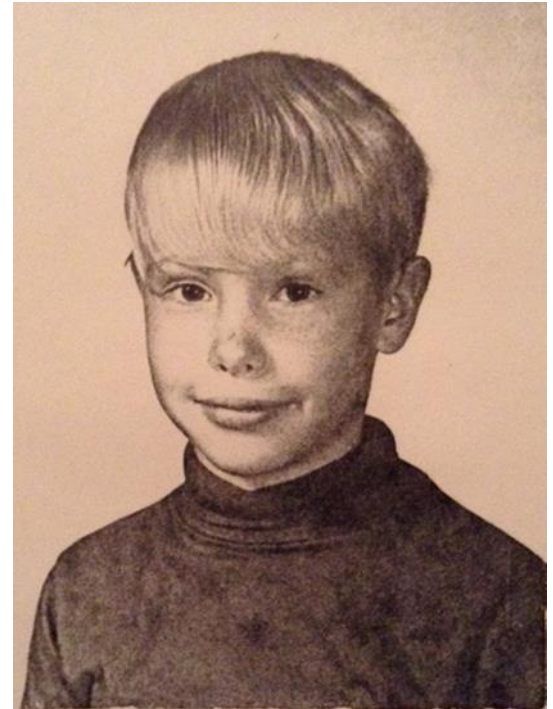
# Just Markets: “I Feel Young Again”

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# S&P 500 and Valuation

As of December 31, 2021

**S&P 500 Price Index**



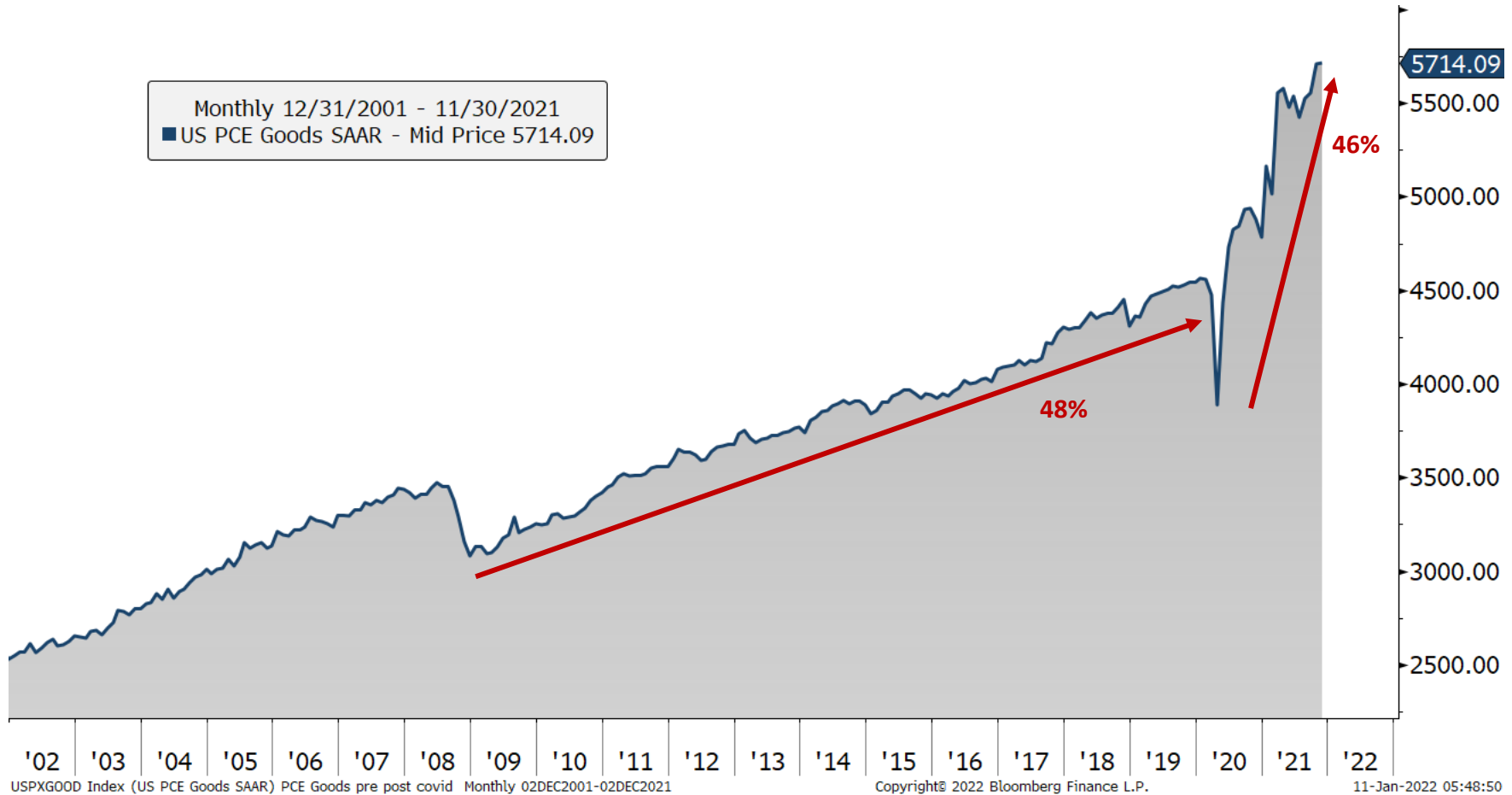
Source: Compustat, FactSet, Federal Reserve, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management. Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by Compustat. Forward price-to-earnings ratio is a bottom-up calculation based on J.P. Morgan Asset Management estimates. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns. Guide to the Markets - U.S. Data are as of December 31, 2021.

**J.P.Morgan**  
ASSET MANAGEMENT

Source: Guide to the Markets by JPMorgan, Q1-2022

Please see appendix for S&P 500 Index definition. You cannot invest directly in an index. P/E = Price/Earnings.

# Post-COVID Goods Spending Comparable to Post-GFC Cumulative Growth



Source: Bloomberg, DoubleLine

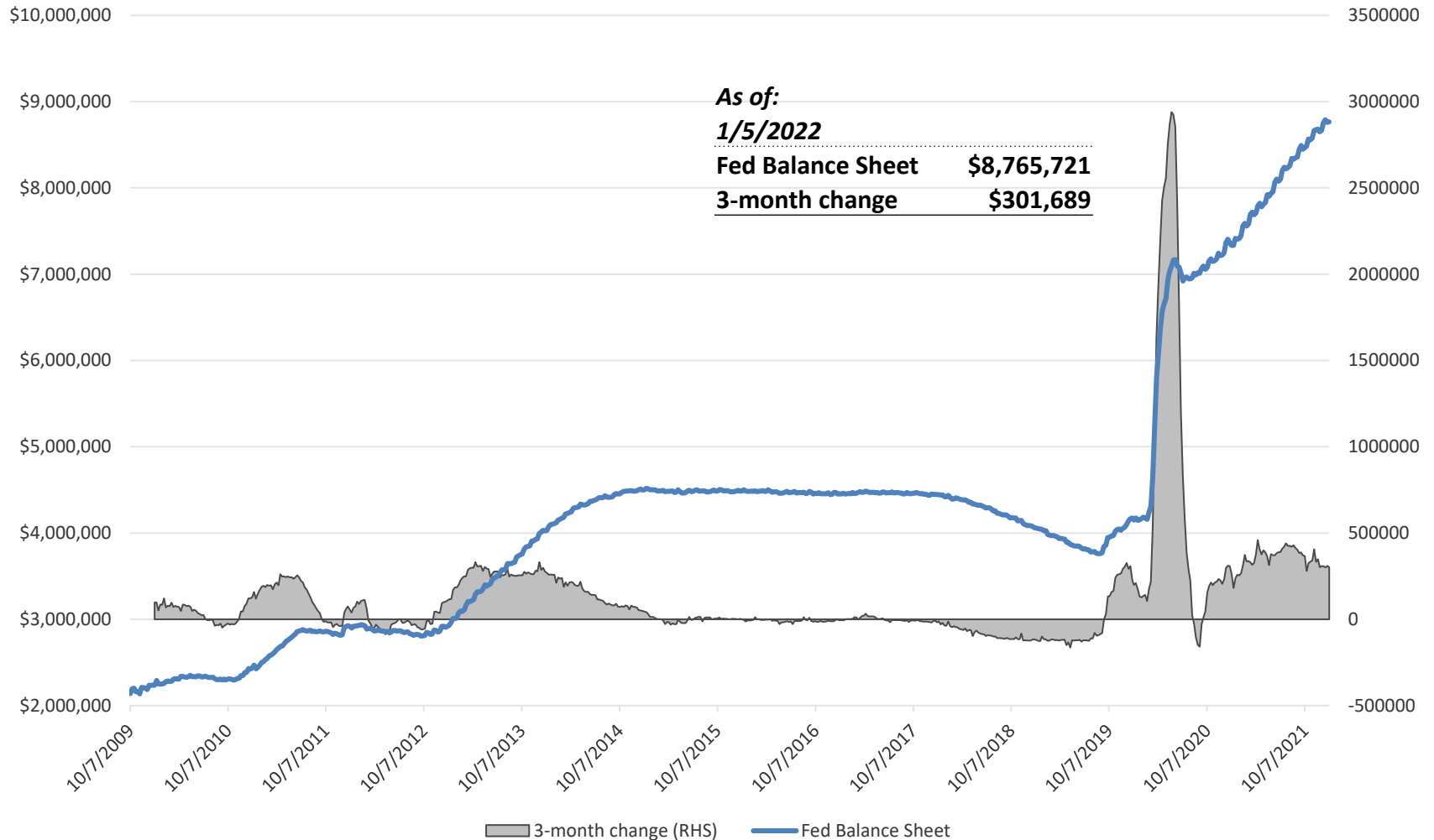
PCE = Personal Consumption Expenditures measures consumer spending for a period of time. USPXGOOD Index – measures the goods & services component of the PCE seasonally adjusted.

You cannot invest directly in an index.

# Fed Balance Sheet and 3-Month Change



Fed Balance Sheet and 3-month Change (Millions)



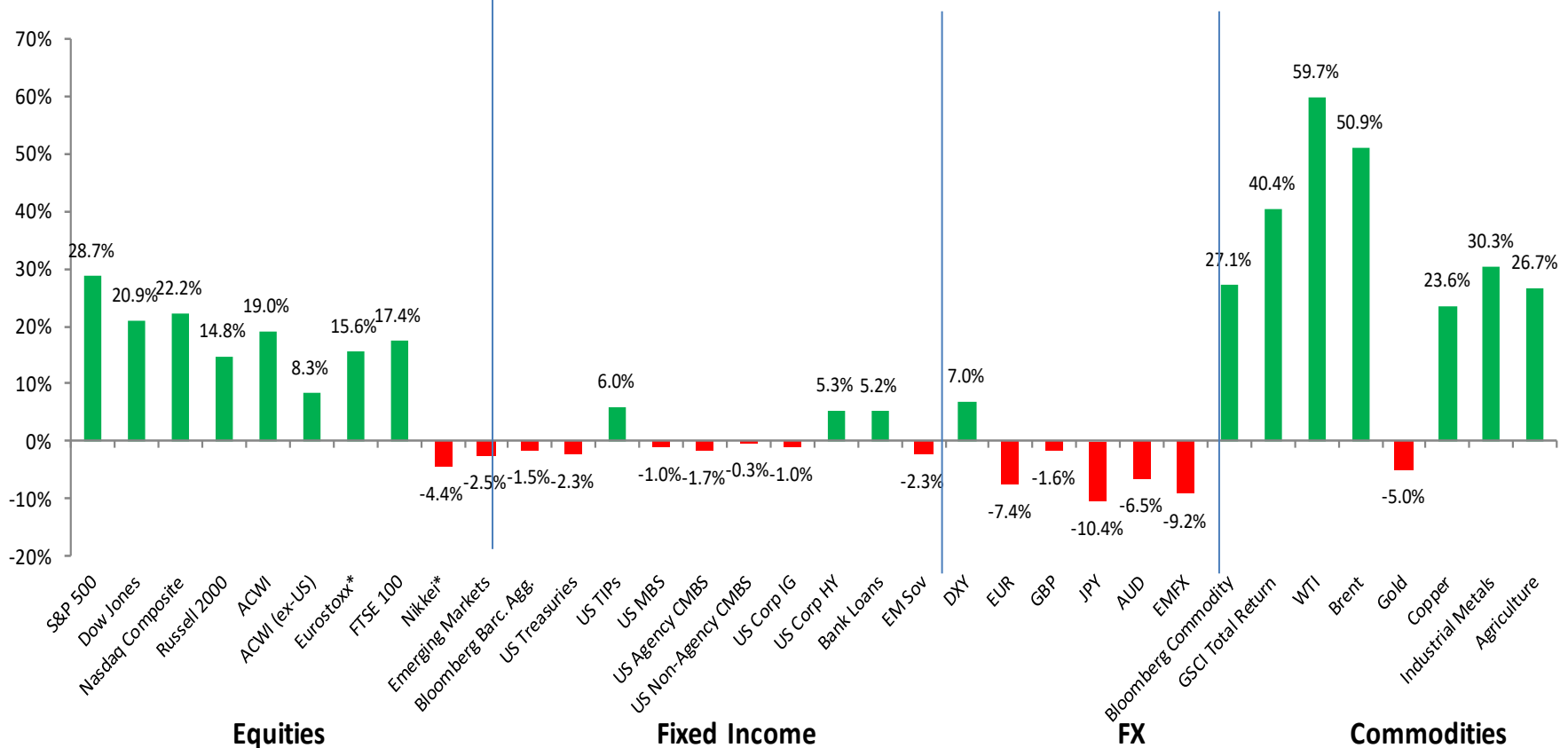
Source: Bloomberg; DoubleLine

# Cross Asset 2021 Performance

As of December 31, 2021



2021 Performance of Asset Classes  
\*returns in USD



Source: DoubleLine, Bloomberg  
Please see the appendix for index definitions. You cannot invest directly in an index.

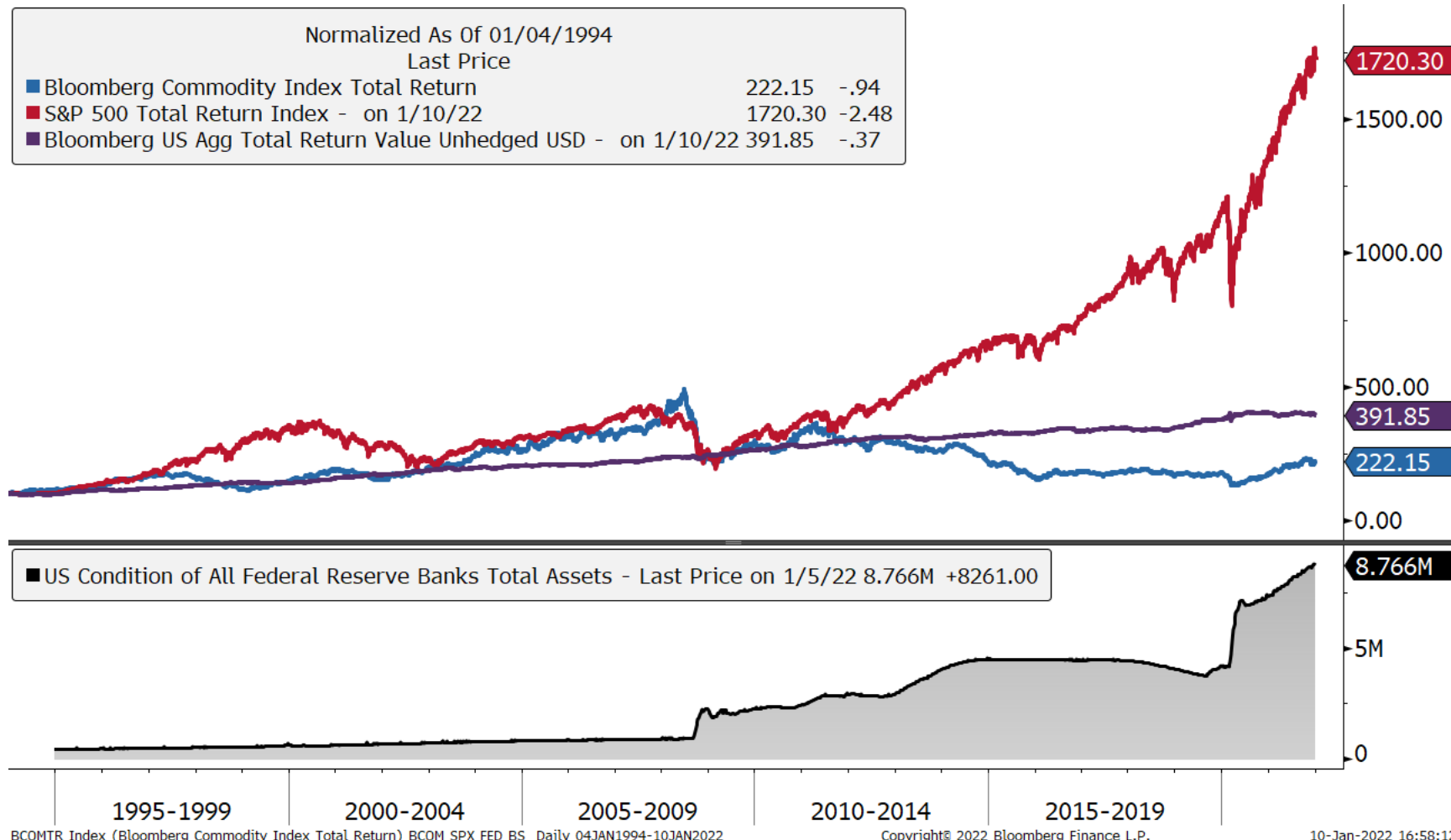
# Credit 2021 Performance

As of December 31, 2021



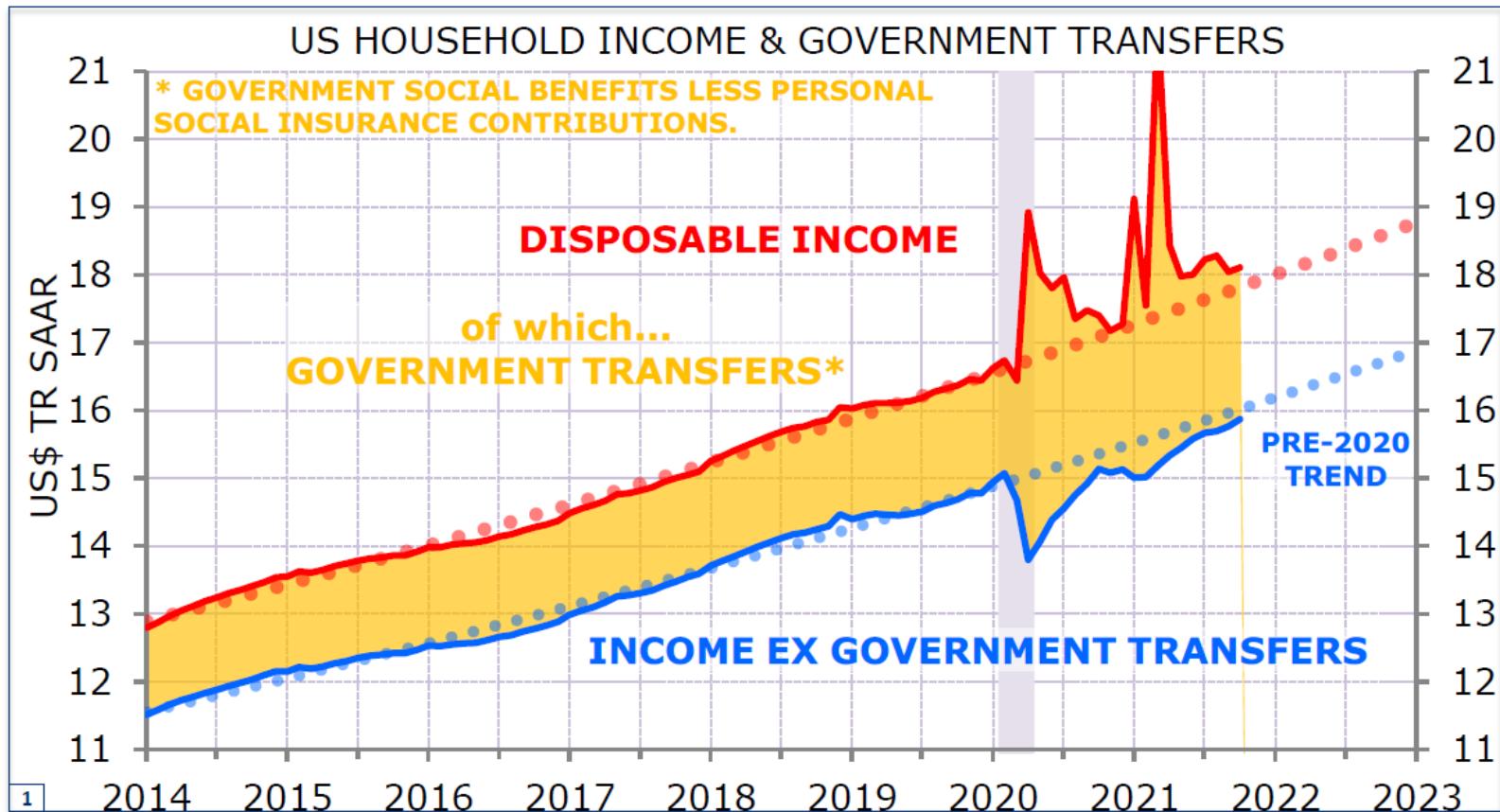
Note: IG: Bloomberg Barclays Liquid US Corporate Index; High Yield: Bloomberg Barclays US Liquid High Yield Index; Leveraged Loans: Credit Suisse Liquid Leveraged Loan Index; Agency MBS: Bloomberg Barclays US Agency MBS Fixed Rate 1-10yr ex Sub TR Index; Non-Agency MBS: Markit iBoxx Broad US Non-Agency RMBS Index; CMBS: Bloomberg Barclays US CMBS Fixed Rate; CLO 2.0: Palmer Square CLO DM and JP Morgan CLO Total Return Index; EMBI: JP Morgan EMBI Global Total Return Index; EM Corp Bond: Credit Suisse Emerging Market Corp Bond Total Return. Please see appendix for index definitions. You cannot invest directly in an index.

# Markets Since 1994



Source: Bloomberg, DoubleLine  
Please see index definitions in the appendix for descriptions. You cannot invest directly in an index.

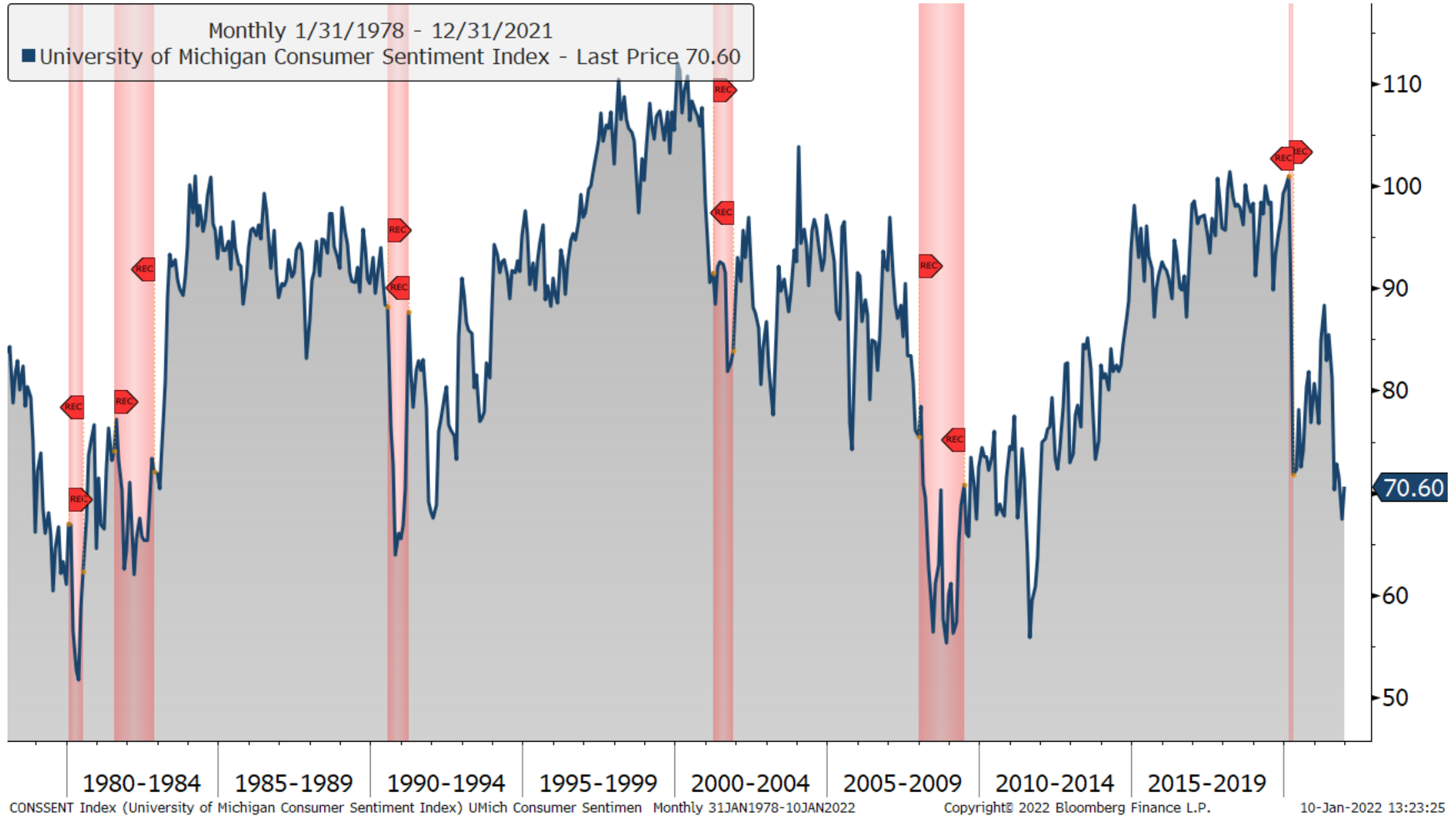
# U.S. Household Income and Government Transfers



Source: Minack Advisors, BEA, NBER

# Consumer Sentiment

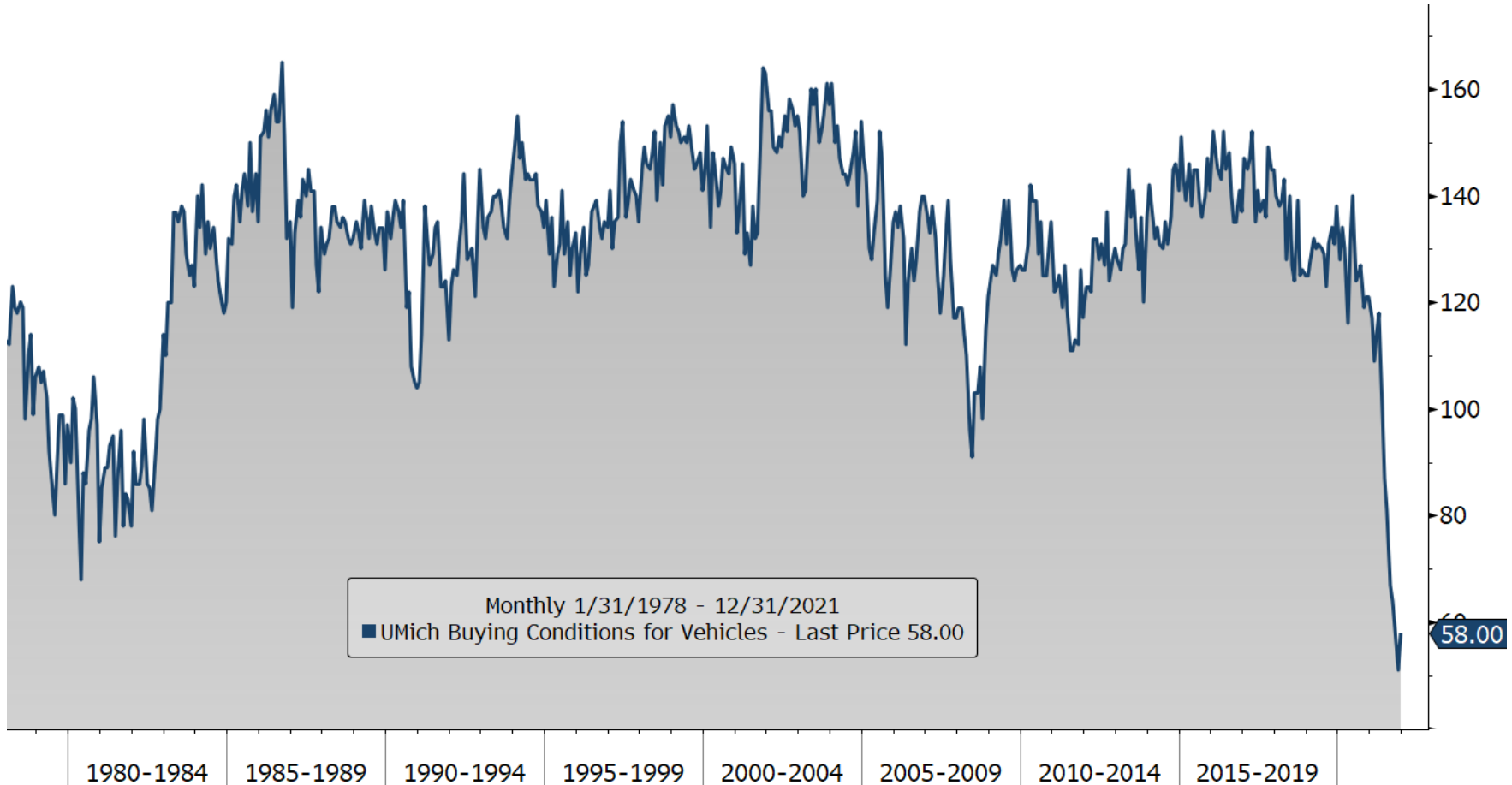
University of Michigan Consumer Sentiment Survey



Source: Bloomberg, DoubleLine

You cannot invest directly in an index. Red shaded areas indicate recessionary periods.

