



DoubleLine Total Return Webcast

Dust in the Crevices

June 6, 2023





Live Webcast Hosted By:

Jeffrey Gundlach
Chief Executive Officer

Andrew Hsu, CFA
Portfolio Manager



Los Angeles
Tampa
Dubai
Tokyo

 (813) 791-7333
 doubleline.com
 @dlinecap
 LinkedIn

Upcoming Webcasts:

June 13, 2023 – ETF Webcast

1:15 pm PT/4:15 pm ET

Featuring Portfolio Managers Ken Shinoda, CFA and Morris Chen, who will discuss the DoubleLine Mortgage ETF and DoubleLine Commercial Real Estate ETF.

Register at doubleline.com/doubleline-webcasts/

July 11, 2023 – Infrastructure Webcast

1:15 pm PT/4:15 pm ET

Portfolio managers Andrew Hsu and Damien Contes will be discussing the strategy, sector allocation and outlook for the DoubleLine Infrastructure Income Fund.

Register at doubleline.com/doubleline-webcasts/

DoubleLine’s 2023 webcast schedule is available on our website.

Visit doubleline.com/doubleline-webcasts/ to register for upcoming webcasts.

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DoubleLine's Channel 11

Hosted by Portfolio Manager Ken Shinoda and available on  Twitter: DLineChannel11
Email: channel11@doubleline.com




The Sherman Show Podcast

Hosted by Deputy CIO Jeffrey Sherman and Portfolio Manager Sam Lau
Available on www.doubleline.com, iTunes, Sound Cloud, Google Podcasts, Spotify and Stitcher. Visit them on  Twitter: @ShermanShowPod



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, iTunes, Sound Cloud, Google Podcasts, Spotify and Stitcher. Visit them on  Twitter: @DLineMinutes



PS Perspectives YouTube

Hosted by the DoubleLine Product Specialist Team who explores DoubleLine's latest thoughts on financial markets, macro events, and drivers of returns in various segments of the market.

Posts monthly to www.doubleline.com and YouTube.com/DoubleLineCapital
Email: fundinfo@doubleline.com

Must be preceded or accompanied by current prospectus.

Investments in debt securities typically decrease in value when interest rates rise. This risk is usually greater for longer-term debt securities. Investments in lower-rated and non-rated securities present a greater risk of loss to principal and interest than higher-rated securities. Investments in ABS and MBS include additional risks that investors should be aware of such as credit risk, prepayment risk, possible illiquidity and default, as well as increased susceptibility to adverse economic developments. The Fund may use leverage which may cause the effect of an increase or decrease in the value of the portfolio securities to be magnified and the Fund to be more volatile than if leverage was not used. Derivatives involve special risks including correlation, counterparty, liquidity, operational, accounting and tax risks. These risks, in certain cases, may be greater than the risks presented by more traditional investments.

Opinions expressed are subject to change at any time, are not forecasts and should not be considered investment advice. DoubleLine Mutual Funds are distributed by Quasar Distributors, LLC. While the Funds are no-load, management fees and other expenses still apply. Please refer to the prospectus for further details. Fund holdings and sector allocations are subject to change and are not recommendations to buy or sell any security.

DoubleLine Funds are distributed by Quasar Distributors, LLC. DoubleLine® is a registered trademark of DoubleLine Capital LP.

DoubleLine Total Return Bond Fund			
No Load Mutual Fund	Institutional (I Share)	Retail (N Share)	Retirement (R6 Share)
Ticker	DBLTX	DLTNX	DDTRX
Min Investment	\$100,000	\$2,000	N/A
Min IRA Investment	\$5,000	\$500	N/A
Gross Expense Ratio	0.48%	0.73%	0.43%

A Fund’s investment objectives, risks, charges and expenses must be considered carefully before investing. The statutory prospectus and summary prospectus (if available) contains this and other important information about the Fund, and it may be obtained by calling (877) 354-6311 / (877) DLINE11 or visiting www.DoubleLine.com. Read it carefully before investing.

Mutual fund investing involves risk; Principal loss is possible. Investments in debt securities typically decrease in value when interest rates rise. This risk is usually greater for longer-term debt securities. Investments in Asset-Backed and Mortgage-Backed Securities include additional risks that investors should be aware of such as credit risk, prepayment risk, possible illiquidity and default, as well as increased susceptibility to adverse economic developments. Investments in lower-rated and non-rated securities present a greater risk of loss to principal and interest than higher-rated securities. The Fund may use certain types of investment derivatives. Derivatives involve risks different from, and in certain cases, greater than the risks presented by higher-rate securities. The DoubleLine Total Return Bond Fund intends to invest more than 50% of its net assets in mortgage-backed securities of any maturity or type. The Fund, therefore, potentially is more likely to react to any volatility or changes in the mortgage-backed securities marketplace.

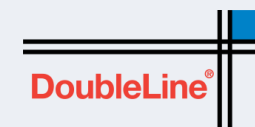
Diversification does not assure a profit, nor does it protect against a loss in a declining market.

Opinions expressed are subject to change at any time, are not forecasts and should not be considered investment advice.

DoubleLine Funds are distributed by Quasar Distributors, LLC.

While the Funds are no-load, management fees and other expenses still apply. Please refer to the prospectus for further details.

DoubleLine Total Return Bond Fund Performance



DoubleLine Total Return Bond Fund Performance (%)

Month-End Returns	Annualized						Since Inception (4-6-2010 through 5-31-23)
	May	YTD	1-Year	3-Year	5-Year	10-Year	
May 31, 2023							
DBLTX (I Share)	-1.01	3.05	-2.45	-2.47	0.31	1.46	3.81
DLTNX (N Share)	-1.04	2.83	-2.70	-2.75	0.04	1.21	3.54
Bloomberg US Aggregate Bond Index	-1.09	2.46	-2.14	-3.65	0.81	1.39	2.29

Quarter-End Returns	Annualized						Since Inception (4-6-2010 through 3-31-23)
	1Q23	YTD	1-Year	3-Year	5-Year	10-Year	
March 31, 2023							
DBLTX	3.31	3.31	-5.08	-1.70	0.40	1.51	3.88
DLTNX	3.25	3.25	-5.32	-1.94	0.15	1.26	3.62
Bloomberg US Aggregate Bond Index	2.96	2.96	-4.78	-2.77	0.91	1.36	2.36

Calendar Year Returns	2022	2021	2020	2019	2018	2017
DBLTX	-12.56	0.24	4.12	5.81	1.75	3.79
DLTNX	-12.77	-0.01	3.86	5.65	1.49	3.44
Bloomberg US Aggregate Bond Index	-13.01	-1.54	7.51	8.72	0.01	3.54

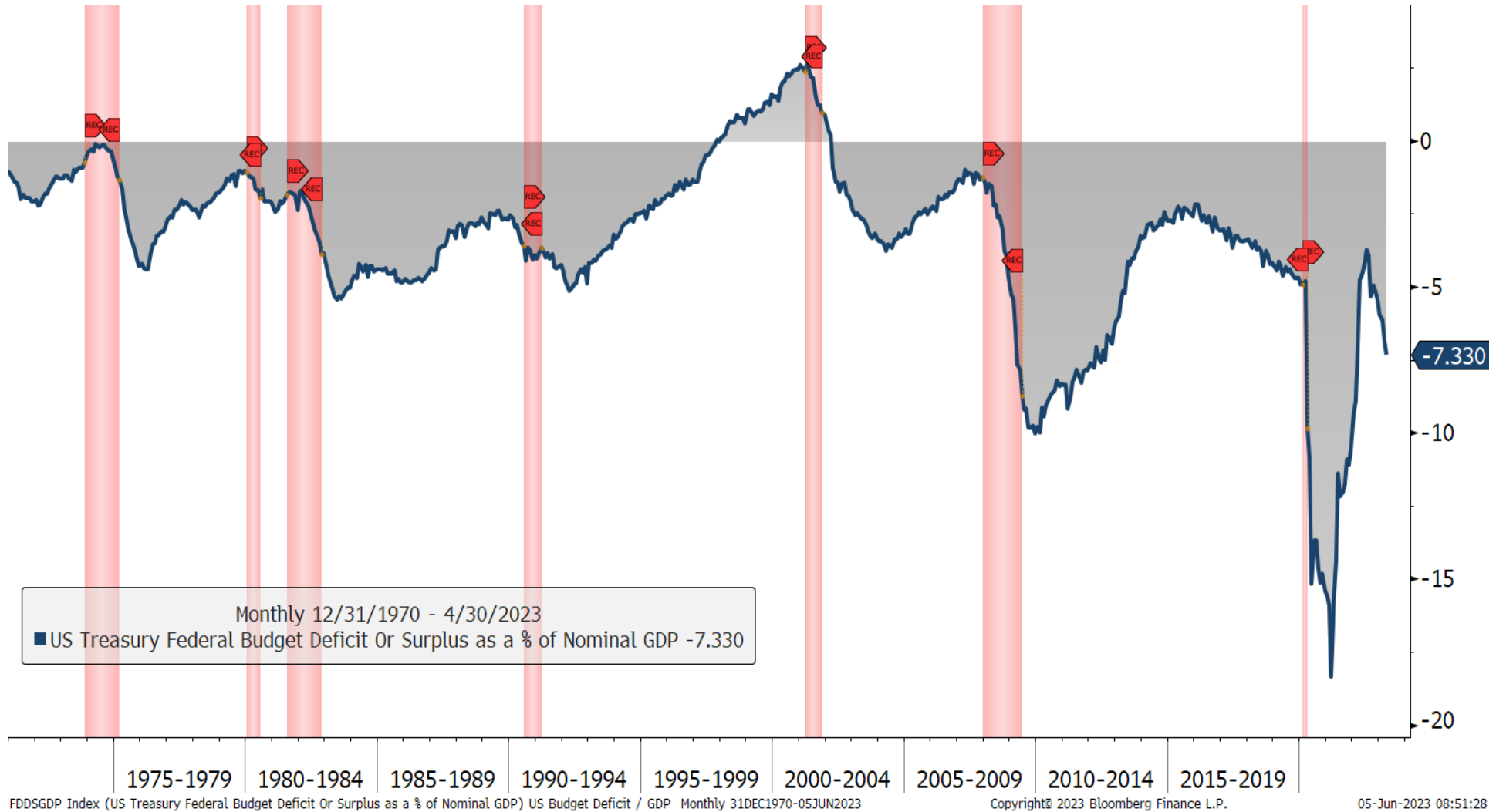
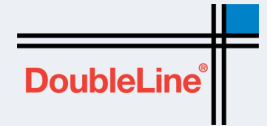
SEC 30-Day Yield (%)	I Share	N Share
Gross	5.32	5.07
Net	5.32	5.07

Performance data quoted represents past performance; past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than the original cost. Current performance of the fund may be lower or higher than the performance quoted. Performance data current to the most recent month-end may be obtained by calling 213-633-8200 or by visiting www.doubleline.com.

Bloomberg US Aggregate Bond Index - This index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. 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.

You cannot invest directly in an index.

U.S. Federal Budget Balance (% of GDP)

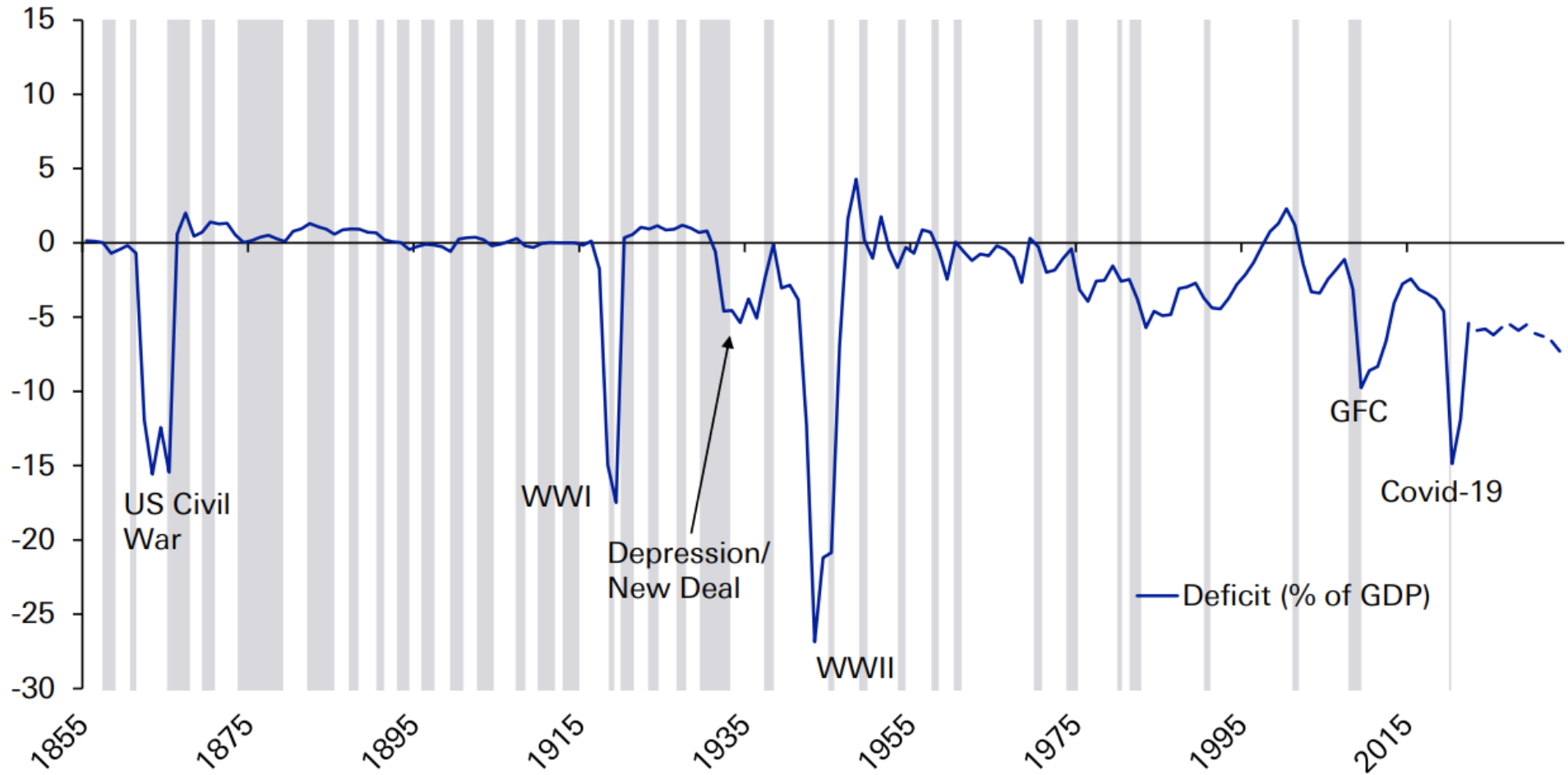


Source: Bloomberg, DoubleLine
 Gross Domestic Product (GDP) measures the amount of goods and services produced within a given country.
 Red shaded areas indicate recessionary periods. You cannot invest directly in an index.

U.S. Budget Deficit

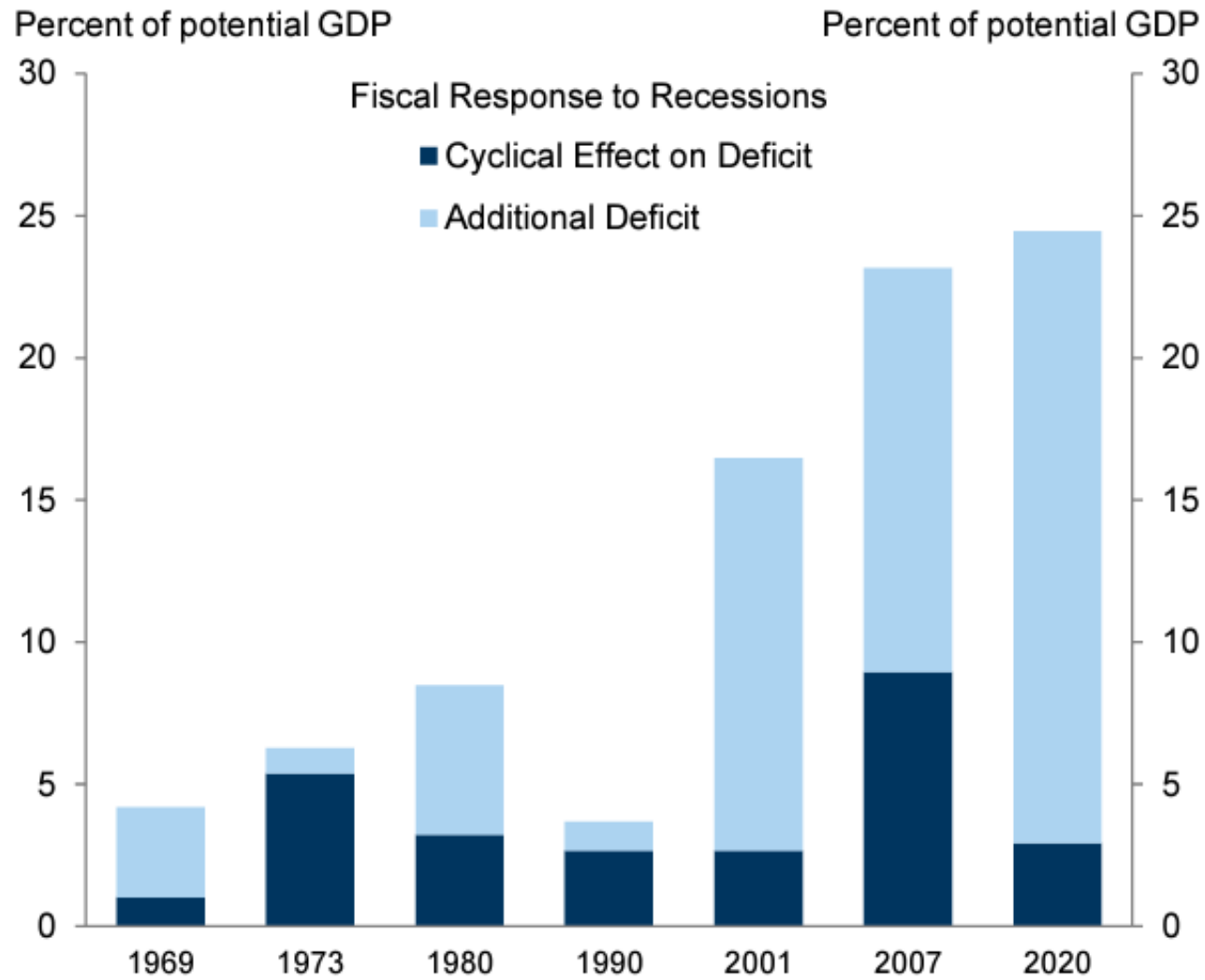


U.S. Deficit (% with CBO forecasts) with Recessions Shaded



Source: NBER, GFD, Deutsche Bank
Gross Domestic Product (GDP) is the amount of goods and services produced within a given country. You cannot invest directly in an index.

Fiscal Responses to Recessions

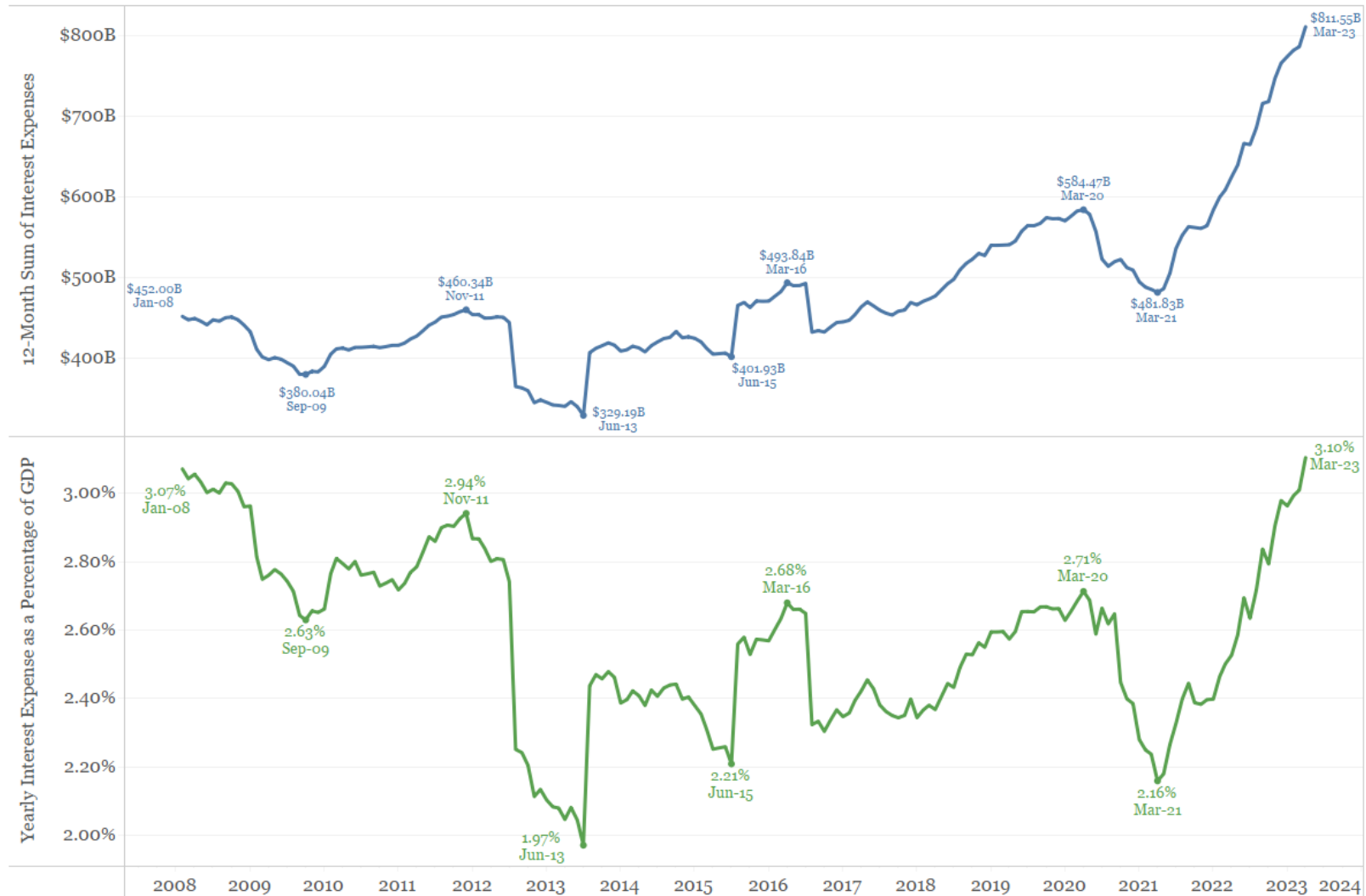


Source: Congressional Budget Office, Office of Management and Budget, Department of Commerce, Goldman Sachs Global Investment Research
Gross Domestic Product (GDP) measures the amount of goods and services produced within a given country.

Growing Interest Burden



How Much Interest Does the U.S. Treasury Pay on Its Debt in a Year?
Nominal Dollars and as Percentage of GDP

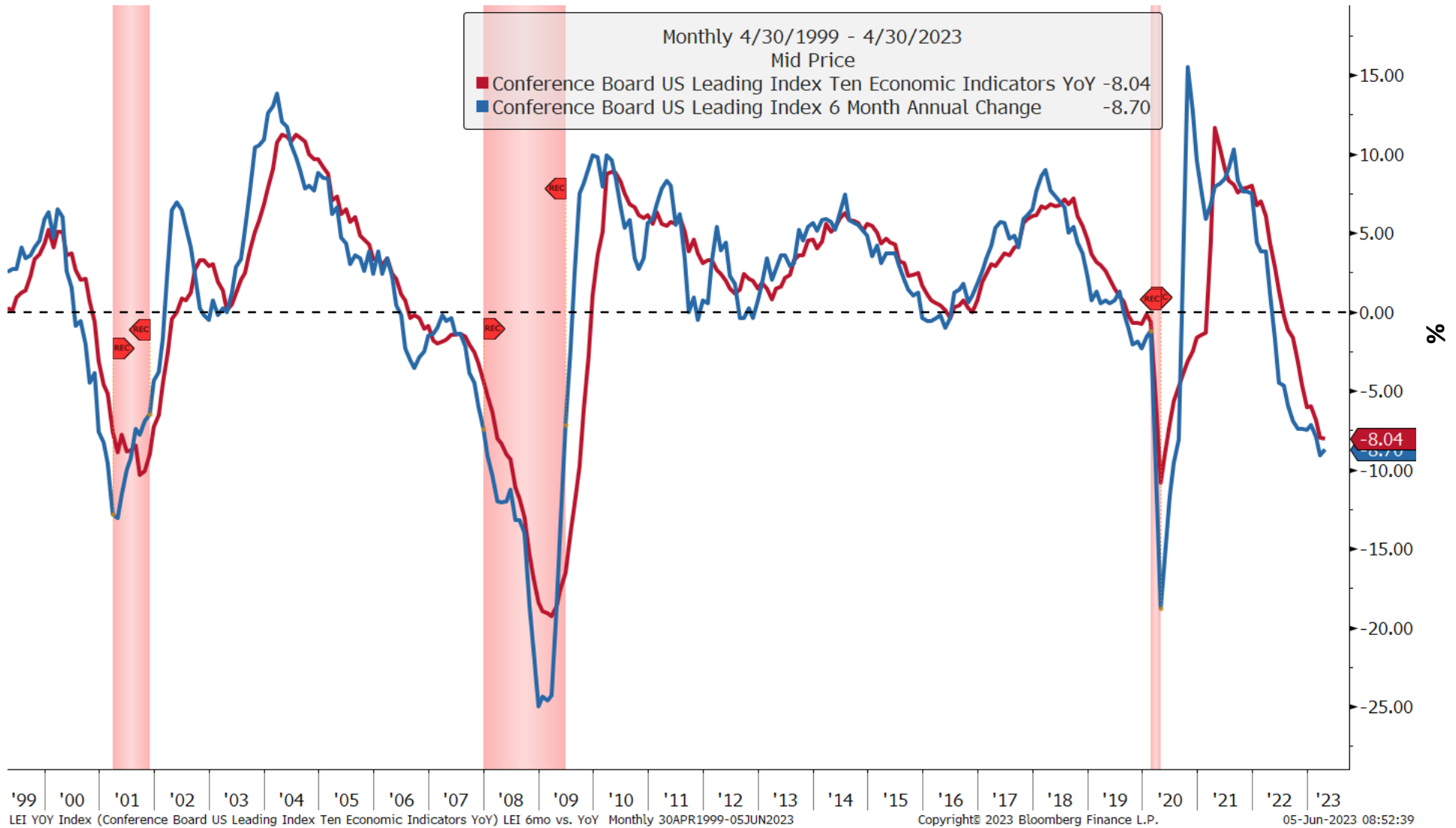


Source: U.S. Treasury

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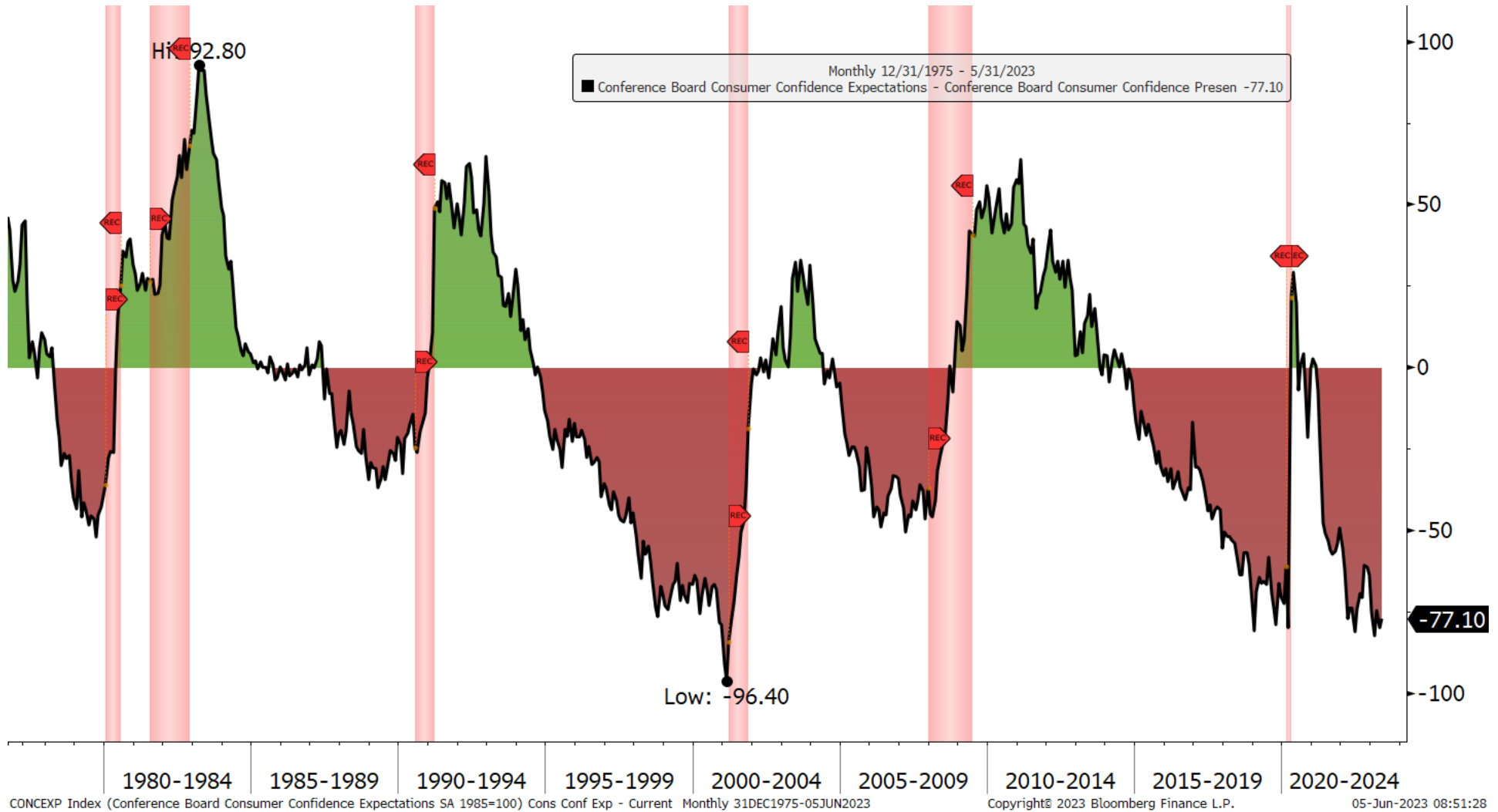
Gross Domestic Product (GDP) is the amount of goods and services produced within a given country. You cannot invest directly in an index.