# University of Michigan Sentiment - Autos



CONSVCHR Index (UMich Buying Conditions for Vehicles) UMich Sentiment - Autos Monthly 31JAN1978-11JAN2022

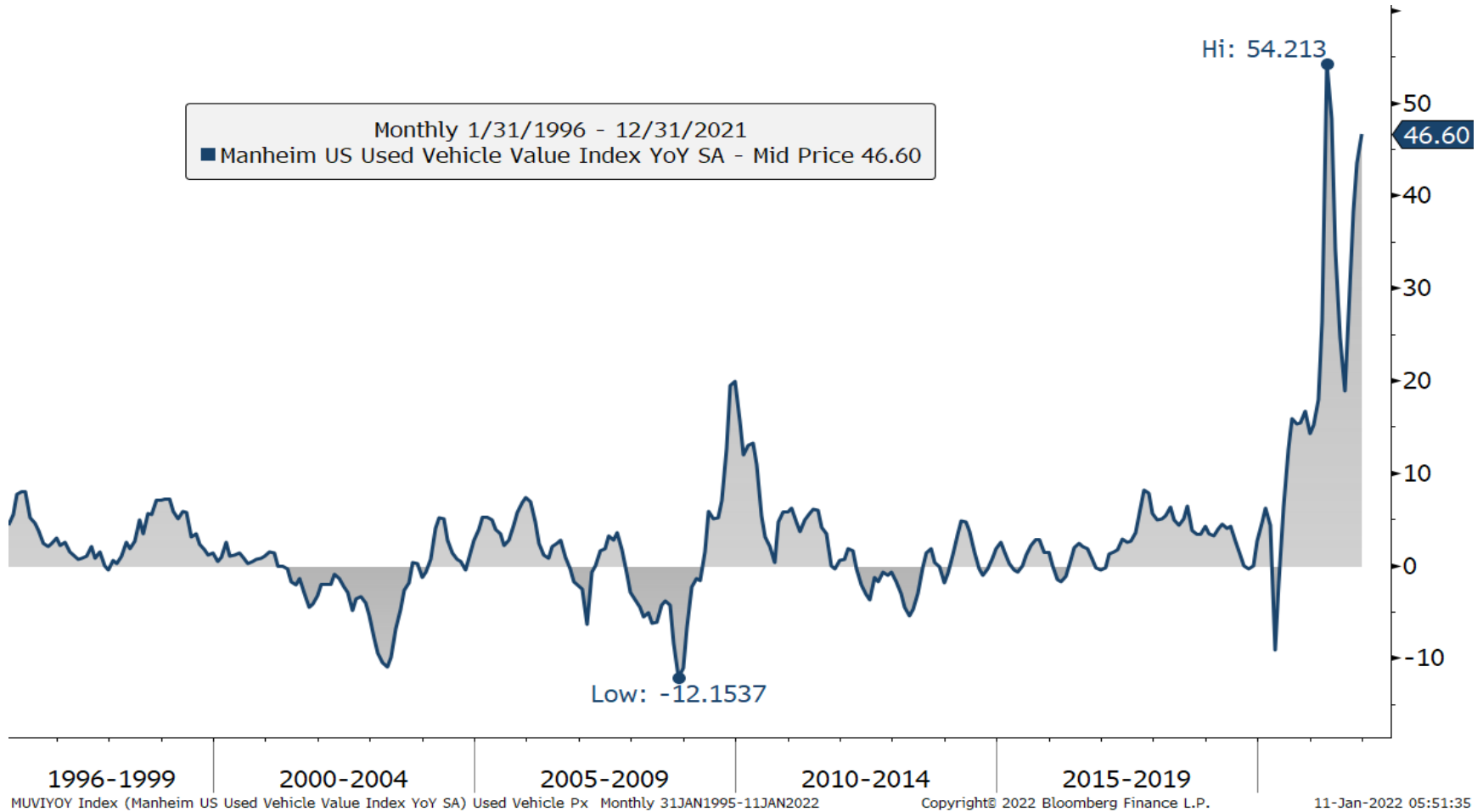
Copyright© 2022 Bloomberg Finance L.P.

11-Jan-2022 10:29:42

Source: Bloomberg, DoubleLine

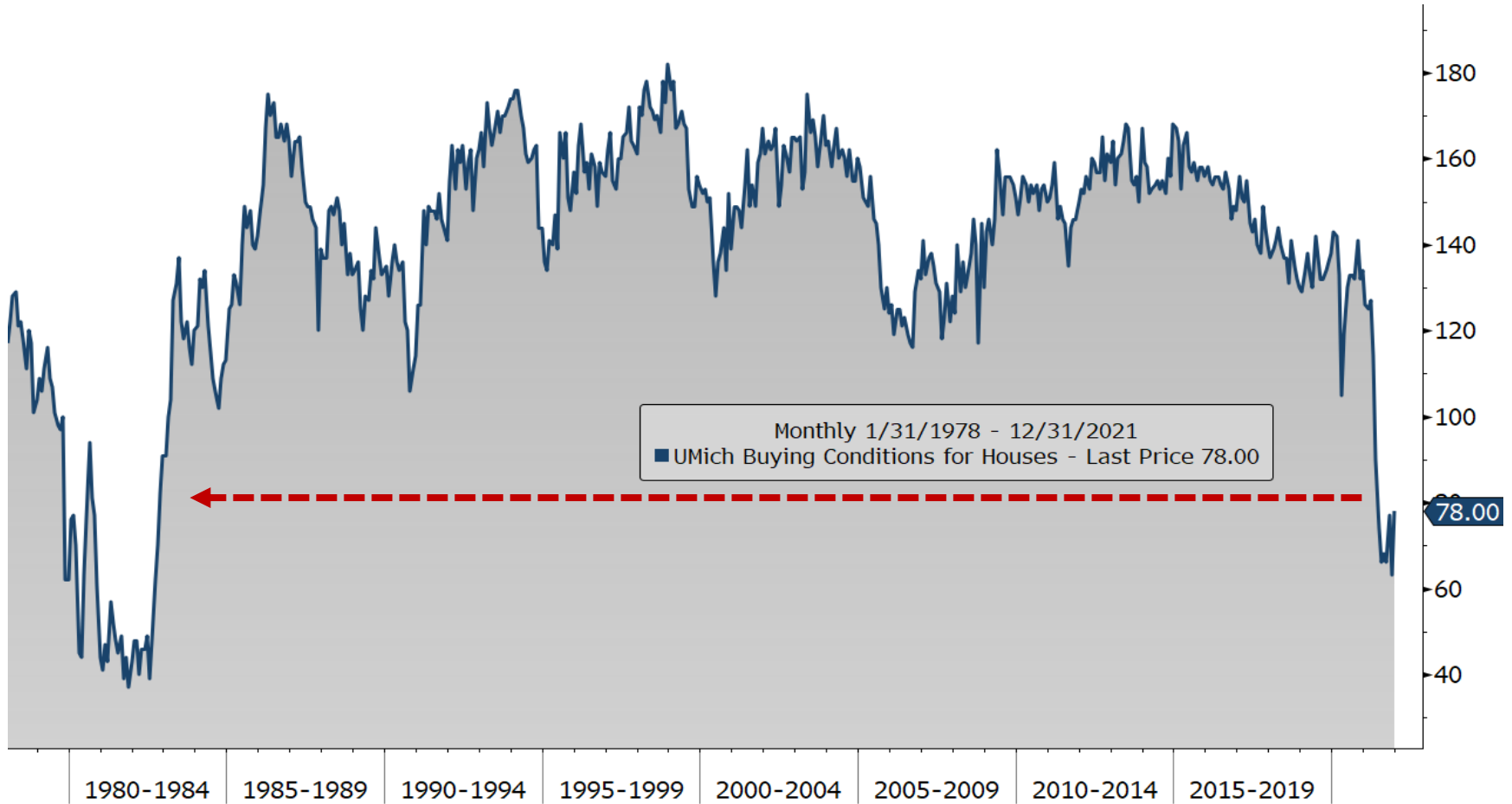
CONSVCHR Index – surveys households on whether it’s a good time or a bad time to buy a vehicle over the next 12 months. You cannot invest directly in an index.

# Used Car Prices (YoY%)



Source: Bloomberg  
You cannot invest directly in an index. YoY = year-over-year.

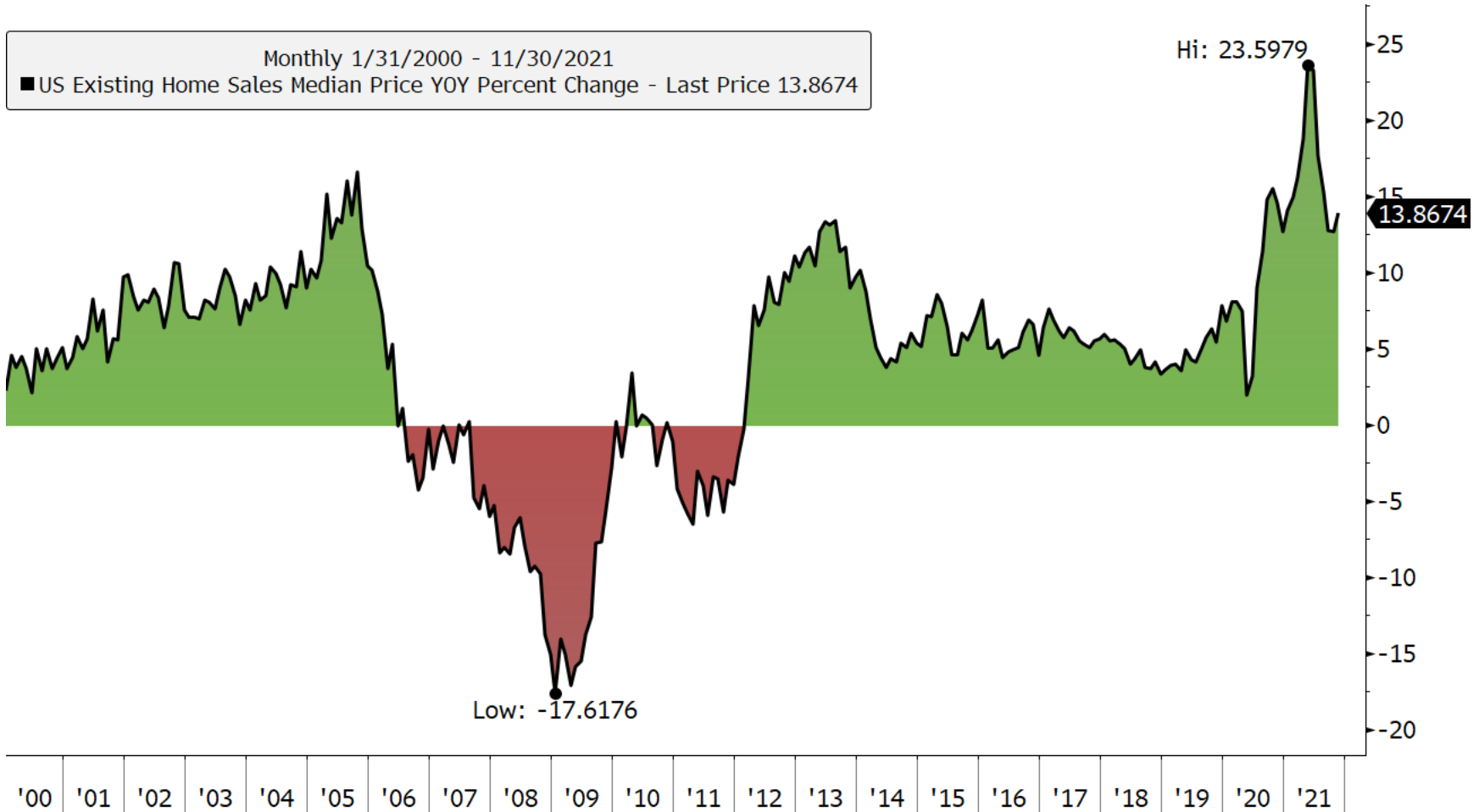
# University of Michigan Sentiment - House



CONSHOMR Index (UMich Buying Conditions for Houses) UMich Sentiment - House Monthly 31JAN1978-11JAN2022 Copyright© 2022 Bloomberg Finance L.P. 11-Jan-2022 05:52:32

Source: Bloomberg, DoubleLine  
CONSHOMR Index – surveys households on whether it’s a good time or a bad time to buy a house. You cannot invest directly in an index.

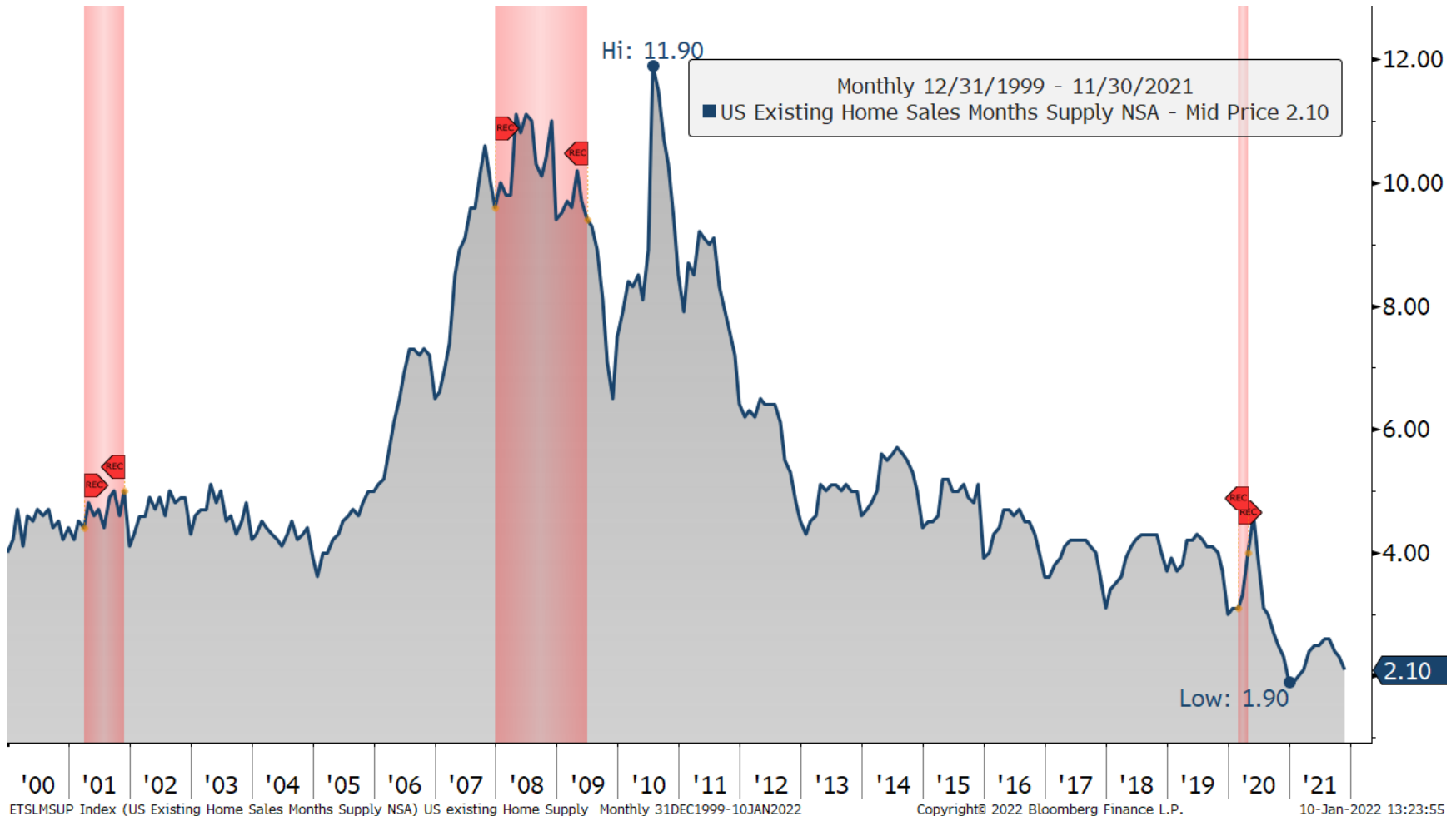
# Existing Home Sales Median Price (YoY) Change



ETSLMP%Y Index (US Existing Home Sales Median Price YOY Percent Change) Existing Home Px YoY Monthly 31JAN1999-10JAN2022 Copyright© 2022 Bloomberg Finance L.P. 10-Jan-2022 13:24:07

Source: Bloomberg, DoubleLine  
YoY = Year-over-Year. You cannot invest directly in an index.

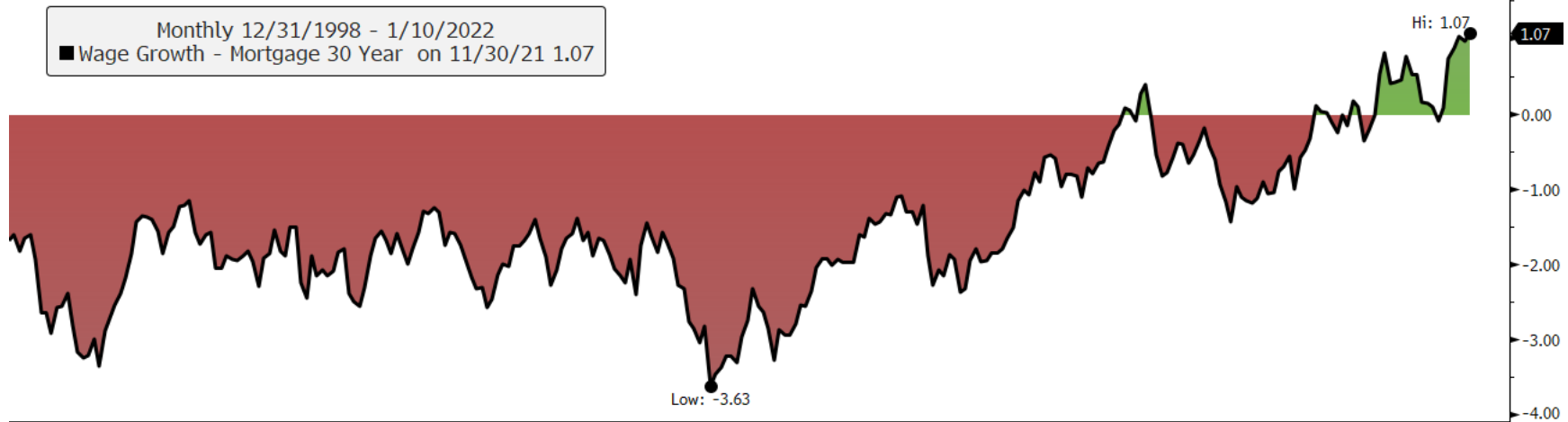
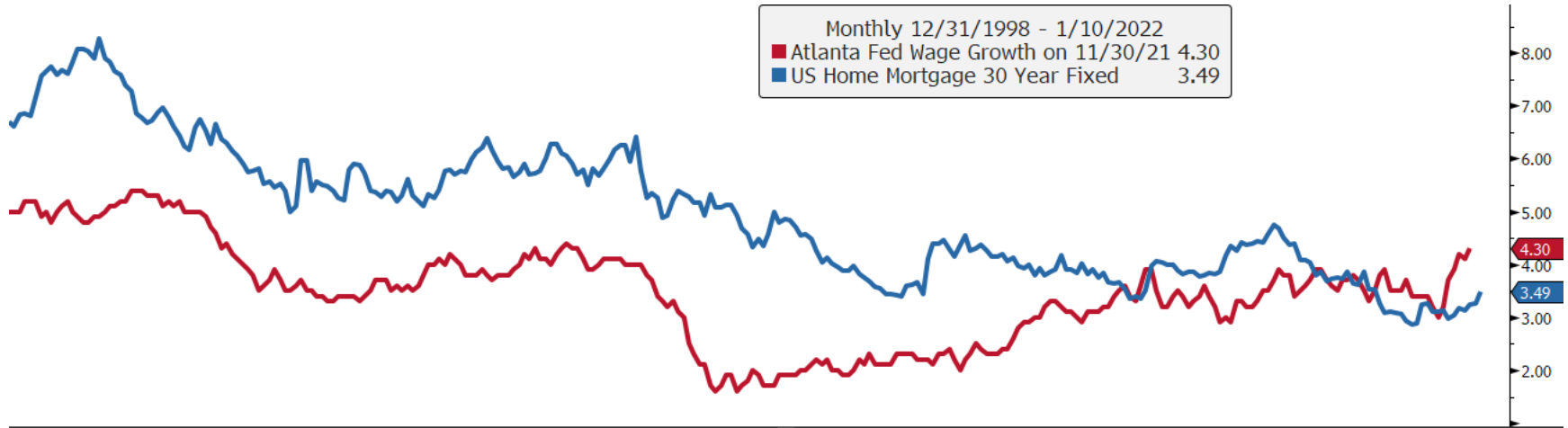
# Existing Home Sales Months Supply (in # months)



Source: Bloomberg, DoubleLine

NSA = Non-Seasonally Adjusted. You cannot invest directly in an index. Red shaded areas indicate recessionary periods.