Leading Economic Indicator (YoY) and 6-Mo. Annualized



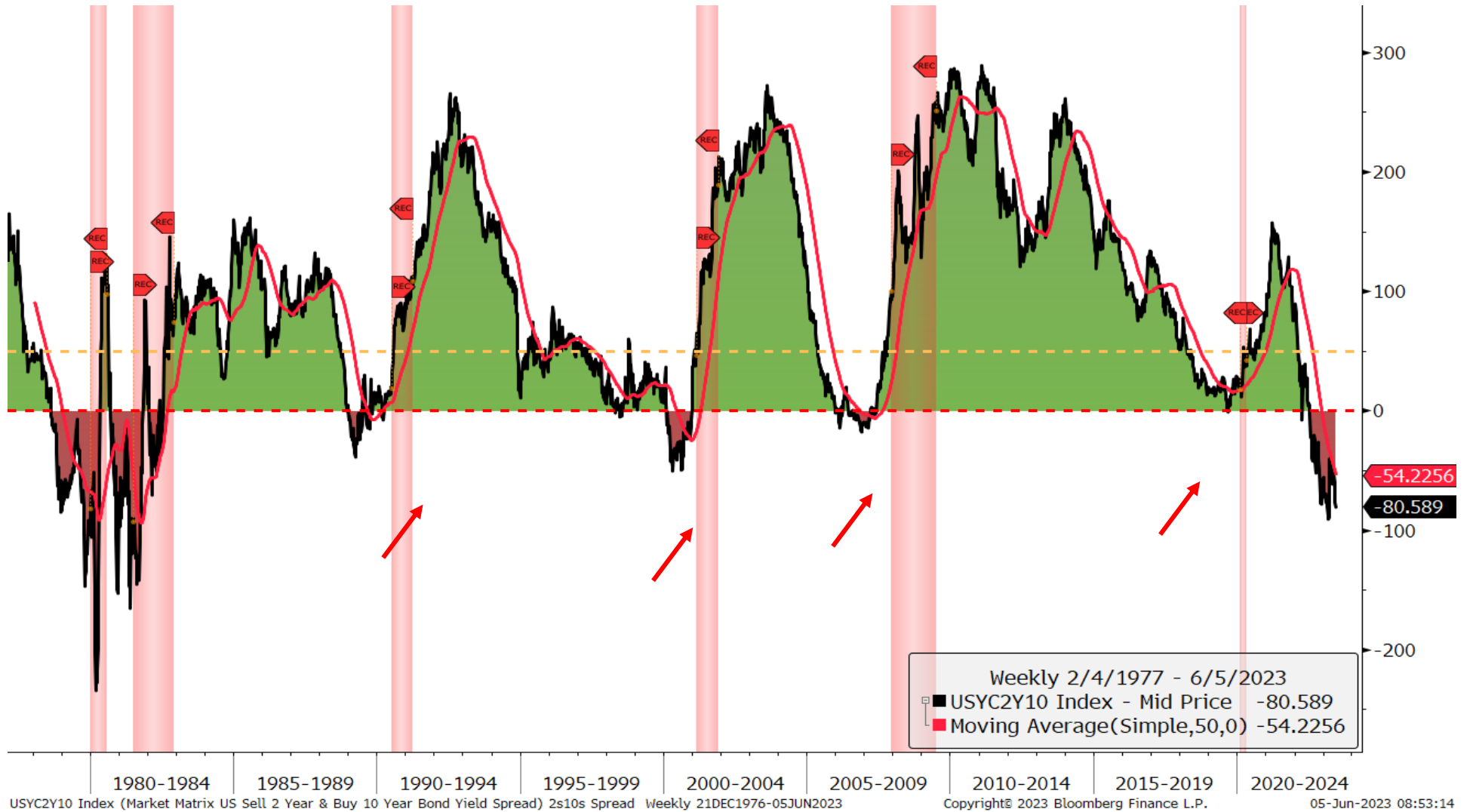
Source: DoubleLine, Bloomberg
Red shaded areas indicate recessionary periods. Leading Economic Indicators (LEI). You cannot invest directly in an index.

Consumer Expectations Less Current Situation



Source: Bloomberg, DoubleLine
You cannot invest directly in an index. Red shaded areas indicate recessionary periods.

U.S. Yield Curve Steepening Before the Recession



Source: Bloomberg, DoubleLine

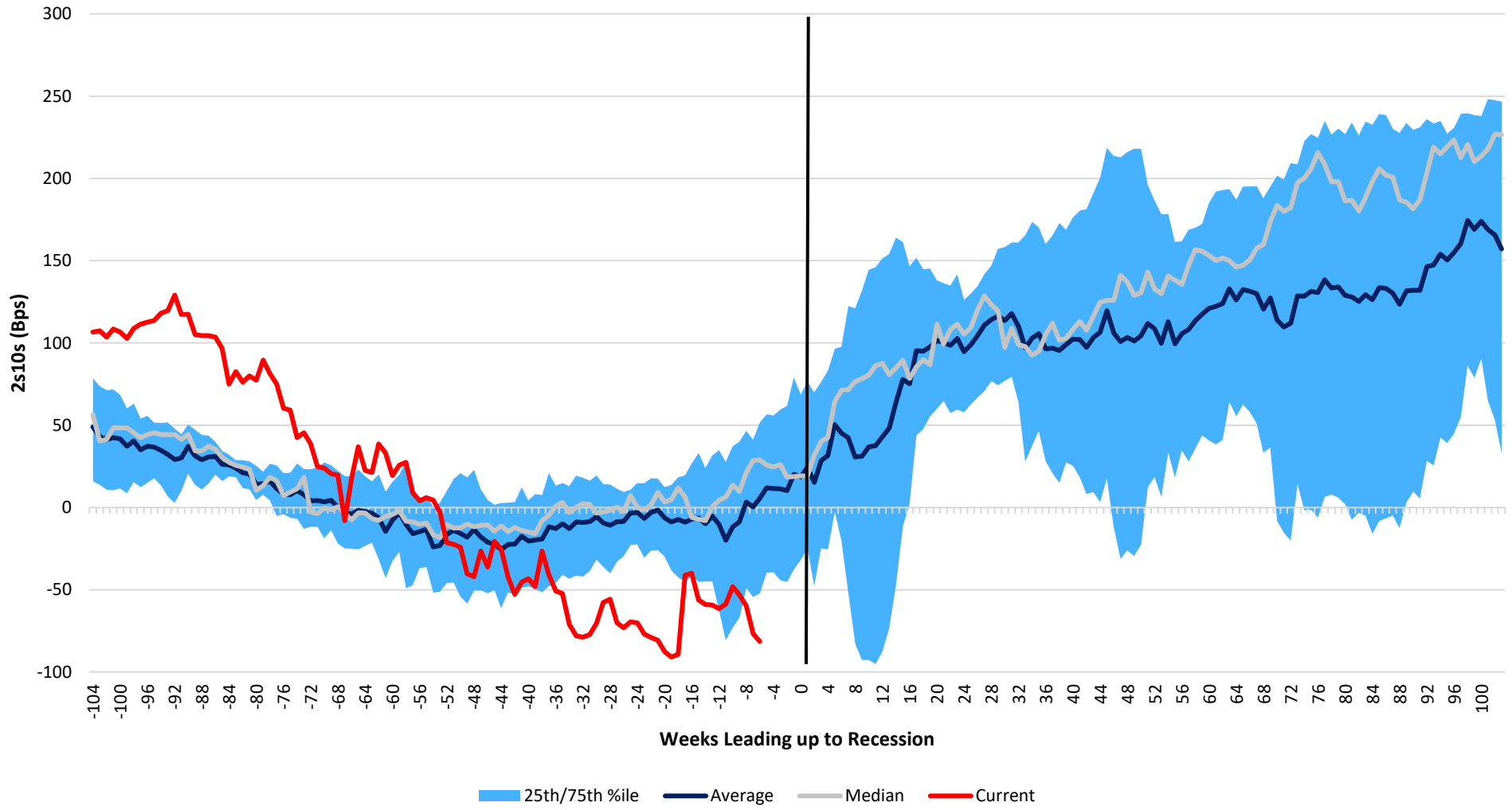
Market Matrix US Sell 2 Year & Buy 10 Year Bond Yield Spread (USYC2Y10 Index) is the difference between the 10 year treasury rate and the 2 year treasury rate. Red shaded area indicate recessionary periods.

2s10s and Recessions

January 1, 1978 to June 2, 2023 (excludes 1981 recession)



2s10s Leading Up to Recessions



Source: Bloomberg, DoubleLine

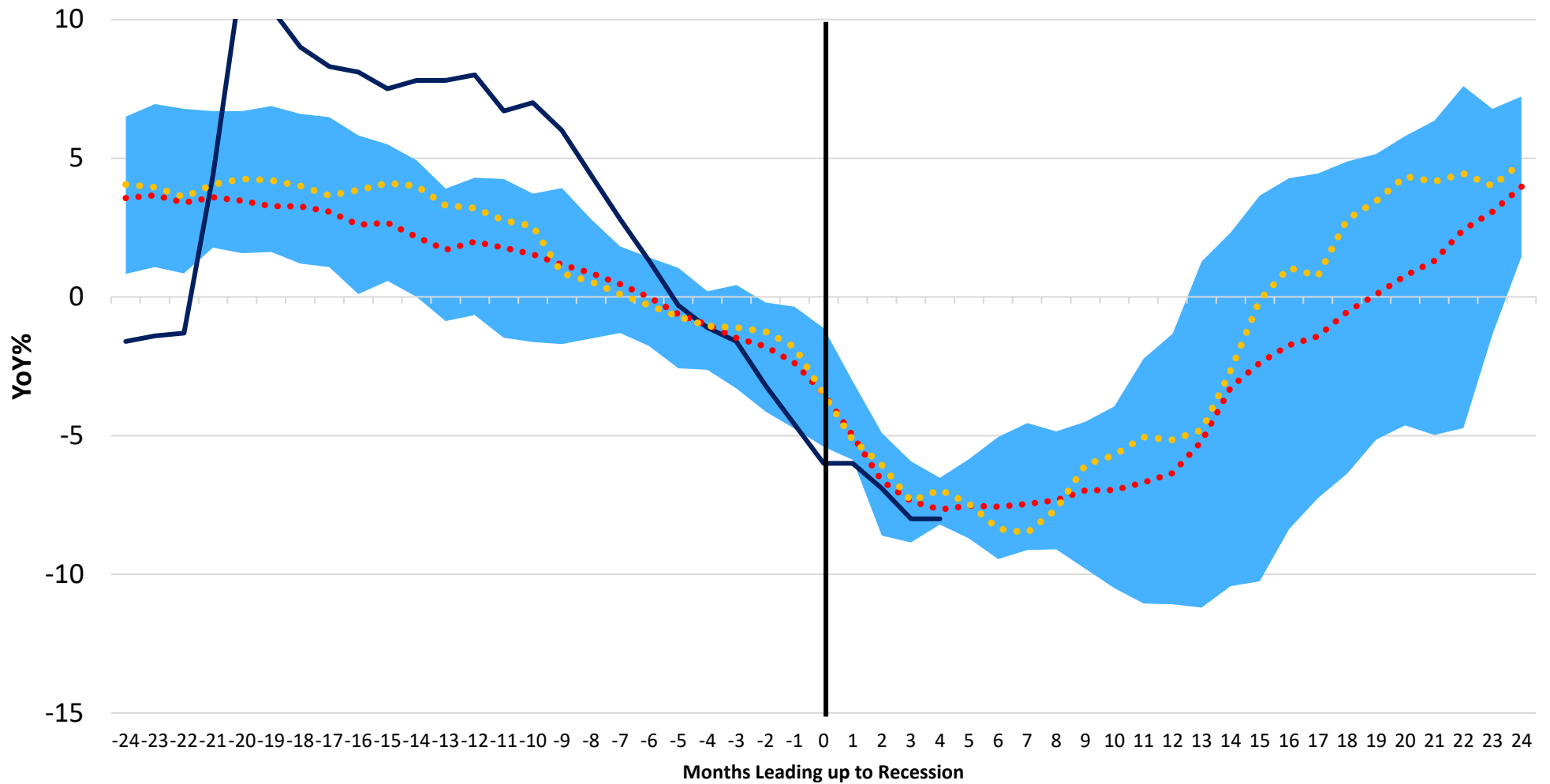
*Assumes recession starts 66 weeks from March 31, 2022.

LEI (YoY) Leading Up to Recessions

January 31, 1968 to April 30, 2023



LEI Leading Up to Recessions



25th/75th %ile Current* Average Median

Source: Bloomberg, DoubleLine

Leading Economic Indicators (LEI) Index is intended to forecast future economic activity. You cannot invest directly in an index.

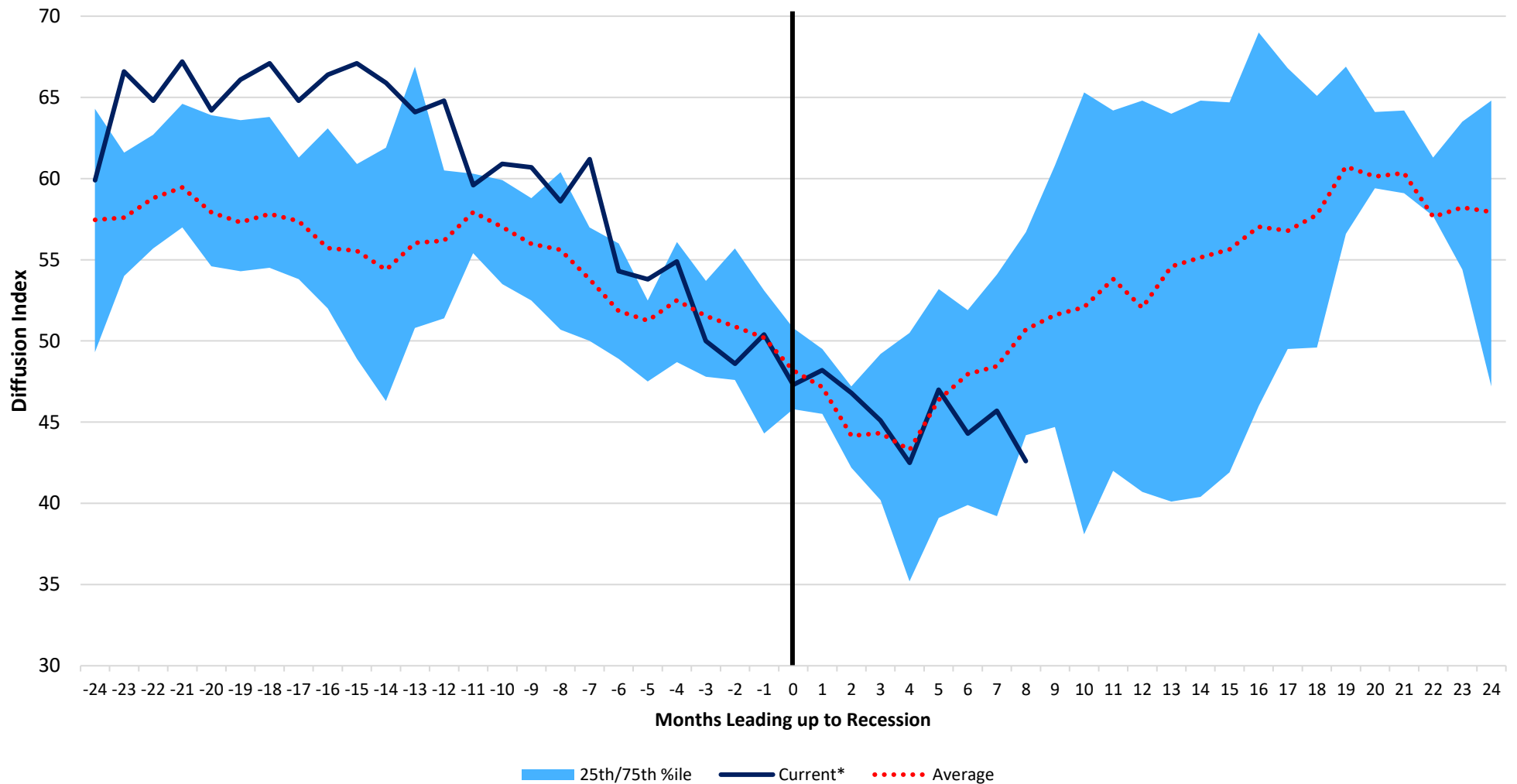
*Assumes recession began December 31, 2022.

ISM New Orders Leading Up to Recessions



December 31, 1947 to May 31, 2023

ISM New Orders Leading Up to Recessions



Source: Bloomberg, DoubleLine

*Assumes recession began September 30, 2022.

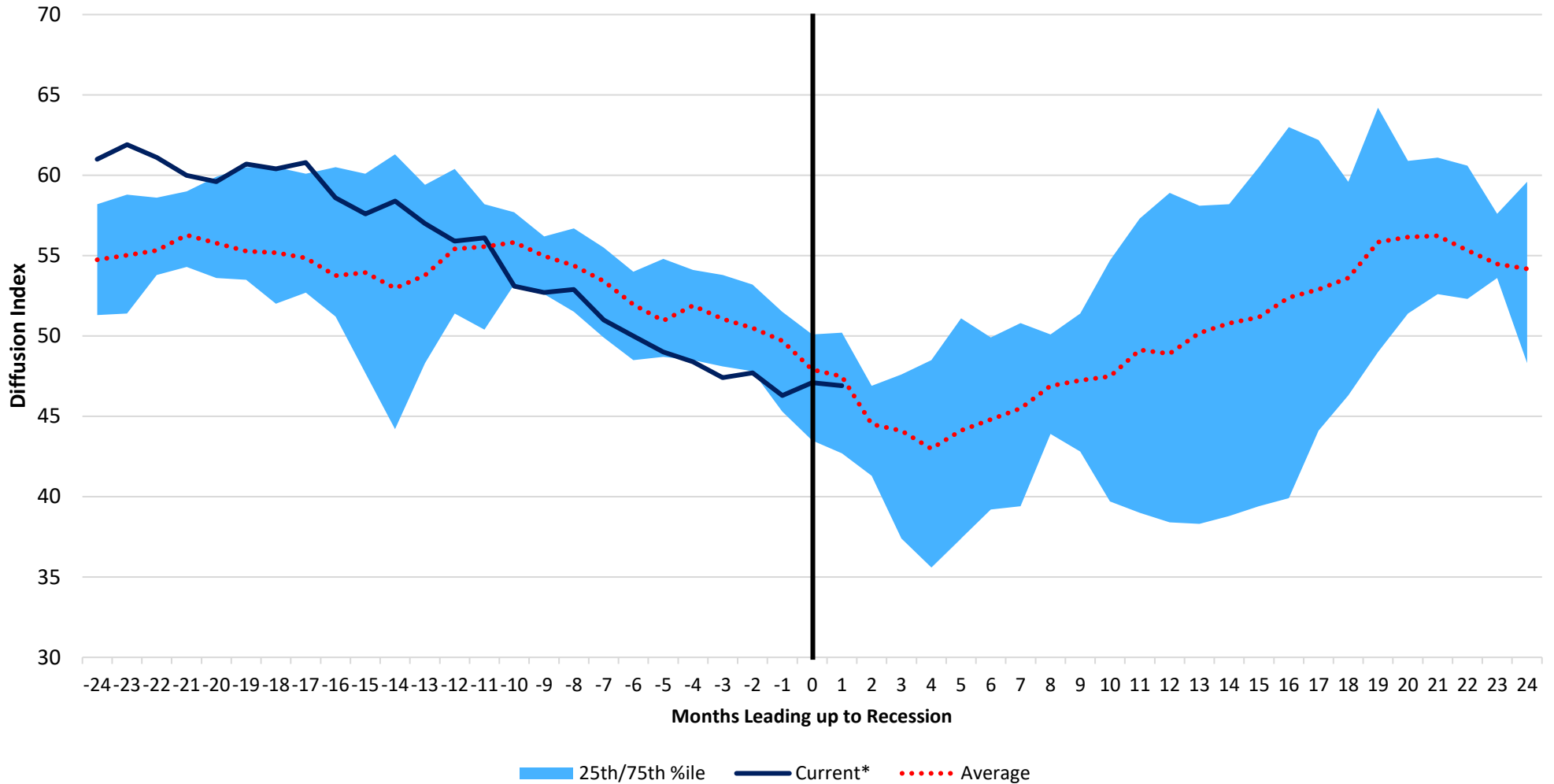
Institute of Supply Management (ISM). Purchasing Managers' Index (PMI) is an indicator of the economic health of the manufacturing sector and is based on new orders, inventory levels, production, supplier deliveries and the employment environment.

ISM PMI Leading Up to Recessions

December 31, 1947, to May 31, 2023



ISM PMI Leading Up to Recessions

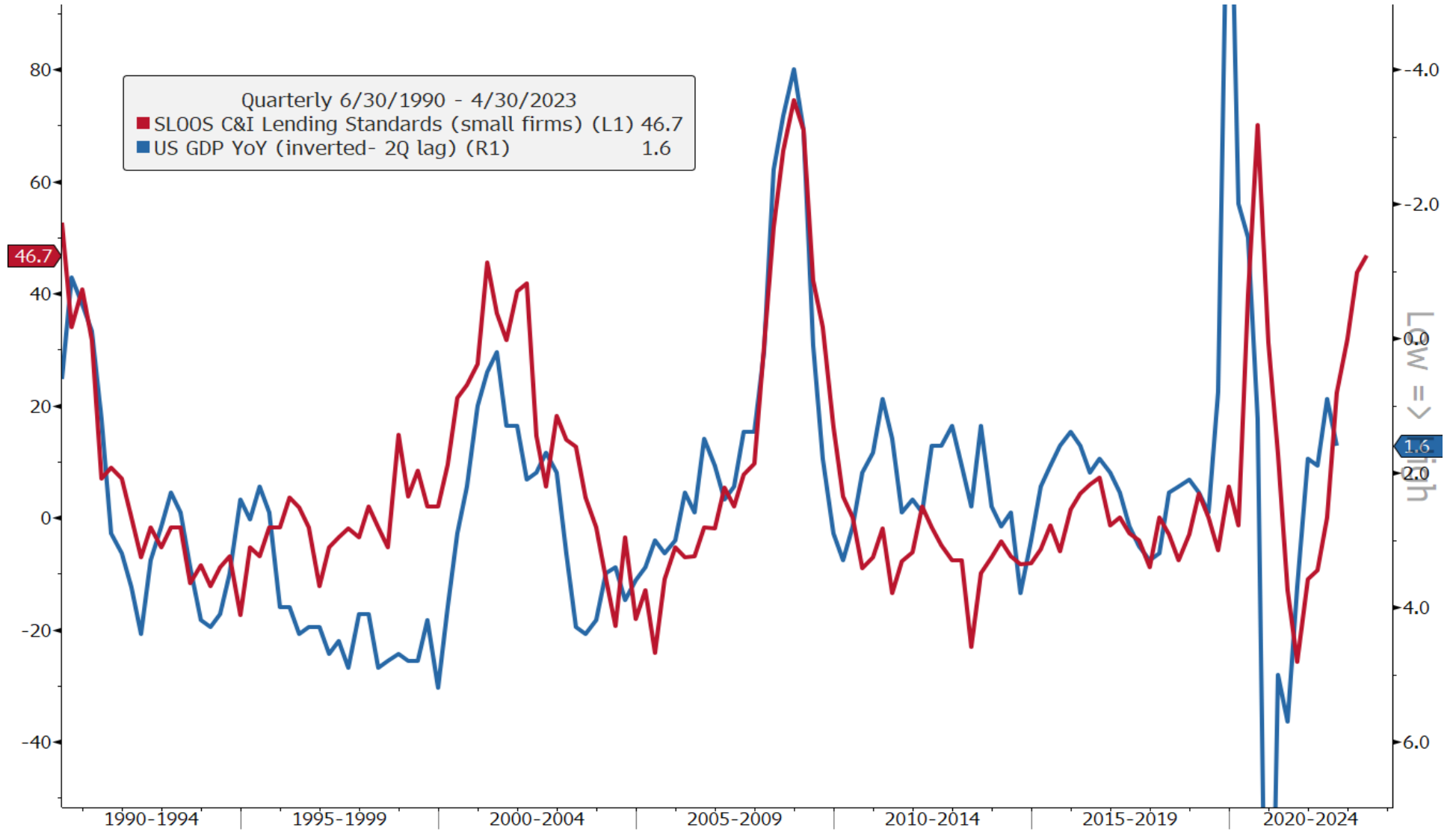


Source: Bloomberg, DoubleLine

*Assumes recession began March 31, 2023.

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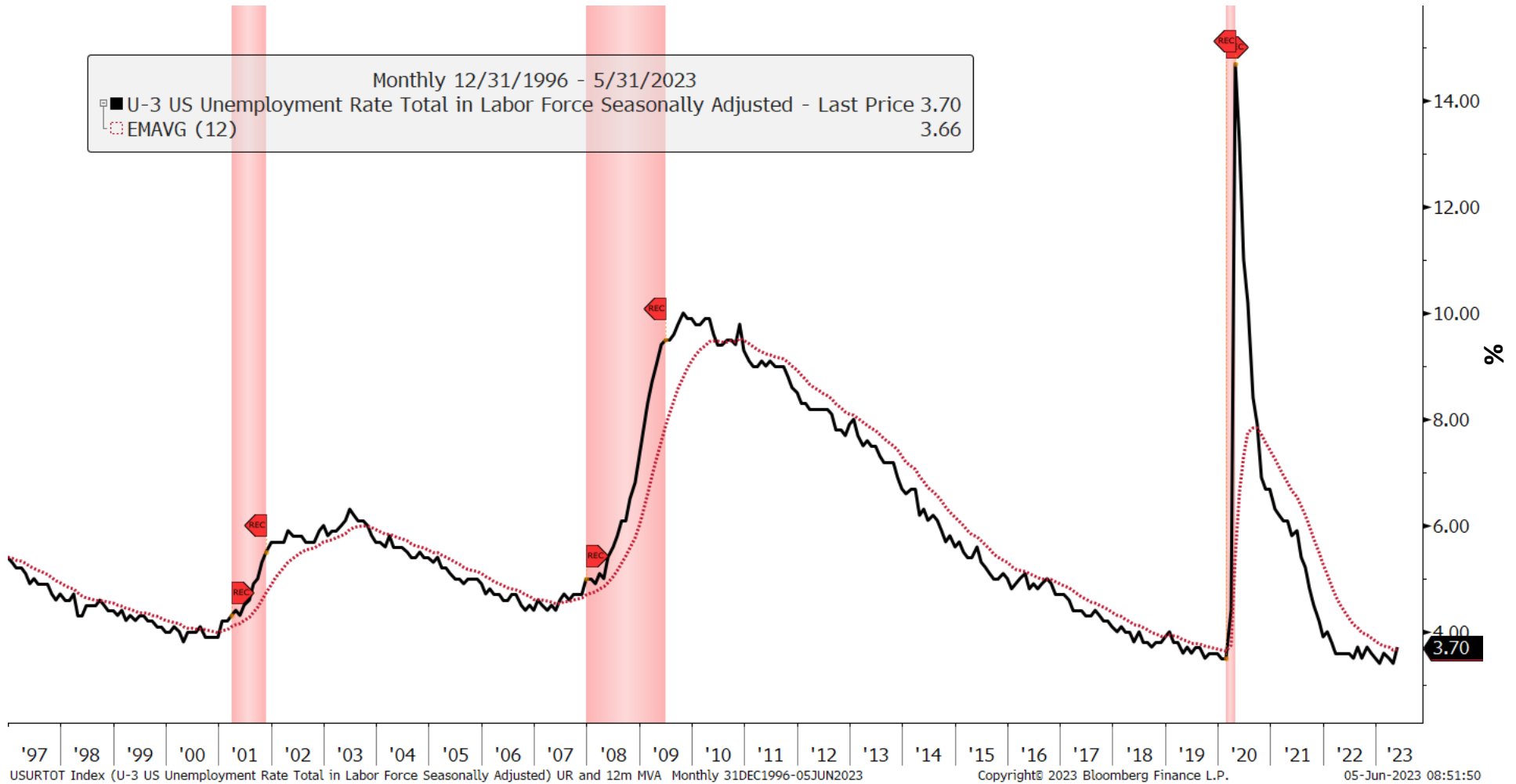
SLOOS C&I Lending Standards to Small Firms and GDP



SLEDTGTS Index (Net % of Domestic Respondents Tightening Standards for C&I Loans for Small Firms) SLOOS and GDP Quarterly 12JUN1990-30APR2023 Copyright© 2023 Bloomberg Finance L.P. 06-Jun-2023 08:40:01

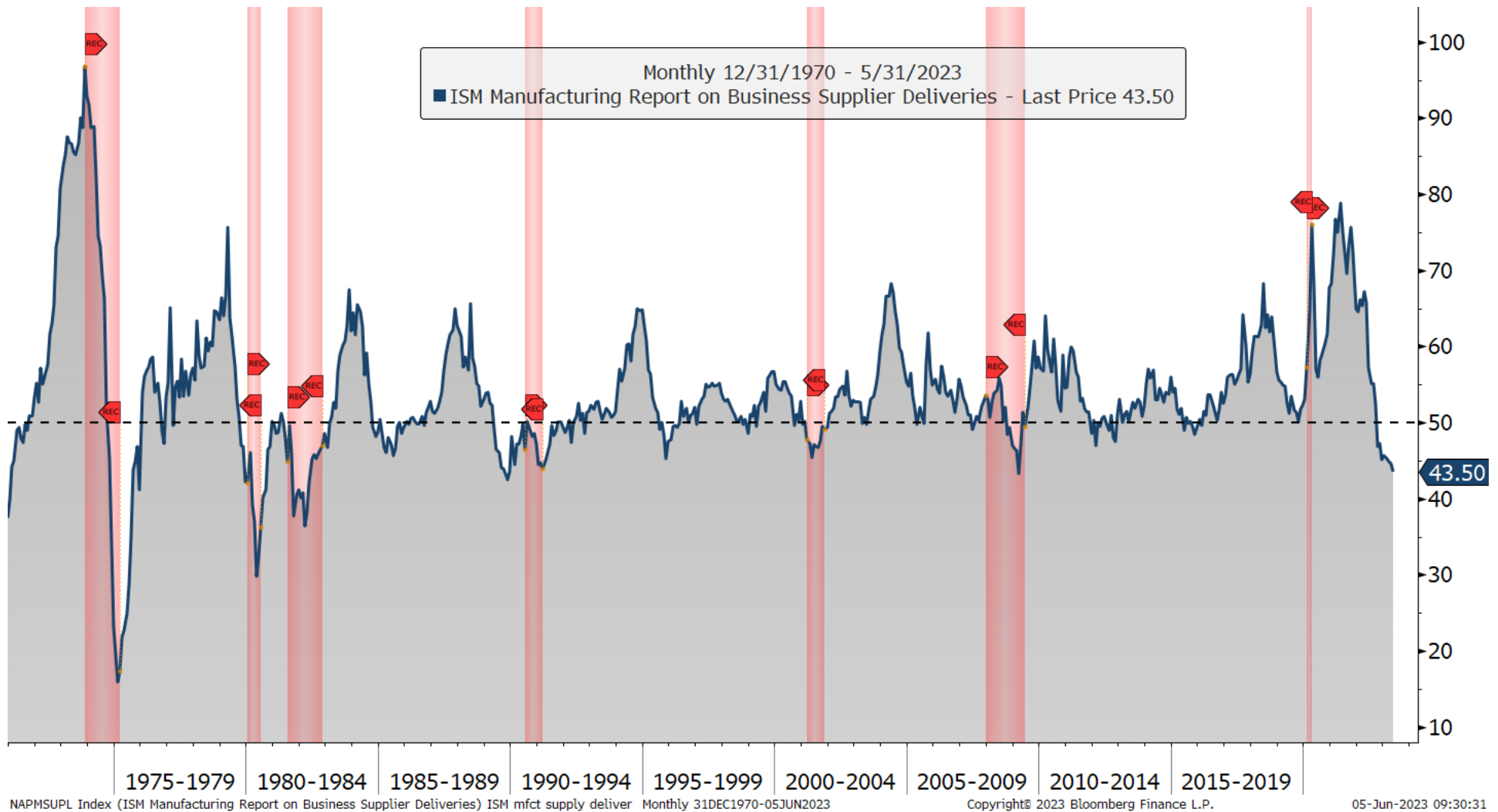
SLOOS = Senior Loan Officer Opening Survey

U.S. Unemployment Rate vs. 12 Month Moving Average and Recessions



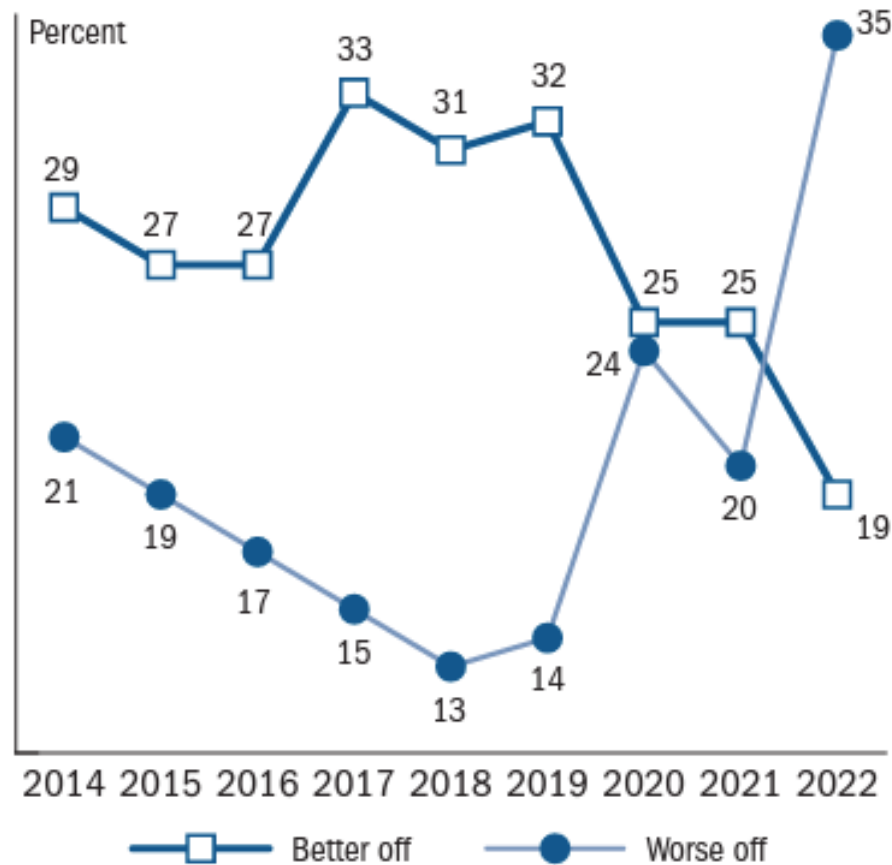
Source: Bloomberg, DoubleLine
EMAVG (12) is 12-month Exponential Moving Average. Red shaded areas indicate recessionary periods. You cannot invest directly in an index.

ISM Manufacturing Supplier Delivery Delays



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

Figure 5. Financial situation compared with 12 months prior (by year)



Source: Federal Reserve, released May 23, 2023

Note: Adult defined as over 18 years of age. This survey tracks overall financial well-being by asking respondents whether they are better or worse off financially than they were 12 months earlier. Measuring well-being in this way helps track changes in perceived well-being over time, as some individuals may feel worse off financially than they were a year earlier, for instance, even if they feel they are still doing okay overall (or that their financial well-being is improving even if they are still struggling overall).

Exhibit 4: Change in the number of households receiving unemployment benefits through direct deposit (% YoY)

Unemployment appears to have risen faster in the higher-income group

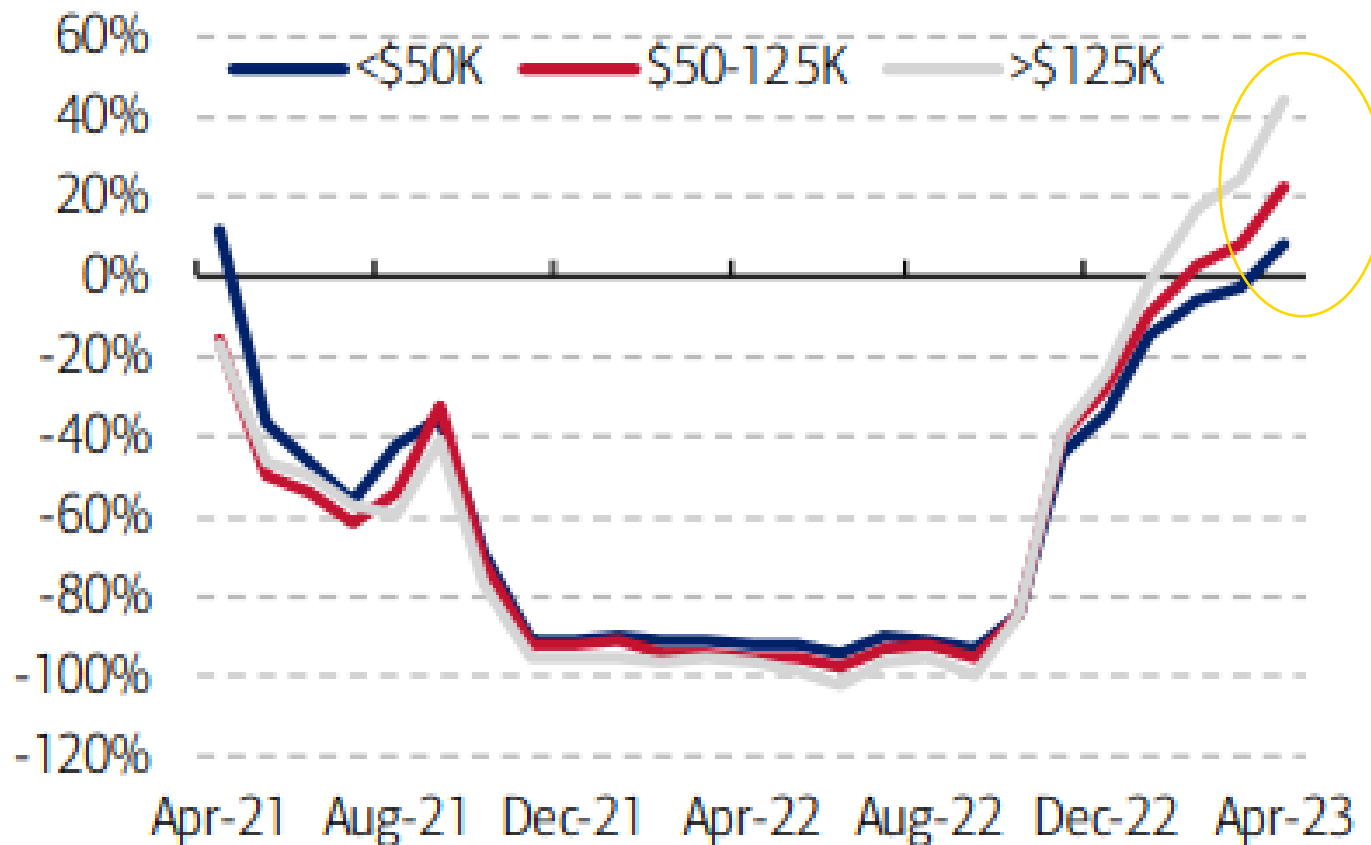
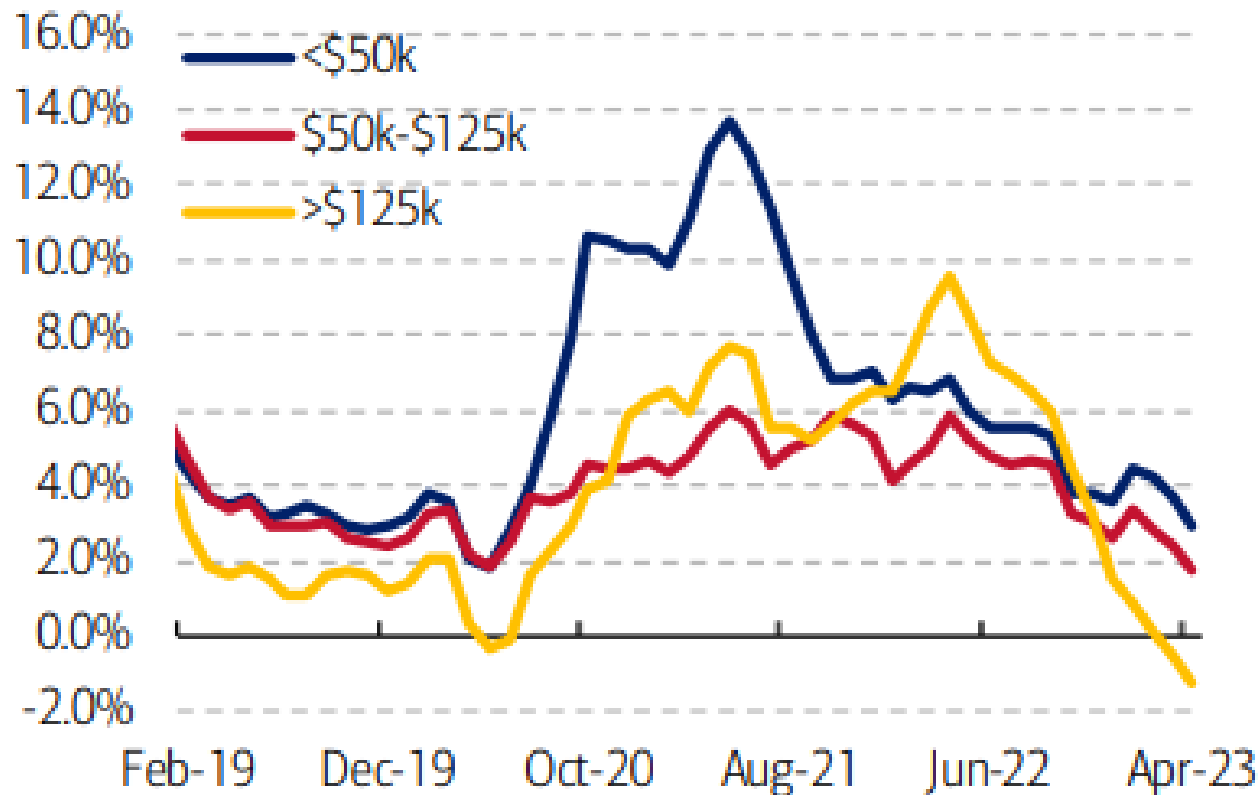
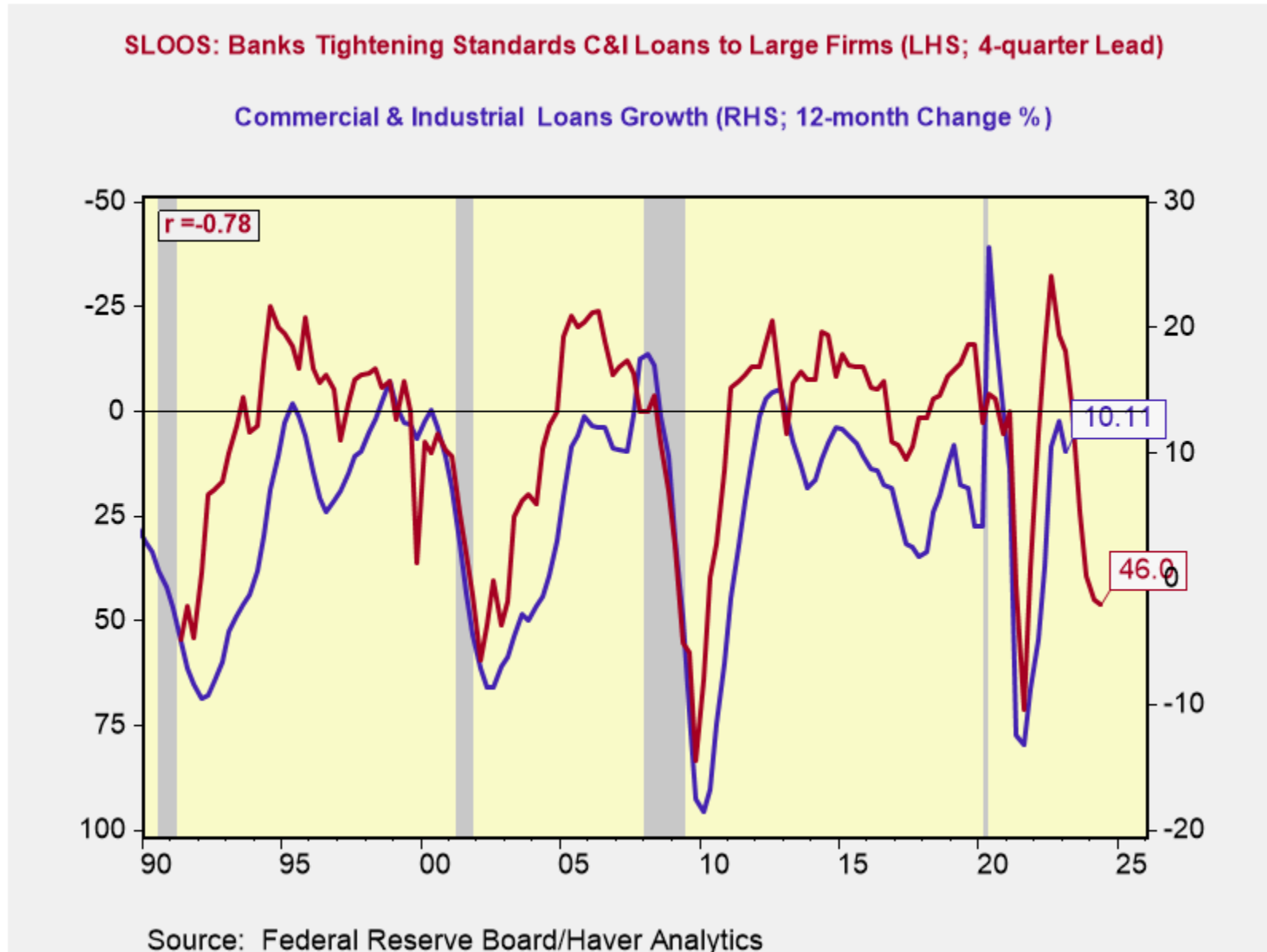


Exhibit 5: After-tax wages and salaries growth by income group, based on Bank of America aggregated consumer deposit data (%YoY, 3-month moving average, SA)

Higher-income households are seeing the fastest slowdown in wage growth

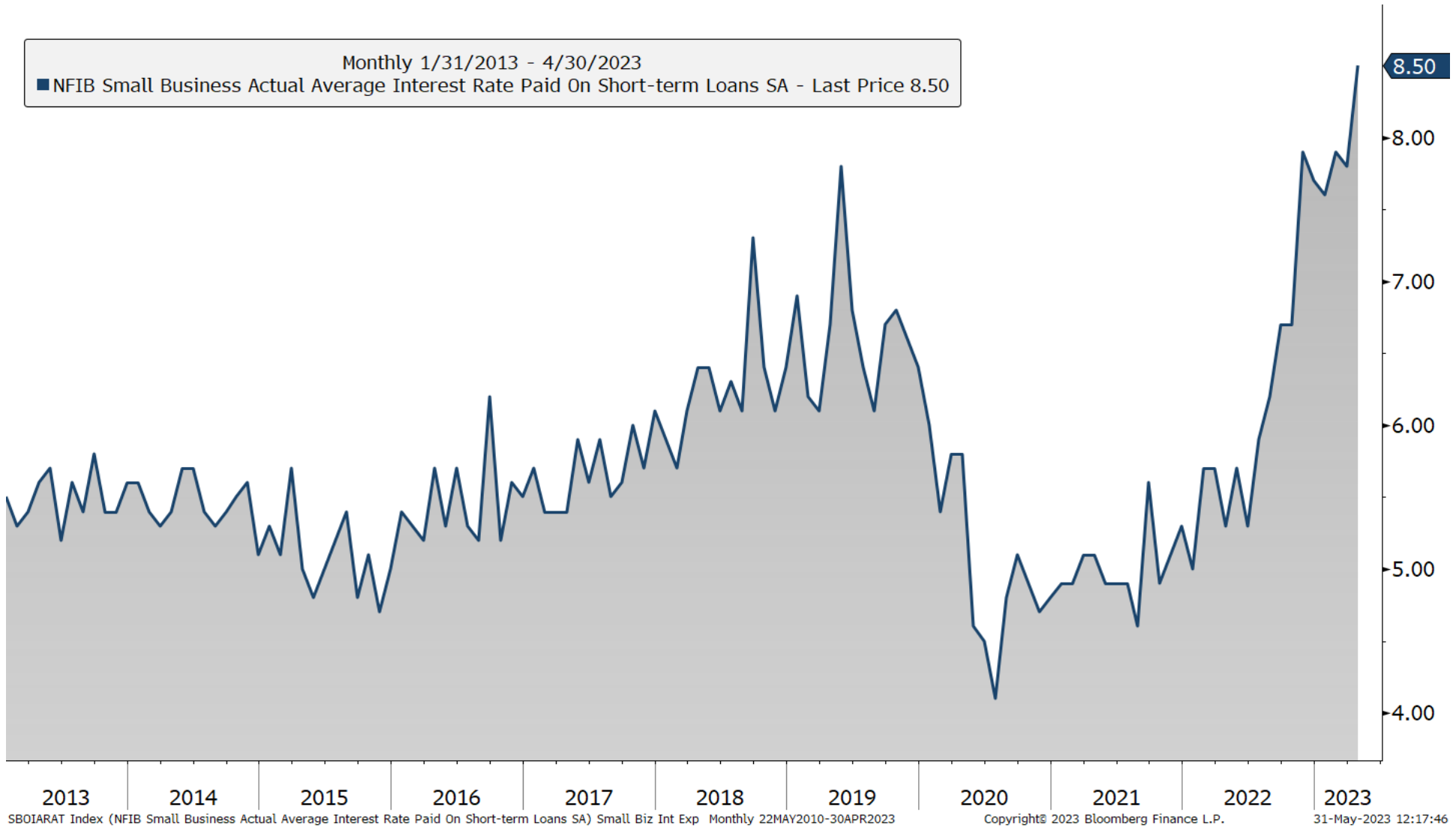


Change in C&I Loans and Tightening Lending Standards (4 quarter lead; inverted)



Source: Federal Reserve Board, Haver Analytics
SLOOS is the Senior Loan Officer Opening Survey

Small Business Average Interest Paid on Short-Term Loans



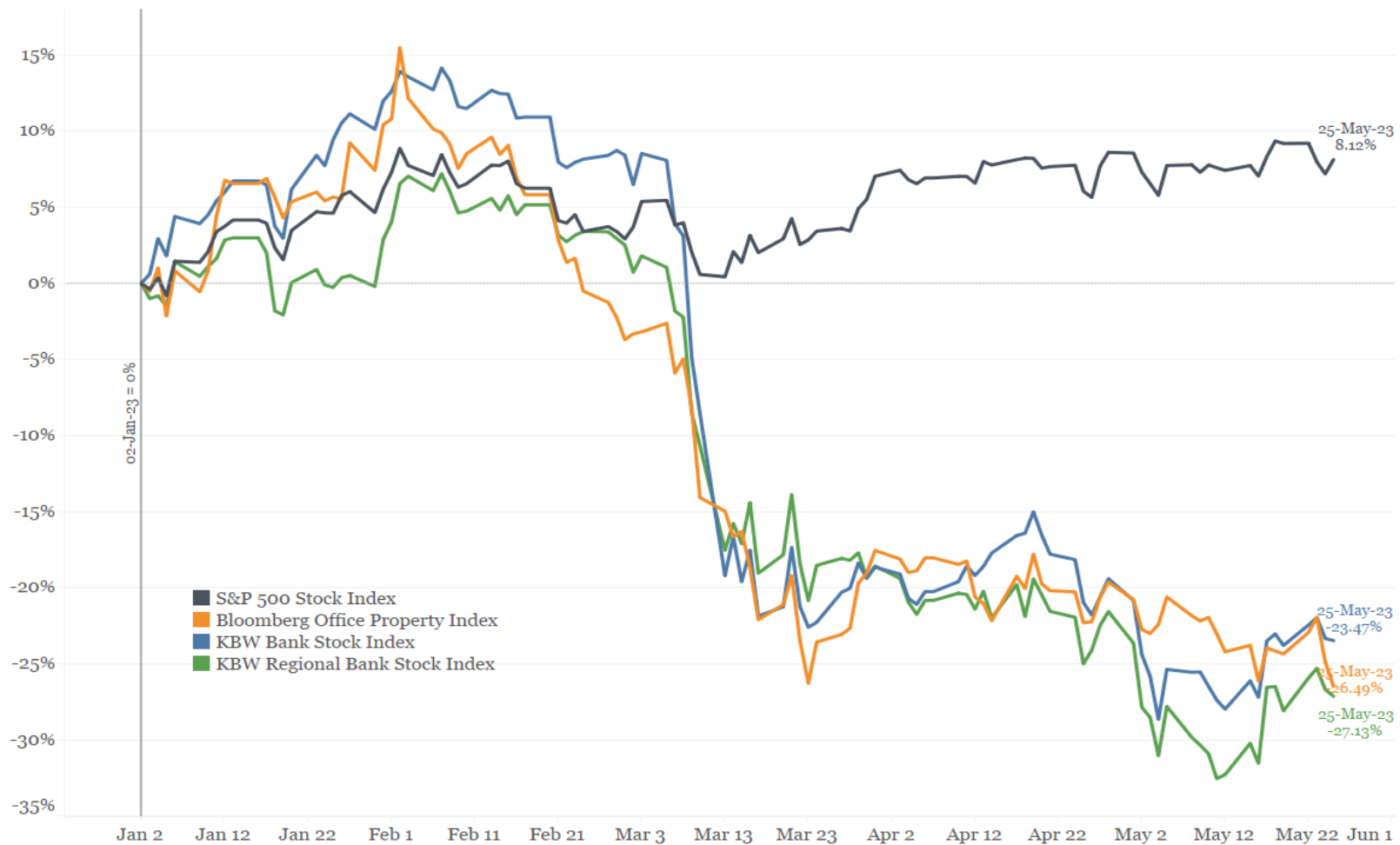
Source: Bloomberg, DoubleLine

National Federation of Independent Business (NFIB) Small Business Optimism Index is a composite of ten seasonally adjusted components indicating the health of small businesses in the U.S. You cannot invest directly in an index.

Real Estate/Bank Struggles



Banks and Real Estate Both Struggle
02-Jan-23 to 25-May-23



Data Source: Bloomberg

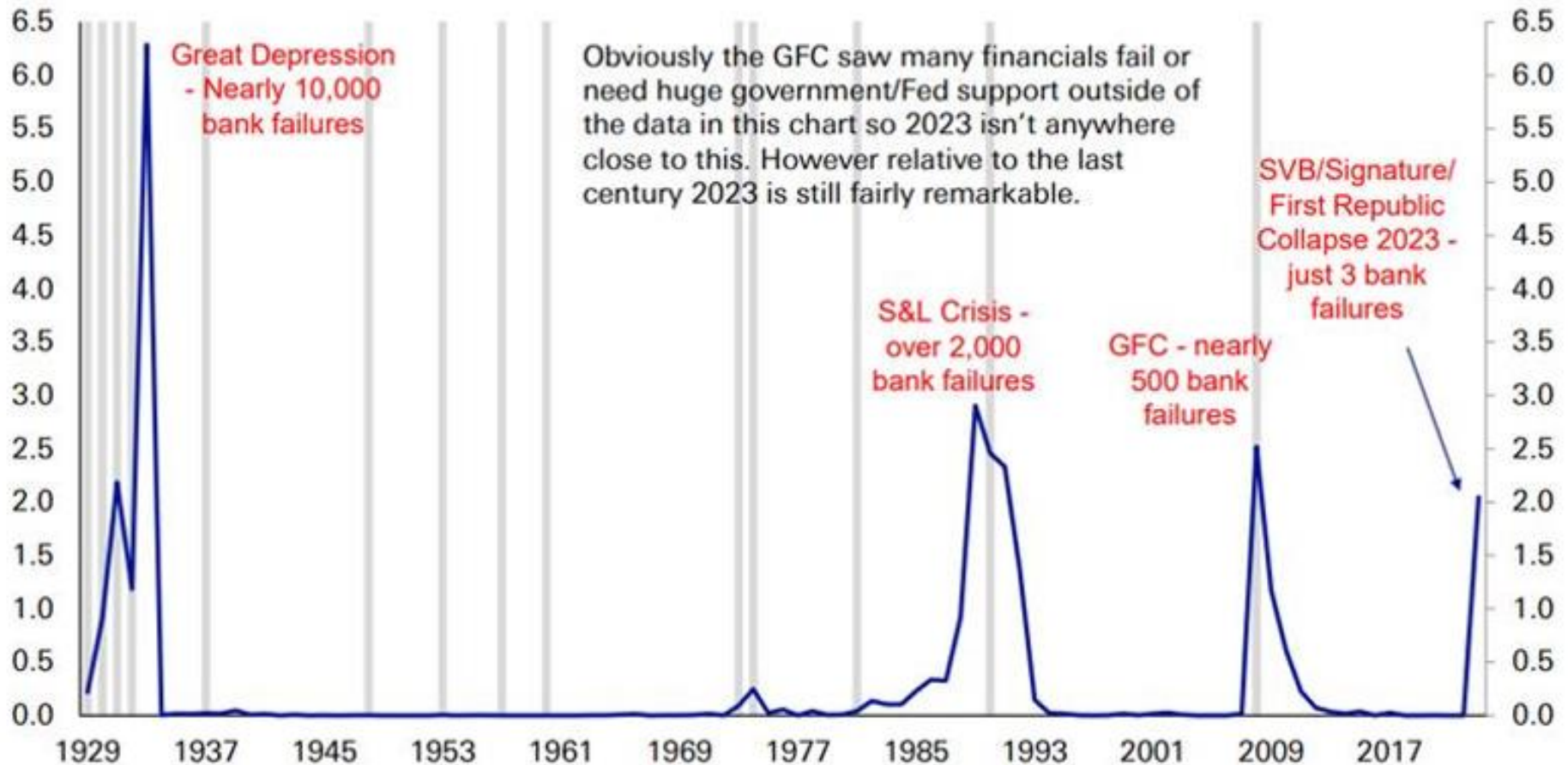
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<https://www.biancoresearch.com/>

Source: Bloomberg, DoubleLine

See the Appendix for Index definition. You cannot invest directly in an index. KBW Bank Index – This index tracks the performance of the leading banks and thrifts that are publicly traded in the U.S. The index includes 24 banking stocks representing the large U.S. national money centers, regional banks and thrift institutions. KBW Regional Banking Index – This modified market-capitalization-weighted index tracks the performance of U.S. publicly traded regional banks and thrifts.

Bank Failures as % of GDP

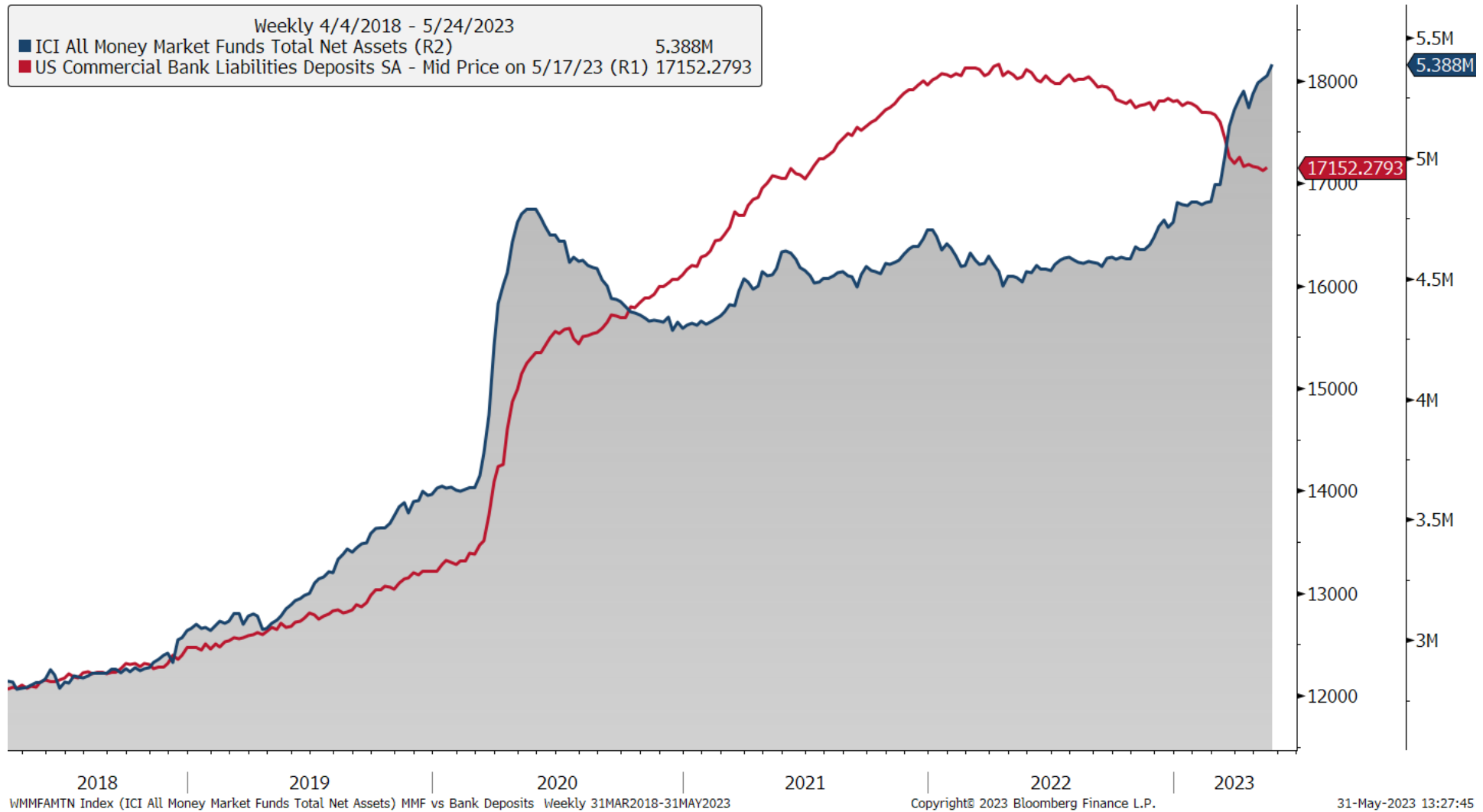
Total Asset Value of FDIC Failed Banks (% GDP per year)



Source: Deutsche Bank

Gross Domestic Product (GDP) measures the amount of goods and services produced within a given country. Global Financial Crisis (GFC). Gray shaded areas indicate recessionary periods. You cannot invest directly in an index.