# Atlanta Fed Wage Growth vs. 30-Year Mortgage Rates



1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

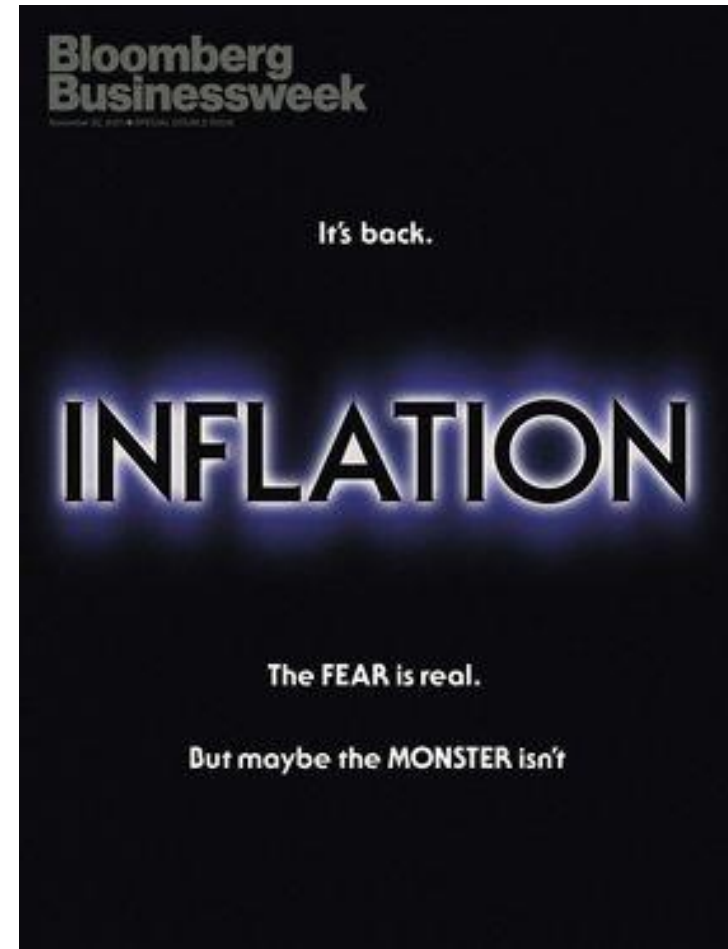
WGTRVOR Index (Atlanta Fed Wage Growth Tracker Overall) wage growth v 30y mtge Monthly 31DEC1998-11JAN2022 Copyright© 2022 Bloomberg Finance L.P. 11-Jan-2022 05:53:14

Source: Bloomberg, DoubleLine

# Inflation

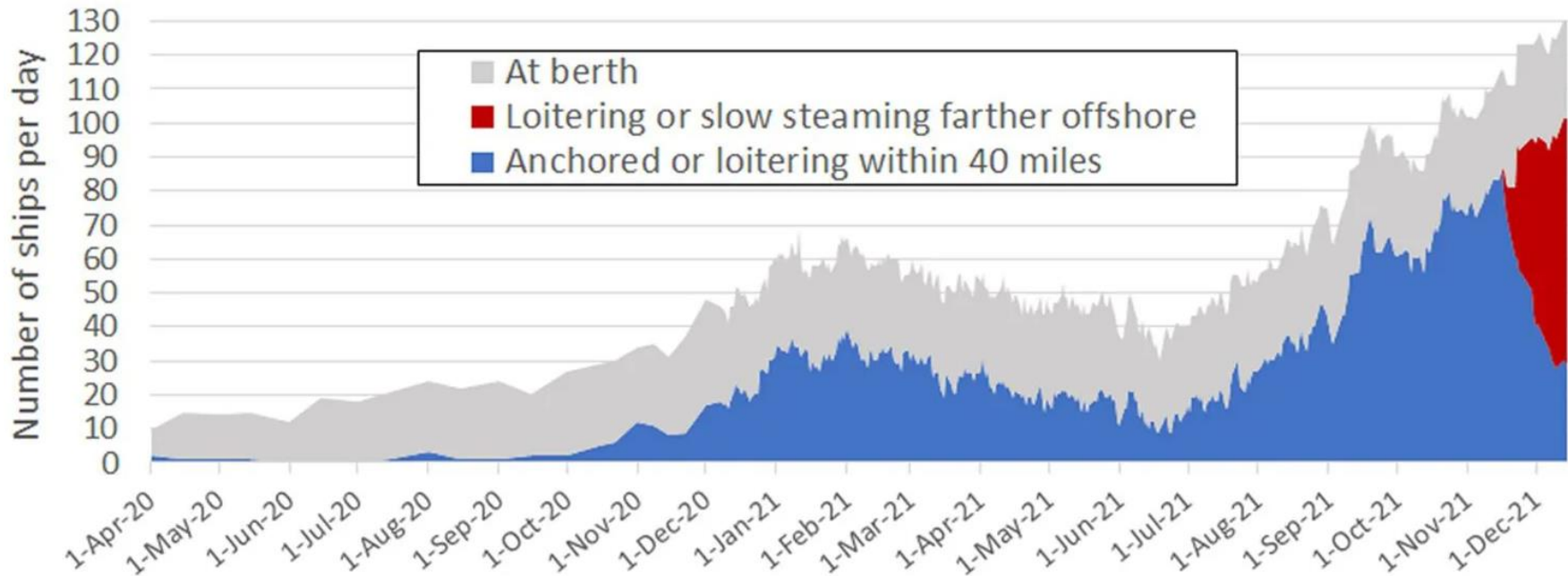
April 22, 2019

November 22, 2021



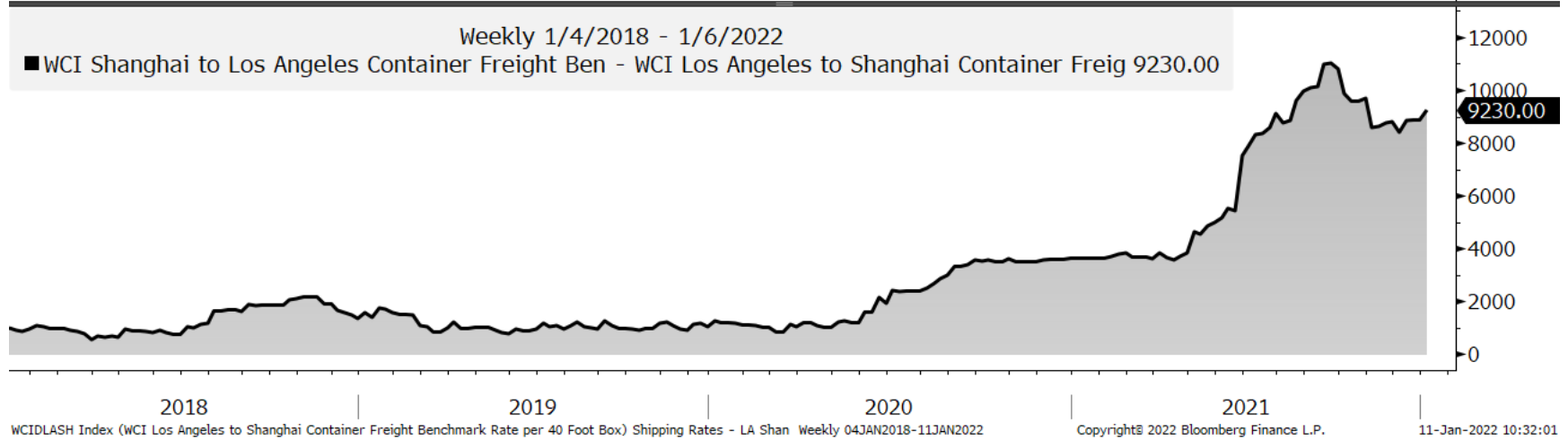
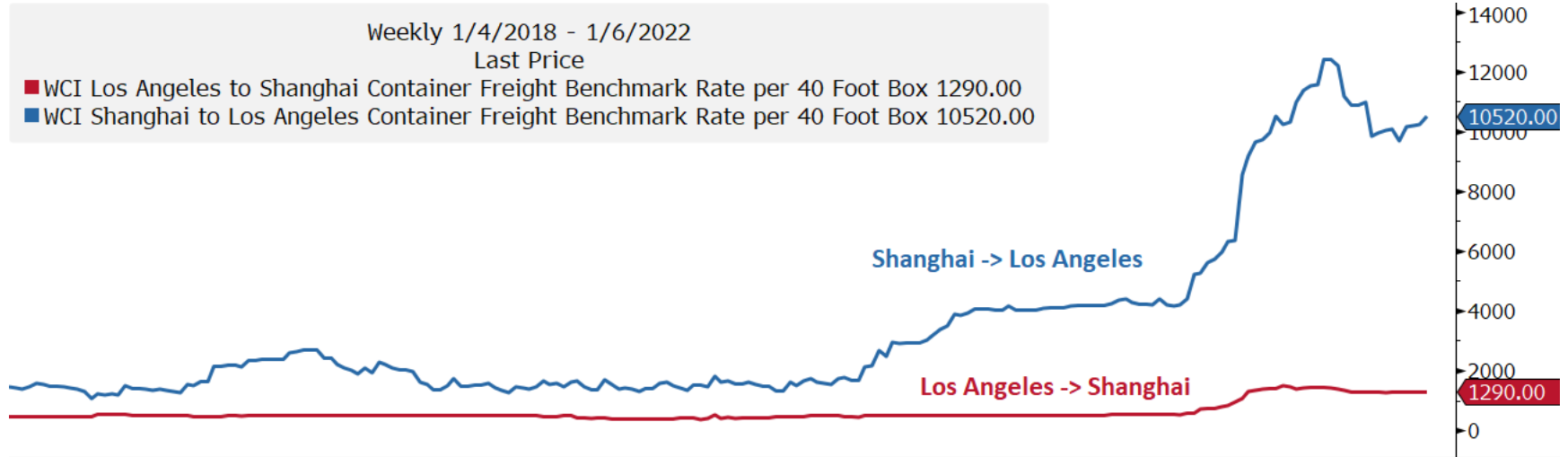
# Container Ships Waiting Off LA/LB Ports

Moreover, on the U.S. West Coast based on the new queuing system the backlog of ships was 94 as of last week. The backlog was 86 ships when the new system was introduced on November 16, 2021.



As of December 15, 2021  
Source: FreightWaves

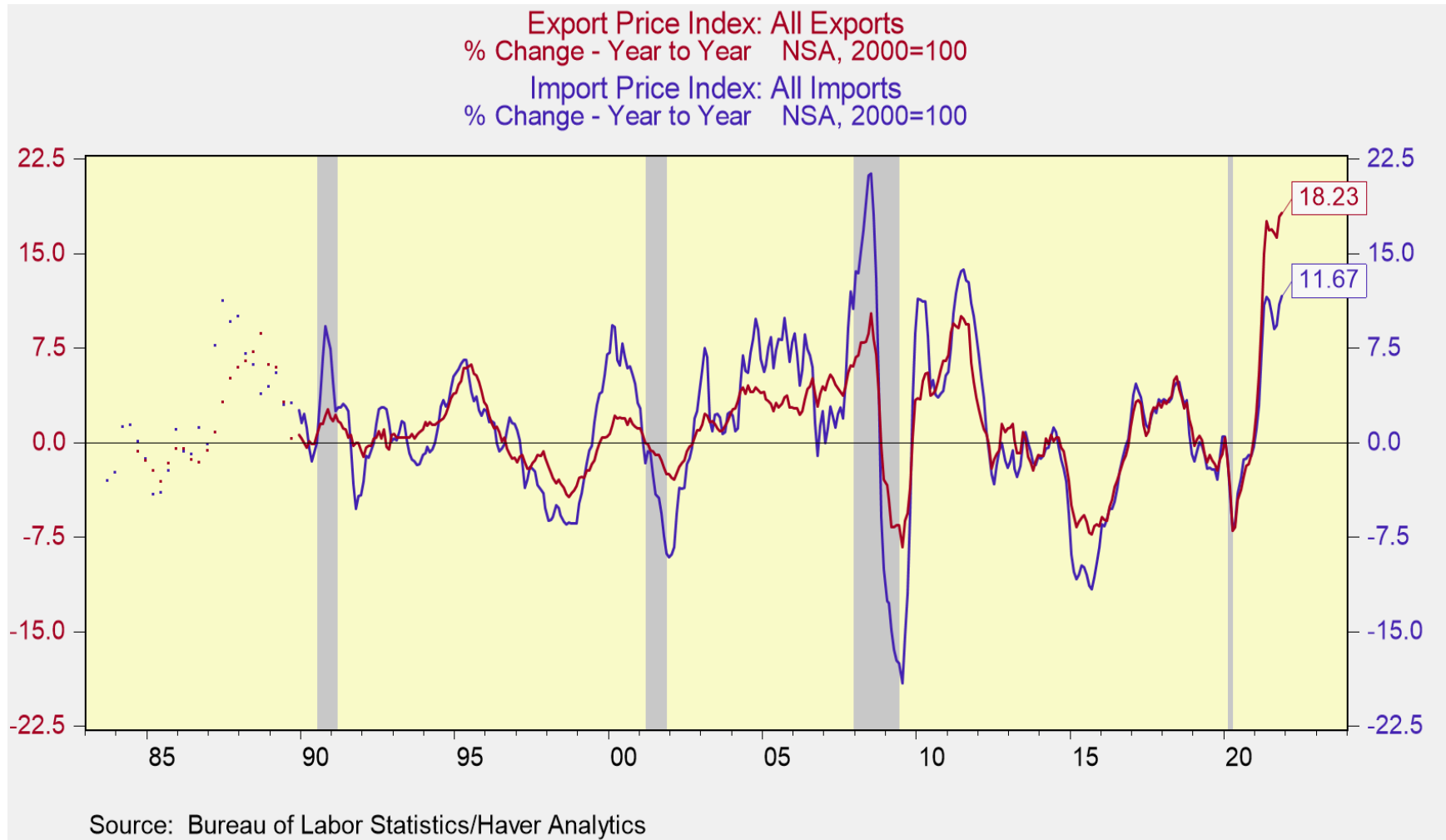
# Shipping Container Freight Rates: Los Angeles <-> Shanghai



Source: Bloomberg; DoubleLine  
You cannot invest directly in a n index.

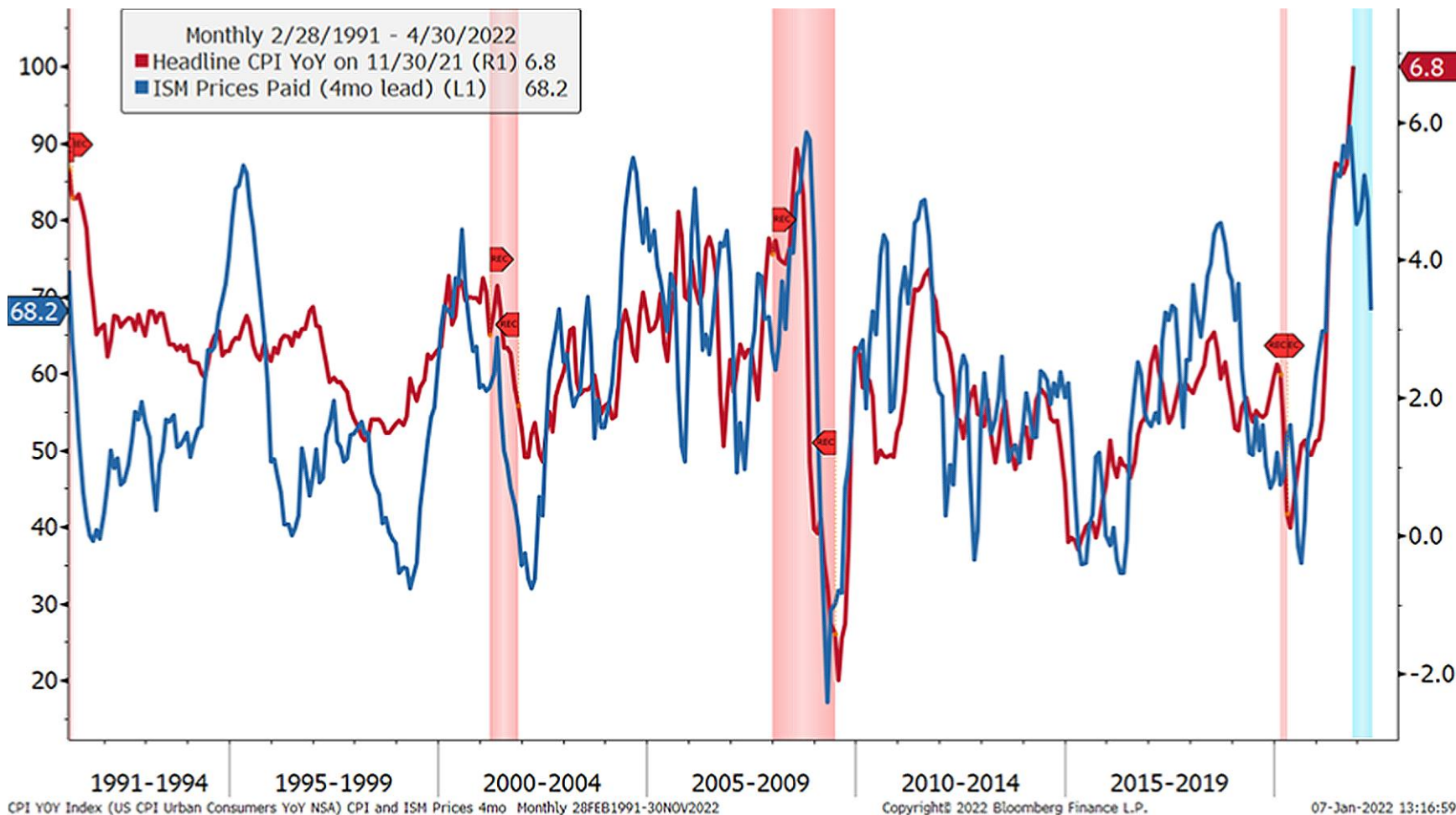
# Export and Import Prices (YoY)

As of December 15, 2021



NSA = Non-Seasonally Adjusted. You cannot invest directly in an index.

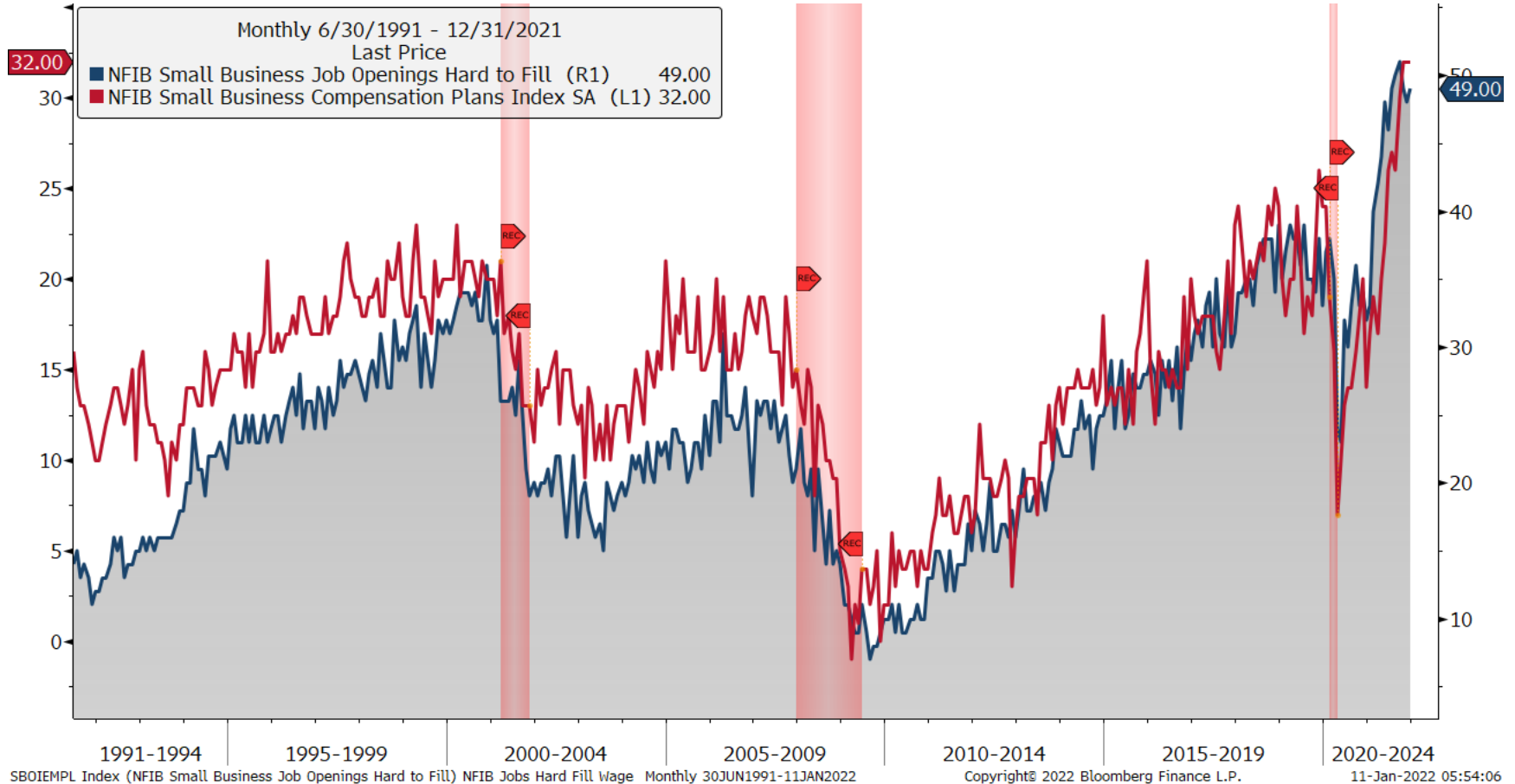
# U.S. CPI & ISM Manufacturing Prices Paid (4-month Lead)



Source: Bloomberg, DoubleLine

CPI = Consumer Price Index area measure of prices paid for a basket of consumer goods and services. ISM = Purchasing Manager's Index is a monthly indicator of U.S. economic activity based on a survey. YoY = Year-over-Year. Red shading indicates recessionary periods. Blue-shaded area indicates 4-mo lead. You cannot invest directly in an index.

# NFIB Jobs Hard to Fill and Worker Compensation Plans



Data Source: Bloomberg, DoubleLine

National Federation of Independent Business (NFIB) Small Business Compensation Plan Index – A survey of 800 companies that comprises a seasonally adjusted, % balance/diffusion index tracking the net percent of business owners planning to increase compensation during the next three-month period. The index reflects direct measures of actual and anticipated changes in labor compensation (wages and benefits) by asking the question, “Do you plan to change average employee compensation (wages and benefits but NOT Social Security, U.C. taxes, etc.) during the next three months?” You cannot invest directly in an index.

# Time for Greener Pastures?

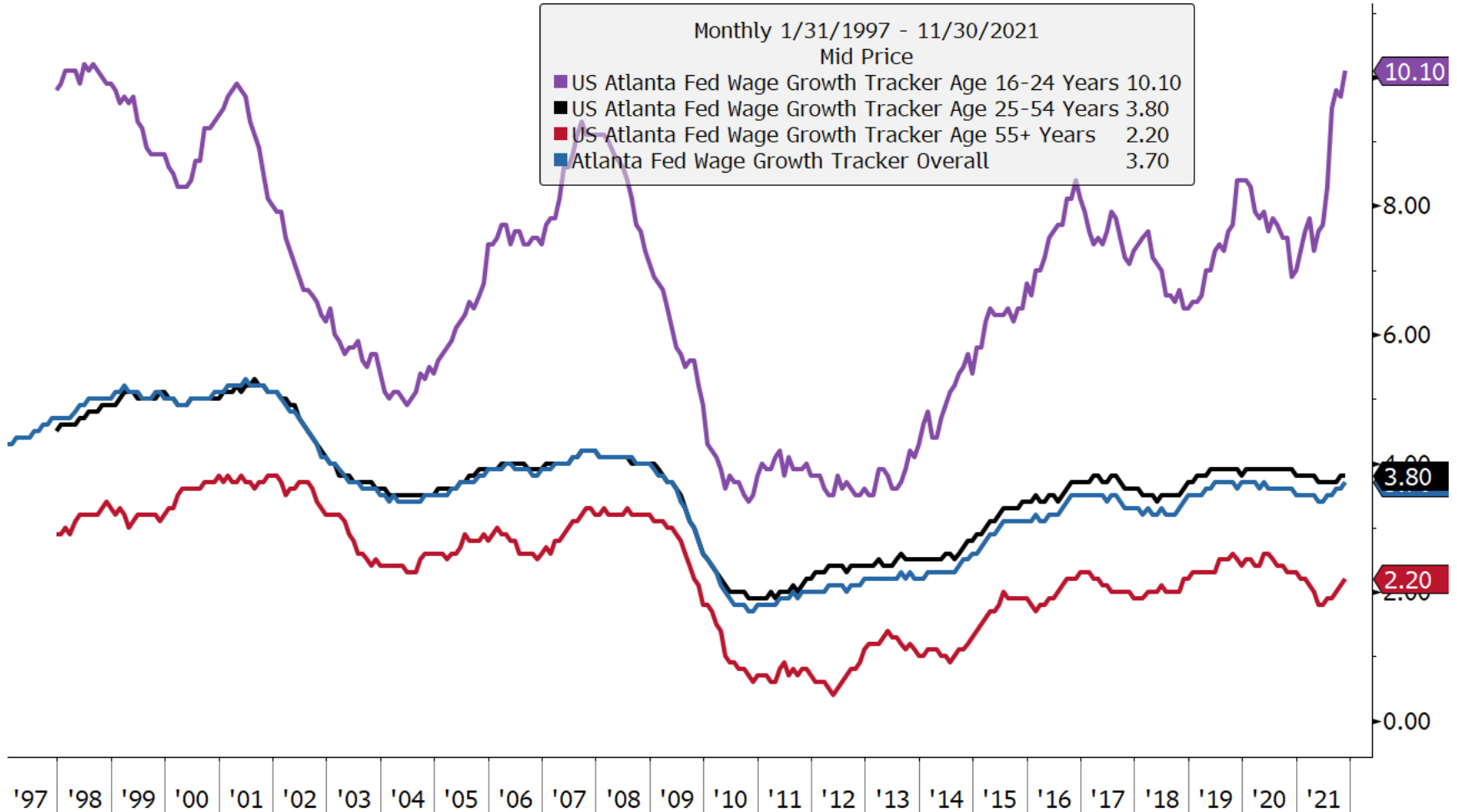
**Is now a good time to find a quality job? %  
responding yes**



Source: Gallup

Source: WSJ, November 12, 2021

# Atlanta Fed Wage Growth Tracker by Age



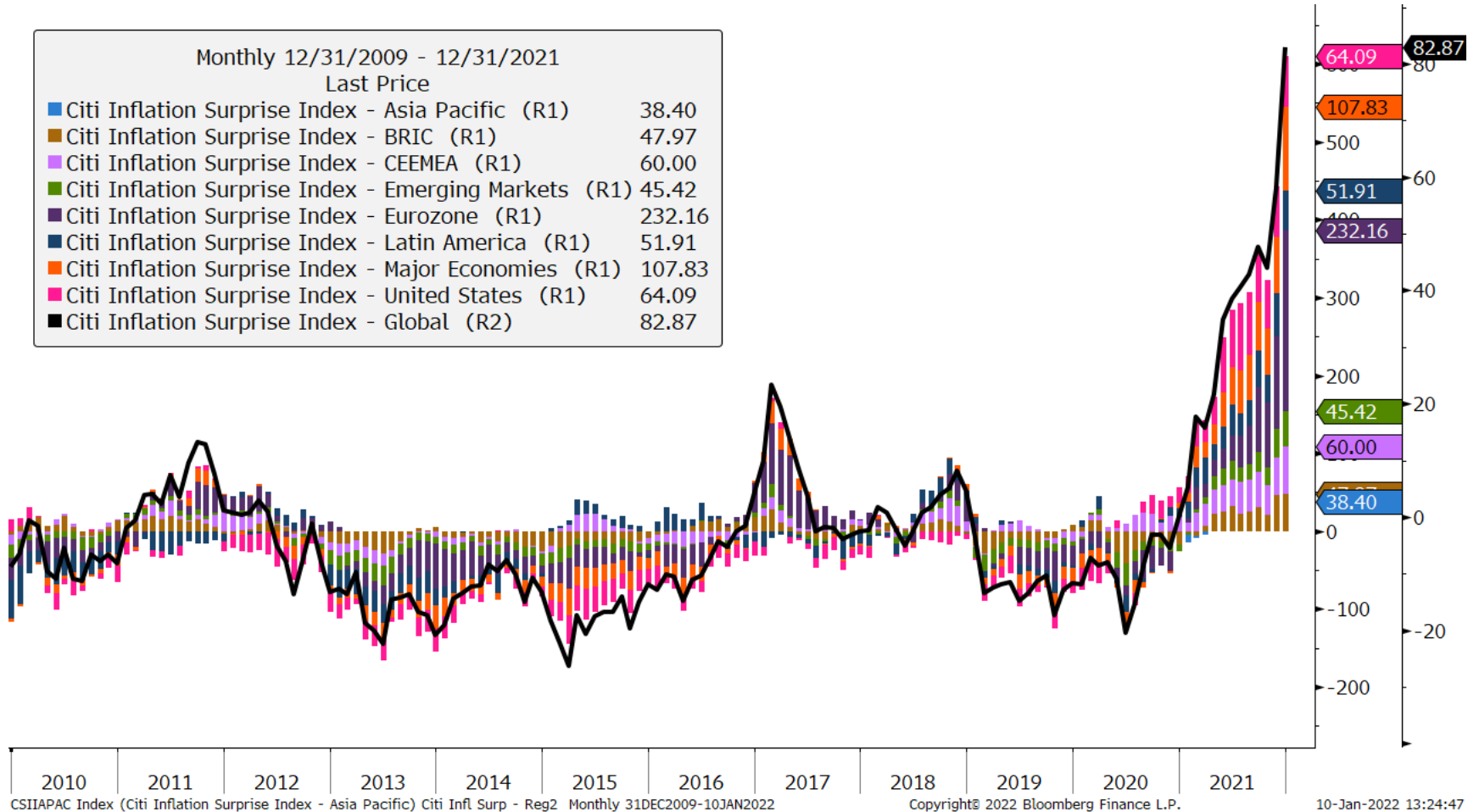
Source: Bloomberg, DoubleLine

The Atlanta Fed's Wage Growth Tracker is a measure of the nominal wage growth of individuals. You cannot invest directly in a n index.