Bank Total Deposits and Assets in Money Market Funds



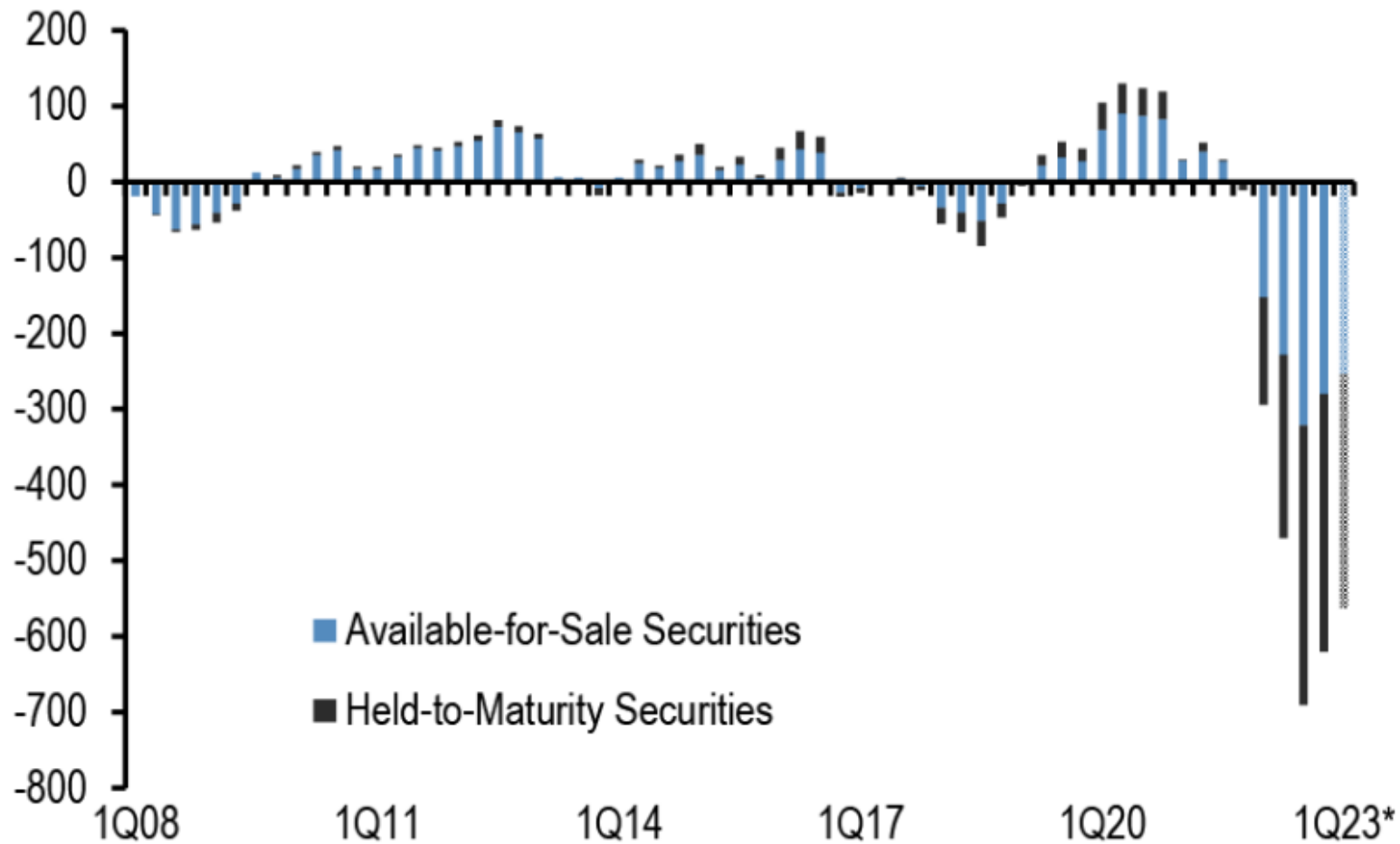
Source: Bloomberg, DoubleLine
 Seasonally Adjusted (SA)

U.S. Bank Unrealized Gains (Losses) on Investment Securities



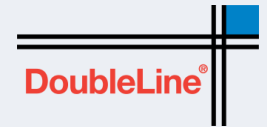
FDIC-Insured Institutions' Unrealized Gains (Losses) on Investment Securities

\$bn. Shaded columns for 1Q23 are estimates based on quarterly results.

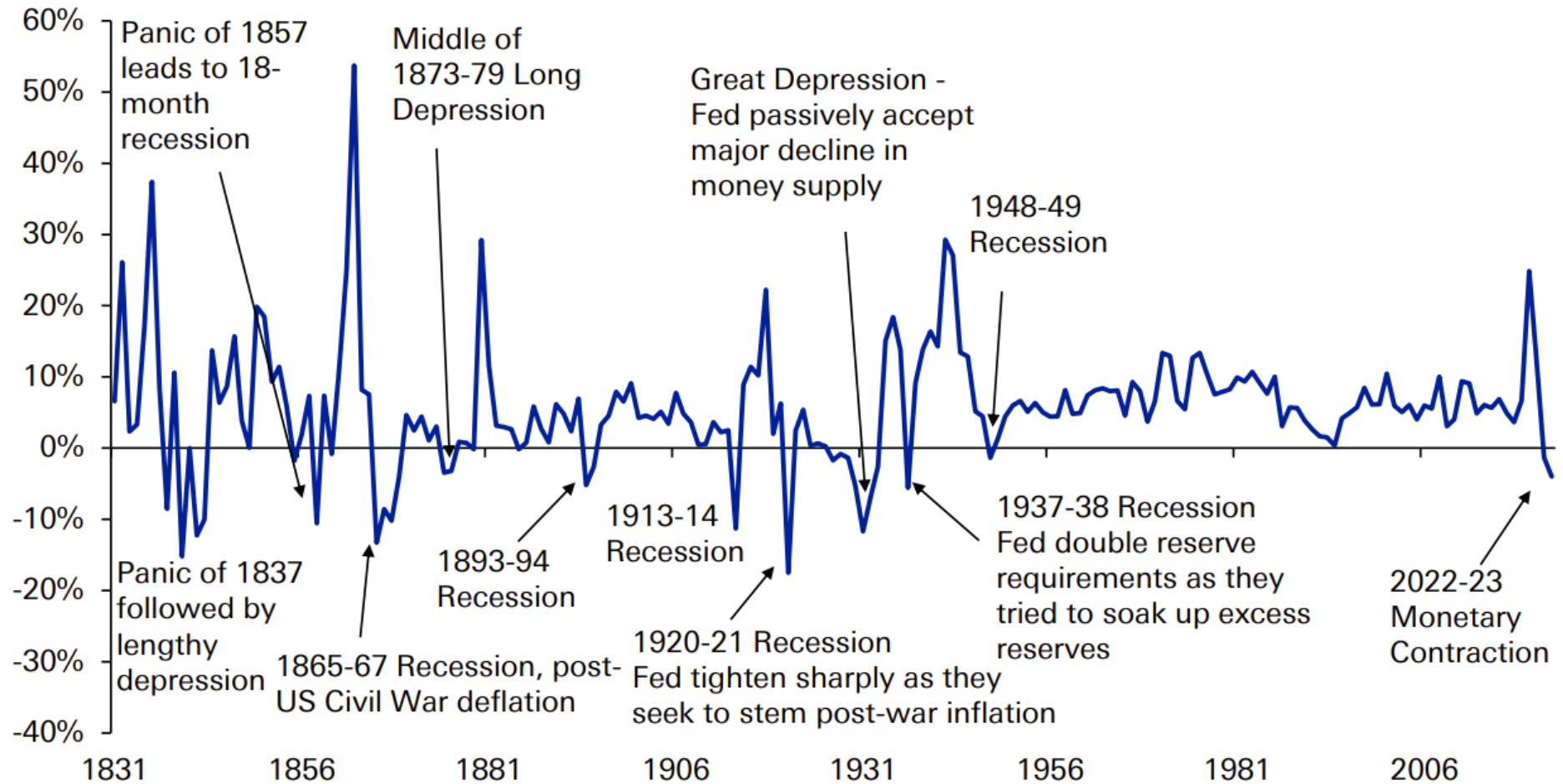


Source: FDIC, Bloomberg Finance L.P., J.P. Morgan

U.S. Money Supply (YoY)

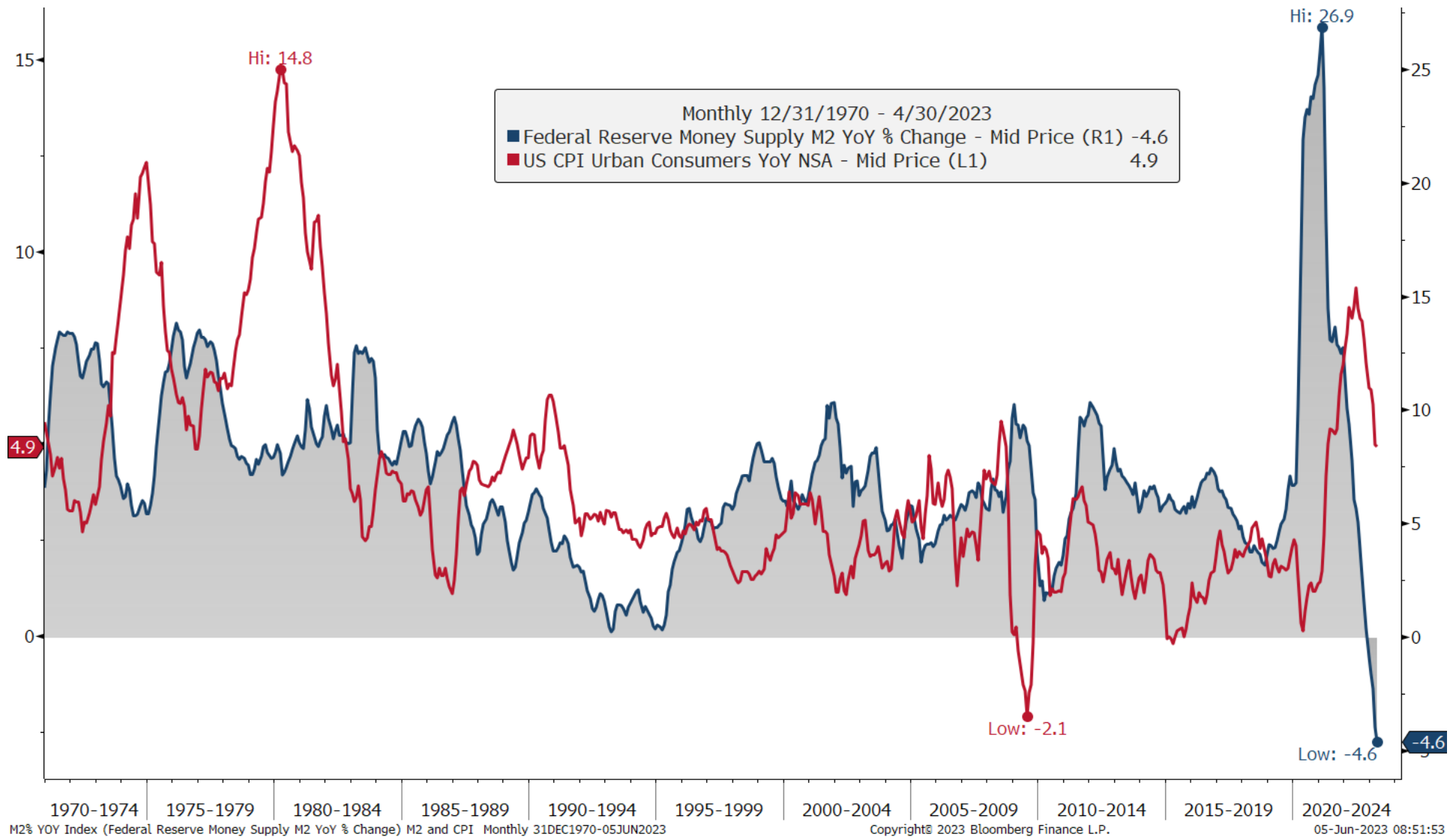


Blended U.S. Money Supply (Year-on-Year % Change)



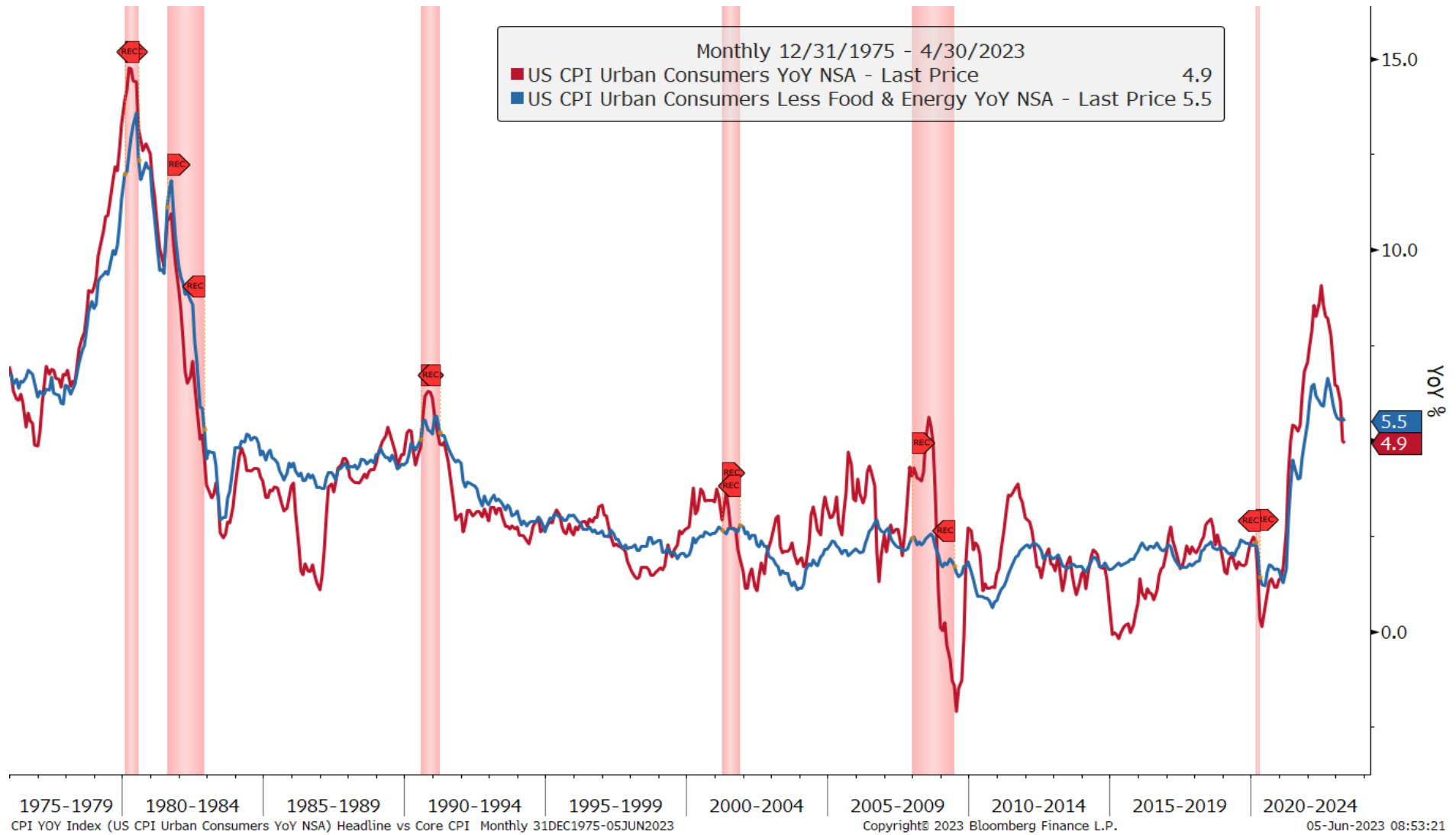
Source: GFD, Bloomberg Finance LP, Deutsche Bank
Please see the Appendix for index definitions. You cannot invest directly in an index.

U.S. M2 vs. CPI (YoY)



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

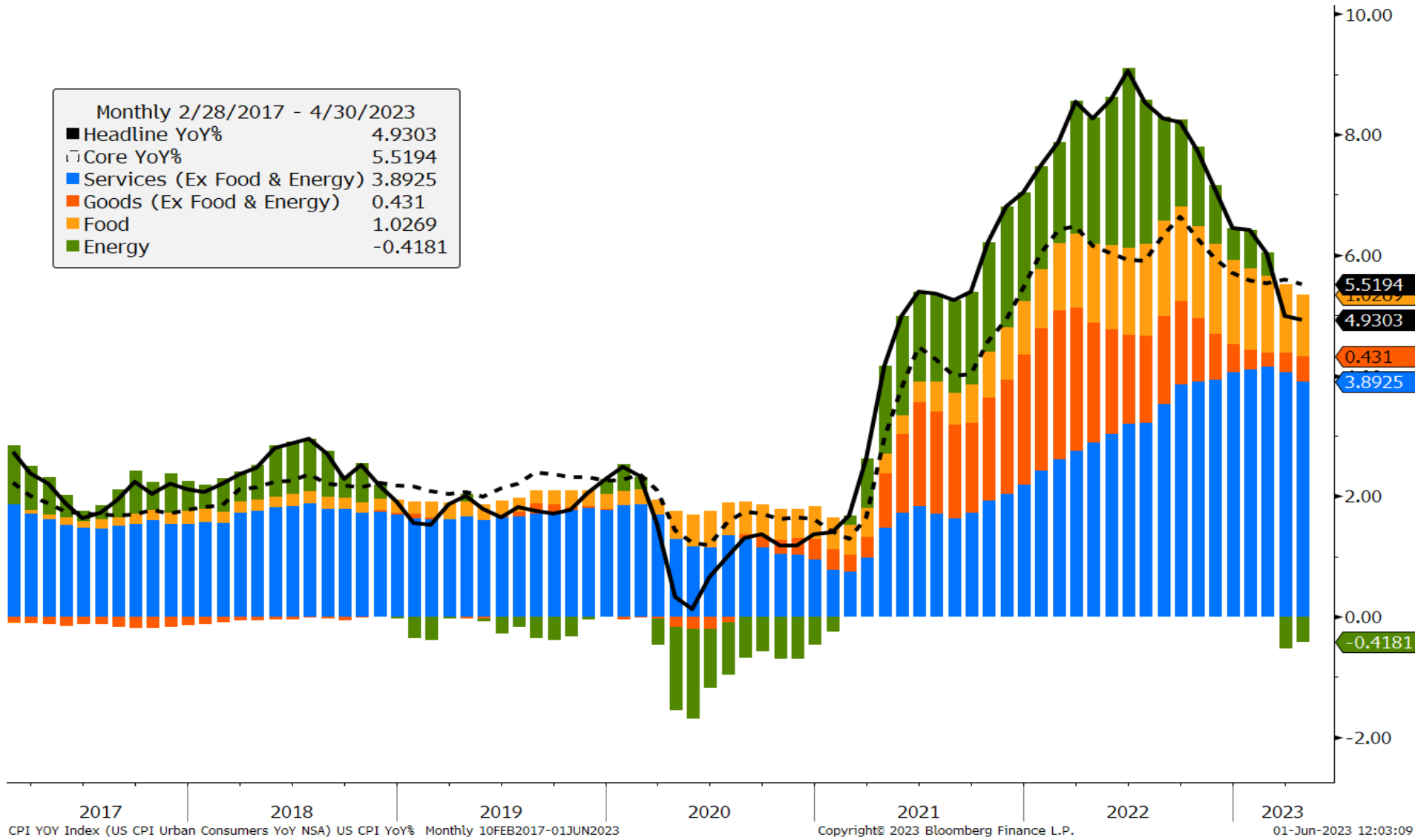
U.S. CPI (YoY)



Source: Bloomberg, DoubleLine

Consumer Price Index (CPI) which represents a basket of goods and services purchased by households. You cannot invest directly in an index. Red shaded areas indicate recessionary periods

Contribution to Headline Inflation (YoY)



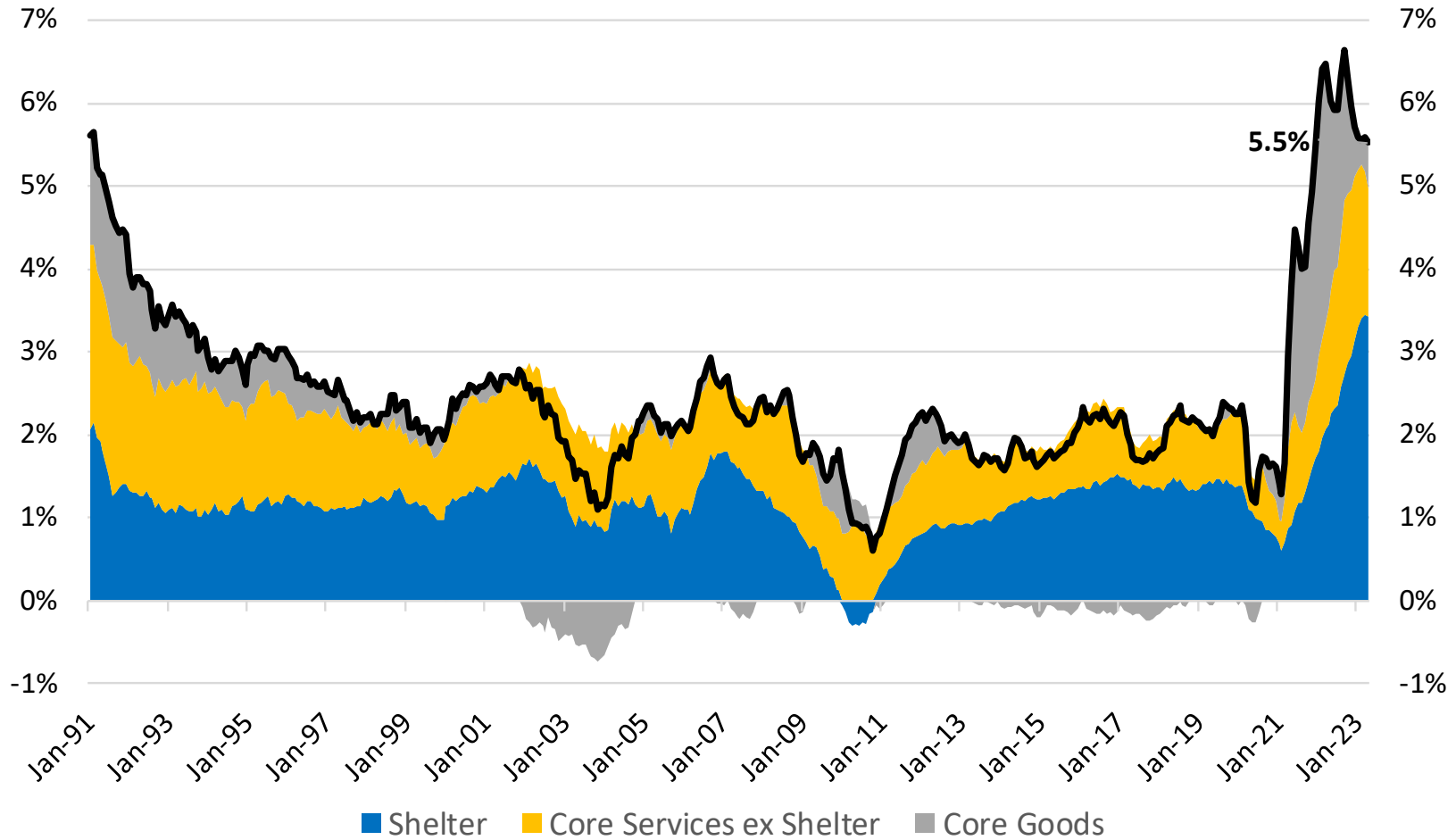
Source: Bloomberg
Please see the Appendix for index definitions. You cannot invest directly in an index.

Contribution to Core Inflation (YoY)

As of May 10, 2023



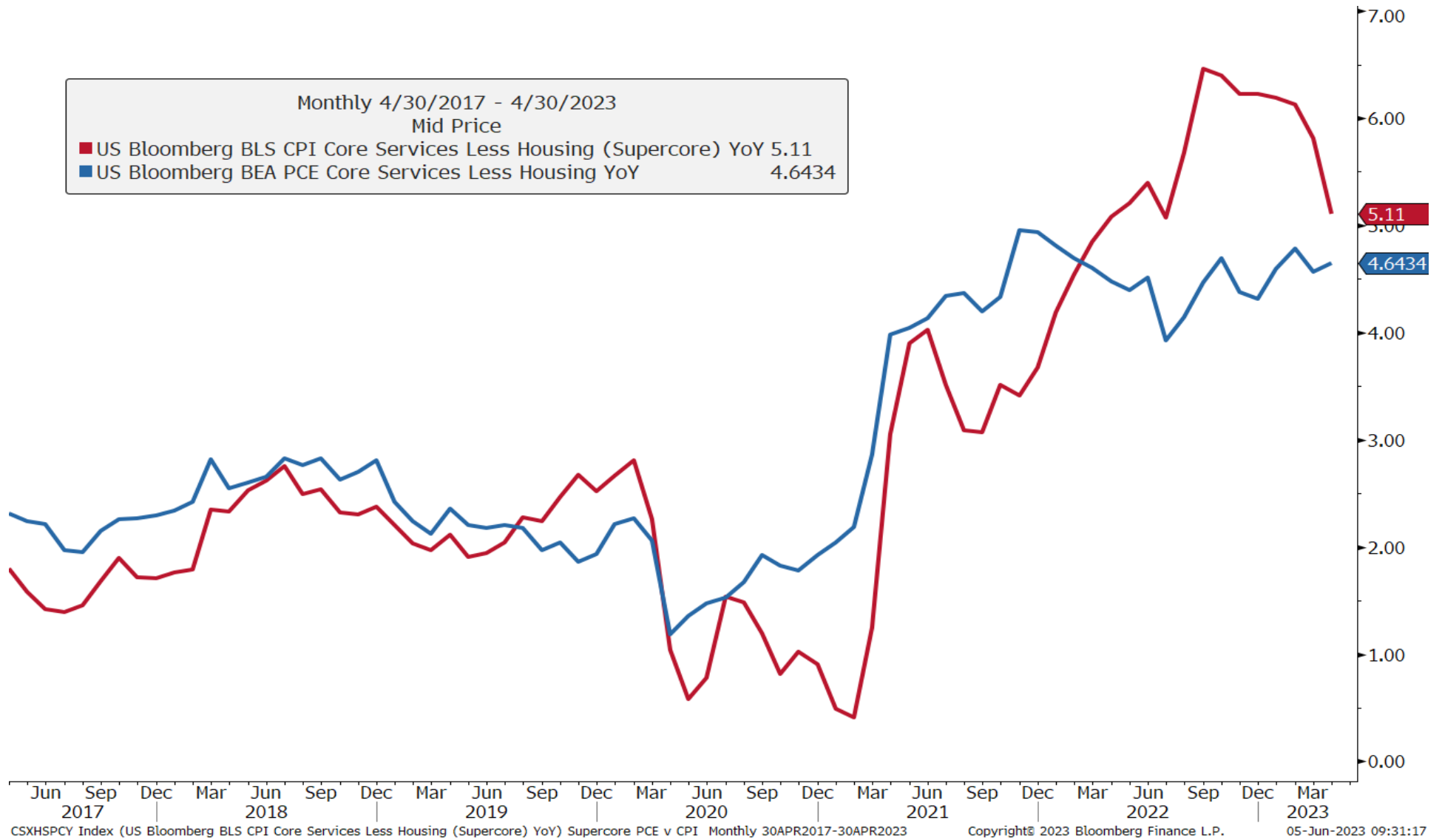
Contribution to U.S. Core CPI Inflation



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

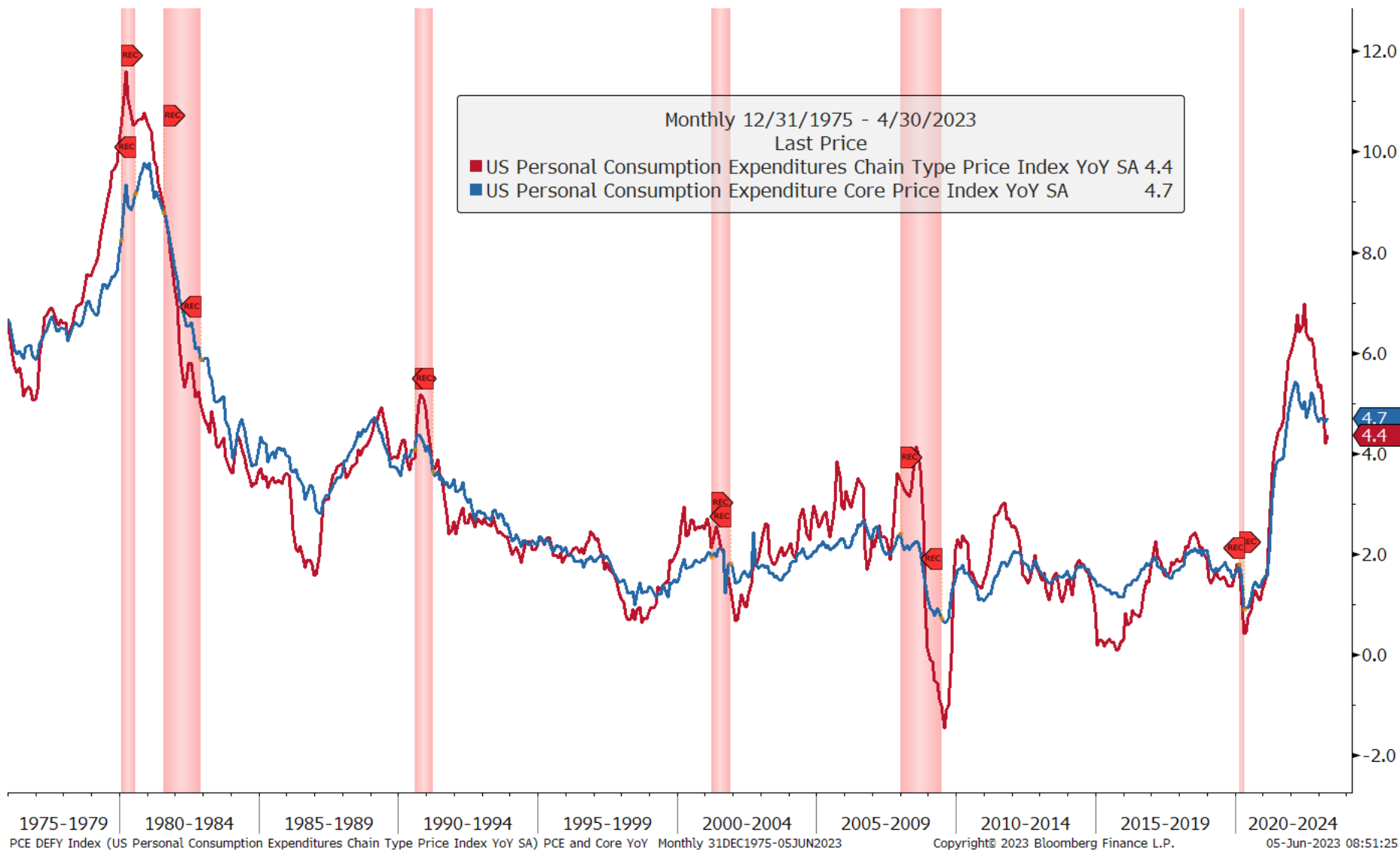
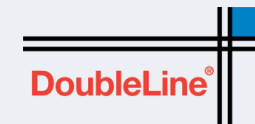
Super Core Inflation

As of May 30, 2023



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

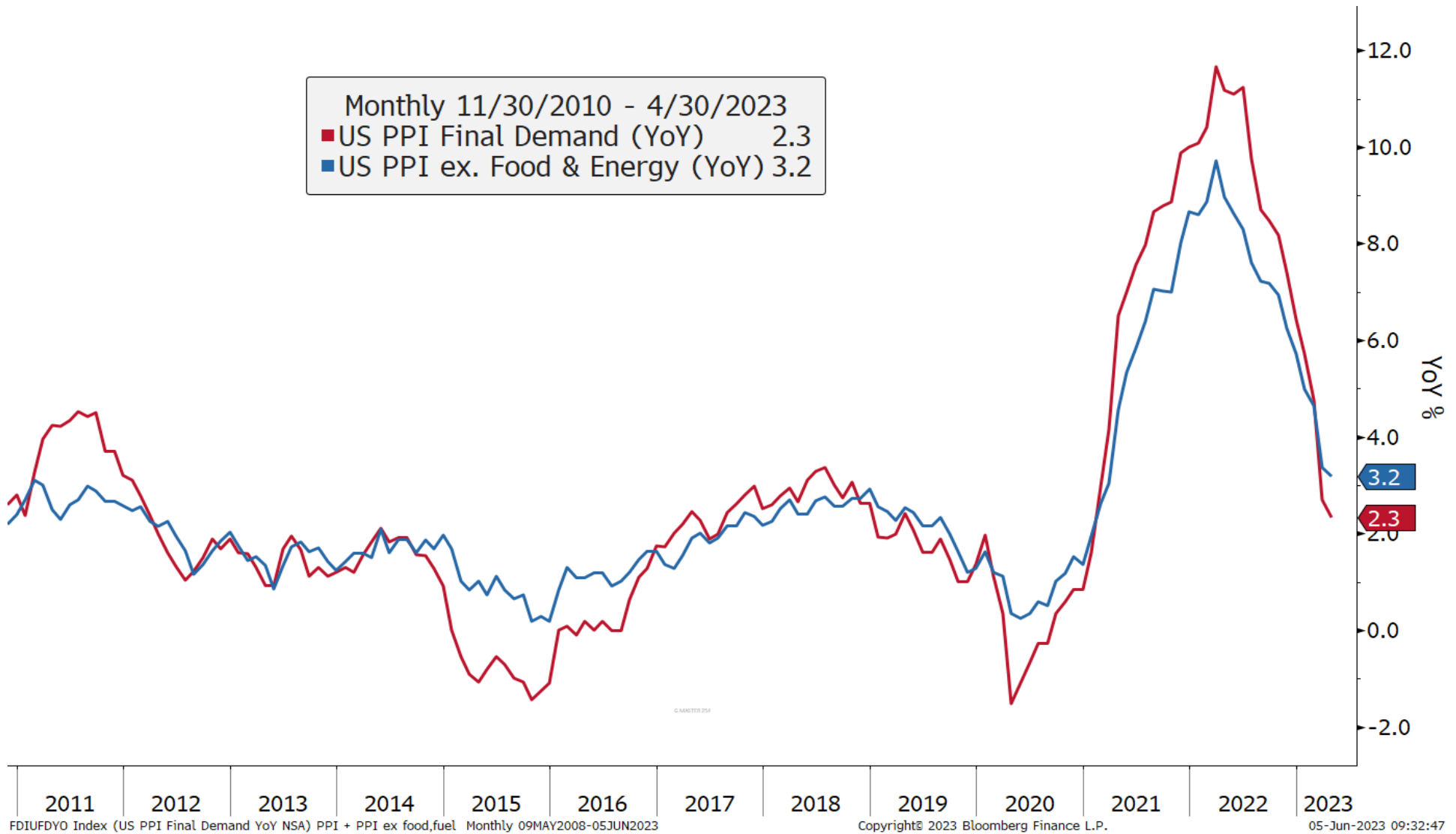
U.S. PCE (YoY)



Personal Consumption Expenditures (PCE) measures the prices that people in the U.S. pay for goods and services. Red shaded area indicate recessionary periods. You cannot invest directly in an index.