# Citi Global Inflation Surprise Index with Constituents



Monthly 12/31/2009 - 12/31/2021	
Last Price	
Citi Inflation Surprise Index - Asia Pacific (R1)	38.40
Citi Inflation Surprise Index - BRIC (R1)	47.97
Citi Inflation Surprise Index - CEEMEA (R1)	60.00
Citi Inflation Surprise Index - Emerging Markets (R1)	45.42
Citi Inflation Surprise Index - Eurozone (R1)	232.16
Citi Inflation Surprise Index - Latin America (R1)	51.91
Citi Inflation Surprise Index - Major Economies (R1)	107.83
Citi Inflation Surprise Index - United States (R1)	64.09
Citi Inflation Surprise Index - Global (R2)	82.87



Source: Bloomberg, DoubleLine

Note: The Inflation Surprise Indices measure accumulation of headline of monthly CPI, PPI and wage surprises relative to median expectations of professional forecasters. CPI = Consumer Price Index area measure of prices paid for a basket of consumer goods and services. BRIC = Brazil, Russia, India and China. CEEMEA = 105 different countries in the Middle East, United Arab Emirates, and Africa. You cannot invest directly in an index.

# U.S. Breakevens



Source: DoubleLine, Bloomberg  
You cannot invest directly in an index.



# Dollar Spot Index (DXY)

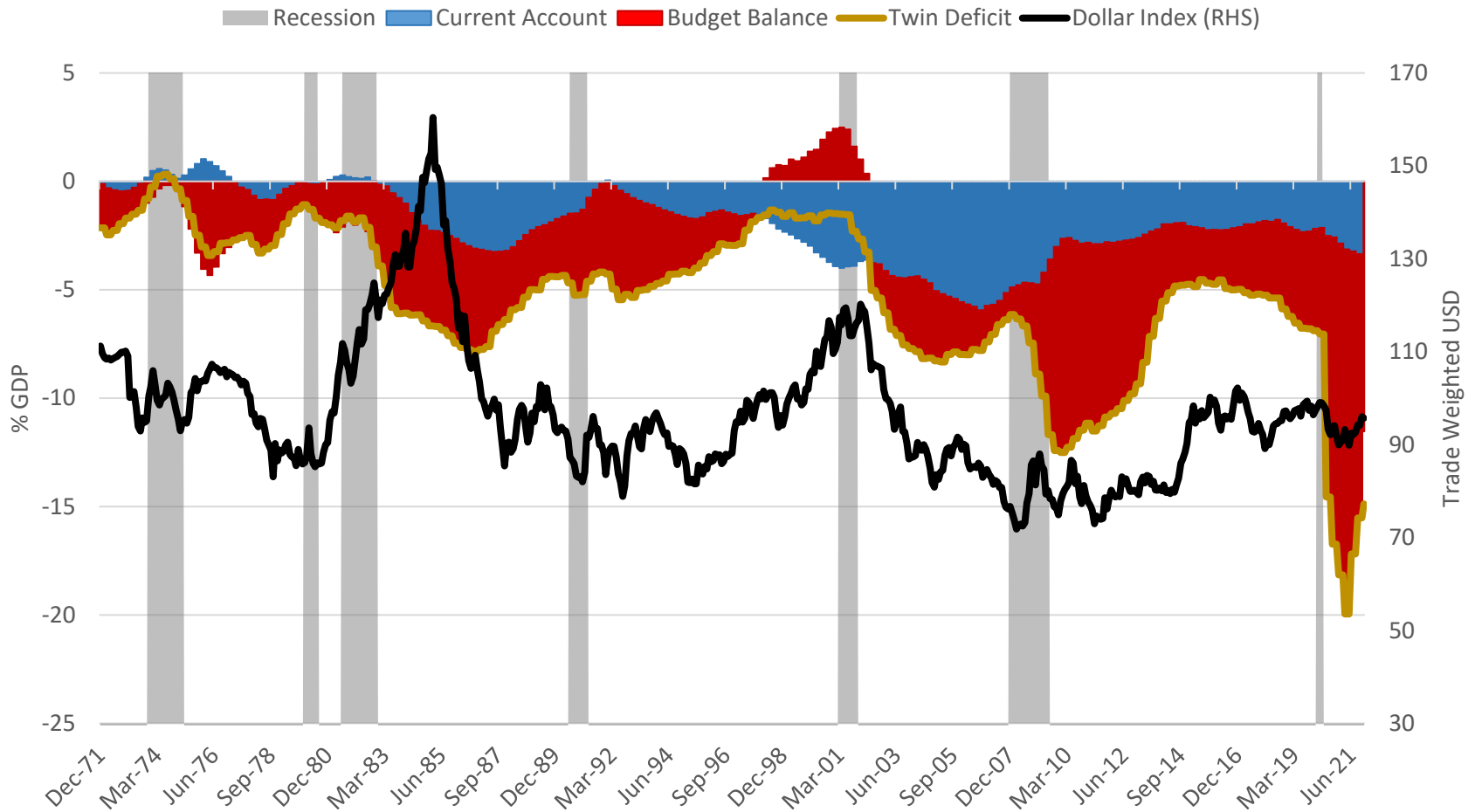


Source: Bloomberg, DoubleLine

DXY = U.S. Dollar Index is a measure of the value of the U.S. Dollar relative to a basket of foreign currencies. SMAVG = moving average.

# U.S. Dollar and Twin Deficits

USD and Current Account and Budget Balance



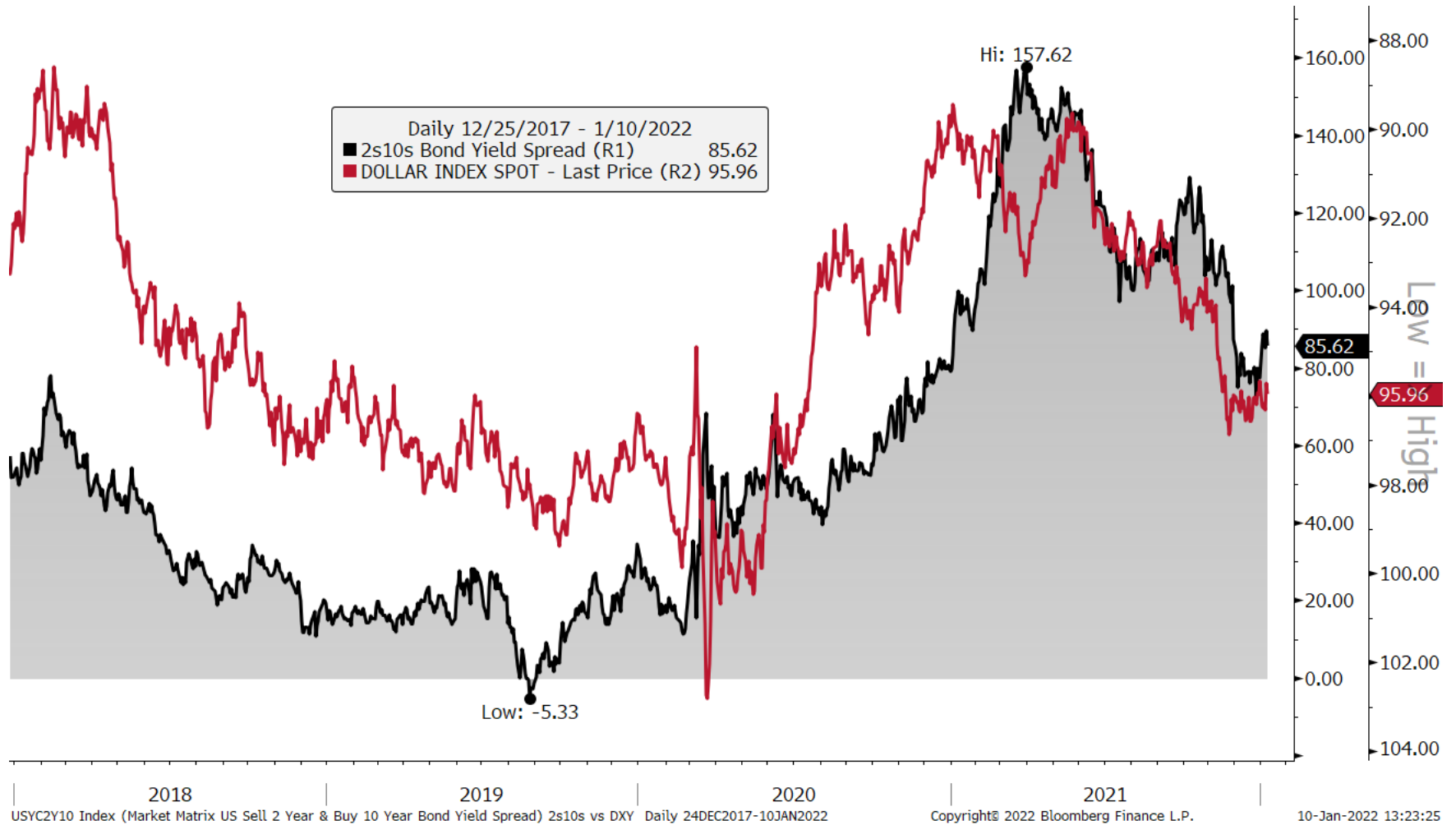
As of December 31, 2021

Source: DoubleLine, Bloomberg

DXY = The U.S. Dollar Index

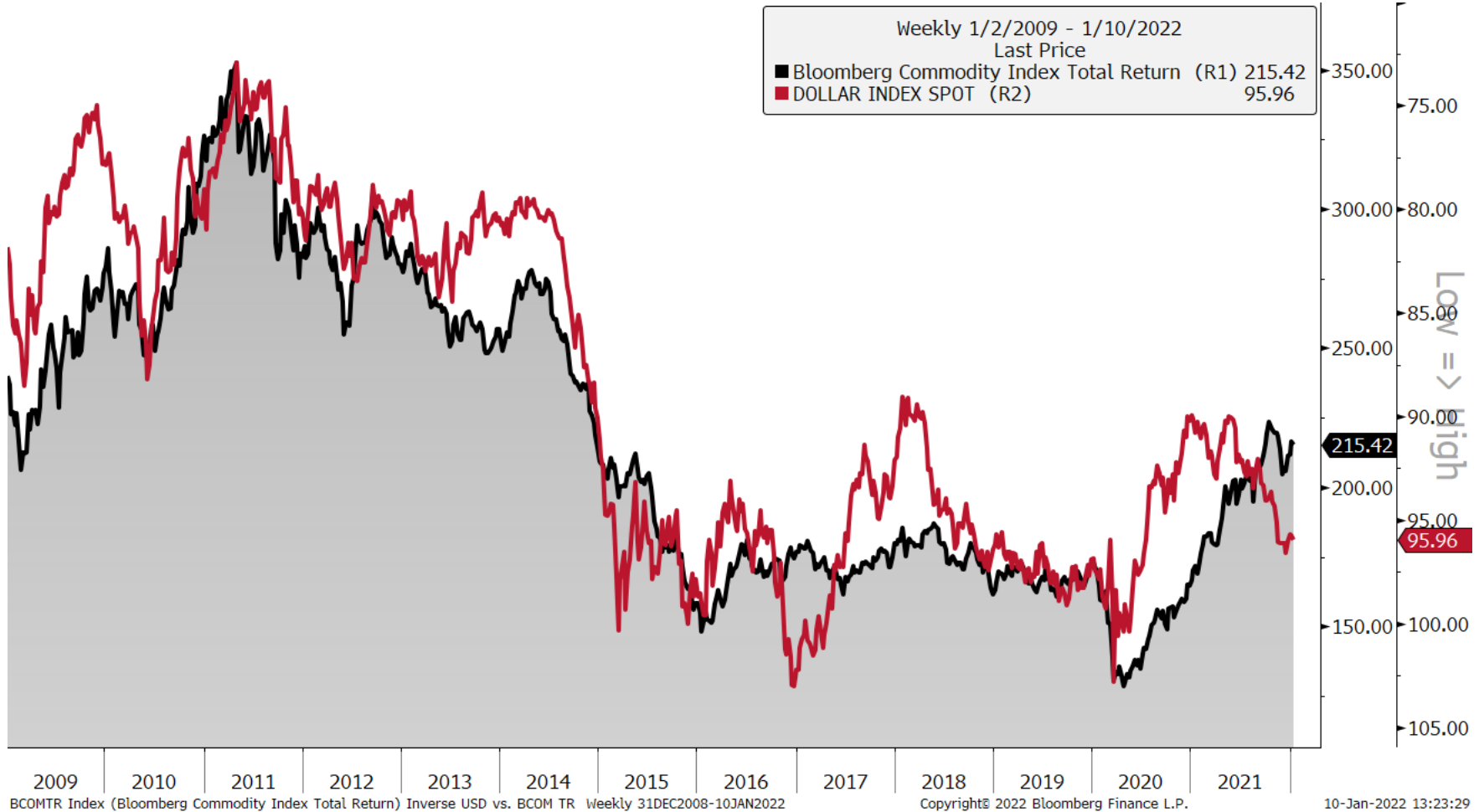
Twin Deficits = U.S. Budget Balance + U.S. Current Account Balance. U.S. Budget Balance as of 10/31/2020. U.S. Current Account Deficit as of 6/30/2020. Grey areas indicate recessionary periods.

# 2s10s and DXY (Inverted)



Source: DoubleLine, Bloomberg  
 DXY is the U.S. dollar Index which indicates the international value of the USD by averaging exchanges rates between the USD and major world currencies.

# Inverse U.S. Dollar vs. Commodities



Source: Bloomberg, DoubleLine

BCOM = Bloomberg Commodity Index is calculated on an excess return basis and reflects commodity futures price movements. DXY = Dollar Spot Index averaged exchange rates between U.S. and major world currencies. You cannot invest directly in an index.

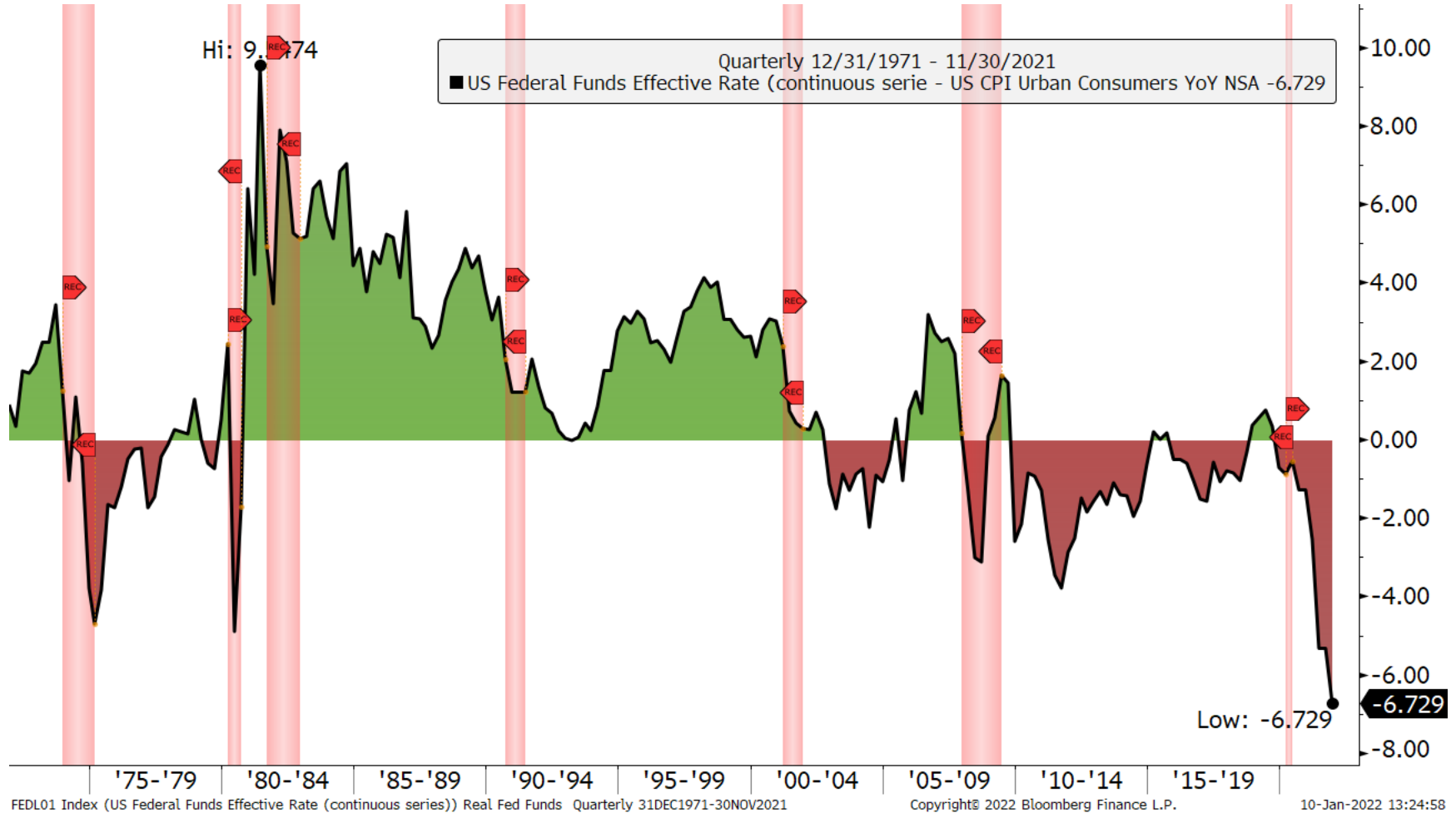
# Gold Long Term



Source: Bloomberg, DoubleLine  
 Spot price of gold in troy ounces. SMAV = moving average.

# Real Fed Funds Rate

Effective Fed Funds Rate less CPI YoY

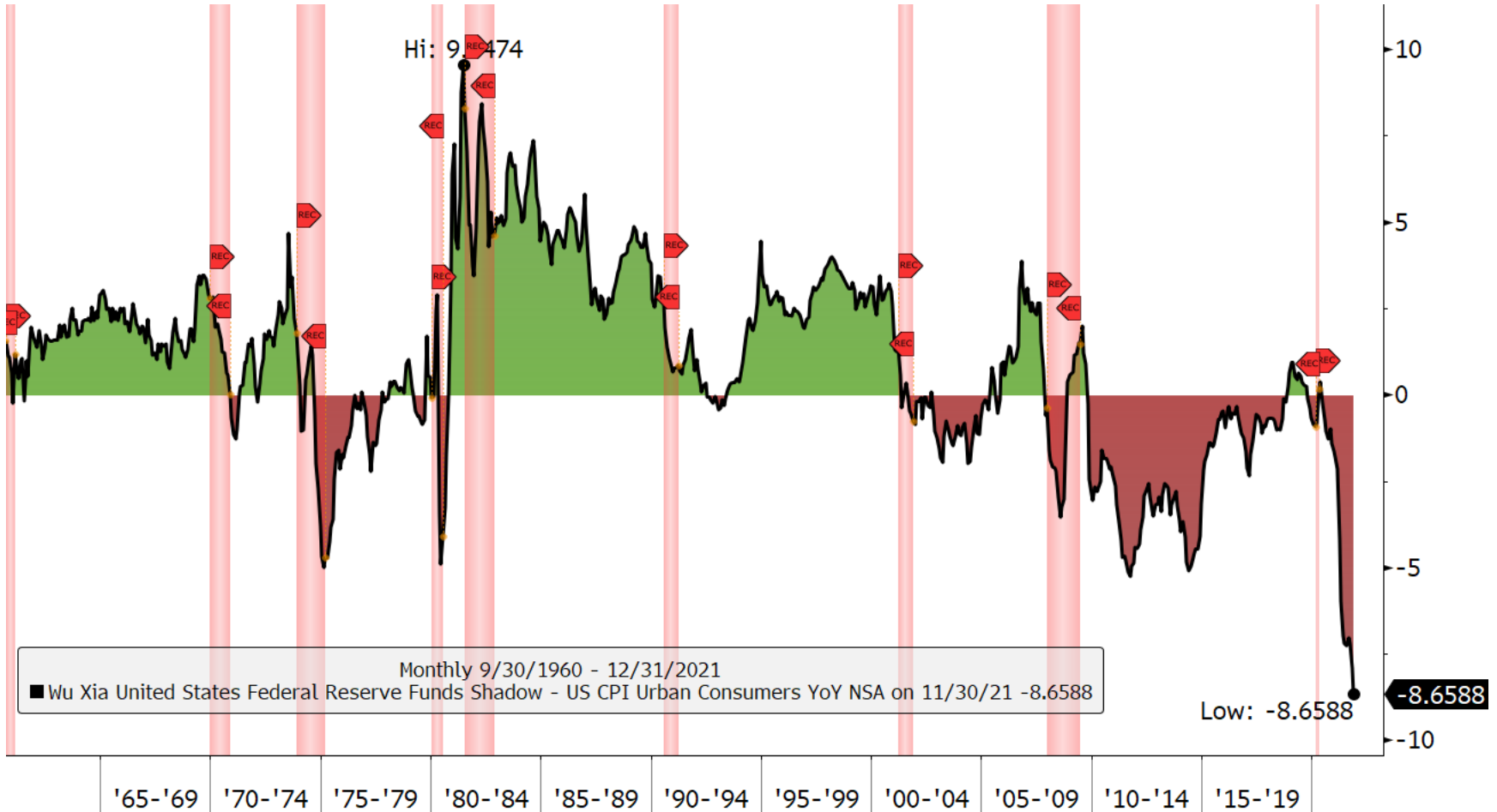


Source: Bloomberg, DoubleLine

Red shaded areas indicate recessionary periods.

# Real Fed Funds Shadow Rate

Wu Xia Fed Funds Shadow Rate less CPI YoY



WUXIFFRT Index (Wu Xia United States Federal Reserve Funds Shadow Rate) Real Shadow Fed Funds R Monthly 30SEP1960-10JAN2022

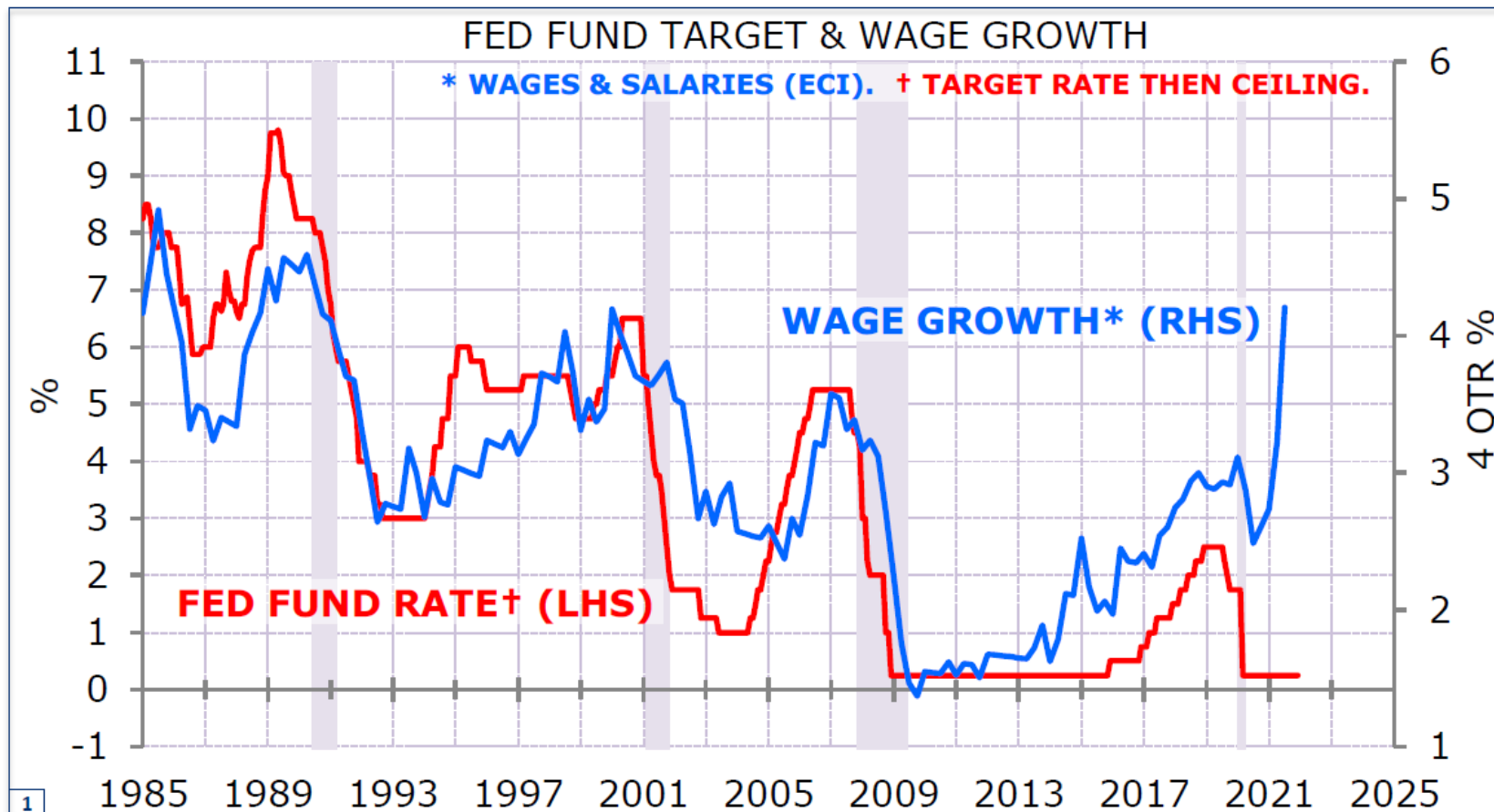
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10-Jan-2022 13:23:04

Source: Bloomberg, DoubleLine

Red shaded areas indicate recessionary periods.