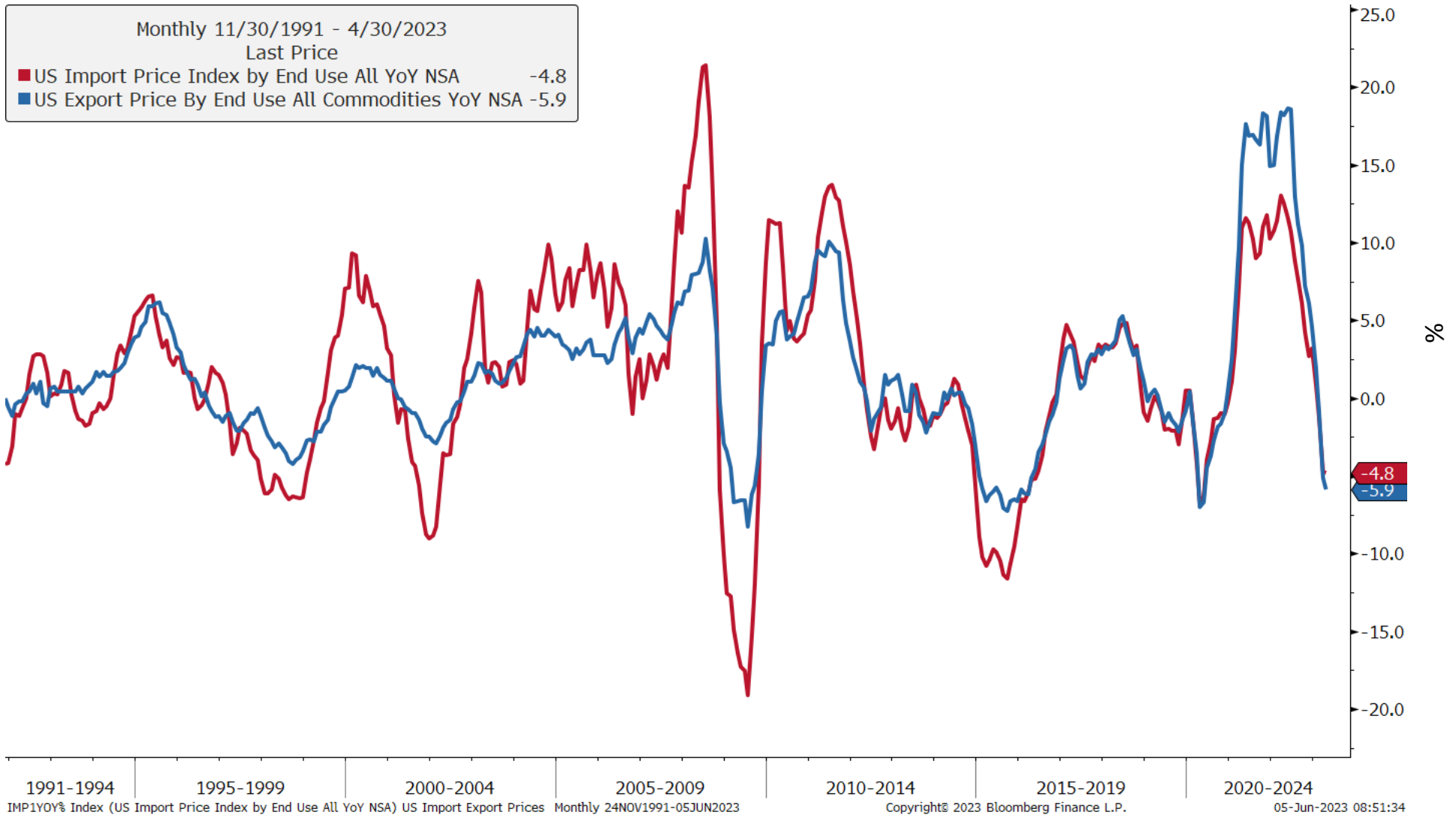
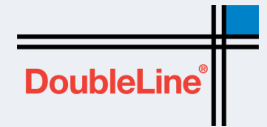
U.S. Producer Prices (PPI)

As of May 26, 2023



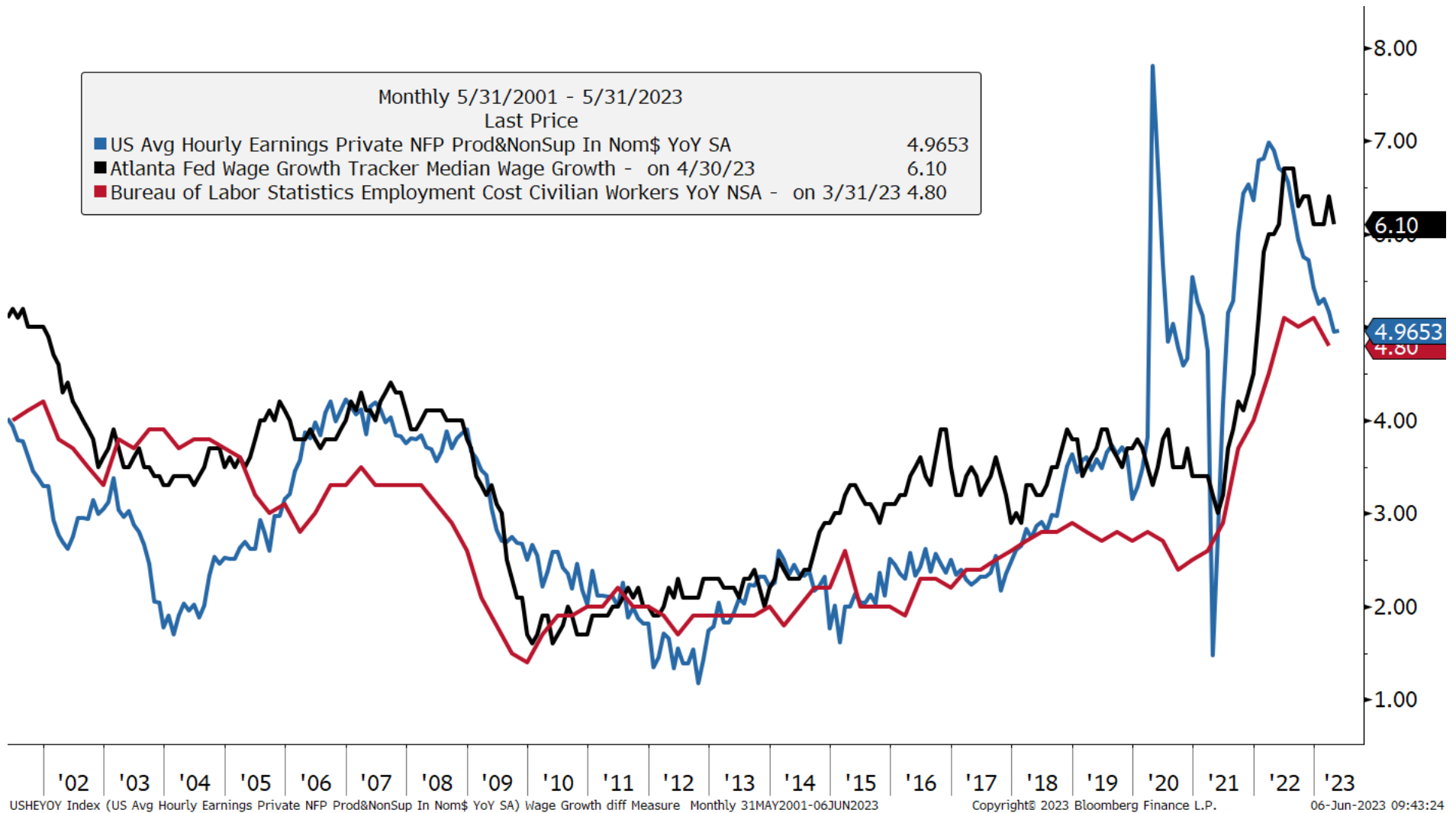
Source: Bloomberg, DoubleLine
Please see the Appendix for index definitions. You cannot invest directly in an index. Non-seasonally adjusted (NSA).

Export and Import Prices (YoY)



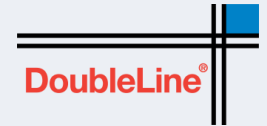
Source: Bloomberg, DoubleLine
Non-Seasonally Adjusted (NSA). Year-over-year (YoY). You cannot invest directly in an index.

Different Measures of Wage Inflation



Source: Bloomberg, DoubleLine

Bloomberg Commodity Index



Source: Bloomberg, DoubleLine

Bloomberg Commodity Index (BCOM) measures a basket of broadly diversified commodity futures. You cannot invest directly in an index. Red shaded areas indicate recessionary periods.

Gold Long Term



Source: Bloomberg, DoubleLine

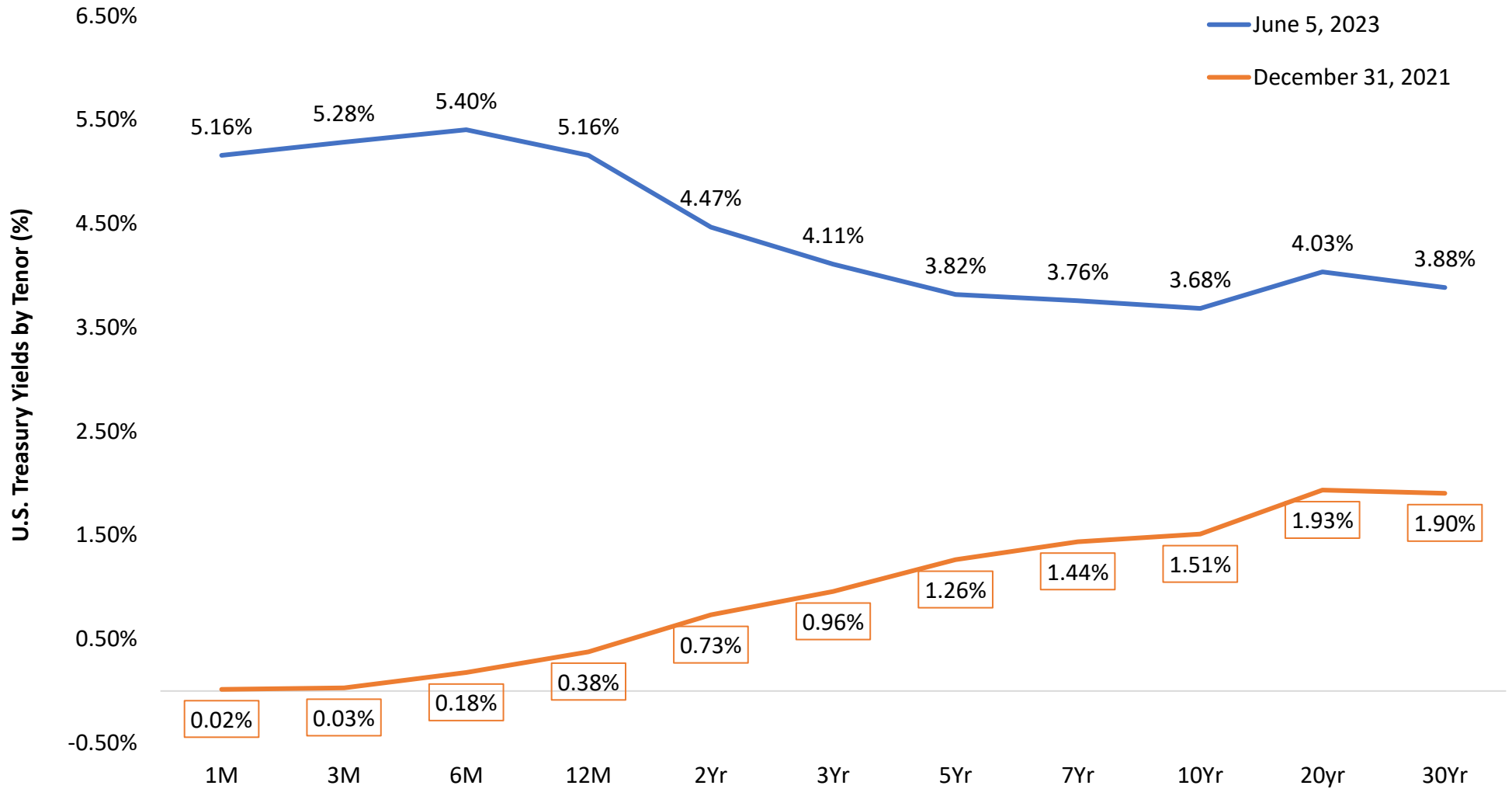
Core CPI and Unemployment Rate When Fed Starts Rate Cuts



Source: Haver Analytics, Bloomberg Finance LP, Deutsche Bank
Consumer price index (CPI) which measures prices changes over time for a consumer basket of goods. You cannot invest directly in an index.

U.S. Treasury Curve

As of June 5, 2023

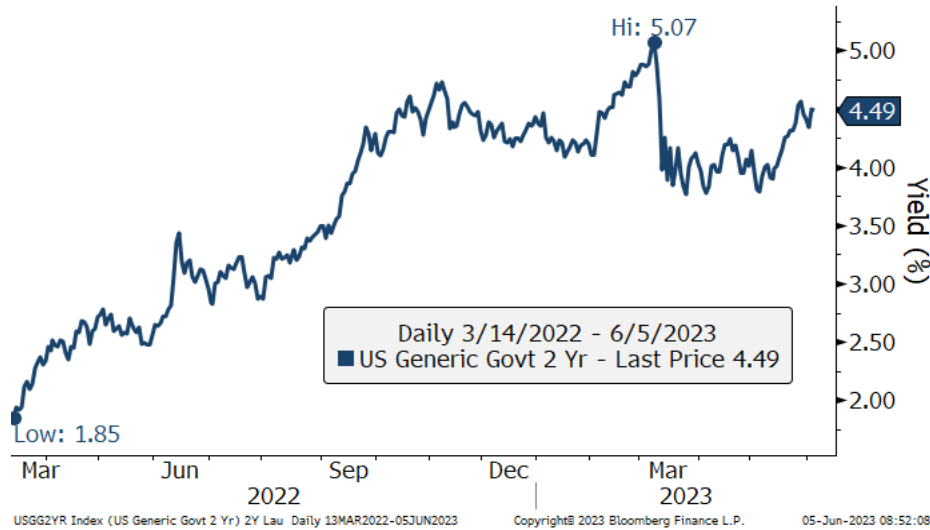


Source: Bloomberg, DoubleLine

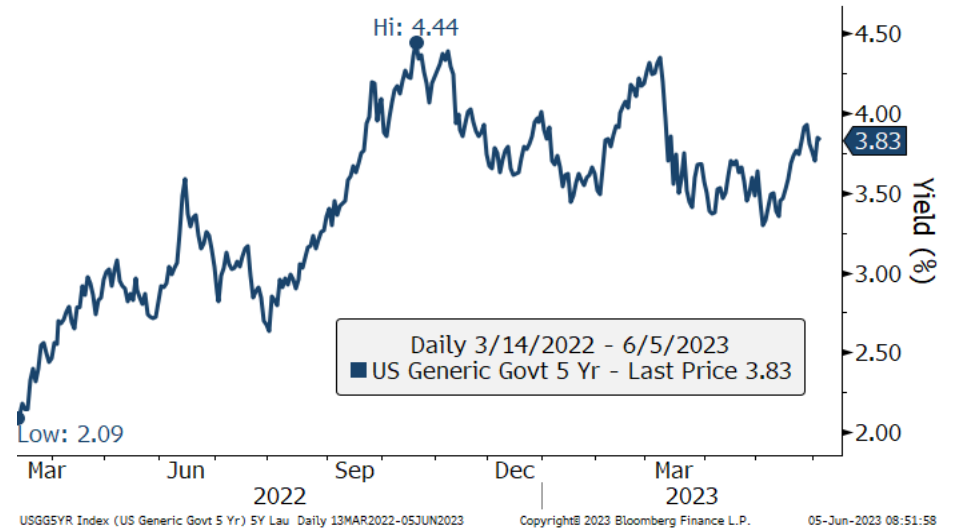
U.S. Interest Rates



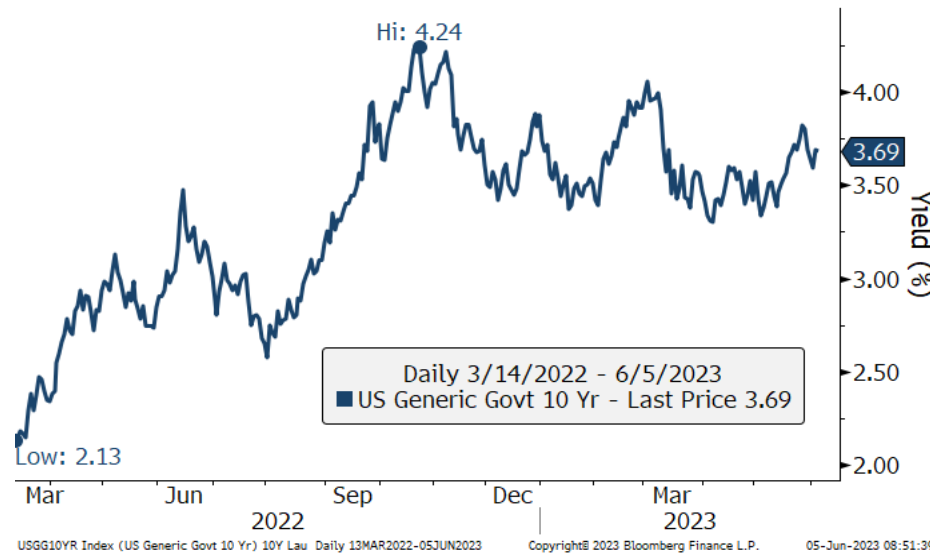
UST 2-year Yield



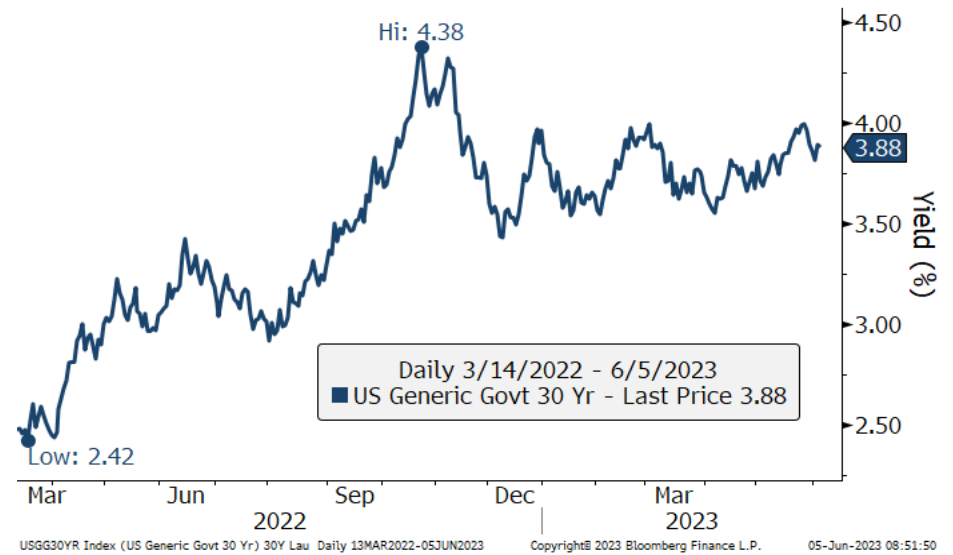
UST 5-year Yield



UST 10-year Yield

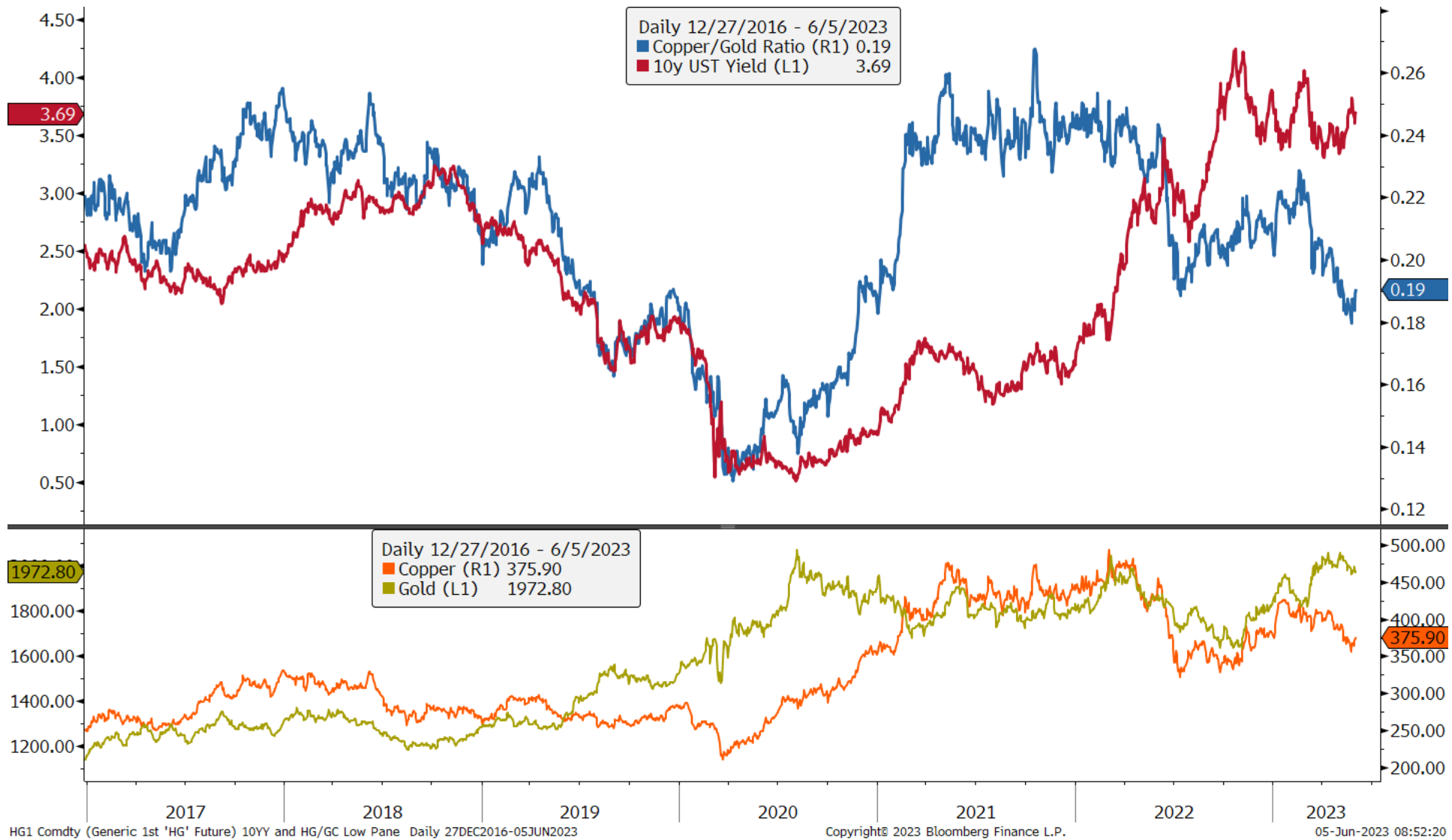
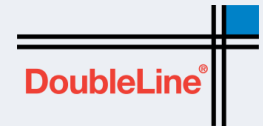


UST 30-year Yield



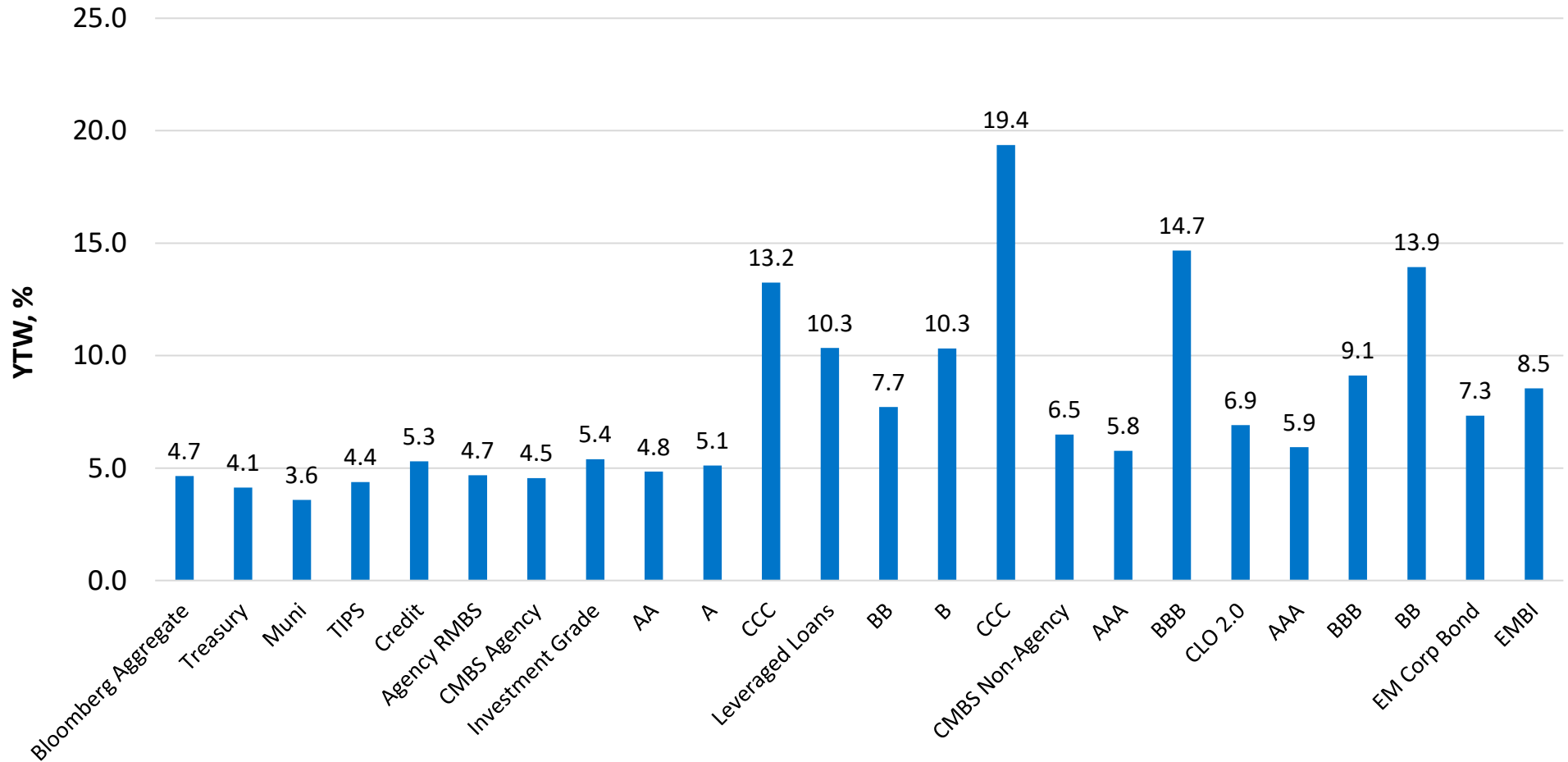
Source: Bloomberg, DoubleLine

Copper/Gold Ratio vs. UST 10-year Yield



Source: Bloomberg, DoubleLine

Selected Fixed Income Sectors Yield to Worst

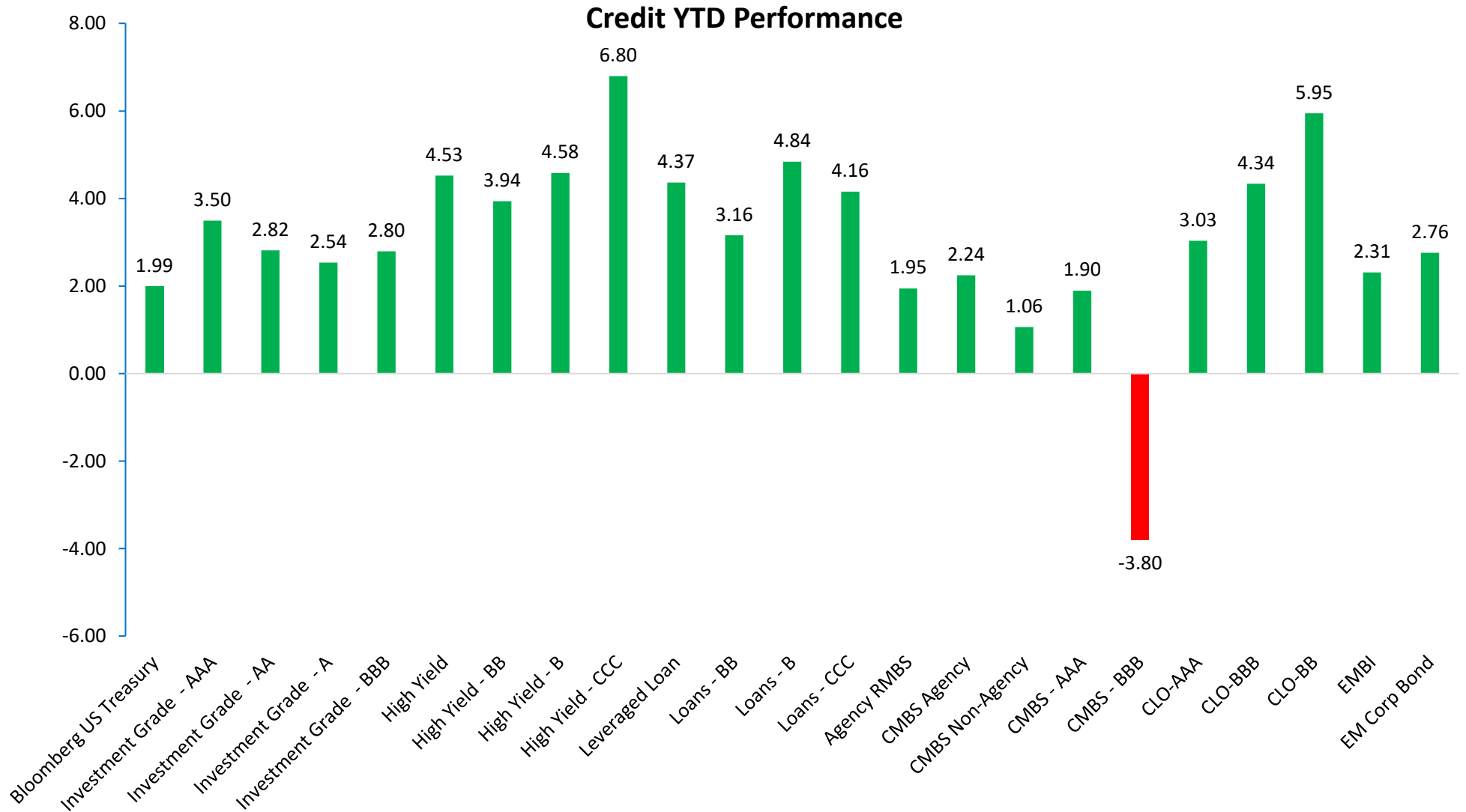


As of June 2, 2023
 Source: Bloomberg, DoubleLine
 Yield to Worst (YTW)

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

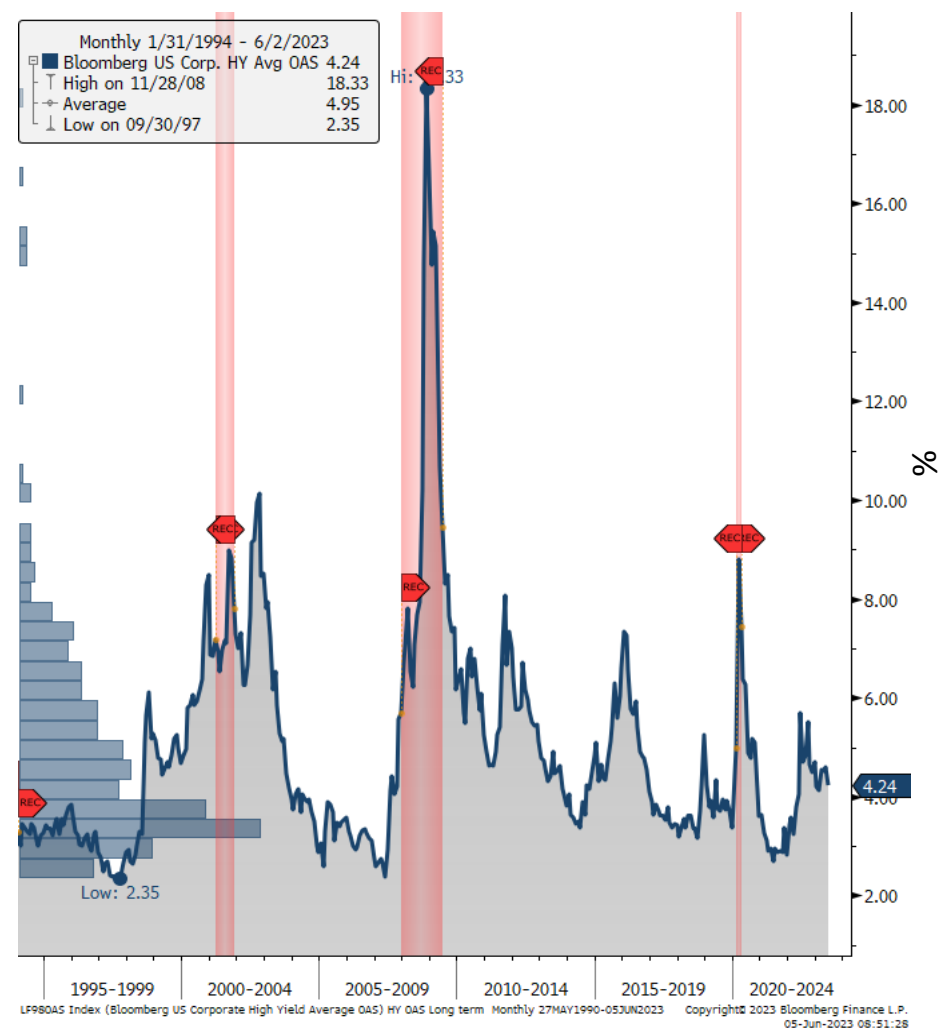
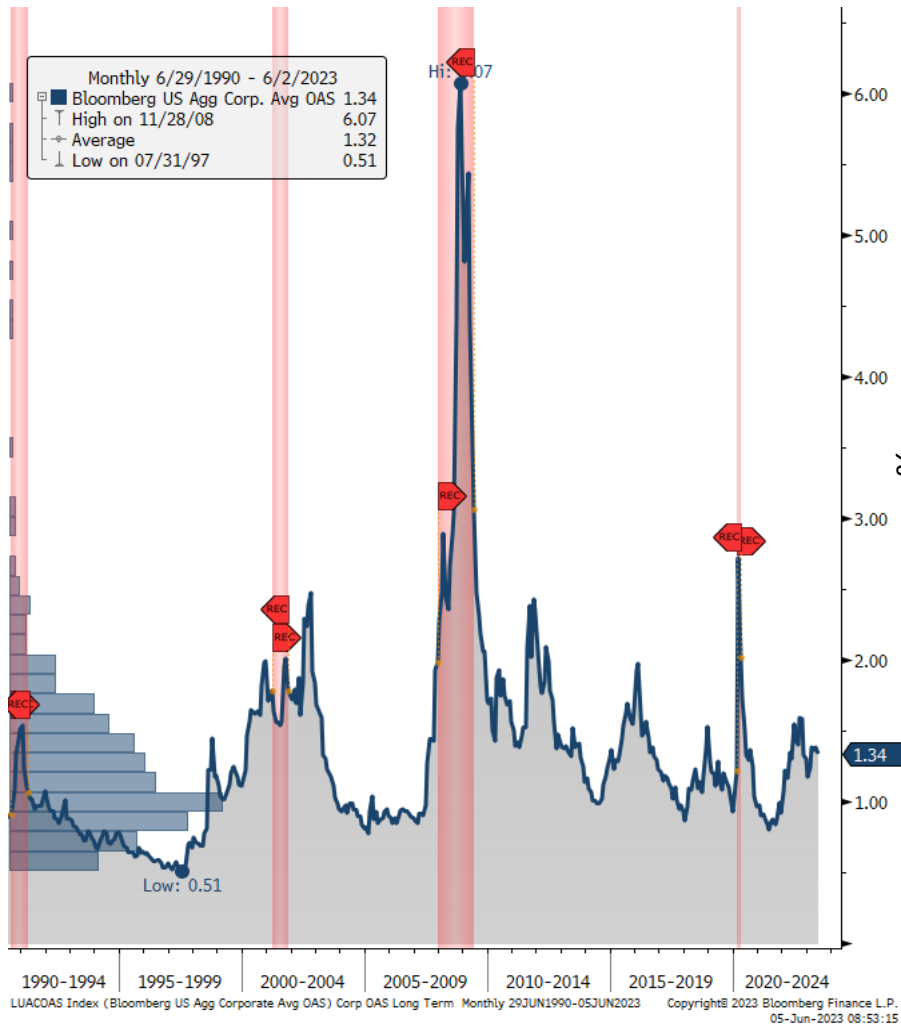
Credit YTD Performance

As of June 2, 2023



Note: IG: Bloomberg Liquid US Corporate Index; High Yield: Bloomberg US Liquid High Yield Index; Leveraged Loans: S&P/LSTA Leveraged Loan Total Return Index; Agency MBS: Bloomberg US Agency MBS Fixed Rate 1-10yr ex Sub TR Index; Non-Agency MBS: Markit iBoxx Broad US Non-Agency RMBS Index; CMBS: Bloomberg 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 the Appendix for index definitions. You cannot invest directly in an index.

U.S. Investment Grade and High Yield Spreads



Source: Bloomberg, DoubleLine

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

Loan Investors Beware: Recovery Rates Already Hitting Cyclical Troughs

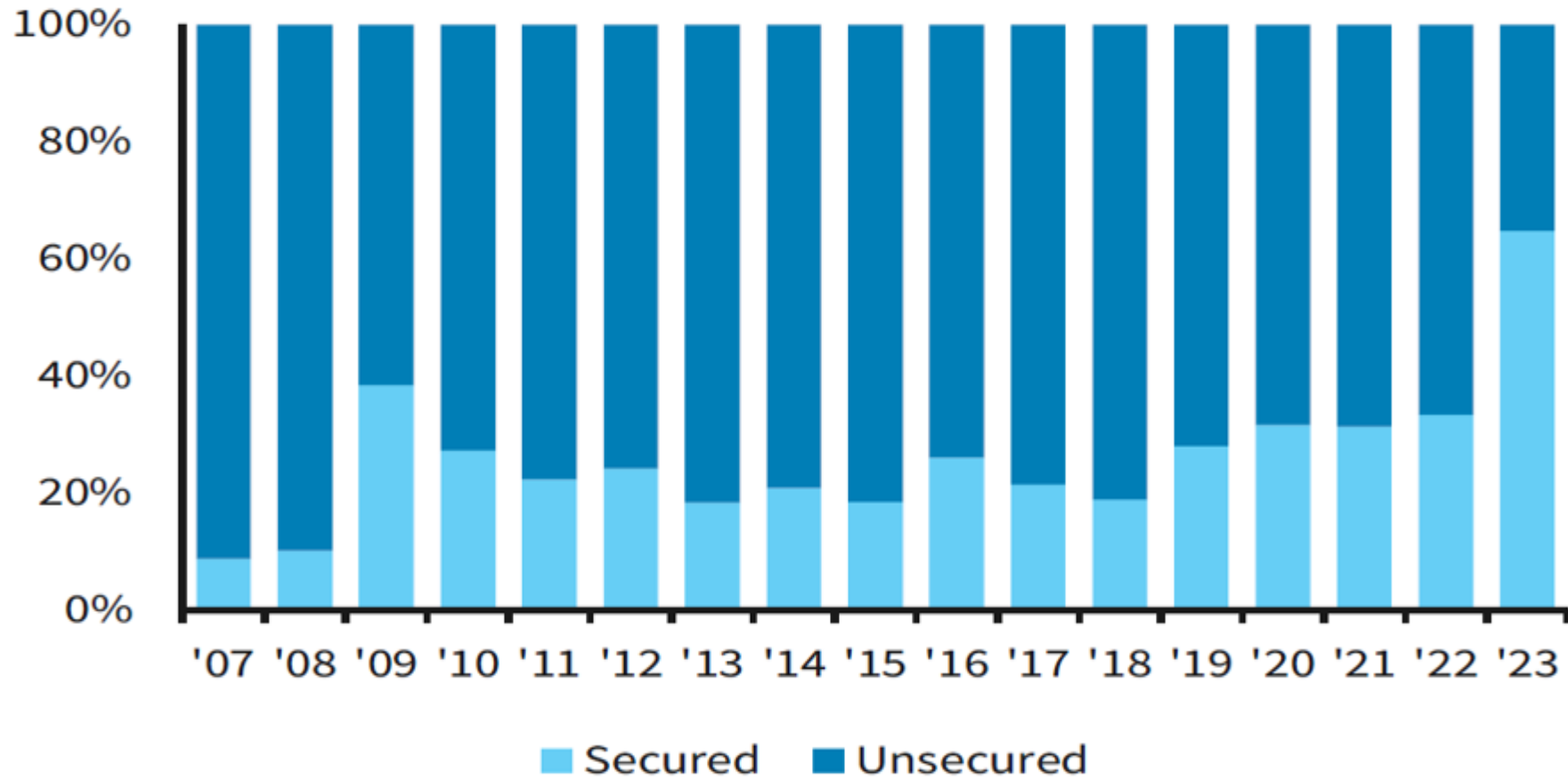


LTM Recovery as Calculated by 30-day Post Default Prices
Recent recoveries have fallen significantly



As of April 30, 2023
Source: BofA Global Research, HIS Markit
Last twelve months (LTM)

Percent of New Issue High Yield by Seniority

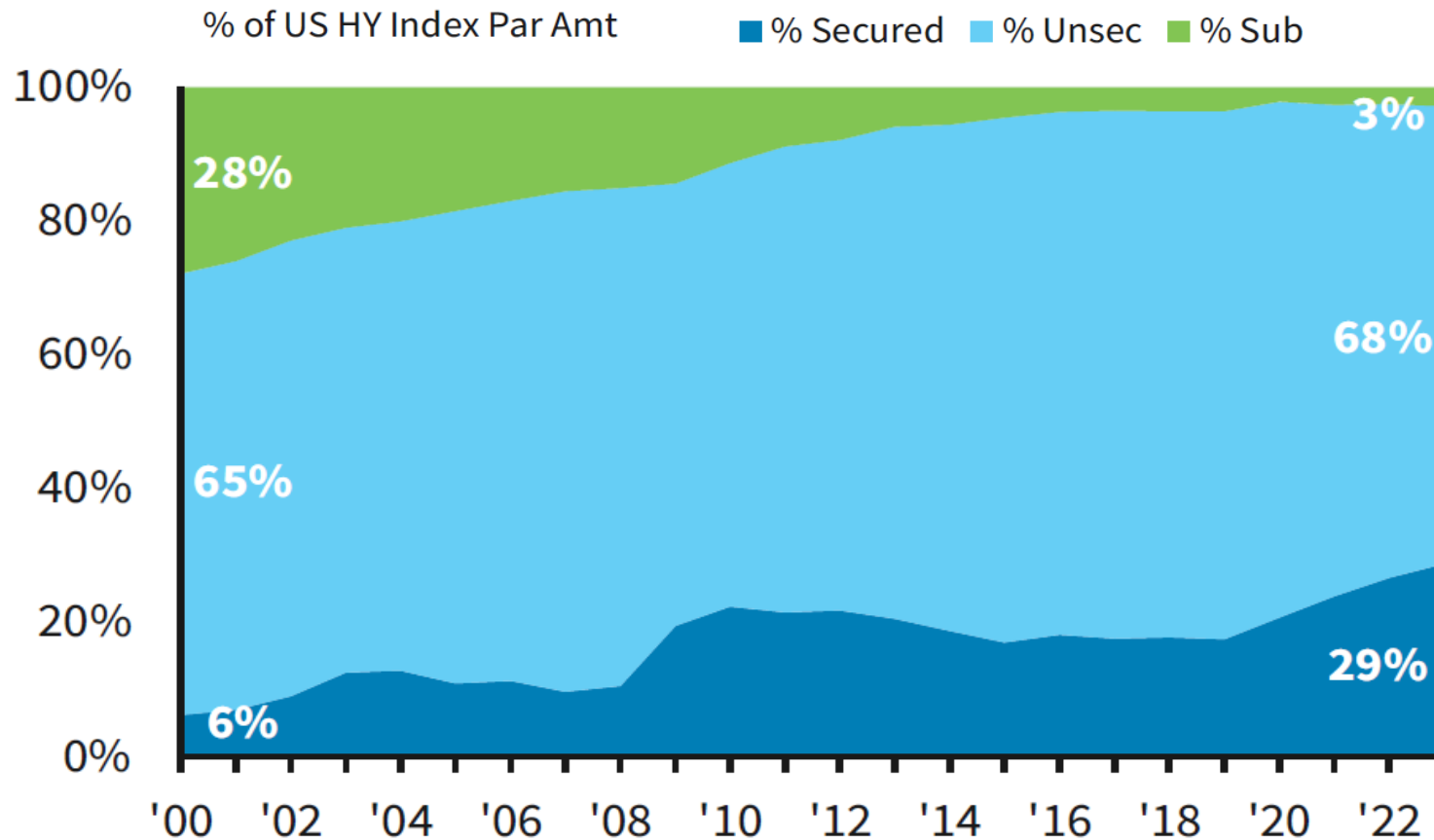


Source: Bloomberg, Barclays Research
2023 data are year-to-date, while all other years show percent of annual supply.

Share of U.S. High Yield Index by Seniority

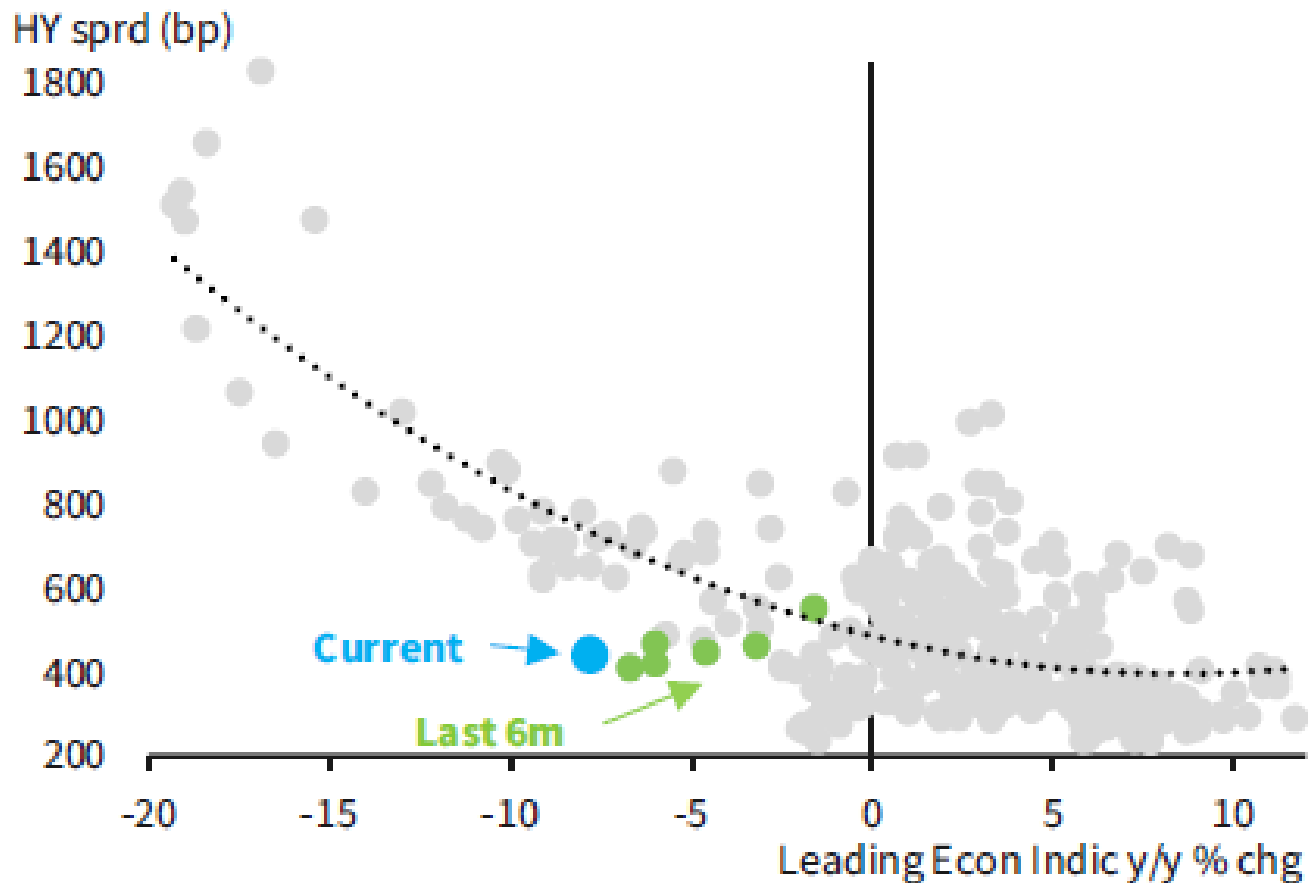


The High Yield Index Has Reached an All-Time High Secured Percentage of 29%



Source: Bloomberg, Barclays Research

High Yield Spreads Are Exploring New Territory for Such a Large Contraction in the Leading Economic Indicator (LEI)

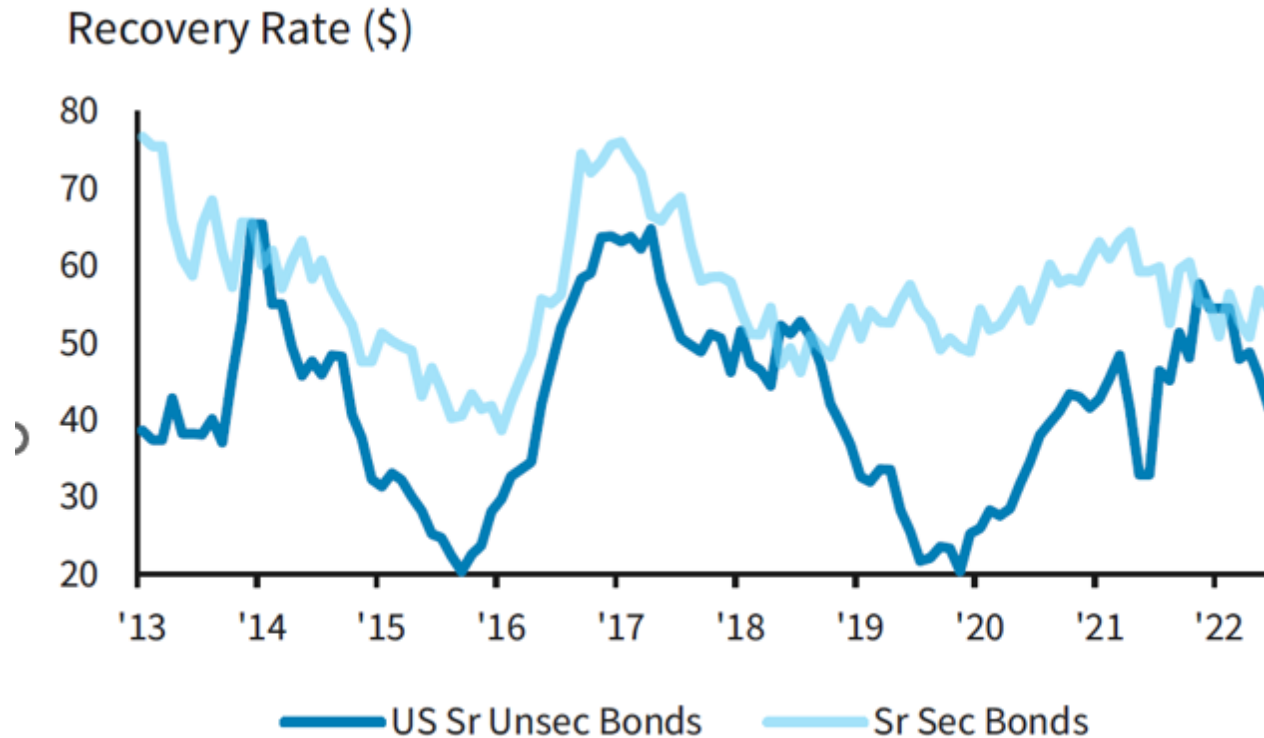


Source: Bloomberg, Barclays Research
Leading Economic Indicators (LEI) Index is intended to forecast future economic activity. You cannot invest directly in an index. Option Adjusted Spread (OAS)

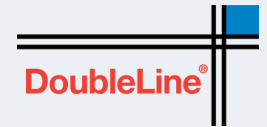
High Yield Recovery Rates: Secured vs. Unsecured



Bond Recovery Rates Fell Short of Previous Rebounds In the Post-COVID Period



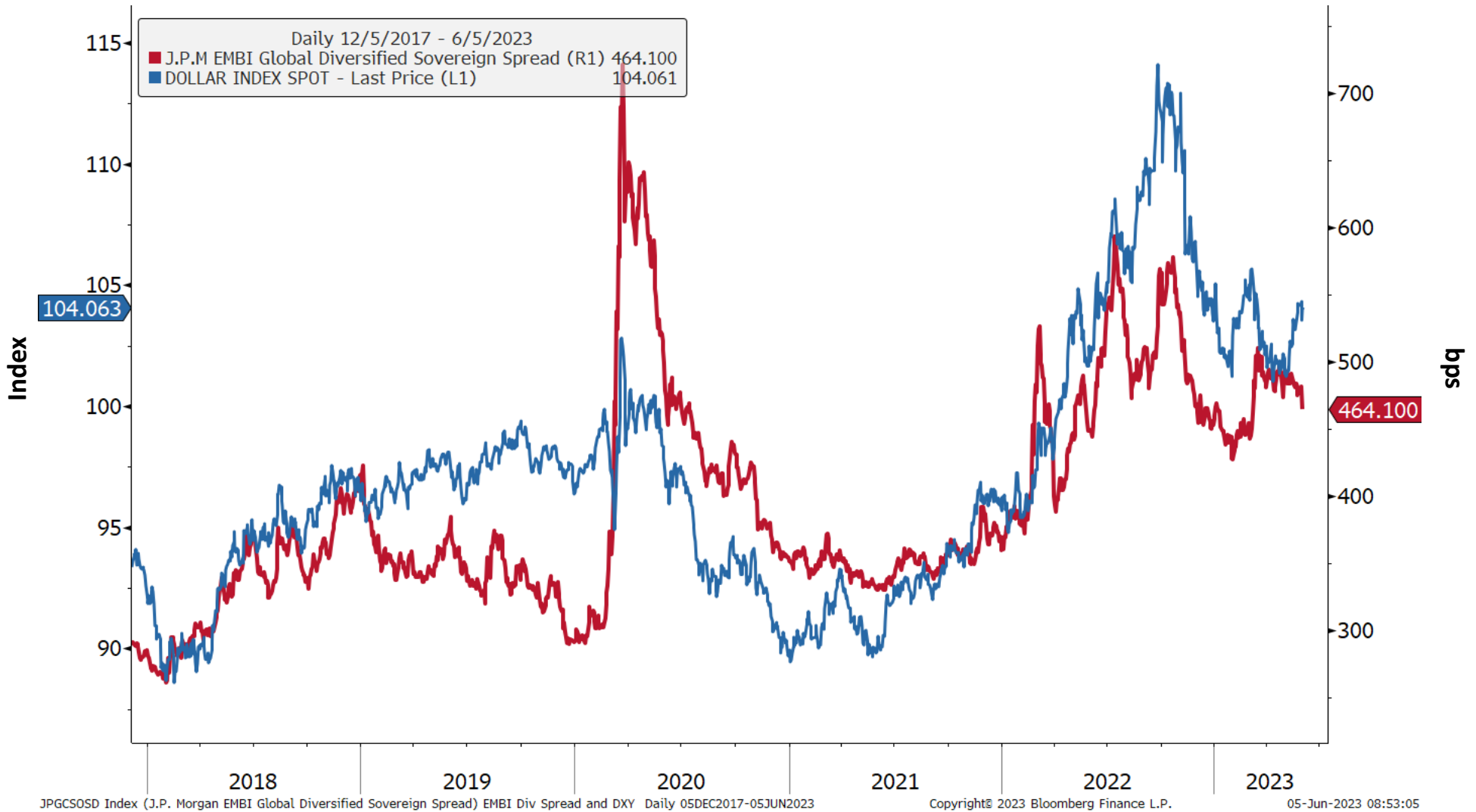
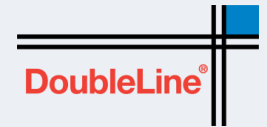
JPM EMBI Global Diversified Spread-to-Worst



Source: Bloomberg, DoubleLine

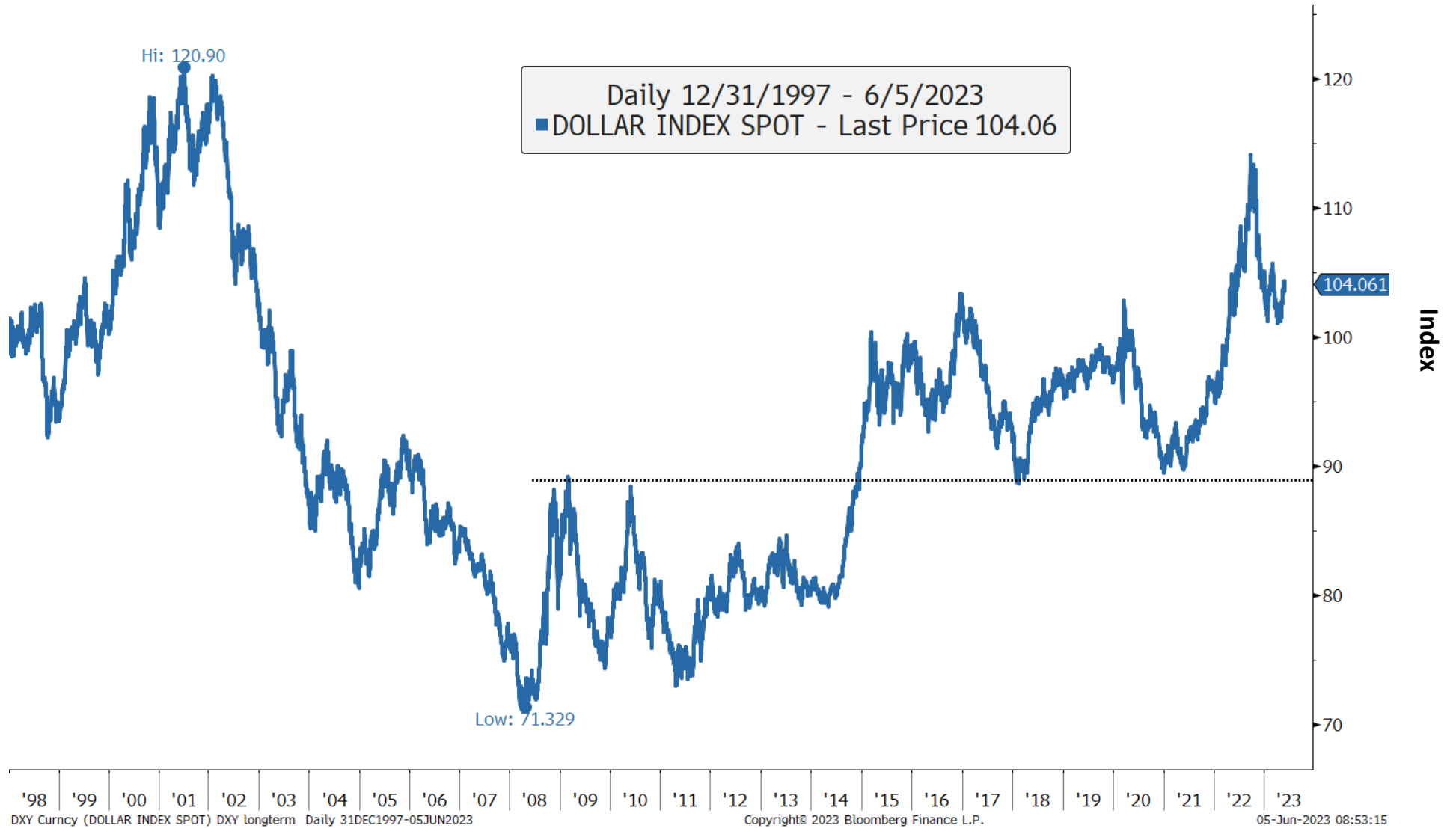
Please see the Appendix for index definitions. Spread to Worst – Measures the difference from the worst performing security to the best, and can be seen as a measure of dispersion of returns within a given market or between markets. You cannot invest directly in an index.