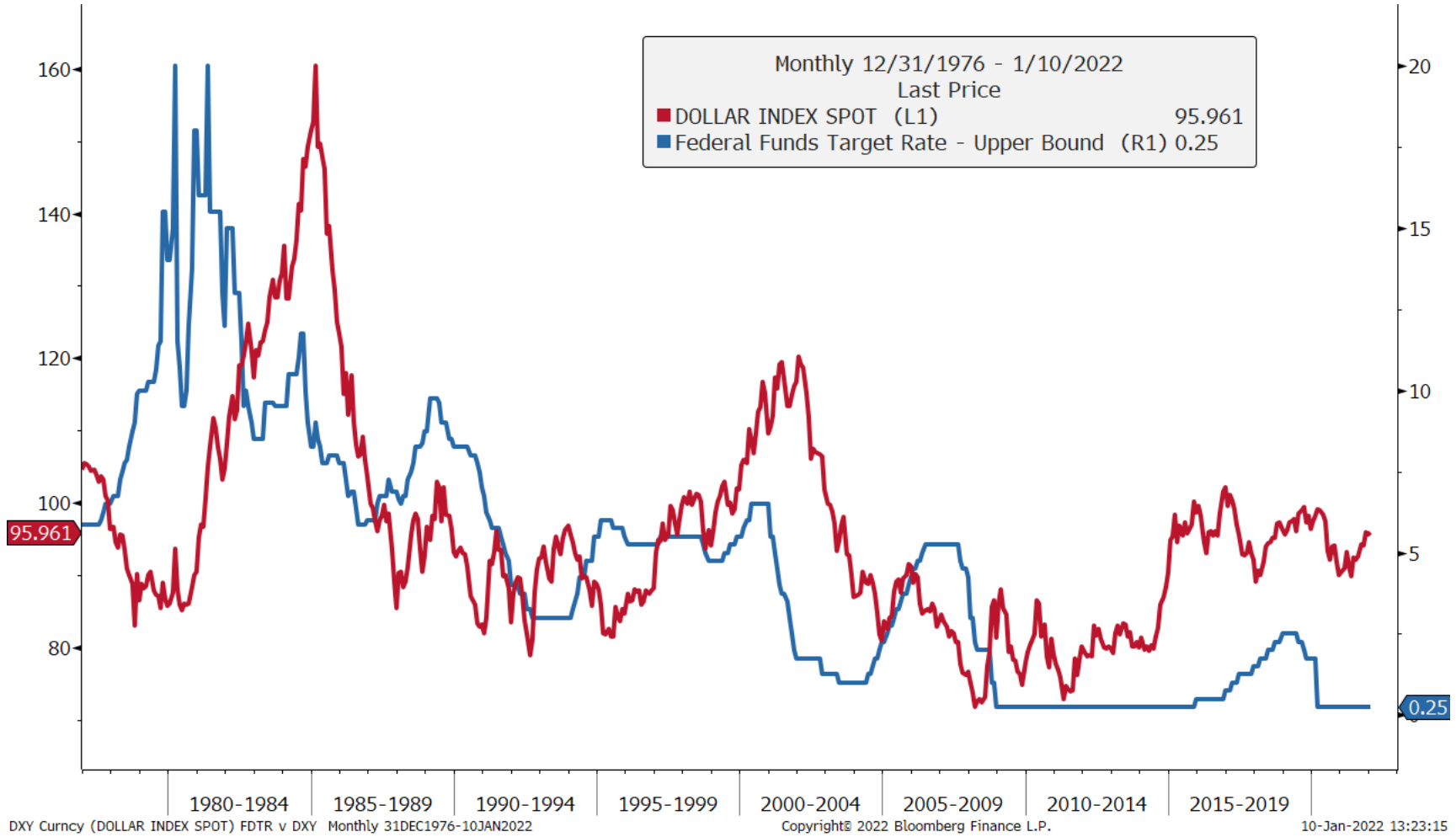
# Fed Funds Rate & Wage Growth



Source: Minack Advisors, MSCI, BLS, NBER

ECI = Employment Cost Index is a quarterly economic series that measures the growth of total employee's compensation. RHS = Right hand side. LHS = Left hand side.

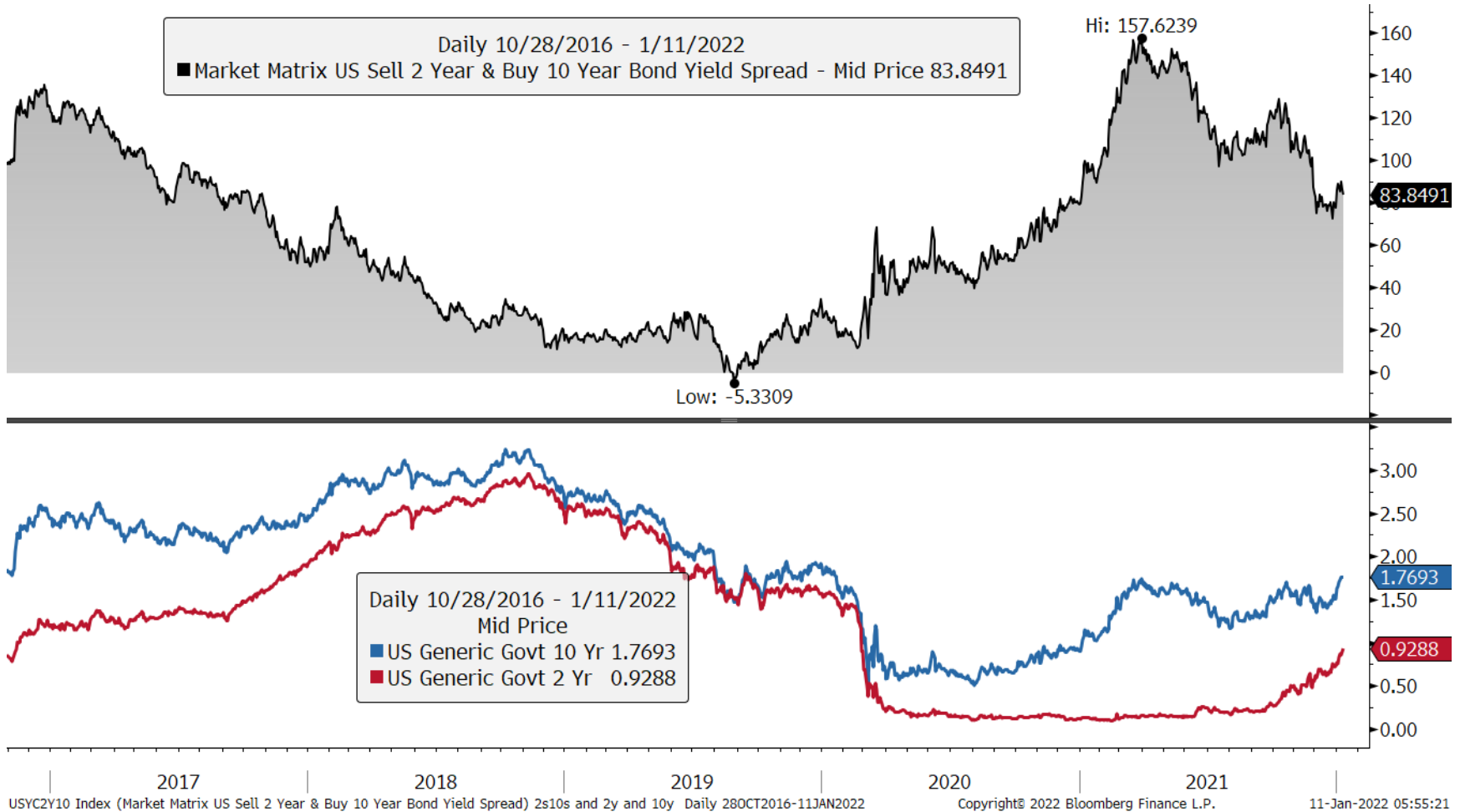
# Fed Funds Rate vs. U.S. Dollar



Source: Bloomberg, DoubleLine

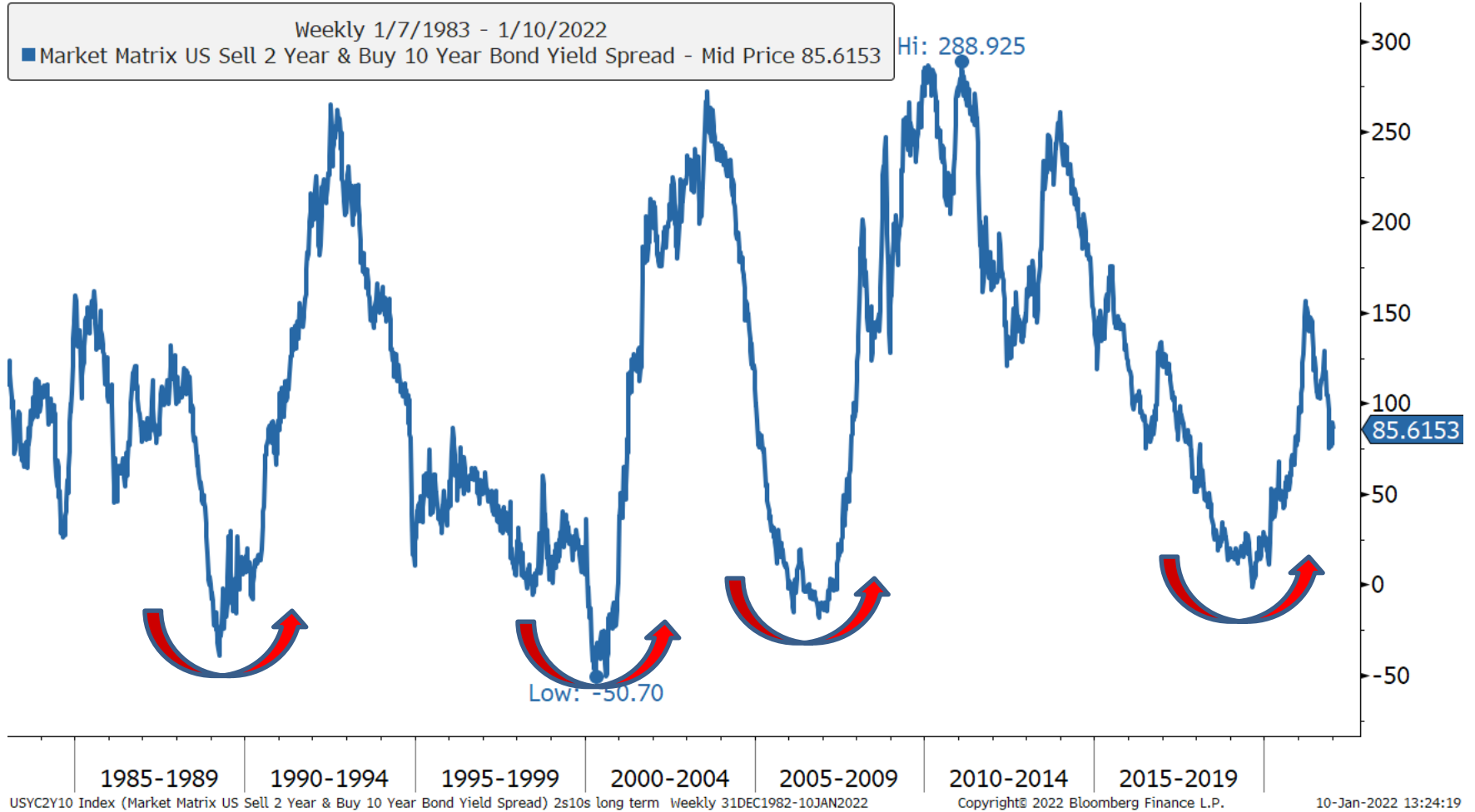
DXY: An index of U.S. dollar vs. a basket of currencies. You cannot invest directly in an index.

# U.S. Treasury 2s10s Yield Spread



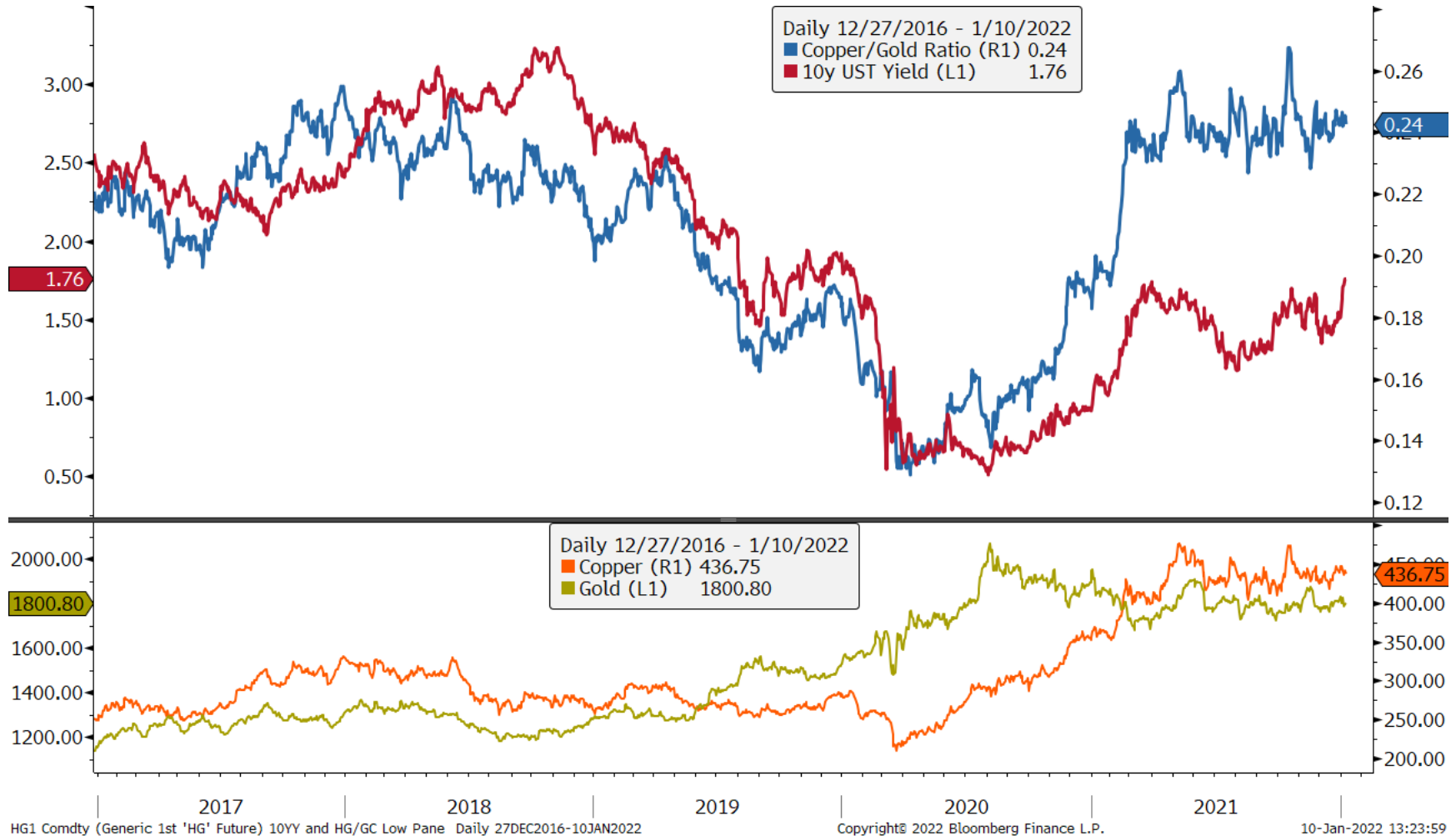
Source: Bloomberg; DoubleLine

# 2s10s Yield Curve



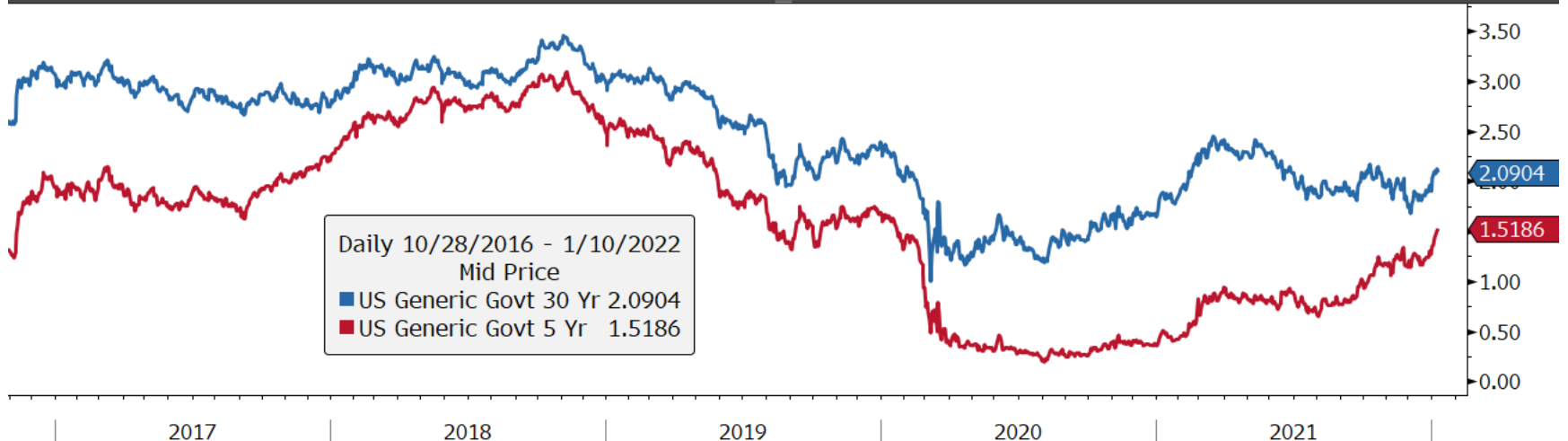
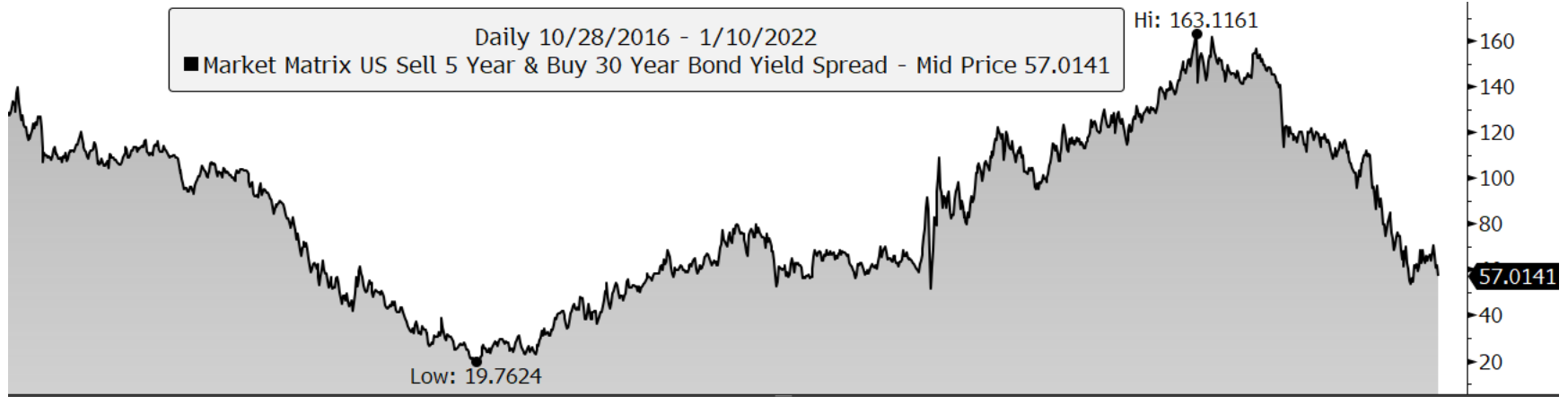
Data Source: Bloomberg, DoubleLine

# Copper/Gold Ratio vs. UST 10-year Yield



Source: Bloomberg, DoubleLine

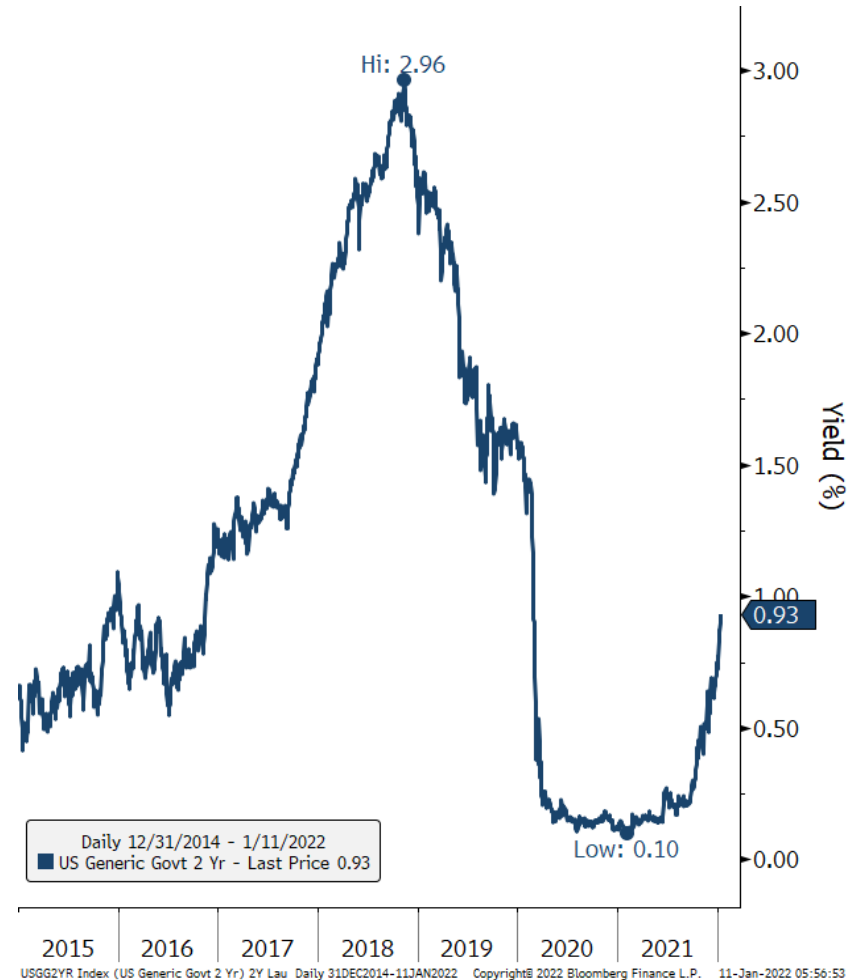
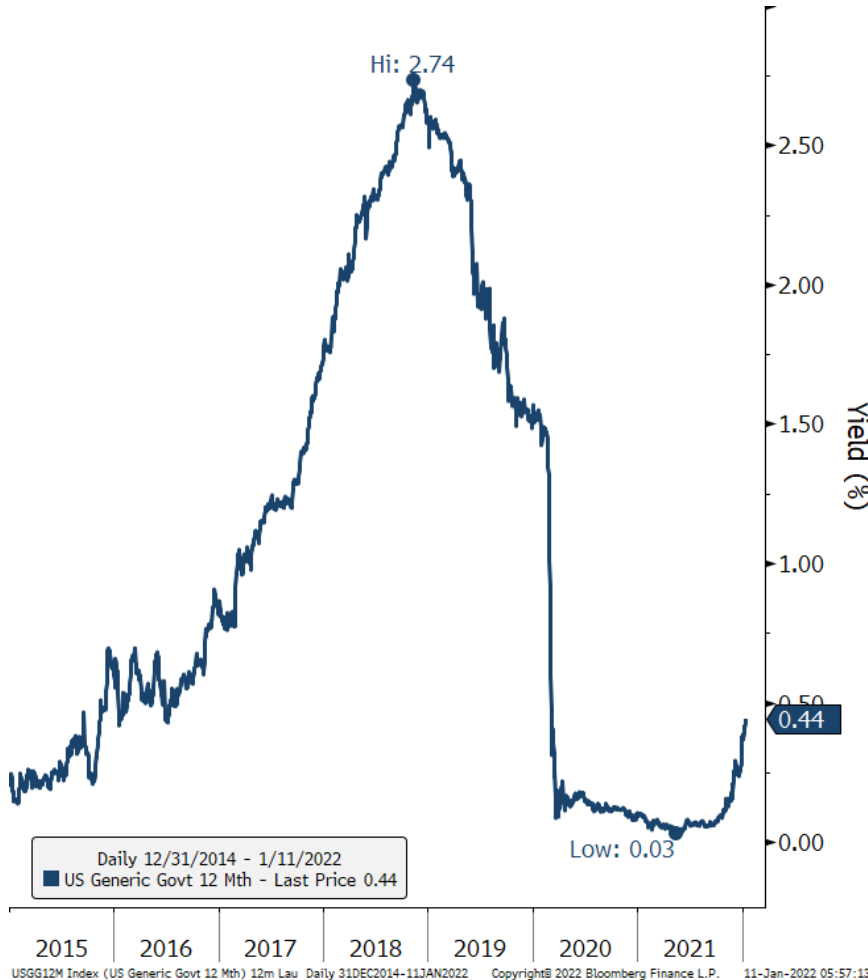
# U.S. Treasury 5s30s Yield Spread



USYCSY30 Index (Market Matrix US Sell 5 Year & Buy 30 Year Bond Yield Spread) 5s30s and 5y and 30y Daily 28OCT2016-10JAN2022 Copyright© 2022 Bloomberg Finance L.P. 10-Jan-2022 13:23:41

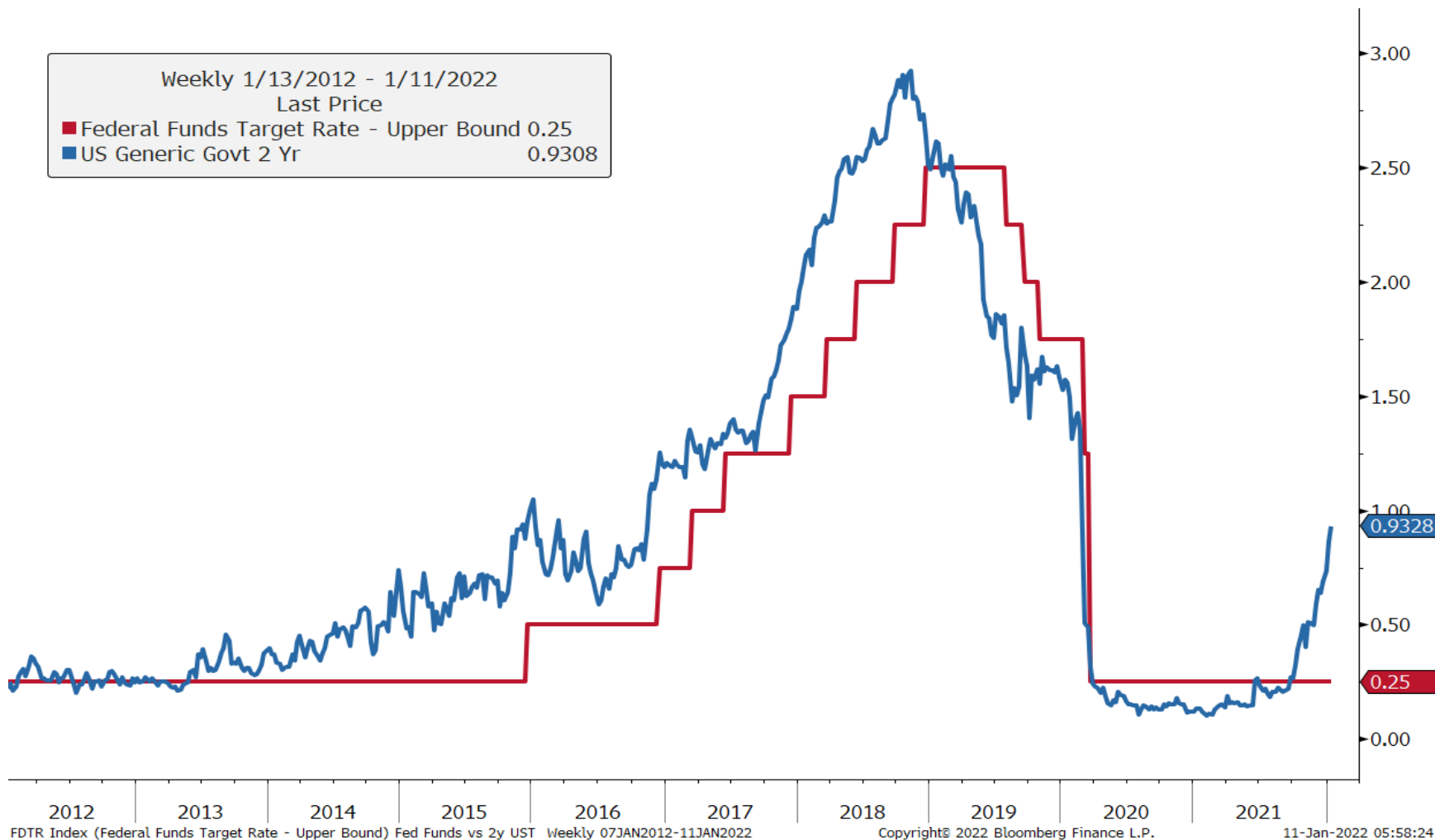
Source: Bloomberg, DoubleLine

# U.S. Rates: 12-Month and 2-Year UST Yield



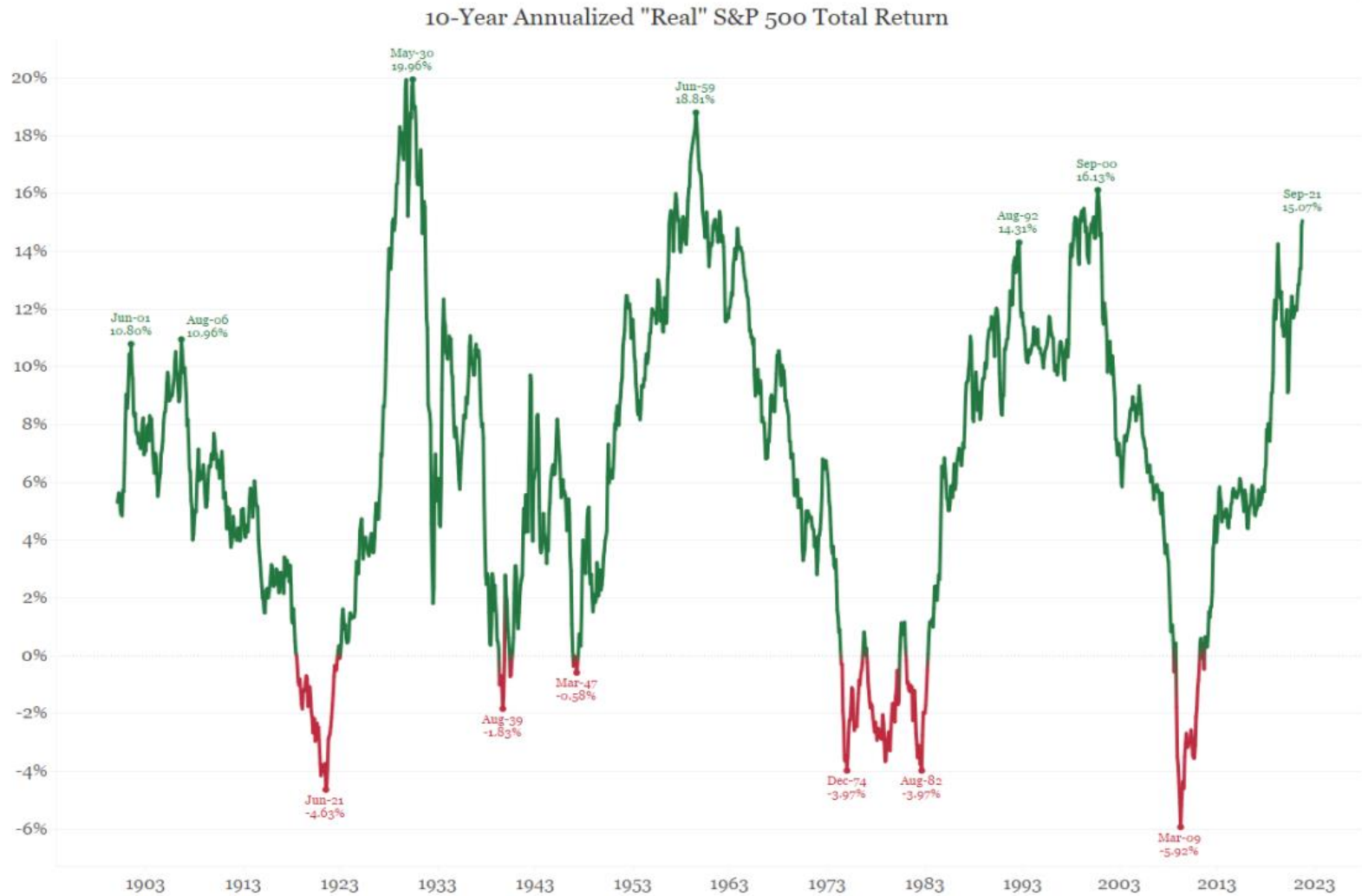
Source: Bloomberg, DoubleLine

# Replace FOMC with 2-Year UST



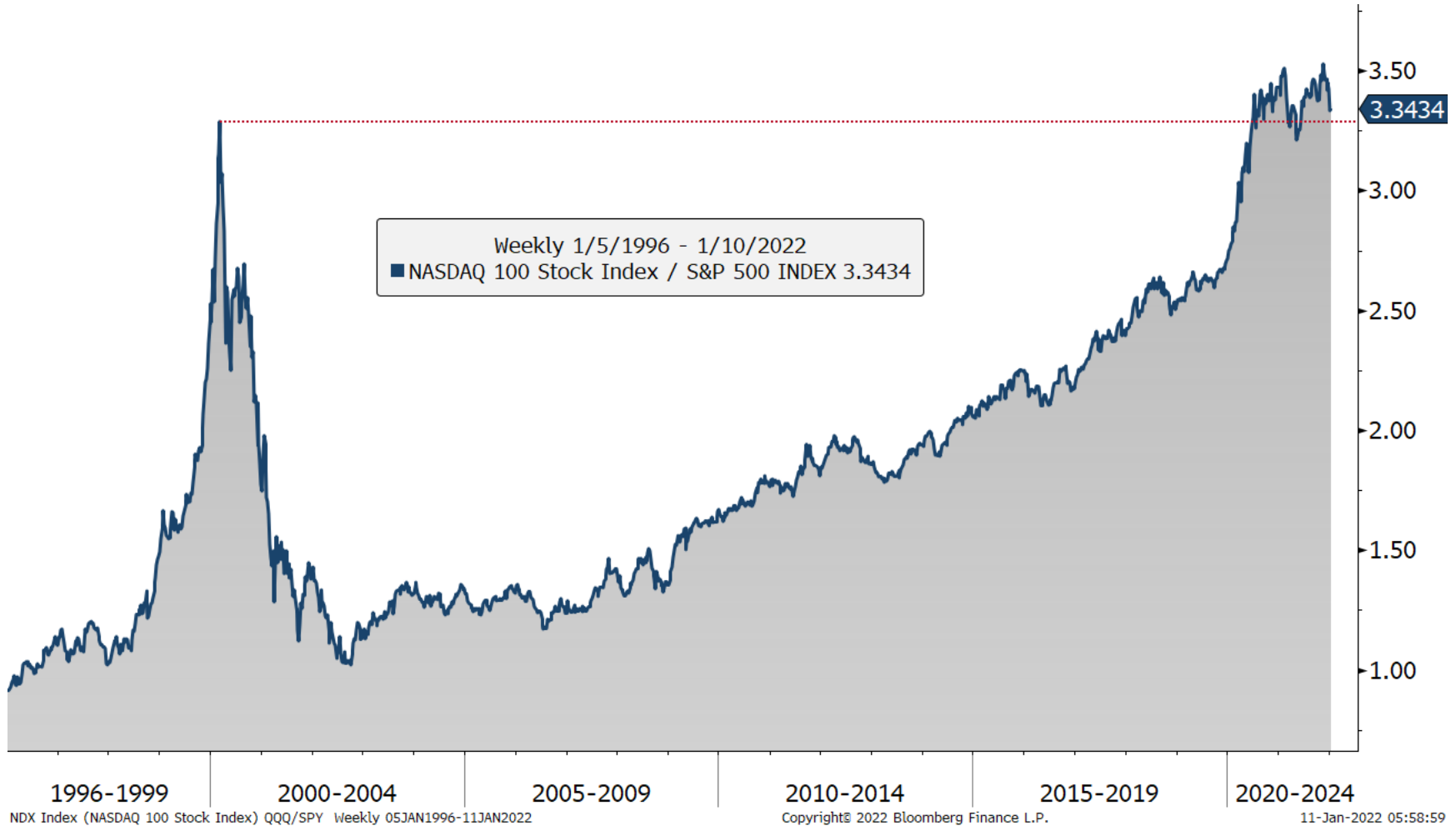
Source: Bloomberg, DoubleLine

# Long-Term Real Returns on S&P 500



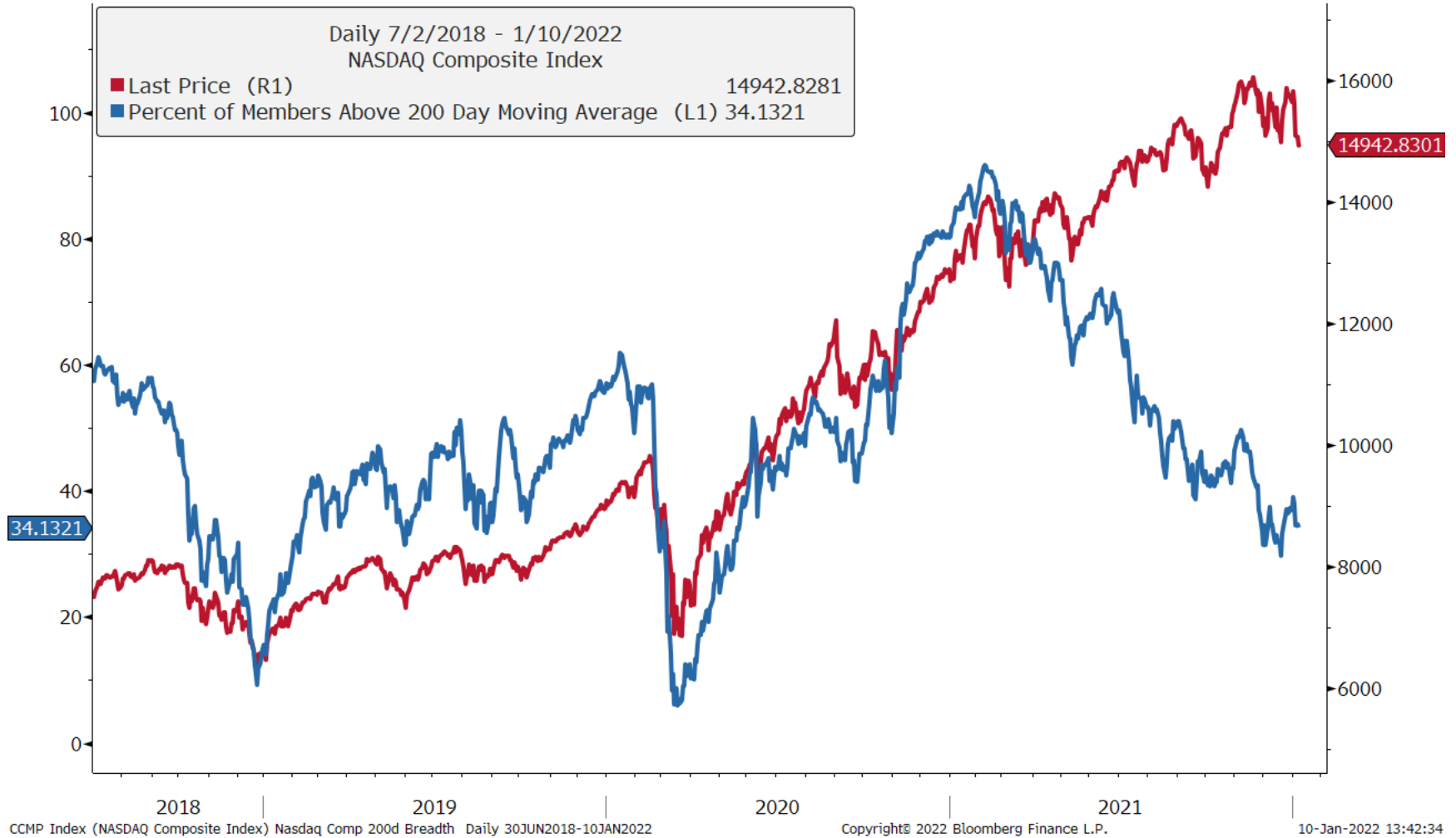
Source: Bianco Research  
Please see appendix for index definitions. You cannot invest directly in an index.

# Nasdaq 100 Relative to S&P 500



Source: Bloomberg, DoubleLine  
Please see appendix for index definitions. You cannot invest directly in an index.

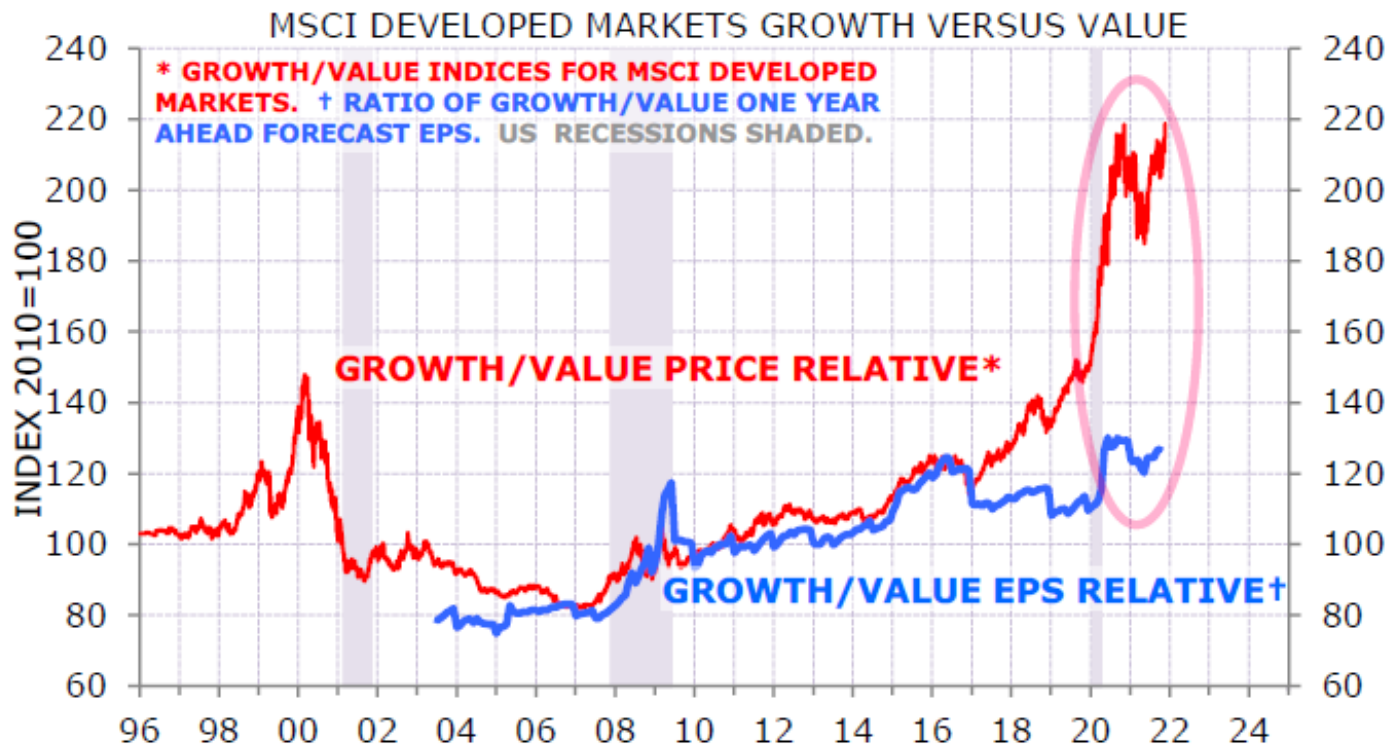
# Market Breadth



Source: Bloomberg, DoubleLine  
Please see the appendix for index definitions. You cannot invest directly in an index.

# Growth vs. Value Relative Price and Earnings Per Share (EPS)

## Growth back to highs, EPS not following



Source: MSCI, IBES/DataStream, NBER; Minack Advisors

Please see the appendix for index definitions. You cannot invest directly in an index.

# Value vs. Growth Relative Returns



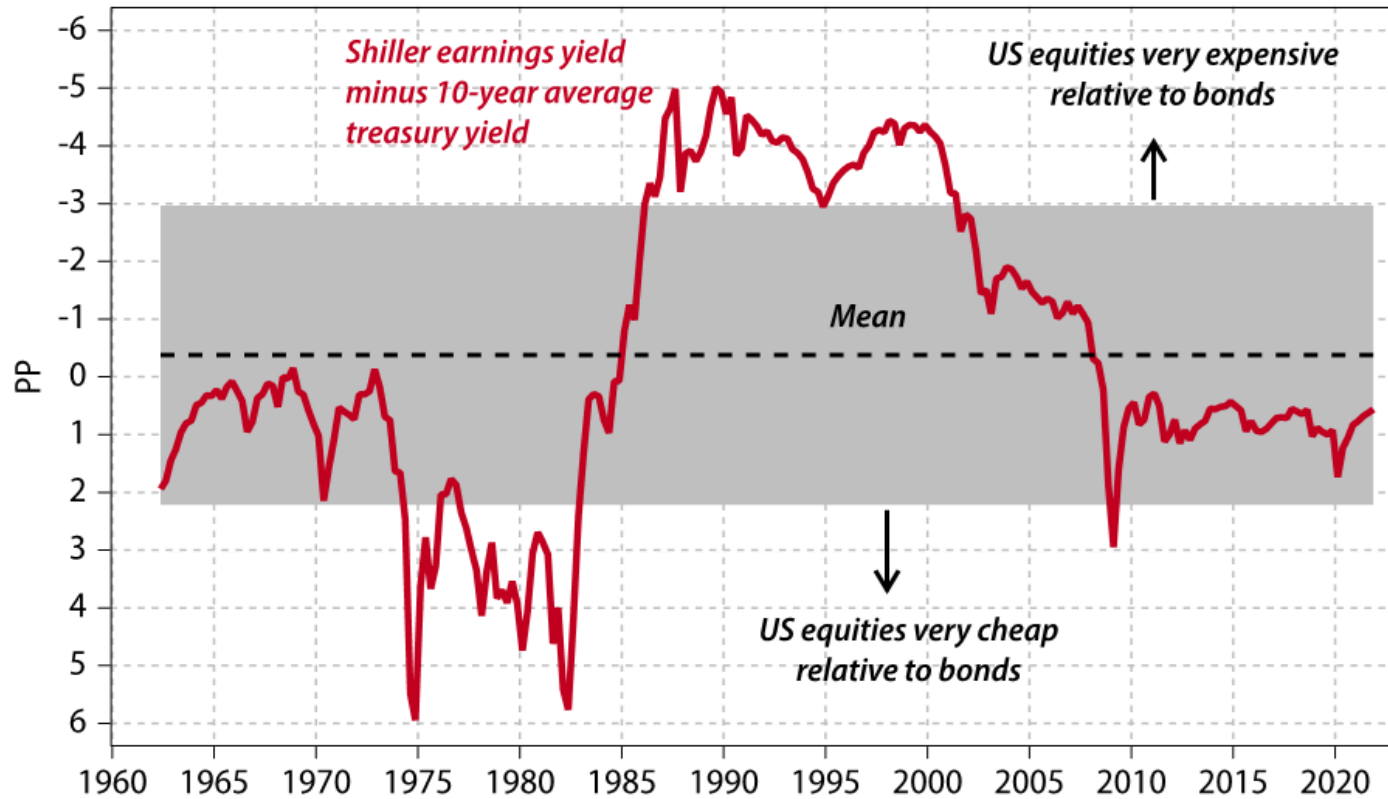
Source: Topdownchart.com, Refinitiv Datastream

S&P 500 Value Index vs. the S&P 500 Growth Index in total return terms. Please see appendix for index definitions. You cannot invest directly in an index.

# Equity is Expensive, but Cheaper than Bonds

## ...and are not expensive relative to bonds

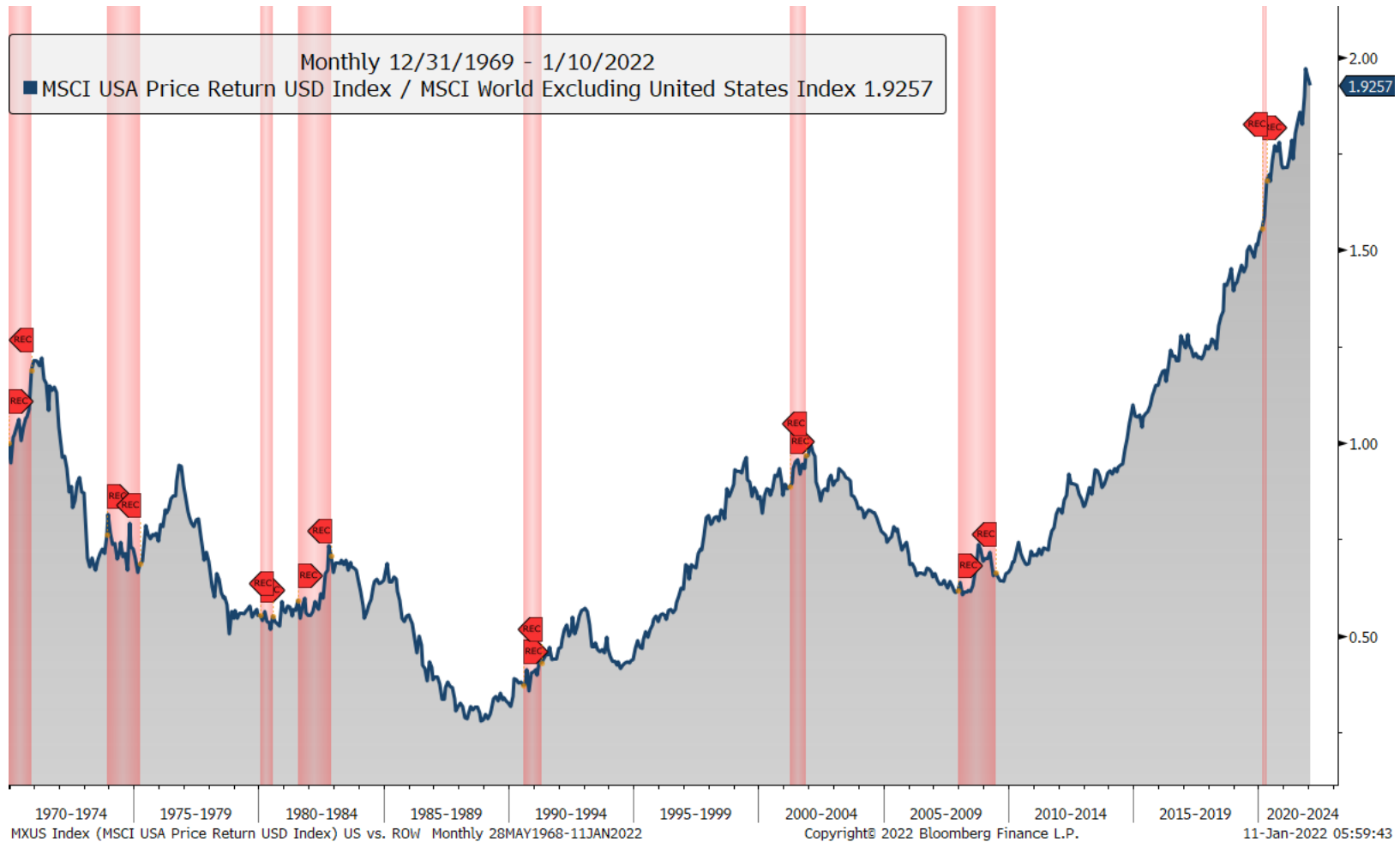
Equity valuation: Shiller earnings-yield minus 10-year average bond yield



Gavekal Research/Macrobond

As of December 31, 2021  
Source: Gavekal, Macrobond  
PP = Percentage Points.