JPM EMBI Global Diversified Spread and DXY



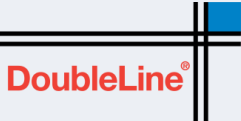
Source: Bloomberg, DoubleLine
Please see the Appendix for index definitions. You cannot invest directly in an index.

U.S. Dollar (DXY)



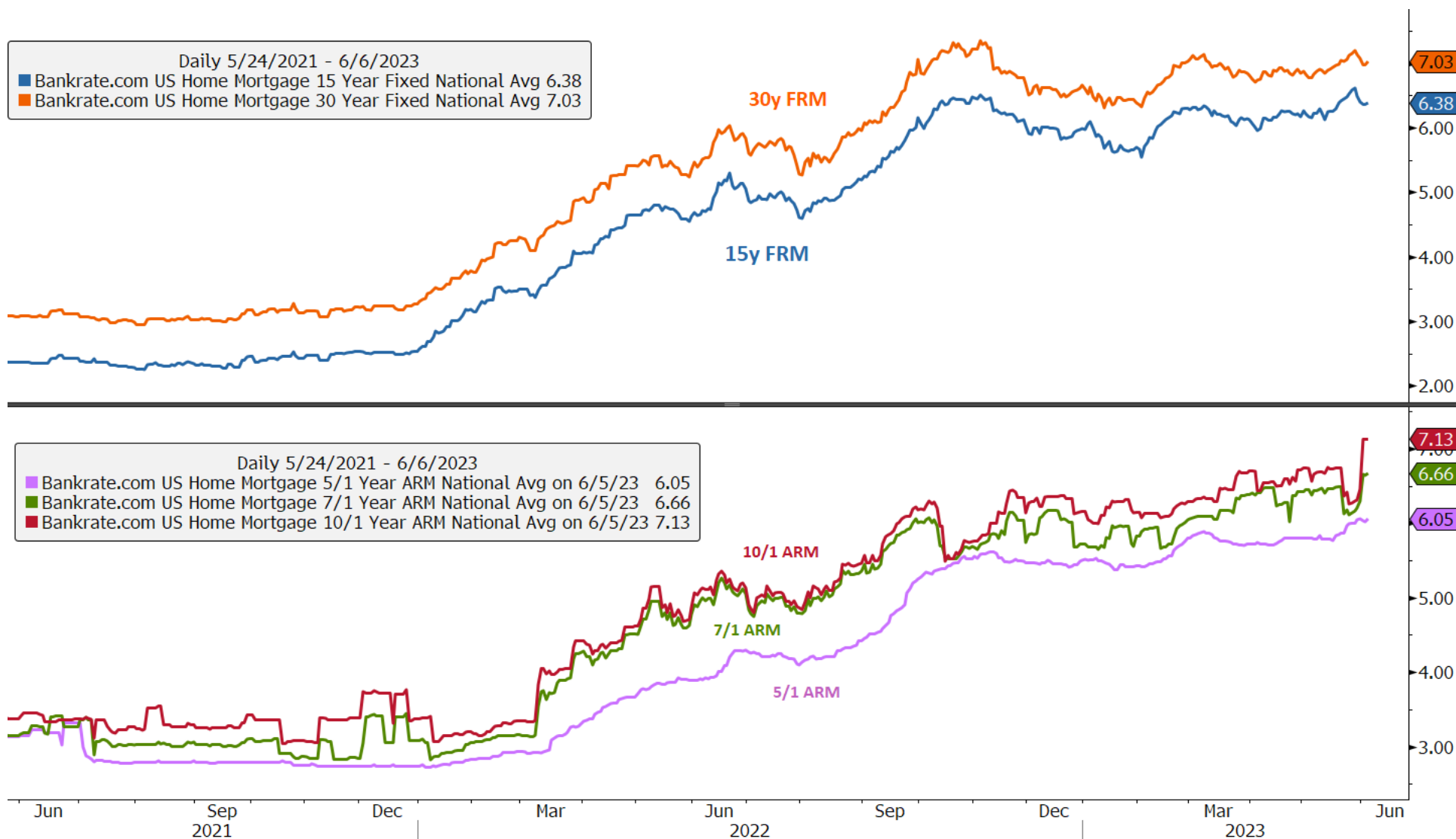
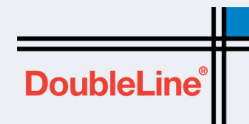
Source: Bloomberg, DoubleLine
DXY is an index of the U.S. dollar vs. a basket of currencies. You cannot invest directly in an index.

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. A simple moving average (SMAVG) calculates the average of a selected range of prices, usually closing prices, by the number of periods in that range. You cannot invest directly in an index.

U.S. Mortgage Rates



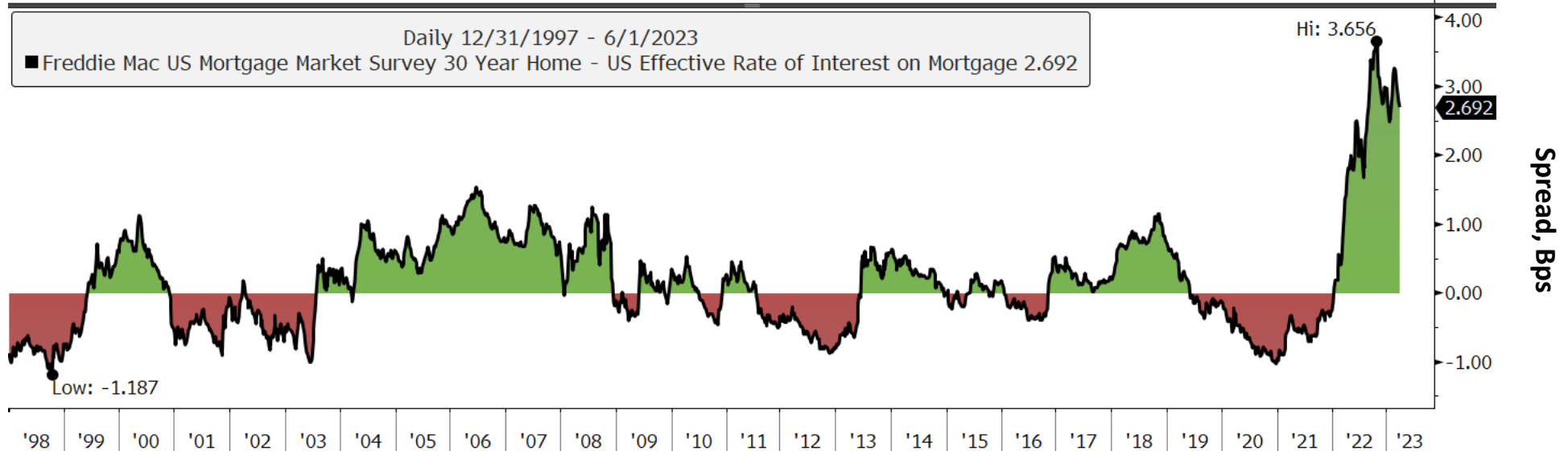
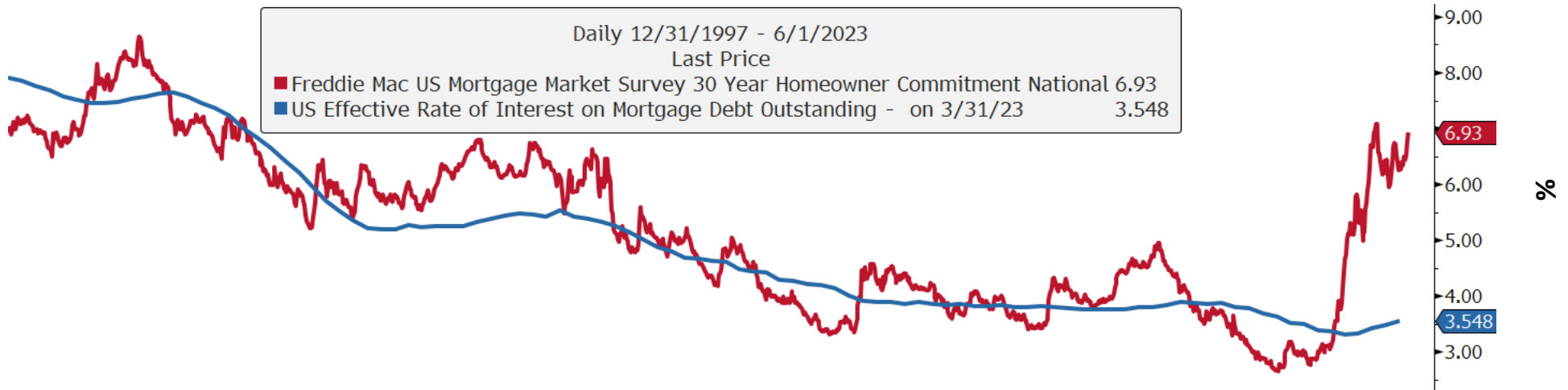
ILM1NAVG Index (Bankrate.com US Home Mortgage 15 Year Fixed National Avg) US Mortgage Daily 24MAY2021-06JUN2023

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06-Jun-2023 08:15:27

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

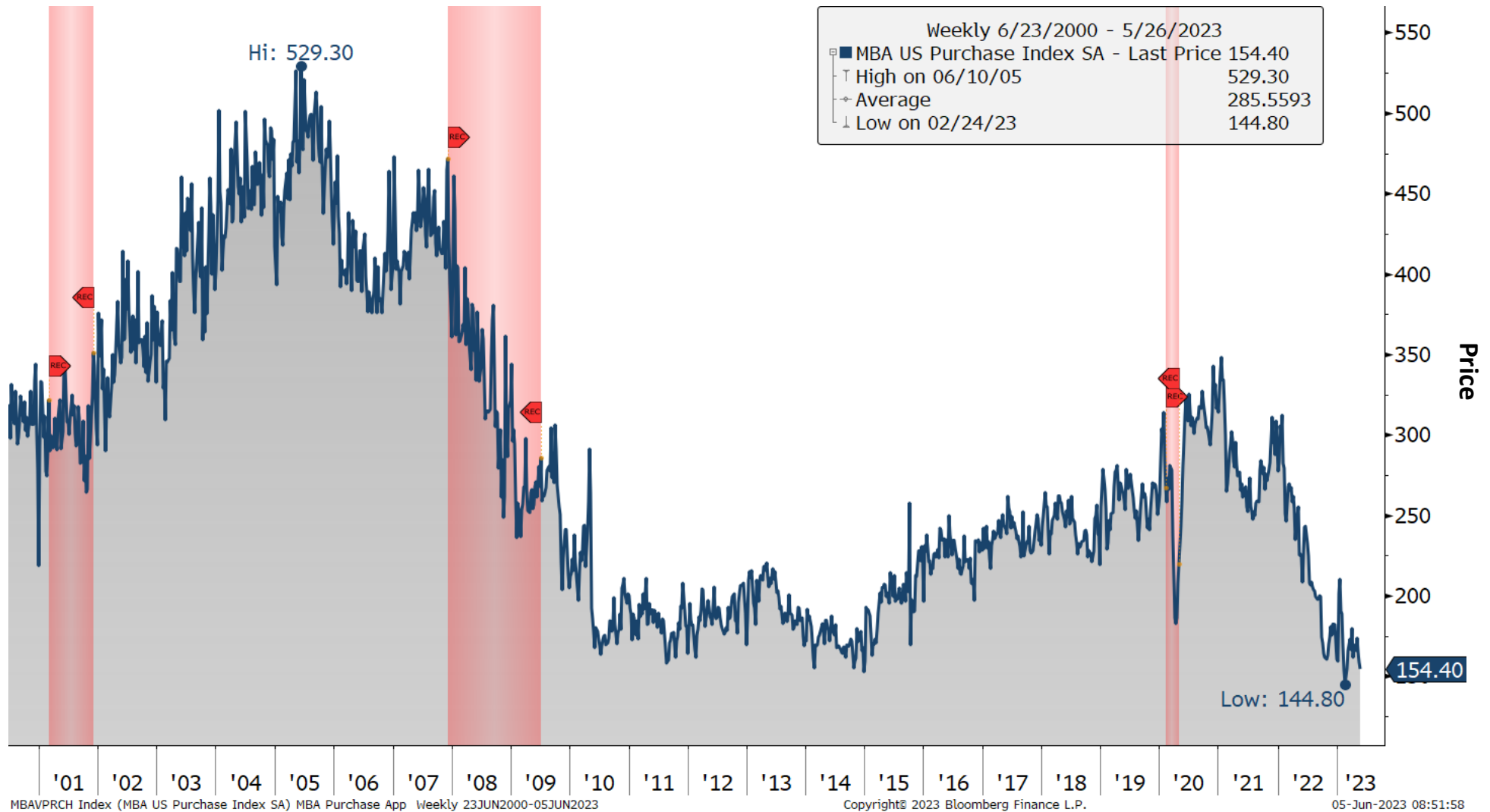
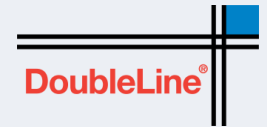
30y Fixed Mortgage Spot Rate and Effective Rate on Mortgage Debt Outstanding



NMCMFUS Index (Freddie Mac US Mortgage Market Survey 30 Year Homeowner Commitment National) 30y FRM and mtge debtout Daily 31DEC1997-05JUN2023 Copyright© 2023 Bloomberg Finance L.P. 05-Jun-2023 08:52:08

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

MBA U.S. Mortgage Purchase Index

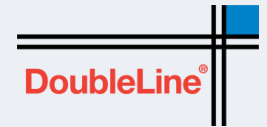


Source: Bloomberg, DoubleLine

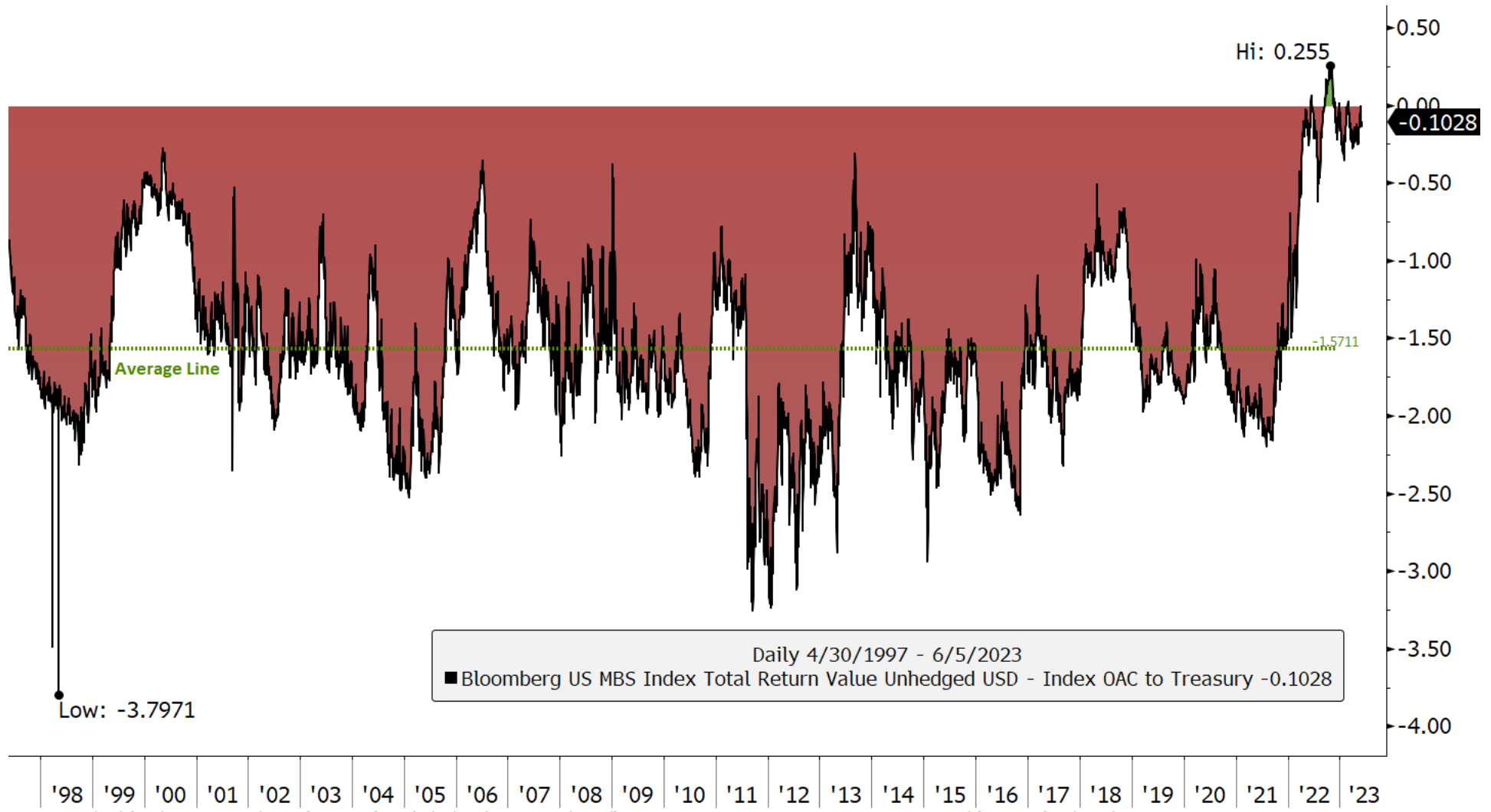
Mortgage Purchase Index is the benchmark that is used to update the interest rate in variable-rate mortgages. SA = Seasonally Adjusted. You cannot invest directly in an index.

Red shaded areas represent recessionary periods.

U.S. MBS Index Convexity



The convexity profile of Agency MBS has improved dramatically over the last 12 months



LUMSTRUU Index (Bloomberg US MBS Index Total Return Value Unhedged USD) MBS Convexity Daily 30APR1997-05JUN2023

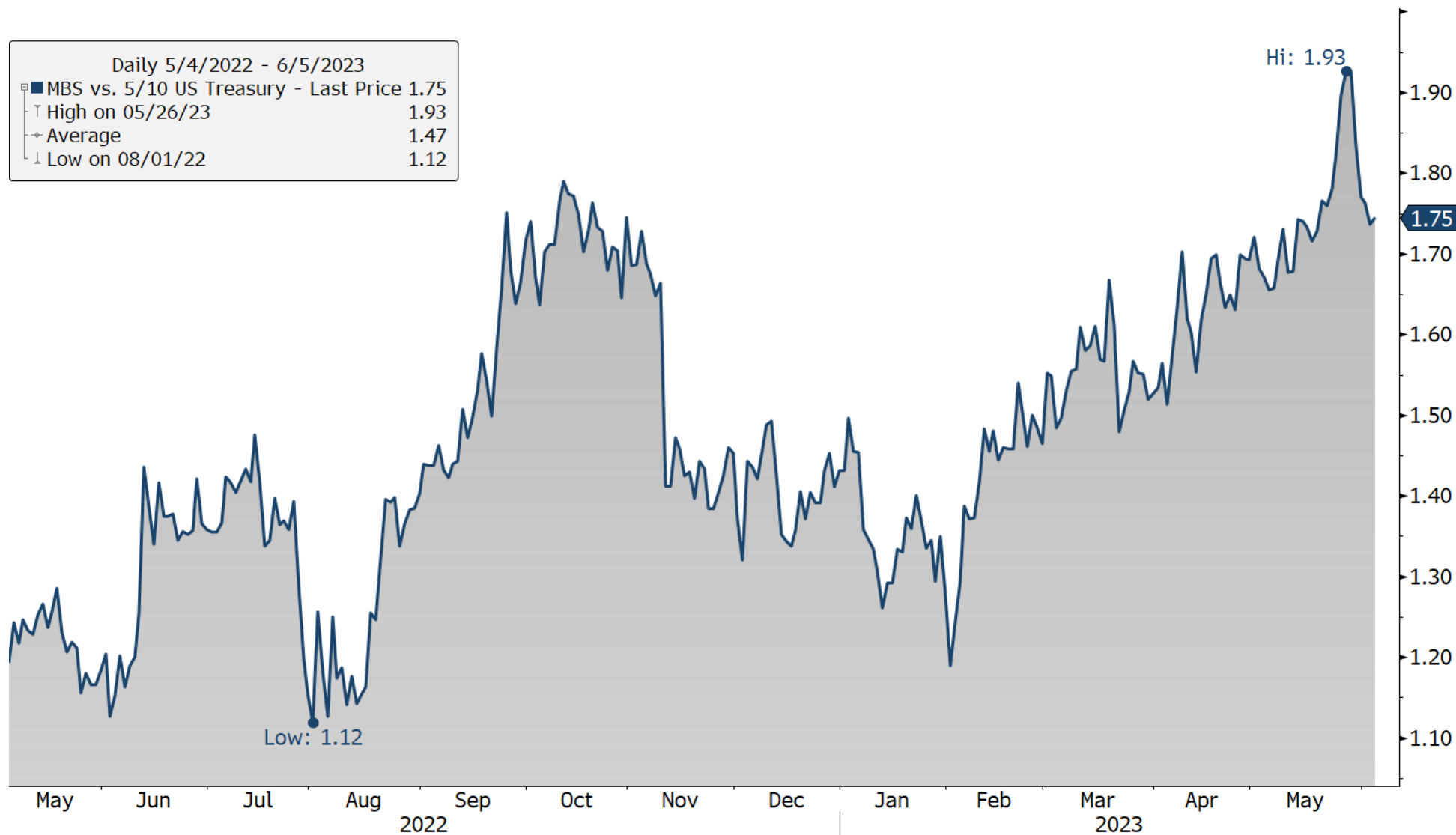
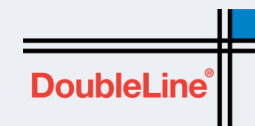
Copyright© 2023 Bloomberg Finance L.P.

05-Jun-2023 08:52:15

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

Agency Mortgage Spread

30-year FNMA Par Coupon less Avg. (5y and 10y UST Yield)



.MBS510US G Index (MBS vs. 5/10 US Treasury) MBS vs. 5/10 UST Spread Daily 04MAY2022-05JUN2023

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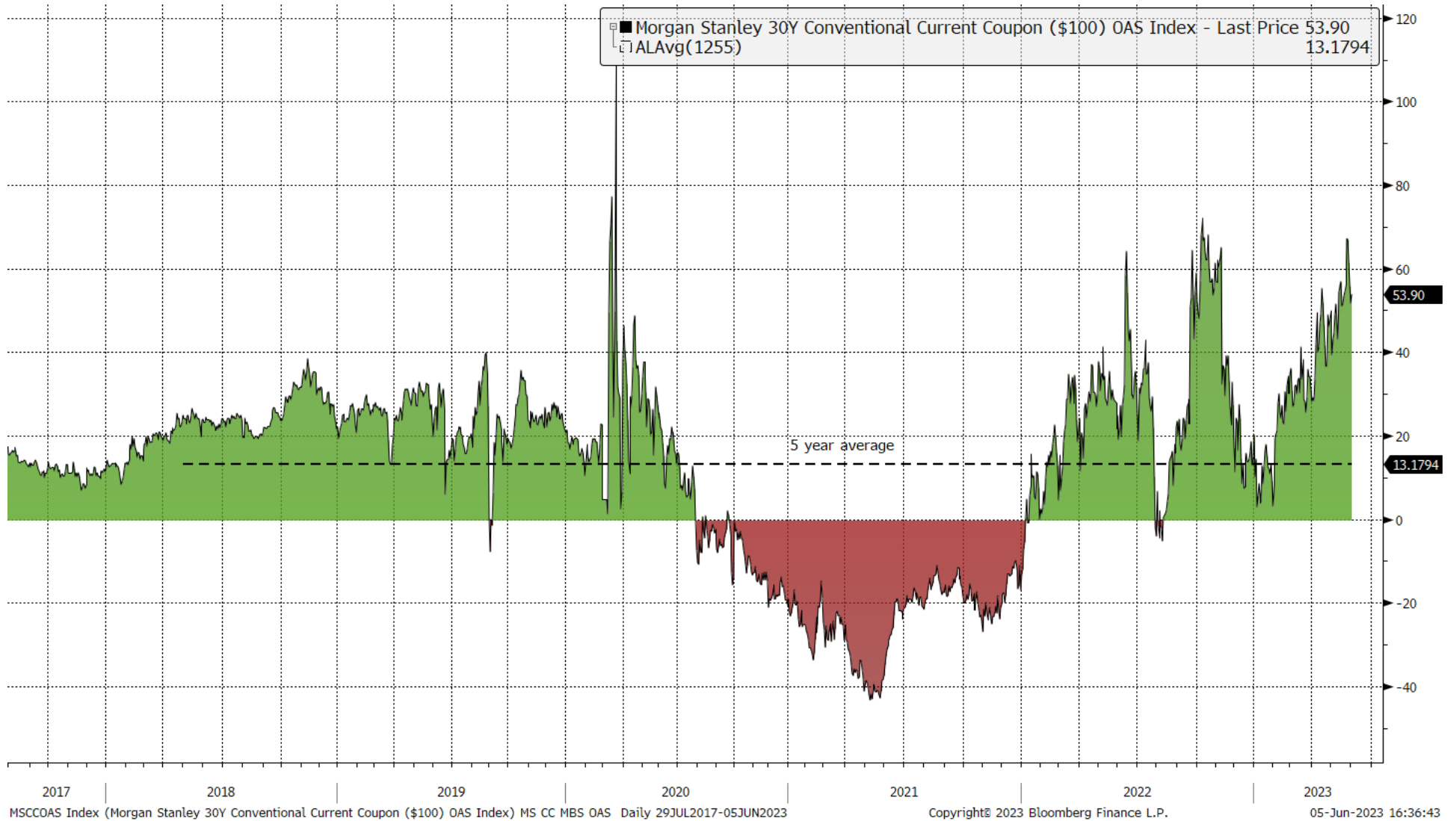
05-Jun-2023 08:52:42

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

Morgan Stanley MBS Current Coupon OAS

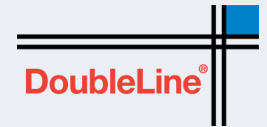


As of June 5, 2023



Source: Bloomberg, DoubleLine
Option Adjusted Spread (OAS)

MBS Spread and Interest Rate Implied Volatility



Source: Bloomberg, DoubleLine

2-Year Interest Rate Volatility After Fed Pauses

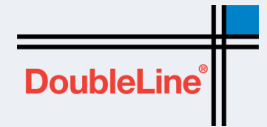


Figure 33. Realized vol on 2y UST yields typically declined immediately after the last rate hike in the late 70s/early 80s

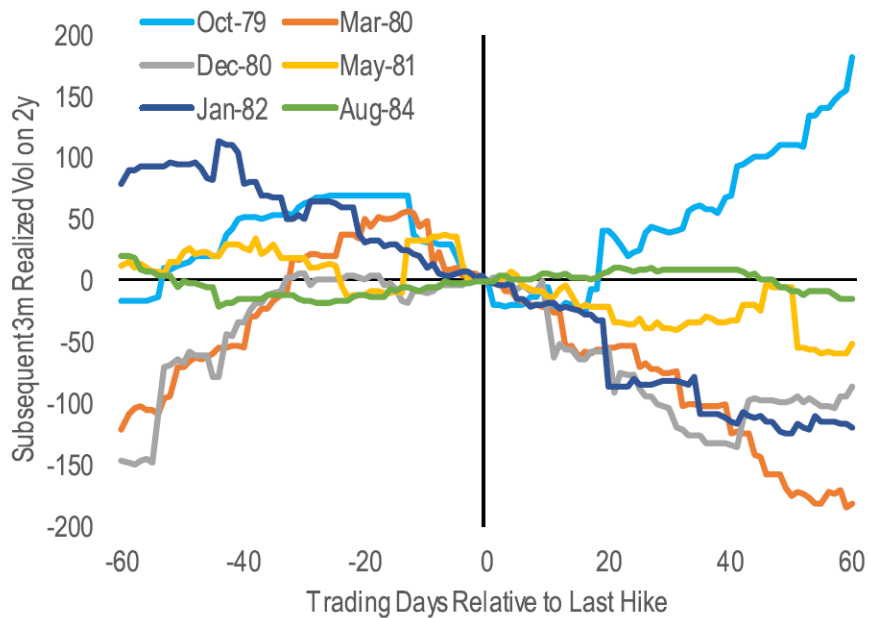


Figure 34. Since the existence of the swaption vol market, 3m2y implied vol has generally declined in the months after the last rate hike