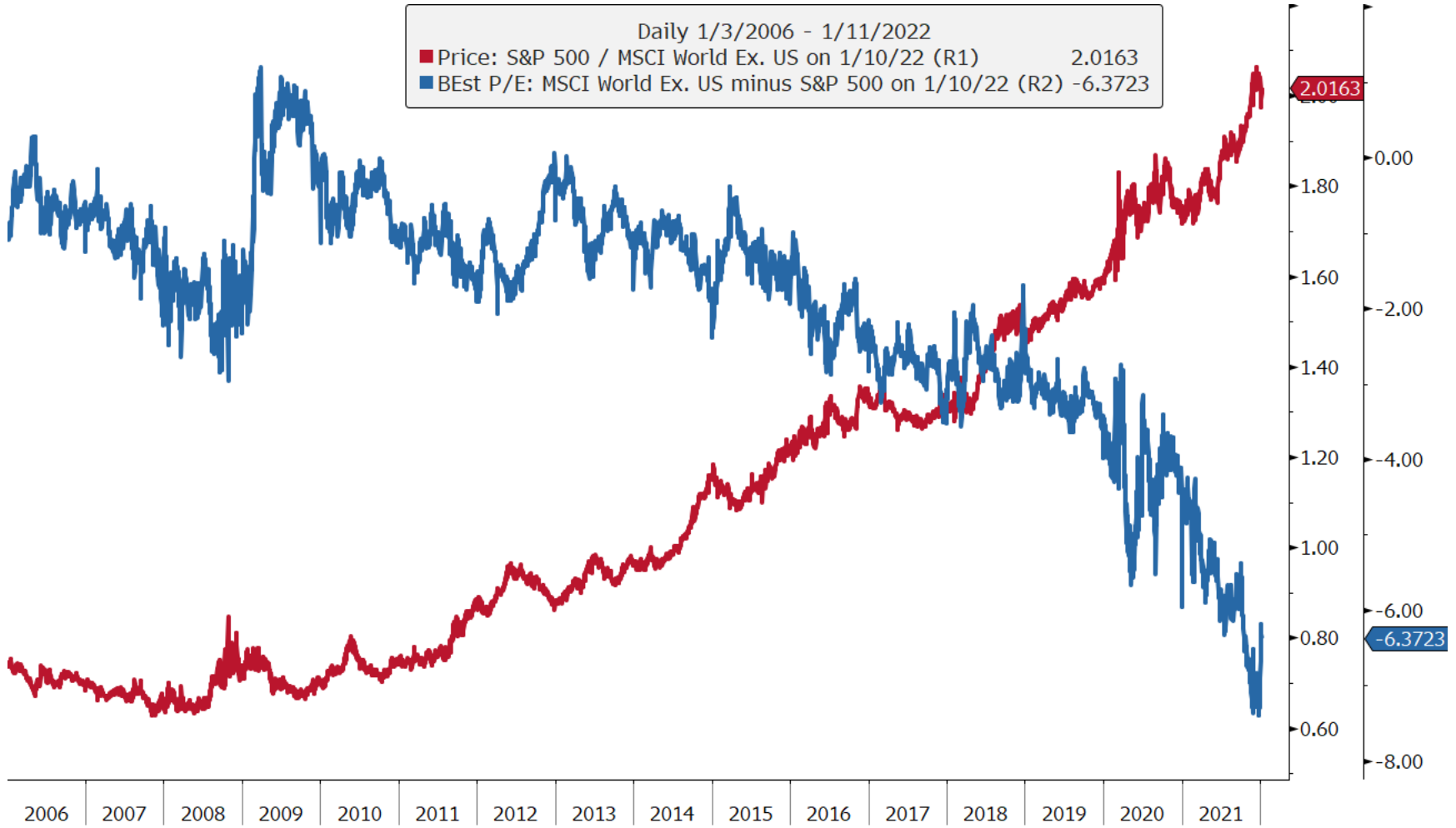
# U.S. Equity Prices vs. Rest of World



Source: Bloomberg; DoubleLine

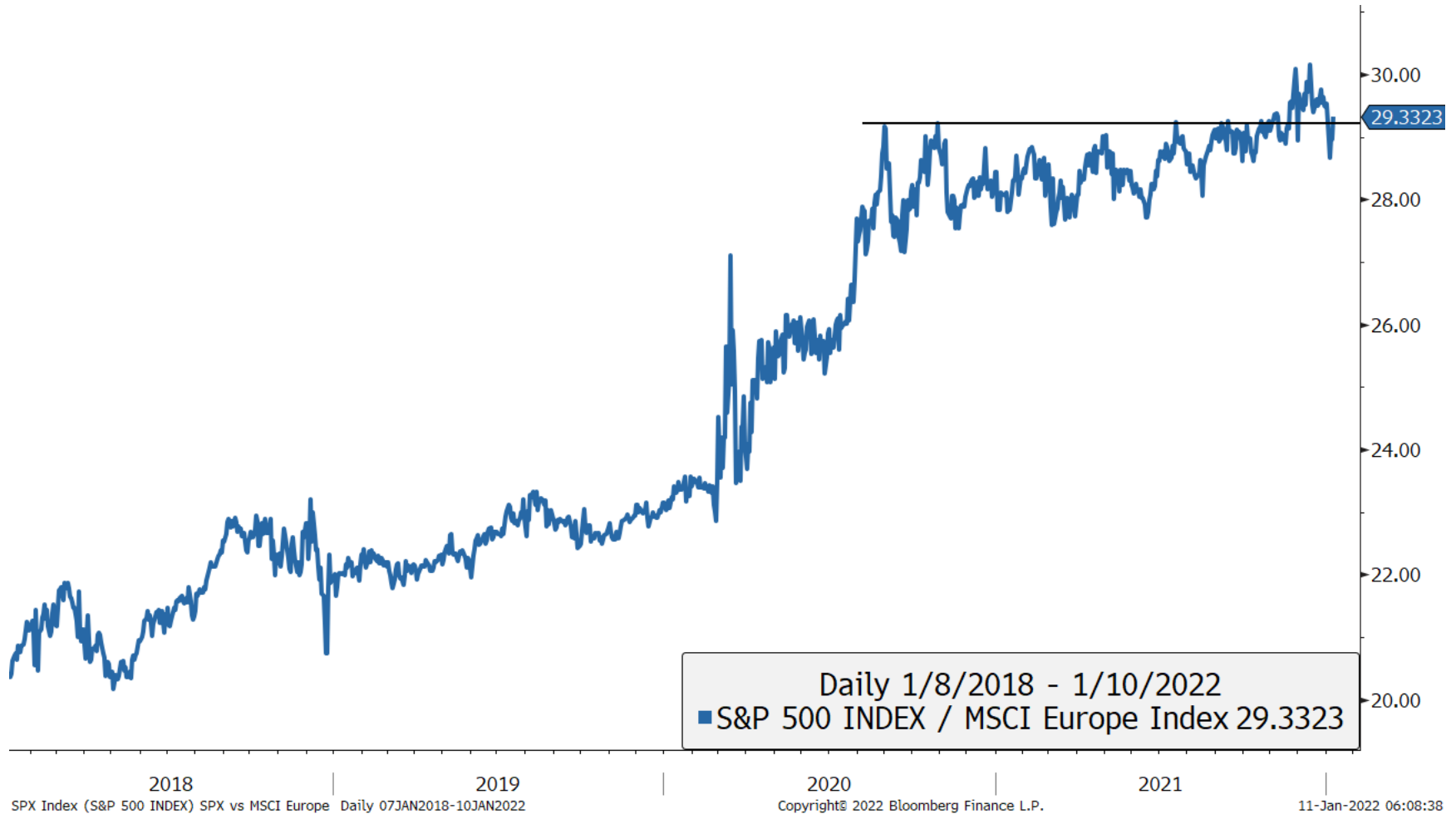
Please see appendix for index definitions. MSCI World Index is MSCI ACWI Index. You cannot invest directly in an index. Red shaded areas represent recessionary periods.

# Rest of the World Is Significantly Cheaper than U.S.



Source: Bloomberg, DoubleLine  
 For Index definitions please see the appendix. P/E = Price/earnings. You cannot invest directly in an index.

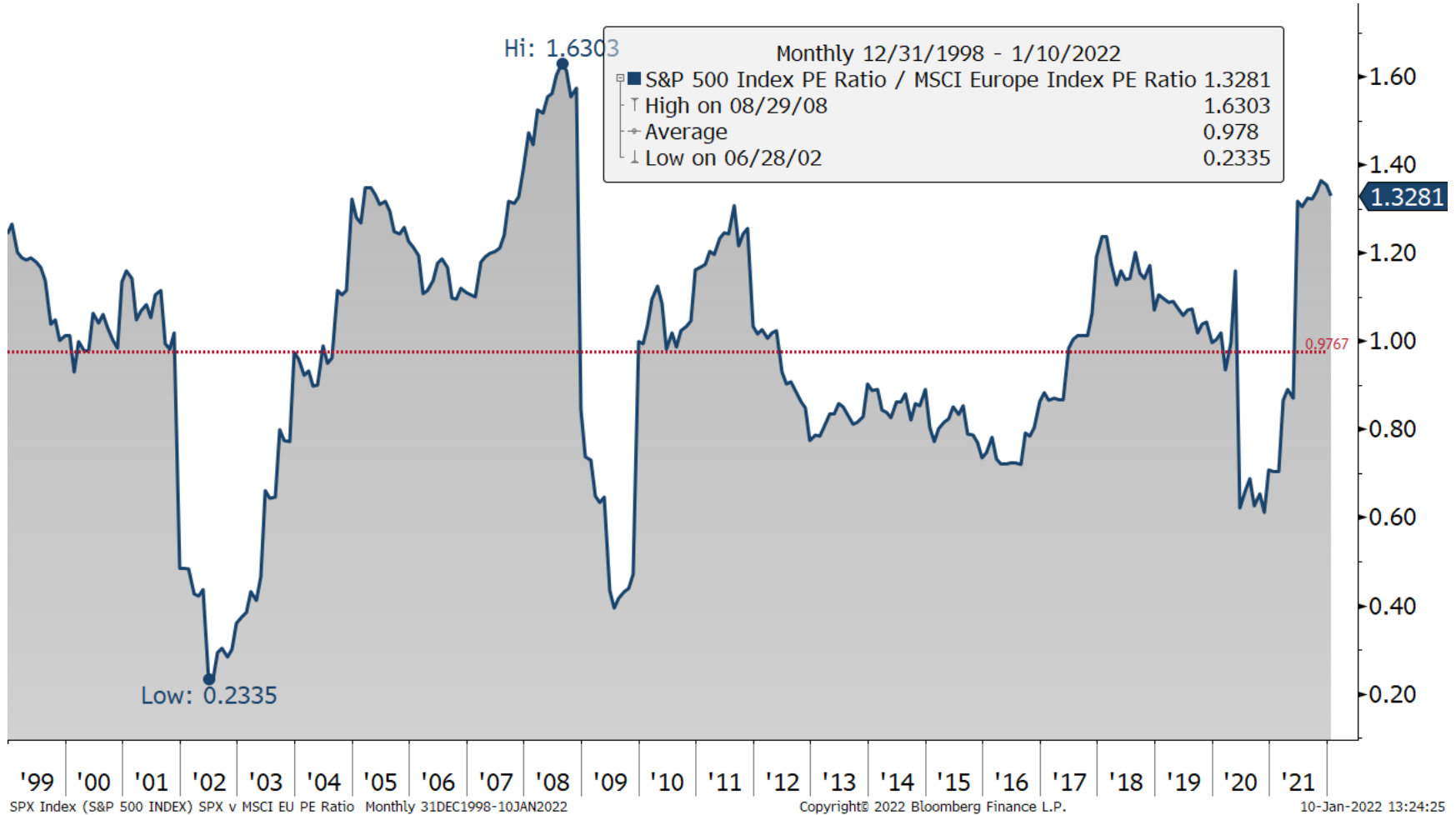
# S&P 500/ MSCI Europe



Source: Bloomberg, DoubleLine

S&P 500 is the stock market index that tracks the stocks of 500 large-cap U.S. companies. MSCI Europe Index This index is U.S. dollar denominated and represents the performance of large- and mid-cap equities across 15 developed countries in Europe. It covers approximately 85% of the free float-adjusted market capitalization in each country. You cannot invest directly in an index.

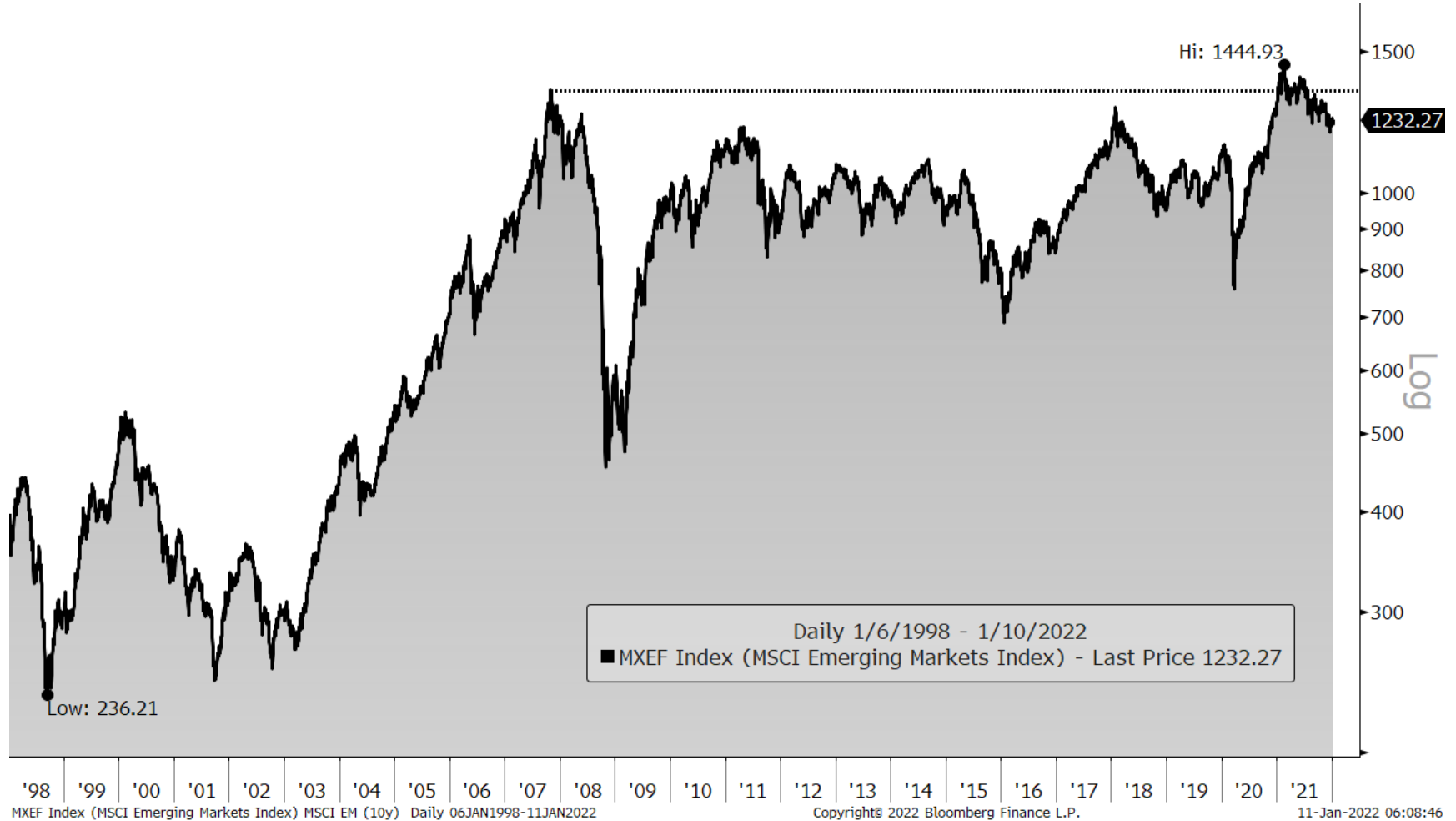
# S&P 500/ MSCI Europe Relative P/E Ratio



Source: Bloomberg, DoubleLine

Please see the appendix for index definitions. PE = Price/Earnings. You cannot invest directly in an index.

# MSCI Emerging Markets



Source: DoubleLine, Bloomberg

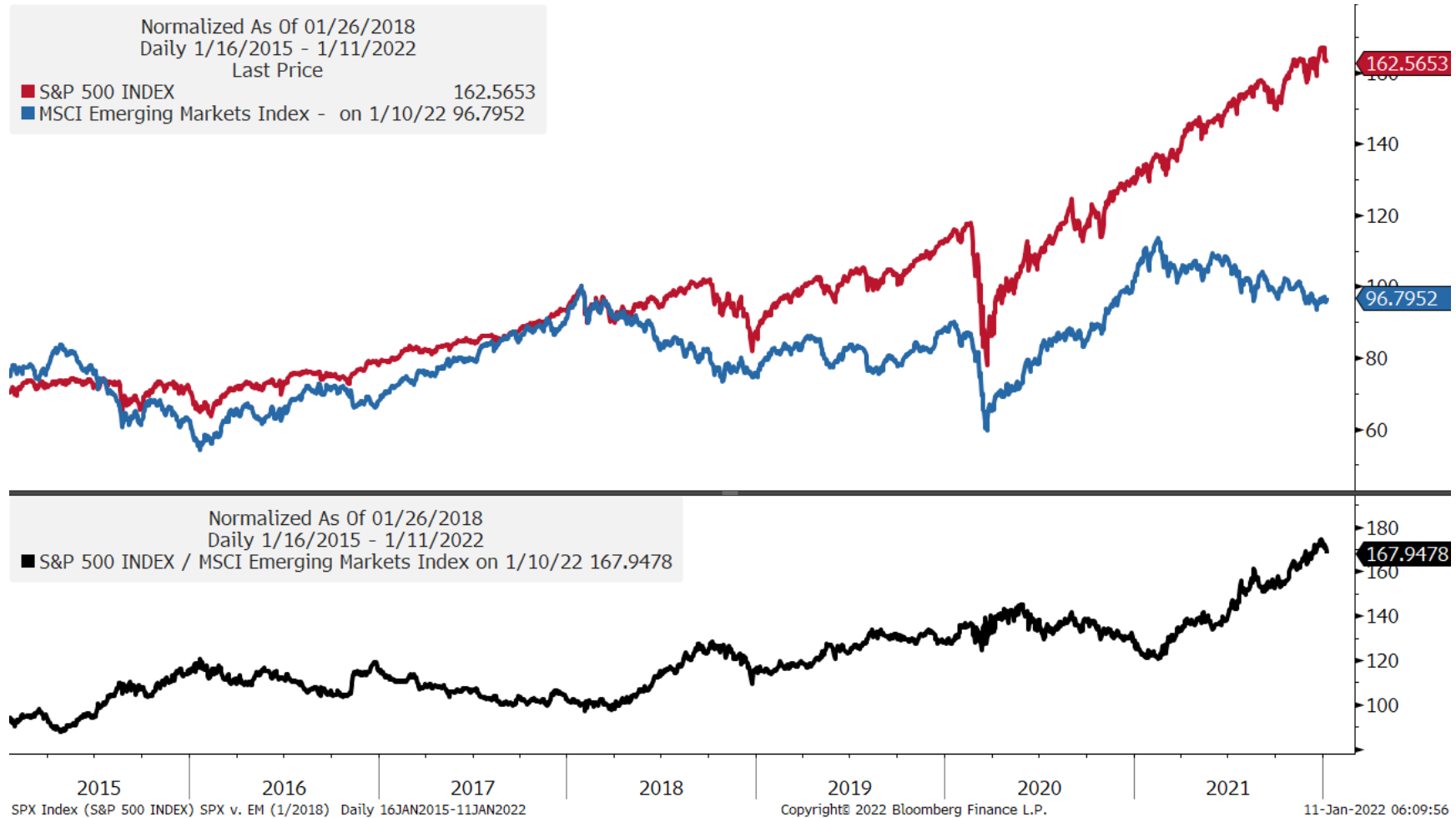
MSCI EM Index = This index captures large- and mid-cap representation across 26 emerging markets countries. With 1,385 constituents, the index covers approximately 85% of the free-float-adjusted market capitalization in each country. You cannot invest directly in an index.

# S&P 500 / Emerging Markets



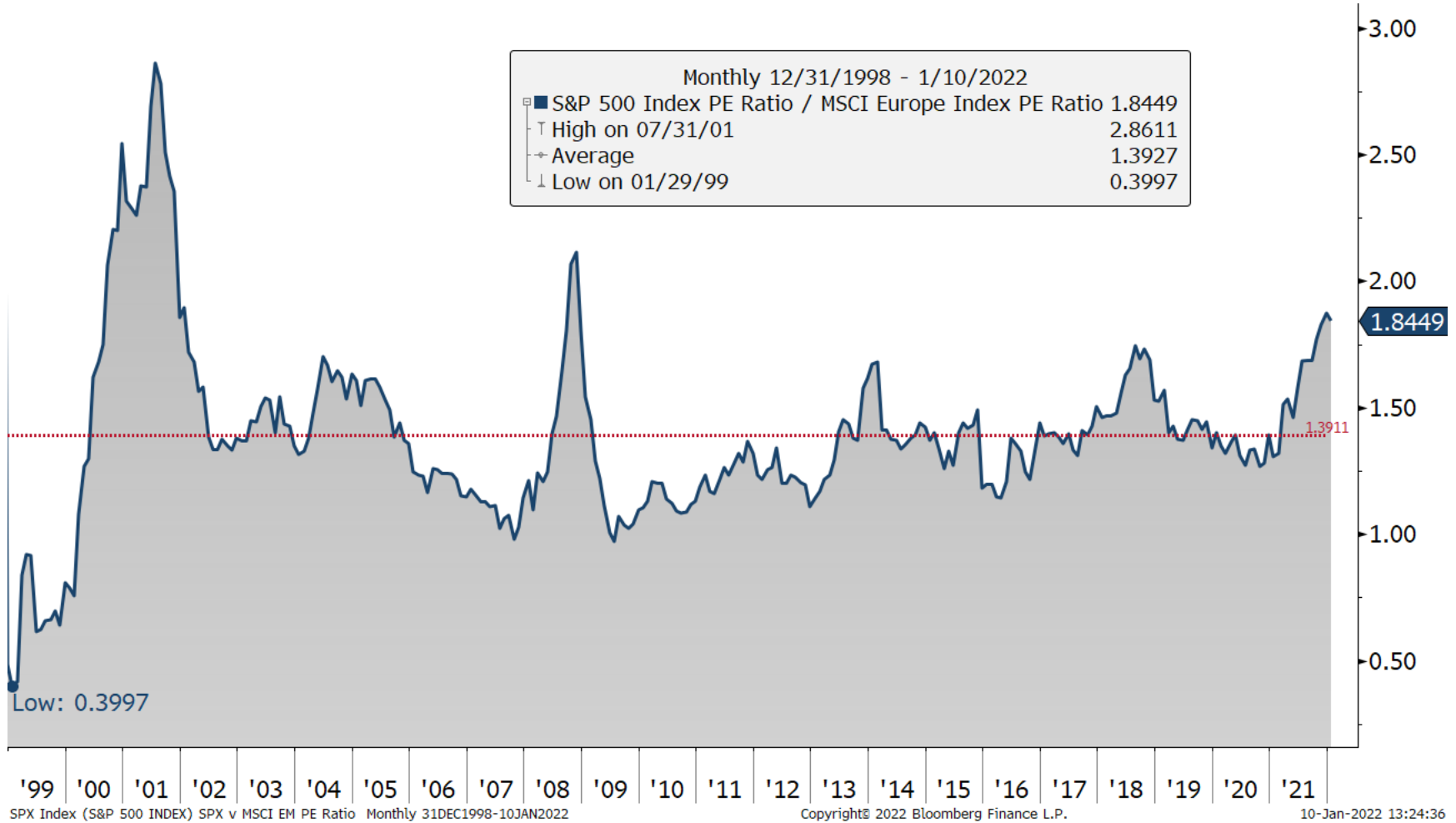
Source: Bloomberg, DoubleLine  
Please see the appendix for index definitions. You cannot invest directly in an index.

# S&P 500 vs. MSCI EM Normalized to 1/26/18



Source: Bloomberg, DoubleLine  
S&P 500 is the stock market index that tracks the stocks of 500 large-cap U.S. companies. MSCI Emerging Markets Index is free-float equity index that captures large and mid cap representation across Emerging Markets countries. You cannot invest directly in an index.

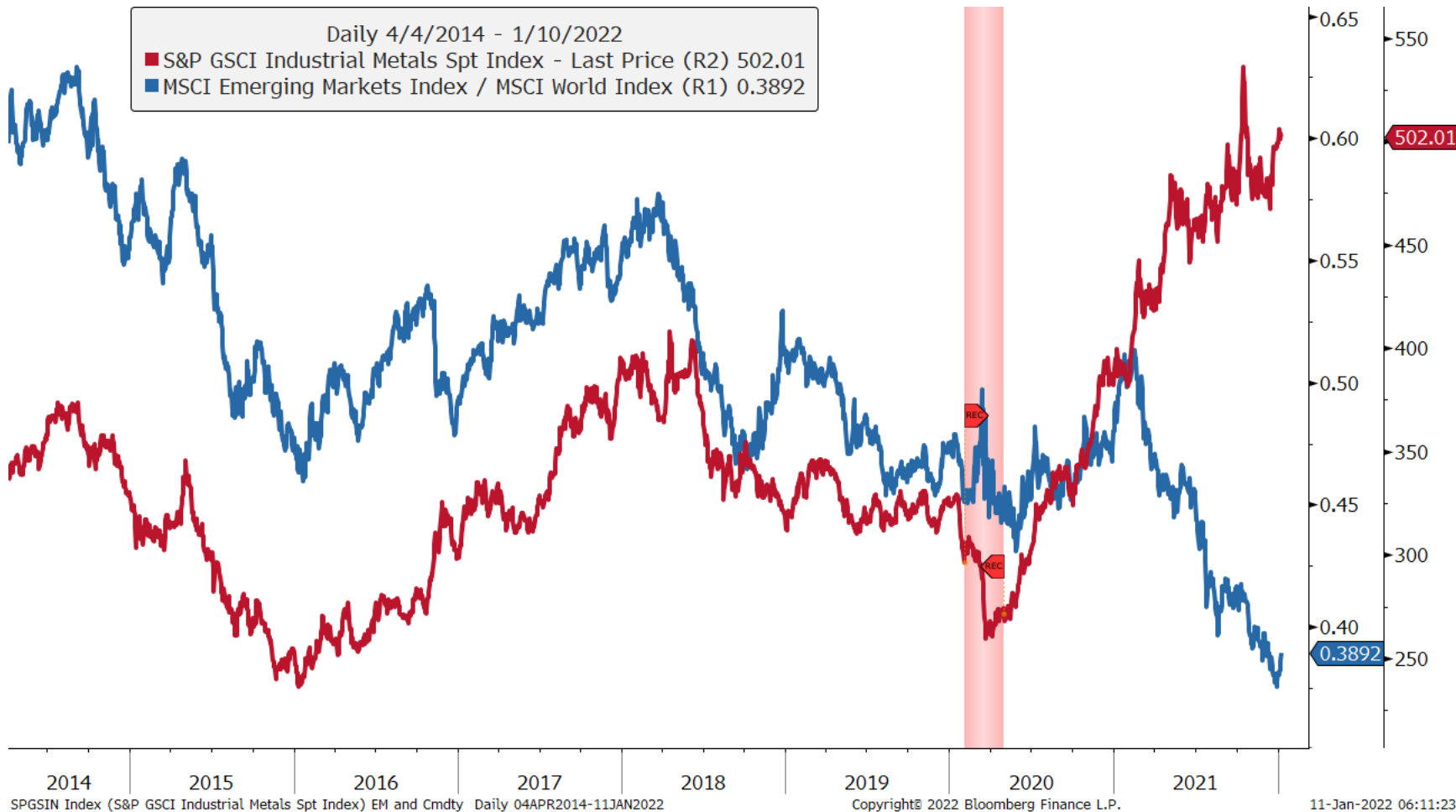
# S&P 500/MSCI Emerging Markets Relative P/E Ratio



Source: Bloomberg, DoubleLine

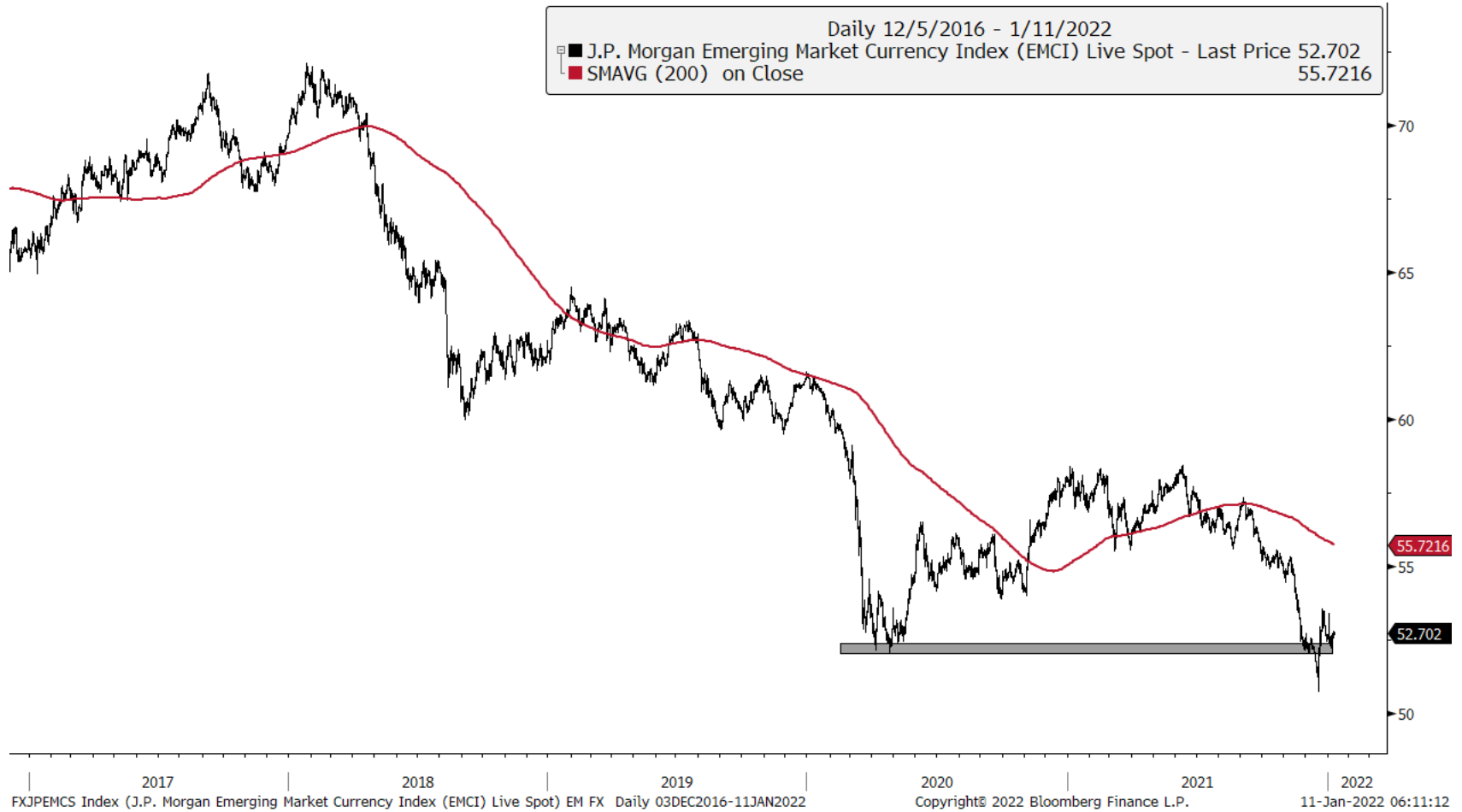
Please see the appendix for index definitions. You cannot invest directly in an index. PE = Price/Earnings.