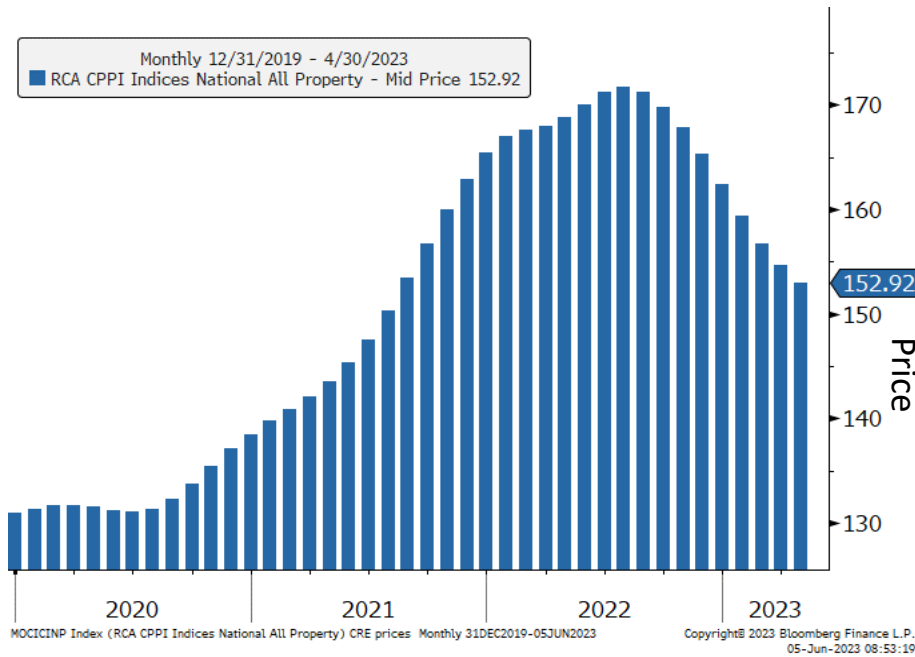
Andrew Hsu

DoubleLine Portfolio Manager

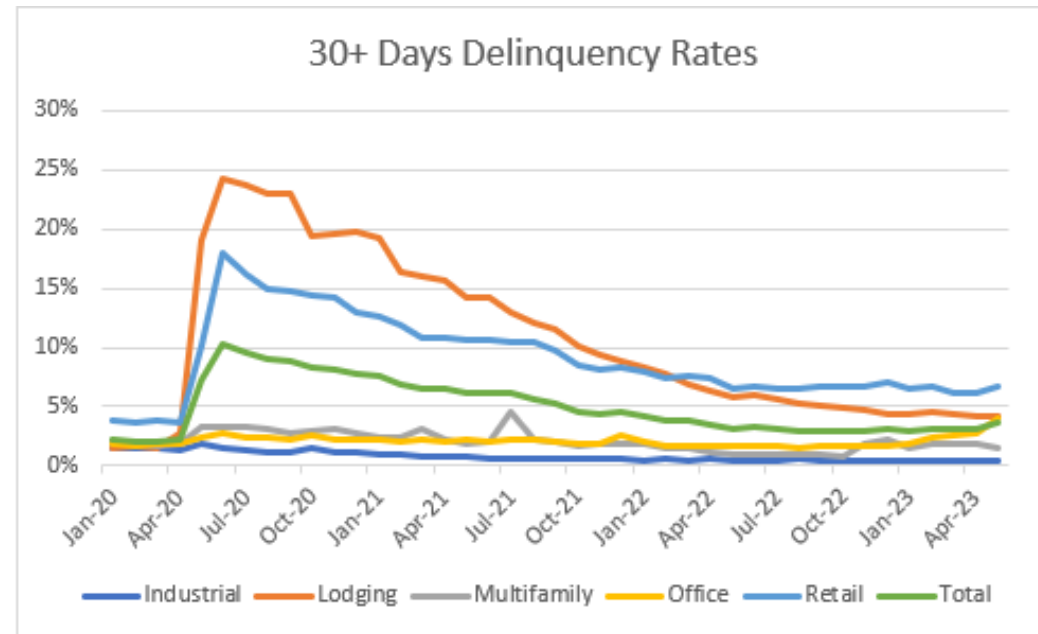
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Commercial Real Estate (CRE) Prices – National Property Price Index

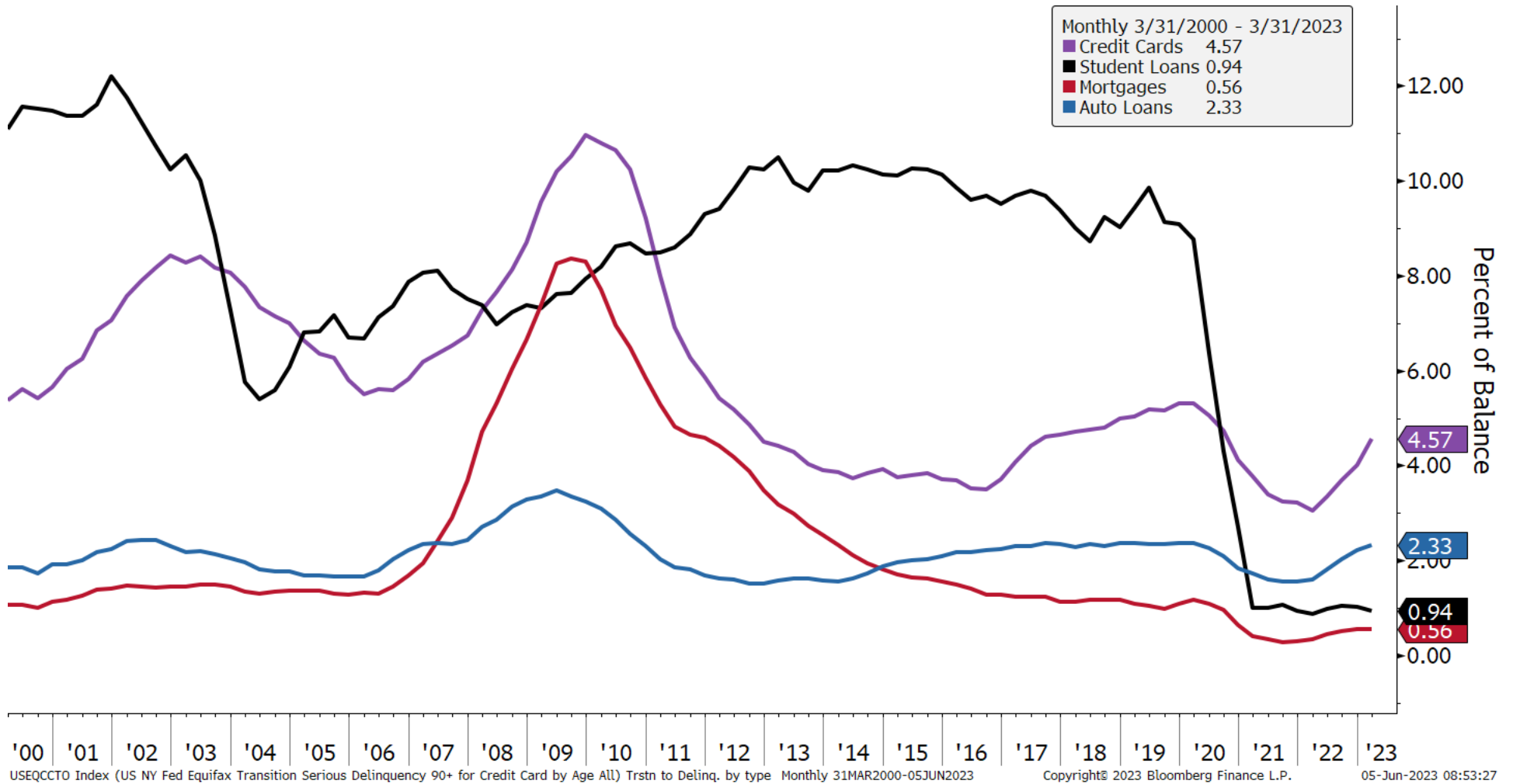


Conduit (CMBS) Delinquency Rates (30+ day delinquent)

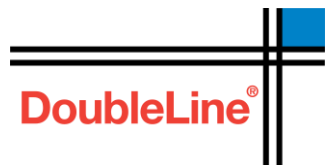


Right sided chart as of May 31, 2023
 Source: National Multifamily Housing Council (NMHC), Real Capital Analytics (RCA), Trepp, Goldman Sachs Research
 You cannot invest directly in an index.

Transition Into Delinquency (90+) by Loan Type



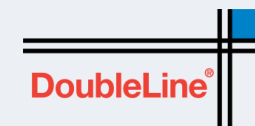
Source: New York Fed Consumer Credit Panel, Equifax, Bloomberg, DoubleLine



DoubleLine Total Return Bond Fund

DBLTX Non-Agency CMBS Portfolio Stratification

As of May 31, 2023



	PF Weight	Yield-to-Maturity (%)	Credit Enhancement ¹	Tranche LTV ¹
Conduits	3.3%	10.5	16%	54%
CRE-CLO	3.3%	12.2	24%	49%
SASB	0.8%	9.0	52%	33%
Agency (Non-Guaranteed)	0.0%	8.5	9%	61%
Portfolio	7.4%	11.1	20%	49%

	PF Weight	Multifamily	Retail	Office	Lodging	Industrial	Mixed Use	Other ²
Conduits	3.3%	15%	23%	31%	13%	7%	7%	5%
SASB	3.3%	7%	6%	17%	41%	12%	8%	8%
CRE-CLO	0.8%	51%	2%	26%	7%	2%	7%	4%
Agency (Non-Guaranteed)	0.0%	100%	0%	0%	0%	0%	0%	0%
Portfolio	7.4%	15%	13%	24%	25%	9%	7%	6%

Please see the DoubleLine Statutory Prospectus in the webcast player under Event Resources or click the following [link](#).

Source: DoubleLine

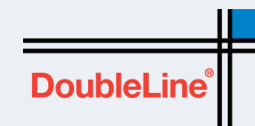
Single-Asset Single-Borrower (SASB)

¹ Credit Enhancement calculation excludes interest-only securities.

² Loan-to-Value (LTV)

DoubleLine Total Return Bond Fund Portfolio Statistics

As of May 31, 2023



	DoubleLine Total Return Bond Fund	Bloomberg US Aggregate Index
Average Price	\$90.27	\$90.30
Duration	6.34	6.34
Average Life	7.59	8.59

Source: DoubleLine

Portfolio statistics based on market weighted averages. Subject to change without notice.

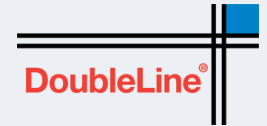
Average price: A measure of the weighted average price paid for the securities calculated by taking the prices and dividing by the number of securities and does not include cash. Average price should not be confused with net asset value.

Average Duration: Duration is used as a risk measure. It measures the price volatility of a security given a change in interest rate movements.

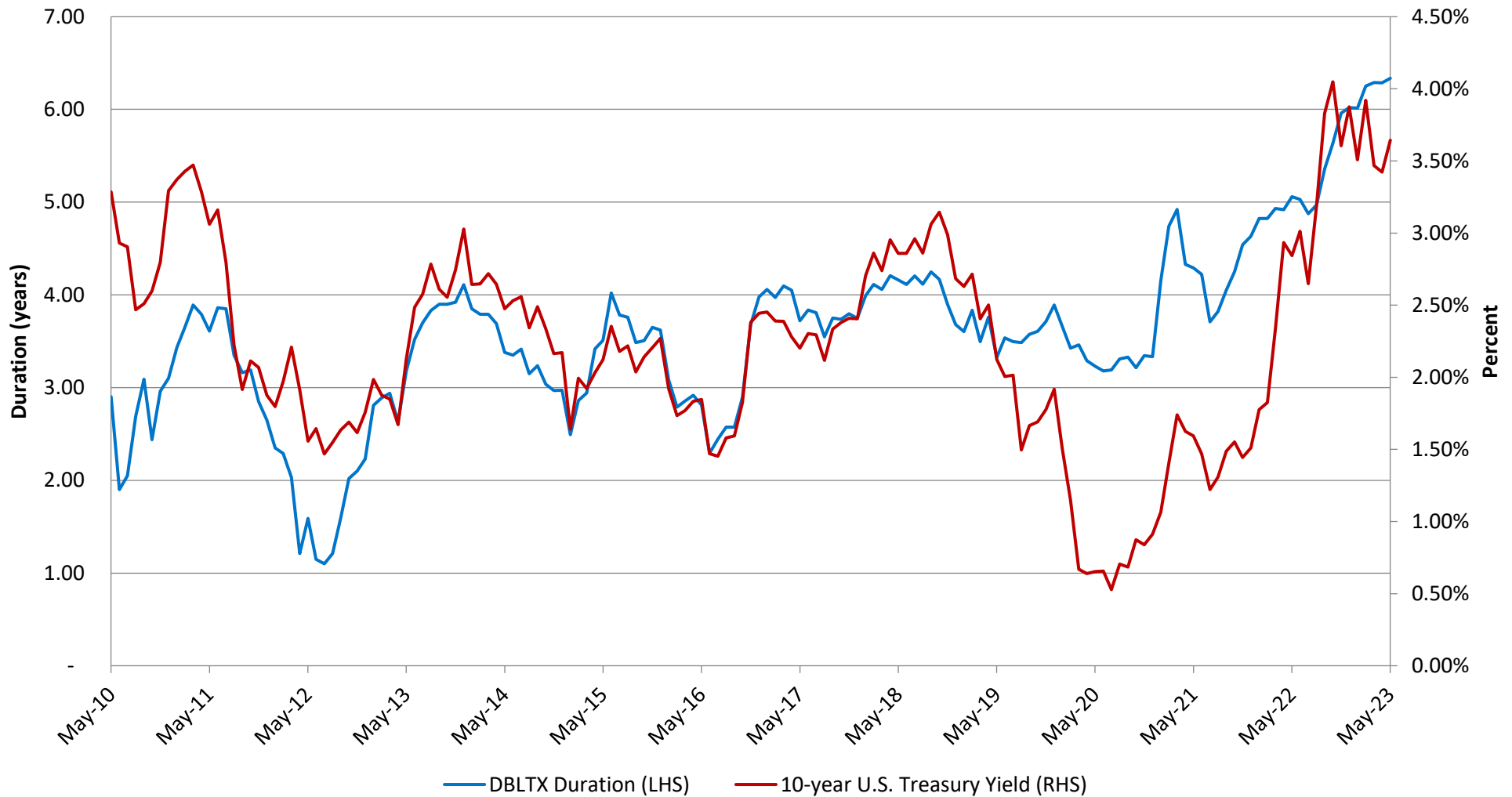
Average Life: The average number of years that each dollar of unpaid principal due on the mortgage remains outstanding. Average life is computed as the weighted average time to the receipt of all future cash flows, using as the weights the dollar amounts of the principal paydowns.

One cannot invest directly in an index. Please see index definition.

Duration: DBLTX vs. 10-Year U.S. Treasury Yield



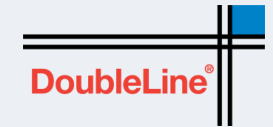
May 31, 2010 through May 31, 2023



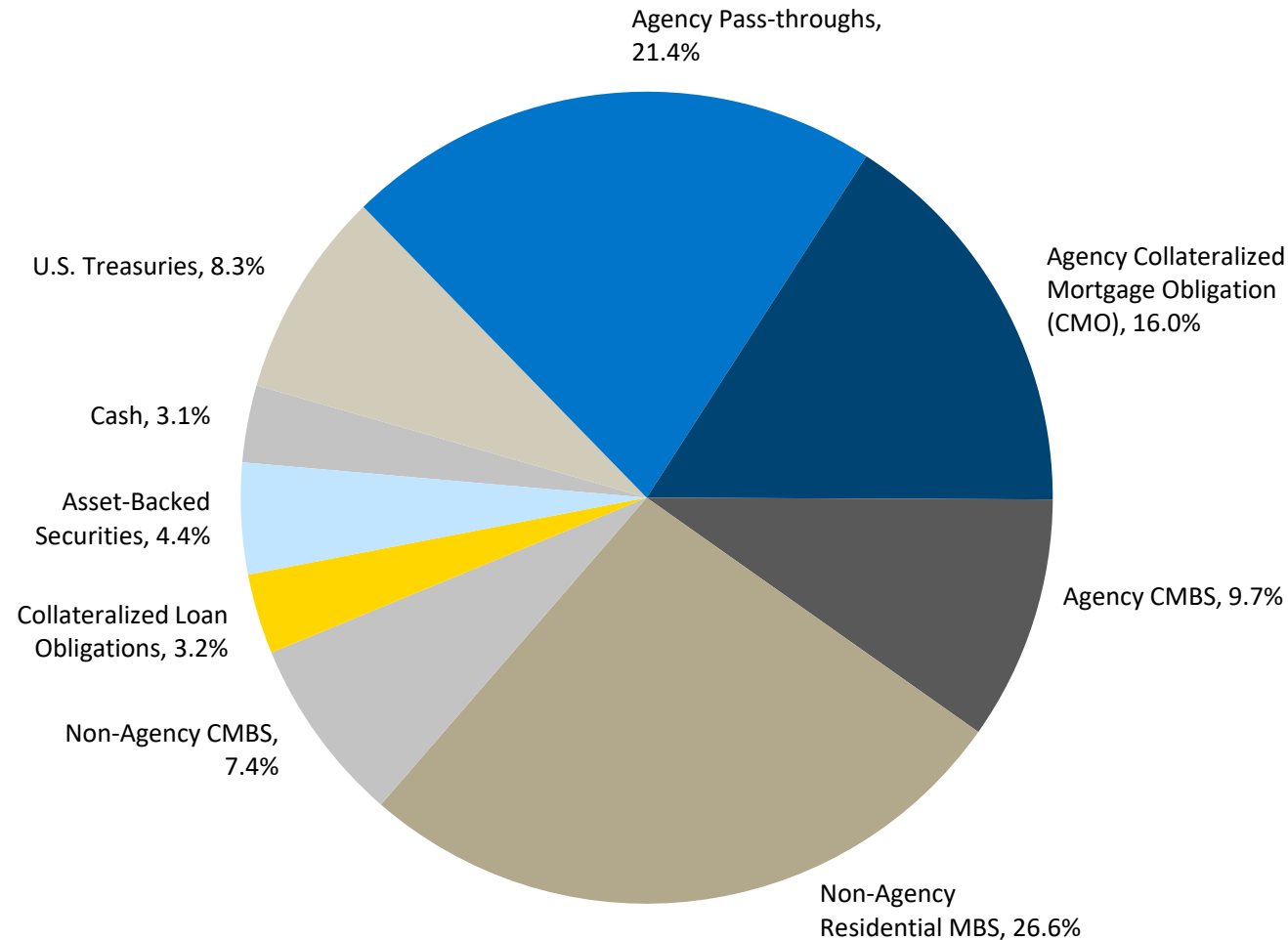
Source: DoubleLine, Bloomberg

Duration: A measure of sensitivity of the price of a fixed-income investment to a change in interest rates, expressed in years.

DoubleLine Total Return Bond Fund Portfolio Composition



As of May 31, 2023



Source: DoubleLine. Subject to change without notice.

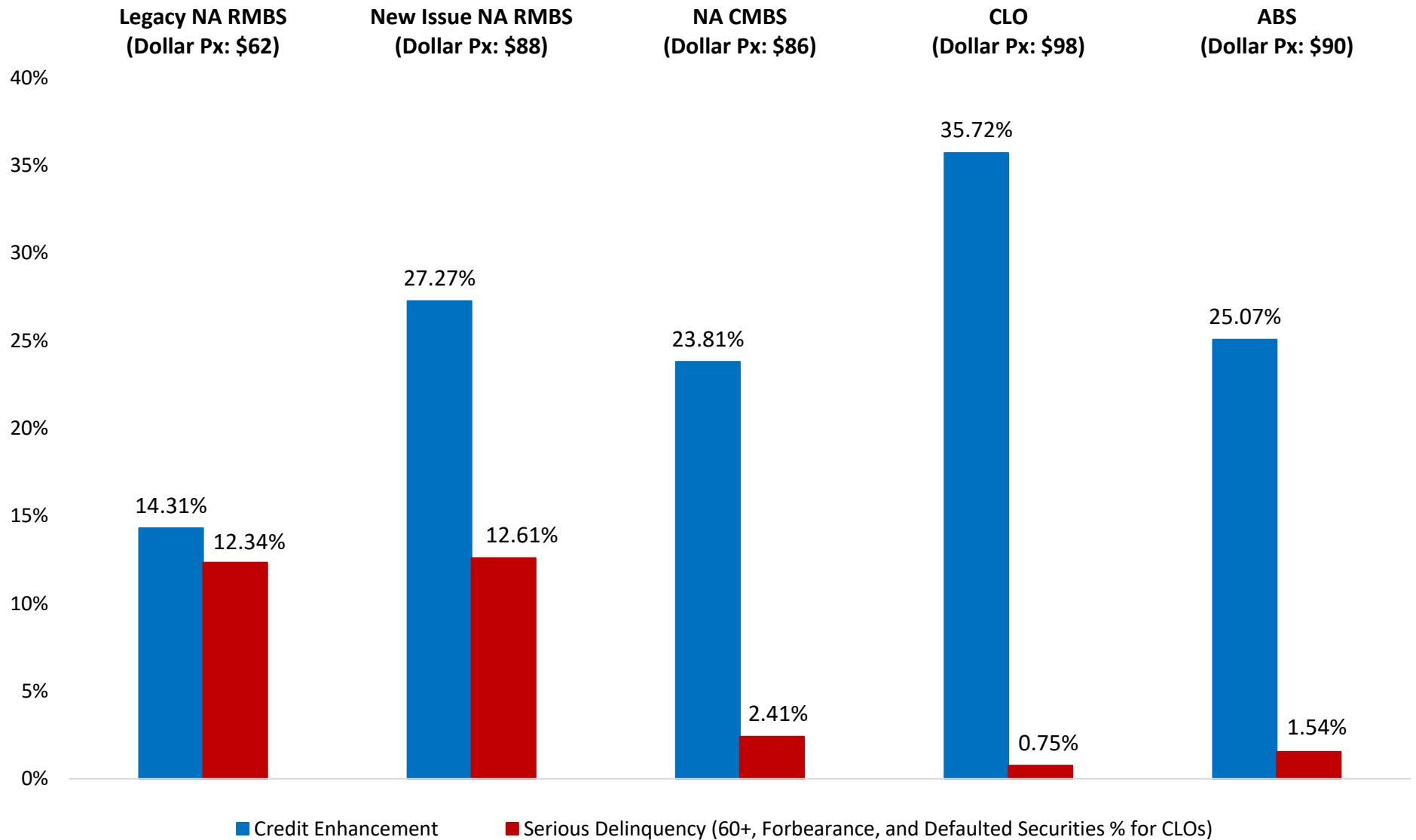
Sector allocations are subject to change and should not be considered a recommendation to buy or sell any security.

Bond ratings are grades given to bonds that indicate their credit quality as determined by a private independent rating service such as Standard & Poor's. The firm evaluates a bond issuer's financial strength, or its ability to pay a bond's principal and interest in a timely fashion. Ratings are expressed as letters ranging from "AAA," which is the highest grade, to "D," which is the lowest grade. In limited situations when the rating agency has not issued a formal rating, the Advisor will classify the security as nonrated.

Cash: The value of assets that can be converted into cash immediately. Can include marketable securities, such as government bonds, banker's acceptances, cash equivalents on balance sheets that may include securities that mature within 90 days. **Government:** U.S. treasury securities. **Agency:** Mortgage securities whose principal and interest guaranteed by the U.S. Government agency including Fannie Mae (FNMA) or Freddie Mac (FHLMC). **Non-Agency:** Residential Mortgages Bond Securities are a type of bond backed by residential mortgages. Non-Agency means they were issued by a private issuer. **CMBS:** Commercial Mortgage-Backed Securities. Securitized loans made on commercial rather than residential property. **CLO:** Collateralized Mortgage Obligations

Sector Credit Enhancement vs. Serious Delinquency

As of May 31, 2023



Source: Bloomberg, DoubleLine
Certain securities are excluded due to non-applicability.



Appendix

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.

AUD - Australian dollar

Bloomberg Agriculture Sub-index - This index is a commodity group subindex of the Bloomberg CI. It is composed of futures contracts on coffee, corn, cotton, soybeans, soybean oil, soybean meal, sugar and wheat. It reflects the return of underlying commodity futures price movements only and is quoted in USD.

Bloomberg Capital US 30 Year TIPS Index “TIPS”- Bloomberg 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 Commodities Total Return Index – “Commodities” 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 Commodity Index (BCOM) - An index calculated on an excess return basis and reflects commodity futures price movements.

Bloomberg EM USD Aggregate: Sovereign Index - Tracks fixed and floating-rate US dollar-denominated debt issued by EM governments. Country eligibility and classification as Emerging Markets is rules-based and reviewed annually using World Bank income group and International Monetary Fund (IMF) country classifications. (Future Ticker: I12875US)

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 Bloomberg Capital, the index is rules-based, which allows for an unbiased view of the marketplace and easy replicability.

Bloomberg Liquid U.S. Corporate Index - A rules-based index that tracks the performance of a broad range of liquid U.S. corporate bonds. The index is rebalanced monthly and includes bonds with a minimum credit rating of BBB- (BBB- or higher) and a maximum maturity of 30 years. The Bloomberg Liquid U.S. Corporate Index is a popular benchmark for investors seeking to track the performance of the U.S. corporate bond market.

The Bloomberg Liquid US High Yield Index - A rules-based index that tracks the performance of a broad range of liquid US high-yield bonds. The index is rebalanced monthly and includes bonds with a maximum credit rating of BB+ (BB+ or lower) and a maximum maturity of 30 years. The Bloomberg Liquid US High Yield Index is a popular benchmark for investors seeking to track the performance of the US high-yield bond market.

Bloomberg Office Property Index - The Office Property Index is a capitalization-weighted sub-index of the Bloomberg REIT Index. The index is based on office properties comprising 75% or more of invested assets and was developed with a base value of 100 as of December 31, 1993.

The Bloomberg US Agency MBS Fixed Rate 1-10Yr ex Sub TR Index - A rules-based index that tracks the performance of a broad range of investment-grade, fixed-rate, US Agency mortgage-backed securities (MBS) with a remaining maturity of greater than or equal to 1 year and less than 10 years. The index excludes securities that are backed by subprime mortgages.

Bloomberg US Corporate Bond Index “Corporates” - This index measures the investment grade, fixed-rate taxable corporate bond market. It includes U.S. dollar-denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers. Subindexes of this index are divided by corporate credit quality ratings ranging from the gamut of investment grade credit quality ratings such as AAA, AA, A, BBB) Ratings below BBB are considered below investment grade. **Index includes sub-indices by rating: AAA, AA, A and BBB).**

Bloomberg U.S. 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 U.S. 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 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 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 CMBS ERISA Eligible: AAA Total Return Index; Bloomberg CMBS ERISA Eligible: AA Total Return Index; and the Bloomberg 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 US HY Long Index, including bonds with maturities of 10 years or greater, and the Bloomberg US HY Intermediate Index, including bonds with maturities of 1 to 9.999 years, are subindexes of the Bloomberg US Corporate HY Index.

Bloomberg US High Yield Index “High Yield”- Covers the universe of fixed rate, non-investment grade debt. (BBB rated and below) 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. **Index includes sub-indices by rating: BBB, C, CCC, D.**

Bloomberg US MBS Index - Represents the MBS component of the Bloomberg 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.

Bloomberg US Treasury Inflation-Linked Bond Index (Series-L) Index - Measures the performance of the US Treasury Inflation Protected Securities (TIPS) market. Federal Reserve holdings of US TIPS are not index eligible and are excluded from the face amount outstanding of each bond in the index.

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.

Brent - Brent crude is the most traded of all of the oil benchmarks, and is defined as crude mostly drilled from the North Sea oilfields: Brent, Forties, Oseberg and Ekofisk (collectively known as BFOE). **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.

Commercial Real Estate Price index - An attitudinal survey of local markets completed by commercial real estate market experts (SIOR members). The survey is conducted quarterly and helps measure the state of the commercial real estate market for the United States.

Conference Board Consumer Confidence Index (CCI) - This index (published the last Tuesday of every month) measures U.S. consumers' optimism in the economy based on their saving and spending activity.

CPI Shelter Index - This index tracks the shelter component of the Consumer Price Index, which measures the prices of a basket of consumer goods and services.

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 Emerging Market Corporate Bond Total Return Index - Tracks the performance of EM Corporate Bonds.

Credit Suisse High Yield Liquid Index - Tracks the performance of US dollar denominated below investment grade corporate debt (BBB rated and lower) publicly issued in the US domestic market.

Credit Suisse Investment Grade Index - Tracks the performance of US dollar denominated investment grade corporate debt (AAA - BBB rated) 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.

EMFX - Emerging market foreign 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.

DJ/STOXX 600 - A free-float weighted index of the 600 companies traded on the European stock market.

EUR - Euro

Goldman Sachs Commercial Real Estate Index - A broad-based, market-cap-weighted index of publicly traded real estate investment trusts (REITs) and real estate operating companies (REOCs) in the United States. The index was launched in 1999 and is maintained by Goldman Sachs Asset Management. The GSRI is designed to track the performance of the US real estate market and is used by investors as a benchmark for measuring the performance of their real estate investments. The index is rebalanced quarterly and includes REITs and REOCs that meet certain criteria, such as having a market capitalization of at least \$100 million and being listed on a major US exchange.

ICE BofA Merrill Lynch U.S. High Yield Index (HOAO) - 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 Moody's, 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 Merrill Lynch 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 Merrill Lynch 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 Merrill Lynch 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 Merrill Lynch 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.

ICE Bank of America (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.

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 Total Return 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. The CLOIE was the first total return benchmark for broadly-syndicated arbitrage US CLO debt.

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

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

JPY - Japan

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

Markit iBoxx USD Index Family - Represents the investment grade fixed income market for USD denominated bonds. The iBoxx Broad US Non-Agency RMBS Index, a sub-index, represents the residential mortgage-backed securities portion of the iBoxx USD Index.

Morgan Stanley 30Y Conventional Current Coupon OAS Index - A market-value-weighted index of US dollar-denominated, non-agency, investment-grade, fixed-rate mortgage-backed securities (MBS) with a remaining maturity of 30 years and a coupon rate of 5% or more. The index is calculated by Morgan Stanley and is rebalanced monthly.

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 Emerging Markets Equities Index - The index captures large and mid-cap representation across 24 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. **Index includes sub-indices by rating: AAA, AA, A, BBB, BB, B, C and D.**

RCA CPPI Indices National All Property - Measures the actual price movements for commercial properties based on exclusive transaction data using repeat-sales regression methodology.

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 Growth Index - This index includes the stocks with growth characteristics from the S&P 500 Index. If a stock does not have pure value or pure growth characteristics, its market cap is distributed between the S&P 500 Growth and Value indexes.

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 500 Value Index - This index includes the stocks with value characteristics from the S&P 500 Index. If a stock does not have pure value or pure growth characteristics, its market cap is distributed between the S&P 500 Value and Growth indexes.

S&P CoreLogic Case-Shiller National Home Price NSA Index - This index tracks the value of single-family housing within the United States and is a composite of single-family price indexes for the nine Census Bureau divisions.

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 GSCI Industrial Metals Index - Provides investors with a reliable and publicly available benchmark for investment performance in the industrial metals market.

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-indexes within this index are the S&P/LSTA Leveraged Loan B Index and the S&P/LSTA Leveraged Loan BB Index. These sub-indexes 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. Subindexes of this index include the BB Loan Index and the B Loan Index which track this quality rating from the entire S&P/LSTA Leveraged Loan Index.

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.

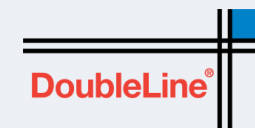
Volatility Index (VIX) - The VIX shows the market's expectation of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 index options. This volatility is meant to be forward looking and is calculated from both calls and puts. The VIX is a widely used measure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

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.

University of Michigan Consumer Sentiment Index - This index rates the relative level of current and future economic conditions through monthly surveys of about 500 U.S. households (ex Alaska and Hawaii). There are two versions of this data released two weeks apart, preliminary and revised. The preliminary data tends to have greater impact. A higher-than-expected reading should be taken as positive/bullish for the U.S. dollar; a lower-than-expected reading should be taken as negative/bearish.

WTI - West Texas Intermediate (occasionally called Texas Light Sweet), an oil benchmark that is central to commodities trading. It is one of the three major oil benchmarks used in trading, the others being Brent crude and Dubai/Oman.

Definitions of Select Terms



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.

M2 Money Supply – Calculation of the money supply that includes all elements of M1 as well as “near money.” M1 includes cash and checking deposits, while near money refers to savings deposits, money market securities, mutual funds and other time deposits. These assets are less liquid than M1 and not as suitable as exchange mediums, but they can be quickly converted into cash or checking deposits.

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)

Option Adjusted Spread (OAS) - Measurement of the spread of a fixed-income security rate and the risk-free rate of return, which is then adjusted to take into account an embedded option. Typically, an analyst uses U.S. Treasury yields for the risk-free rate. The spread is added to the fixed-income security price to make the risk-free bond price the same as the bond.

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.

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.

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 (R²) - 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.

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