# Emerging Markets/MSCI World vs. Industrial Metals



MSCI EM Index = This index captures large- and mid-cap representation across 26 emerging markets countries. With 1,385 constituents, the index covers approximately 85% of the free-float-adjusted market capitalization in each country. S&P GSCI is an index (formerly the Goldman Sachs Commodity Index) measures investment in the commodity markets and commodity market performance over time focusing on the Industrial sector of this index. You cannot invest directly in an index. Red shaded areas indicate a recessionary period.

# J.P. Morgan Emerging Market Currency Index



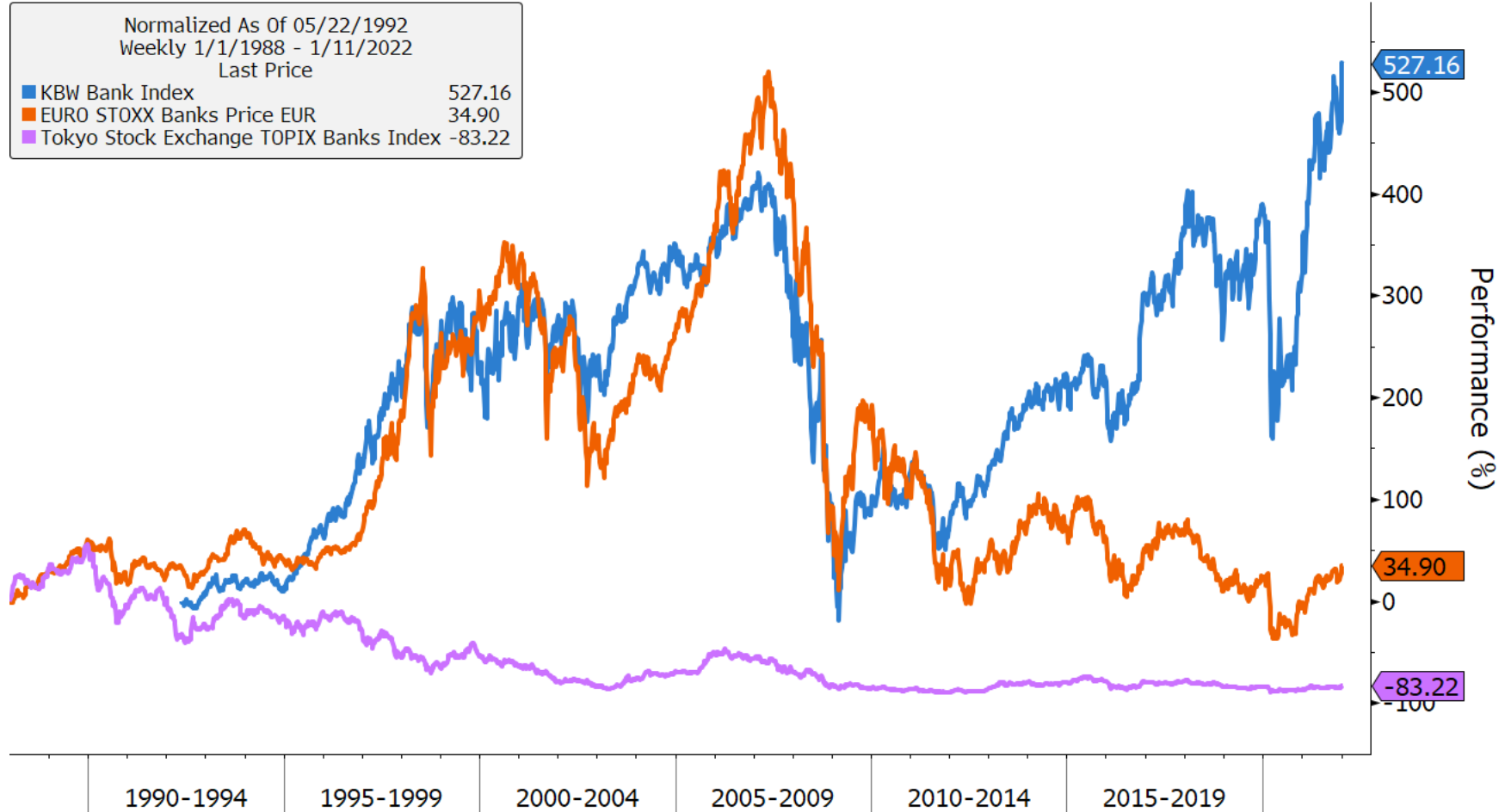
Source: Bloomberg, DoubleLine

JP Morgan Emerging Markets Currency Index – Tracks the performance of twenty-five emerging market currencies relative to the U.S. Dollar. You cannot invest directly in an index.

# Global Bank Stocks



## World Banks Over The Last 35 Years



Source: Bloomberg, Bianco

KBW Bank Index = Keefe, Bruyette and Woods (KBW) Nasdaq Bank Index is a stock index of the banking sector. Please see appendix for index definitions. You cannot invest directly in an index.



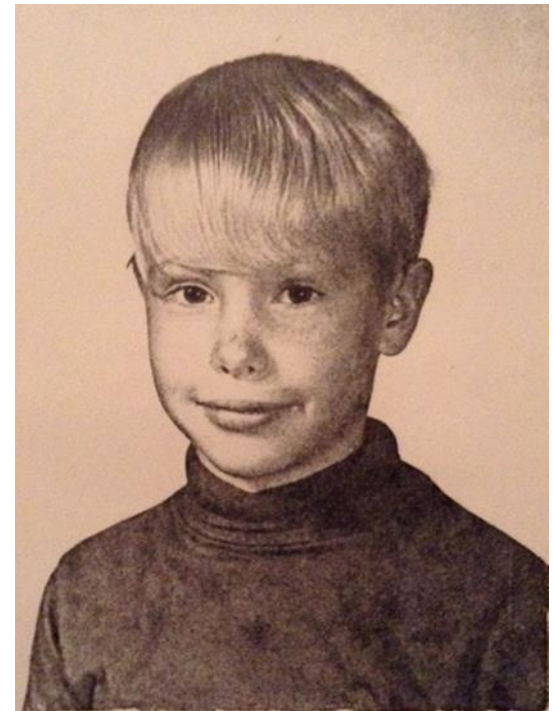
# Just Markets – “I Feel Young Again”

Live Webcast Hosted By:

**Jeffrey Gundlach**

Chief Executive Officer  
DoubleLine Capital

**January 11, 2022**



# Definitions



**Basis Point**- A basis point is a unit that is equal to 1/100th of 1%, and is used to denote the change in a financial instrument.

**Cyclically Adjusted Price-to-Earnings (CAPE) Ratio** – This ratio measures valuation by using 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. It is also known as the “Shiller P/E ratio” for Yale University professor Robert Shiller, who popularized its use.

**Convexity**- A measure of the curvature, or the degree of the curve, in the relationship between bond prices and bond yields. Convexity demonstrates how the duration of a bond changes as the interest rate changes. Portfolio managers will use convexity as a risk-management tool, to measure and manage the portfolio’s exposure to interest rate risk.

**“Copper”**- Copper Spot Price (HGI) Copper is the world’s third most used metal behind iron and aluminum primarily used in highly cyclical industries including construction and industrial machinery manufacturing. Spot price quoted in USD/lb.

**Copper-Gold Ratio (CGR)** - Calculated by dividing the market price of a pound of copper by the market price of an ounce of gold.

**Correlation** - A statistical measurement of the relationship between two variables. Possible correlations range from +1 to -1. A zero correlation indicates that there is no relationship between the variables. A correlation of -1 indicates a perfect negative correlation and +1 indicates a perfect positive correlation.

**Crude Oil** - Crude oil varies greatly in appearance depending on its composition. West Texas intermediate (WTI) = Texas light sweet crude is used as a benchmark in oil pricing. It’s “light” because of the low density and sweet because of low sulfur. Brent crude = Is a major trading classification of sweet light crude. Brent is the oil maker also known as Brent Blend.

**Cyclically Adjusted Price-to-Earnings (CAPE) Ratio** - This ratio measures valuation by using 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. It is also known as the “Shiller P/E ratio” for Yale University professor Robert Shiller, who popularized its use.

**Debt-Service Coverage Ratio (DSCR)** - A measurement of a firm’s available cash flow to pay current debt obligations.

**Drawdown**- The peak-to-trough decline during a specific record period of an investment, fund or commodity. A drawdown is usually quoted as the percentage between the peak and the trough.

**Duration** – Duration is a commonly used measure of the potential volatility of the price of a debt security, or the aggregate market value of a portfolio of debt securities, prior to maturity. Securities with a longer duration generally have more volatile prices than securities of comparable quality with a shorter duration.

**FICO** - This credit score, created by the Fair Isaac Corp., is used by lenders along with other details on a borrower’s credit report to assess credit risk and determine whether to extend credit.

**“Gold”**- Gold Spot Price (Golds) The Gold Spot price is quoted as US Dollar per Troy Ounce.

**Investment Grade** - Rating that signifies a municipal or corporate bond presents a relatively low risk of default. Bonds below this designation are considered to have a high risk of default and are commonly referred to as “junk bonds.” The higher the bond rating the more likely the bond will return 100 cents on the U.S. dollar.

**JOLTS** - The job openings and labor turnover survey (JOLTS) is a survey done by the United States Bureau of Labor Statistics (BLS) within the Department of Labor to help measure job vacancies.

**Market Capitalization** – The market value of a company’s outstanding shares. This figure is found by taking the stock price and multiplying it by the total number of shares outstanding.

**Moratorium** – A temporary prohibition of an activity. (plural: moratoria/moratoriums)

**Nasdaq** - A computerized system that facilitates trading and provides price quotations on more than 5,000 of the more actively traded over the counter stocks. Created in 1971, the Nasdaq was the world’s first electronic stock market.

**P/E (Price-to-Earnings) Ratio** - The ratio of valuing a company that measures its current share price relative to its per-share earnings.

**Producer Price Index (PPI)** - This index, published by the U.S. Bureau of Economic Analysis, measures prices paid by consumers for goods and services, excluding the volatility of food and energy prices, to gauge underlying inflation trends. It is the Federal Reserve’s preferred index for tracking inflation.

**Quantitative Easing (QE)** – An unconventional monetary policy used by central banks to stimulate the economy when standard monetary policy has become ineffective. A central bank implements quantitative easing by buying specified amounts of financial assets from commercial banks and other private institutions, thus raising the prices of those financial assets and lowering their yield, while simultaneously increasing the monetary base.

**R-Squared (R<sup>2</sup>)** - A statistical measure that represents the proportion of the variance for a dependent variable that’s explained by an independent variable or variables in a statistical measure that represents the proportion of the variance for a dependent variable that’s explained by an independent variable or variables in a regression model.

**Smart Beta** – A passive weighting scheme that deviates from market capitalization.

**Spread** – Spread is the percentage point difference between yields of various classes of bonds compared to treasury bonds.

**Standard Deviation (or Sigma)** - Shows how much variation there is from the “average” (mean, or expected/budgeted value). A low standard deviation indicated that the data point tend to be very close to the mean, whereas high standard deviation indicated that the date is spread out over a large range of values.

**U-3 Unemployment Rate** - Officially recognized rate of unemployment, compiled and released monthly by the U.S. Bureau of Labor Statistics, measuring the number of unemployed people as a percentage of the labor force.

**Upgrade-to-Downgrade Ratio** - A ratio between bond upgrades (when a rating agency raises a bond’s rating) and bond downgrades (when a rating agency lowers a bond’s rating).

**Yield Curve** - Is a line that plots the interest rates, at a set point in time, of bonds having equal credit quality but differing maturity dates.

**Yield-to-Worst (YTW)** - The lowest yield of a bond that can be received short of default.

**Z-Score** - A Z-score is a numerical measurement that describes a value’s relationship to the mean of a group of values. Z-score is measured in terms of standard deviations from the mean.

## Index Definitions

**Amherst Non-Agency Index** - Residential Mortgages Bond Securities are a type of bond backed by residential mortgages. Non-Agency means they were issued by a private issuer.

**Barclays Capital US 30 Year TIPS Index** - Barclays Capital 30-year TIPS on-the-run index quoted in US Dollars traded intraday

**Bloomberg Baa Corporate Index** - Measures the Baa-rated, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

**Bloomberg Commodity Index (BCOM)** - An index calculated on an excess return basis and reflects commodity futures price movements.

**Bloomberg Commodities Total Return Index** This index (formerly the Dow Jones-UBS Commodity Index) is calculated on an excess return basis and reflects the price movements of commodity futures. It rebalances annually, weighted two-thirds by trading volume and one-third by world production, and weight caps are applied at the commodity, sector and group levels for diversification. The roll period typically occurs from the sixth to 10th business day based on the roll schedule.

**Bloomberg Global Emerging Markets Index** - The Bloomberg Global Emerging Markets Index represents the union of the USD-denominated US Emerging Markets index and the predominately EUR-denominated Pan Euro Emerging Markets Index, covering emerging markets in the following regions: Americas, Europe, Middle East, Africa, and Asia. As with other fixed income benchmarks provided by Barclays Capital, the index is rules-based, which allows for an unbiased view of the marketplace and easy replicability.

**Bloomberg US Aggregate Bond Index** - A benchmark made up of the Lehman Brothers Government/Corporate Bond Index, Mortgage-Backed Securities Index, and Asset-Backed Securities Index, including securities that are of investment-grade quality or better, have at least one year to maturity, and have an outstanding par value of at least \$100 million.

**Bloomberg US Corporate Index** - Is a subset of the Bloomberg U.S. Aggregate index which is a broad-based flagship benchmark that measures the investment grade, U.S. dollar-denominated, fixed rate taxable bond market. It includes Treasuries, government-related and corporate securities, MBS, ABS and CMBS. This subset represents the investment grade portion of that index.

**Bloomberg US Credit Index** - This index is the U.S. credit component of the US Government/Credit Index. It consists of publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity and quality requirements. To qualify, bonds must be SEC registered. The US Credit Index is the same as the former US Corporate Index.

**Bloomberg Barclays US Aggregate Bond Index** - Represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the US investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

**Bloomberg US CMBS Non-Agency Index** - Represents the Non-Agency CMBS component of the Bloomberg Barclays US Aggregate Index including AAA-BBB.

**Bloomberg US CMBS: ERISA Eligible Total Return Index** - Measures the investment-grade market of US Agency and US Non-Agency conduit and fusion CMBS deals with a minimum current deal size of \$300mn that are ERISA eligible. Sub-indexes within this index are broken out by ratings such as the Bloomberg Barclays CMBS ERISA Eligible: AAA Total Return Index; Bloomberg Barclays CMBS ERISA Eligible: AA Total Return Index; and the Bloomberg Barclays CMBS ERISA Eligible: BBB Total Return Index.

**Bloomberg US Corporate High Yield (HY) Index** - This index measures the U.S. dollar-denominated HY fixed-rate corporate bond market. Securities are classified as HY if the respective middle ratings of Moody's, Fitch and S&P are Ba1, BB+ or BB+ or below. The Bloomberg Barclays US HY Long Index, including bonds with maturities of 10 years or greater, and the Bloomberg Barclays US HY Intermediate Index, including bonds with maturities of 1 to 9.999 years, are subindexes of the Bloomberg Barclays US Corporate HY Index.

**Bloomberg US High Yield Index** - Covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issuer from countries designated as emerging markets (e.g. Argentina, Brazil, Venezuela, etc.) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, 144-As and pay-in-kind (PIK, as of October 1, 2009) are also included.

**Bloomberg US MBS Index** - Represents the MBS component of the Bloomberg Barclays US Aggregate Index.

**Bloomberg US Treasury 10 Year Index** - This index is the 10 year component of the US Government index.

**Bloomberg US Treasury 30 Year Index** - This index is the 30 year component of the US Government index.

**Bloomberg US Treasury Index** - This index is the US Treasury component of the US Government index. Public obligations of the US Treasury with a remaining maturity of one year or more.

**BofA Merrill Lynch Current 10 year UST Index** - This index is the 10 year component of the US Government index.

**BofA Merrill Lynch Current 30 year UST Index** - This index is the 30 year component of the US Government index.

**BofA Merrill Lynch International Government Index (NOGO)** - The Merrill Lynch International Index tracks the performance of Australia, Canadian, French, German, Japan, Dutch, Swiss and UK investment grade sovereign debt publicly issued and denominated in the issuer's own domestic market and currency. Qualifying securities must have at least one year remaining term to final maturity, a fixed coupon schedule and a minimum amount outstanding.

## Index Definitions

**CAC 40** – This index the most widely-used indicator of the Paris market, reflects the performance of the 40 largest equities listed in France, measured by free-float market capitalization and liquidity.

**Citigroup Economic Surprise Index** - The Citigroup Economic Surprise Indices are objective and quantitative measures of economic news. They are defined as weighted historical standard deviations of data surprises (actual releases vs Bloomberg survey median). A positive reading of the Economic Surprise Index suggests that economic releases have on balance beating consensus. The indices are calculated daily in a rolling three-month window. The weights of economic indicators are derived from relative high-frequency spot FX impacts of 1 standard deviation data surprises. The indices also employ a time decay function to replicate the limited memory of markets.

**CRB Commodity Index (CRY)** - An unweighted geometric average of some important commodities. It averages prices across 17 commodities and across time. The index tracks energy, grains, industrials, livestock, precious metals, and agricultural.

**Credit Suisse High Yield Liquid Index** - Tracks the performance of US dollar denominated below investment grade corporate debt publicly issued in the US domestic market.

**Credit Suisse Investment Grade Index** - Tracks the performance of US dollar denominated investment grade corporate debt publicly issued in the US domestic market.

**DAX** - This index is the German Stock Index is a total return index of 30 selected German blue chip stocks traded on the Frankfurt Stock Exchange.

**Dow Jones Industrial Average (DJIA)** - A widely-watched benchmark index in the U.S. for blue-chip stocks. The DJIA is a price-weighted index that tracks 30 large, publicly-owned companies trading on the New York Stock Exchange and the Nasdaq.

**Dow Jones UBS Commodity index** - Composed of commodities traded on U.S. exchanges, with the exception of aluminum, nickel and zinc, which trade on the London Metal Exchange (LME).

**DXY** - U.S. dollar spot index indicates the general international value of the US dollar by averaging the exchange rates between the USD and major world currencies.

**ESTX50** - EuroStoxx 50 index is Europe's leading blue-chip index for the Eurozone, provides a blue-chip representation of supersector leaders in the Eurozone.

**FTSE 100** - A capitalization-weighted index of the 100 most highly capitalized companies traded on the London Stock Exchange.

**ICE BofA MOVE Index** - This index is a measure of U.S. interest-rate volatility that tracks the movement in U.S. Treasury yield volatility implied by current prices of one-month over-the-counter options on two-, five-, 10- and 30-year Treasuries.

**ICE BofA U.S. High Yield Index (H0A0)** - The Merrill Lynch High Yield Index tracks the performance of US dollar denominated below investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have a below investment grade rating (based on average of Moodys, S&P and Fitch) at least 18 months to final maturity at time of issue of issuance, a final maturity, a fixed coupon schedule and a minimum amount outstanding of \$100 MM.

**ICE BofA US Corporate Index (COAO) "Investment Grade"** - The Merrill Lynch Corporate Index tracks the performance of US dollar denominated investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have an investment grade rating (based on an average of Moody's, S&P and Fitch) and an investment grade rated country of risk (based on an average of Moody's, S&P and Fitch foreign currency long term sovereign debt ratings). Securities must have at least one year remaining term to final maturity, a fixed coupon schedule and a minimum amount outstanding of \$250MM.

**ICE BofA US Dollar Emerging Markets Sovereign Plus Index (IGOV)** - This index tracks the performance of US dollar denominated emerging market and cross-over sovereign debt publicly issued in the eurobond or US domestic market. Qualifying countries must have a BB1 or lower foreign currency long-term sovereign debt rating (based on an average of Moody's, S&P, and Fitch).

**ICE BofA US Government Index (GOAO)** - The Merrill Lynch US Government Index tracks the performance of US government (i.e. securities in the Treasury and Agency indices.)

**ICE BofA US Treasury Index (GOQ0)** - The Merrill Lynch US Treasury Index tracks the performance of US dollar denominated sovereign debt publicly issued by the US government in its domestic market. Qualifying securities must have at least one year remaining term to final maturity, a fixed coupon schedule and a minimum amount outstanding of \$1 billion.

**ISM Manufacturing PMI Index** - ISM manufacturing index, also known as the purchasing managers' index (PMI), is a monthly indicator of U.S. economic activity based on a survey of purchasing managers at more than 300 manufacturing firms. It is considered to be a key indicator of the state of the U.S. economy.

**J.P. Morgan Collateralized Loan Obligation Index (CLOIE)** - This market value-weighted index comprises U.S. dollar-denominated collateralized loan obligations (CLOs). Sub-indexes are divided by ratings AAA through BB and further divide between pre-and post-crisis vintages. Examples of sub-indexes are the J.P. Morgan CLO AAA, J.P. Morgan CLO AA, J.P. Morgan CLO A, J.P. Morgan BBB, and J.P Morgan BB Indexes.

**J.P. Morgan Emerging Markets Bond Index (EMBI)** - This index tracks emerging markets (EM) bonds and comprises sovereign debt and EM corporate bonds.

## Index Definitions

**J.P. Morgan Emerging Markets Currency Index (EMCI)** - This index is a tradeable benchmark for emerging markets (EM) currencies vs the U.S. dollar.

**KBW Nasdaq Bank Index** - A benchmark stock index of the banking sector includes 24 stocks.

**Manheim Used Car Value Index** - By applying statistical analysis to its database of more than 5 million used vehicle transactions annually, Manheim has developed a measurement of used vehicle prices that is independent of underlying shifts in the characteristics of vehicles being sold.

**MSCI ACWI (ex U.S.) Index** - A free-float weighted equity index that includes both emerging and developed worlds markets except the U.S.

**MSCI ACWI Index (ACWI)** - A free-float weighted equity index that includes both emerging and developed worlds markets.

**MSCI Europe Index** - The MSCI Europe Index is a free-float weighted equity index designed to measure the equity market performance of the developed markets in Europe.

**MSCI Emerging Markets Index** - The index captures large and mid-cap representation across 27 Emerging Markets countries.

**MSCI US Small Cap Index** - A free float weighted index of U.S. small cap equity stocks.

**MSCI USA Large Cap Index** - A free float weighted large- cap equity index.

**NASDAQ 100 Index** - A basket of the 100 largest, most actively traded U.S. companies listed on the NASDAQ stock exchange.

**Nikkei 225 (Tokyo Stocks)** - The Nikkei-225 Stock average is a price-weighted average of 225 top-rated Japanese companies listed in the First Section of the Tokyo Stock Exchange.

**Palmer Square CLO Debt Index (CLODI)** - A rules-based observable pricing and total return index for CLO debt for sale in the U.S.

**Price-to-Earnings (P/E Ratio)** - This ratio for valuing a company measures current share price relative to earnings per share (EPS). The P/E ratio is also sometimes known as the "price multiple" or the "earnings multiple." A high P/E ratio could mean that a company's stock is overvalued, or investors are expecting high growth rates in the future.

**Russell 2000** - Measures the performance of the small-cap segment of the US equity universe. Russell 2000 is a subset of the Russell 3000 index representing approximately 10% of the total market capitalization of that index.

**S&P 500 (SPX)** - A free-float capitalization-weighted index published since 1957 of the prices of 500 large-cap common stocks actively traded in the United States.

**S&P 500 High Beta Index** - Measures the performance of 100 constituents in the S&P 500 that are most sensitive to changes in market returns.

**S&P GSCI** - A composite index of commodity sector return representing an unleveraged, long-only investment in commodity futures that is broadly diversified across the spectrum of commodities.

**S&P U.S. Mortgage-Backed Securities Fixed Rate 1-10 year Index (MBS Fixed Rate 1-10 Year)** - Is a rules-based, market-value-weighted index covering U.S. dollar denominated, fixed-rate mortgages 1-10 years.

**S&P/Case-Shiller Composite Home Price Index** - The Case-Shiller Home Price Indices, one comprised of price changes within all 20 metropolitan markets, and another comprised of price changes within the following subset of 10 metropolitan markets: Boston, Chicago, Denver, Las Vegas, Los Angeles, Miami, New York, San Diego, San Francisco and Washington DC. In addition: 10 markets, the 20-Home Price index reflects price changes for Atlanta, Charlotte, Dallas, Detroit, Minneapolis, Phoenix, Portland, Seattle and Tampa.

**S&P/LSTA Leveraged Loan 100 Index** - This index tracks the market-weighted performance of the 100 largest institutional leveraged loans based on market weightings, spreads and interest payments. Sub-indices within this index are the S&P/LSTA Leveraged Loan B Index and the S&P/LSTA Leveraged Loan BB Index. These sub-indices track loans in the B to BB rated categories.

**S&P/LSTA Leveraged Loan Index** - This index tracks the market-weighted performance of institutional weighted loans based on market weightings, spreads and interest payments.

**Shanghai Index** - The Shanghai Stock Exchange Composite is a capitalization-weighted index tracking daily price performance of all A and B-shares listed on the Shanghai Stock Exchange. This index was developed December 19, 1990 with a base value of 100.

**Volatility Index (VIX)** - The VIX shows the market's expectation of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 index options. This volatility is meant to be forward looking and is calculated from both calls and puts. The VIX is a widely used measure of market risk and is often referred to as the "investor fear gauge."

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# Just Markets: “I Feel Young Again”

Live Webcast Hosted By:

**Jeffrey Gundlach**

Chief Executive Officer  
DoubleLine Capital

**January 11, 2022**

