

Wilshire

2023 Year in Review and Market Update Webinar

Today's Agenda

- Inflation... "Are we in the clear yet?"
- Recession risks... "Are we out of the woods yet?"
- Has the Fed signaled a clear pivot to lower rates or has the market overreacted?
- What is the implication of lower interest rates on equity valuations and the outlook for risk assets?
- Are earnings expectations reasonable given the outlook for slower economic growth?
- Where is sentiment today and how are investors positioned heading into 2024?
- How has strong Q4 performance impacted both short- and long-term capital market expectations?
- How (if at all) should investors consider geopolitical risks against this backdrop?

Wilshire Advisors

Since 1972, Wilshire has been dedicated to improving investment outcomes for institutional investors and financial intermediaries worldwide.

- Institutional advisory and OCIO
- Discretionary and advisory solutions for financial intermediaries
- Full spectrum across traditional and alternative solutions
- Multi-asset analytics

500⁺
clients

\$86 Billion
in assets under management¹

\$1.2 Trillion
in assets under advisement¹

¹ As of 9/30/2023. Assets under advisement includes assets under management.

Wishire

The Week Ahead: 9/27/2021 – 10/1/2021

Economic Data Releases:

- Monday: Durable Goods
- Tuesday: Wholesale Inventories
- Wednesday: Pending Home Sales
- Friday: Personal Income & Spending, PCE Deflator

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Market Performance as of 9/24/2021

(A) Strategy	WM10	WM10	Aug	Jul	Jun	Q120	Q121
S&P500	0.20	-0.40	0.24	0.28	0.33	-0.31	0.38
Wilshire US	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
(B) Style	WM10	WM10	Aug	Jul	Jun	Q120	Q121
Wilshire US Large Cap	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Wilshire US Large Value	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Wilshire US Large Mid	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Wilshire US Mid Value	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Wilshire US Small Value	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Wilshire US Growth	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Wilshire US Tech	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Wilshire US Div	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
(C) Sector	WM10	WM10	Aug	Jul	Jun	Q120	Q121
Health Care	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Technology	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Financial	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Consumer	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Energy	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Industrials	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Real Estate	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Utilities	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Commodities	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Global	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Emerging Markets	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Fixed Income	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38
Alternatives	0.20	-0.40	0.28	0.28	0.38	-0.28	0.38

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Market Releases: 9/13/2021 – 9/24/2021

Production Relatively Consistent with Expectations

Market Sales Exceeded for the Upside

Economic Data Releases: 9/13/2021 – 9/24/2021

Industrial Production Relative to Expectations
 Industrial production has been volatile, with a sharp decline in August followed by a recovery. The chart shows a significant gap between actual production and expectations in August.

Retail Sales Surprises to the Upside
 Retail sales have shown a significant positive surprise in August, indicating a strong recovery in consumer spending.

NBS Small Business Survey Indicates that Jobs are Increasingly Hard to Fill
 The NBS Small Business Survey indicates that jobs are increasingly hard to fill, with the index showing a decline from its peak in July.

Inflation May Be Peaking
 Core inflation has reached a peak in August, suggesting that inflation may be peaking and could begin to ease in the future.

1

Presenters



Josh Emanuel, CFA

Chief Investment Officer

20+ years of industry experience

As CIO, leads Wilshire's investment activities, including:

- investment strategy
- manager research
- quantitative alpha research
- portfolio management



Steve Foresti

Senior Advisor, Investments

30+ years of industry experience

Guides and supports Wilshire's investment and research efforts, including

- strategic asset allocation research
- capital market forecasts
- thought leadership

Market Performance Summary

Global Equities as of 12/31/2023

U.S. Equity	MTD (%)	QTD (%)	YTD (%)	1Y (%)
FT Wilshire 5000 Index SM	5.33	12.10	26.10	26.10
Standard & Poor's 500	4.54	11.69	26.29	26.29
FT Wilshire 4500 Index SM	10.58	13.55	18.23	18.23
MSCI USA Minimum Volatility	2.71	7.79	9.79	9.79

Source: Bloomberg. Indexes are total return. For illustrative purposes only.

U.S. Equity by Size/Style	MTD (%)	QTD (%)	YTD (%)	1Y (%)
FT Wilshire Large Cap Index SM	4.59	11.89	27.34	27.34
FT Wilshire Large Cap Growth Index SM	4.58	14.69	46.06	46.06
FT Wilshire Large Cap Value Index SM	4.60	9.11	11.06	11.06
FT Wilshire Small Cap Index SM	10.24	13.54	19.50	19.50
FT Wilshire Small Cap Growth Index SM	10.45	12.91	21.80	21.80
FT Wilshire Small Cap Value Index SM	10.03	14.15	17.23	17.23
FT Wilshire Micro Cap Index SM	13.49	13.73	8.76	8.76

Source: Bloomberg. Indexes are total return. For illustrative purposes only.

Non-U.S. Equity	MTD (%)	QTD (%)	YTD (%)	1Y (%)
MSCI ACWI	4.80	11.03	22.20	22.20
MSCI ACWI ex USA	5.02	9.75	15.62	15.62
MSCI ACWI ex USA Minimum Volatility	4.14	6.46	10.92	10.92
MSCI EAFE	5.31	10.42	18.24	18.24
MSCI Emerging Markets	3.91	7.86	9.83	9.83
MSCI ACWI ex USA Small Cap	6.35	10.12	15.66	15.66

Source: Bloomberg. Indexes are total return. For illustrative purposes only.

Non-U.S. Equity (local currency)	MTD (%)	QTD (%)	YTD (%)	1Y (%)
MSCI ACWI	4.05	9.38	21.61	21.61
MSCI ACWI ex USA	3.00	5.39	14.07	14.07
MSCI ACWI ex USA Minimum Volatility	2.24	2.93	10.95	10.95
MSCI EAFE	2.85	4.96	16.16	16.16
MSCI Emerging Markets	3.14	5.58	9.85	9.85
MSCI ACWI ex USA Small Cap	3.93	5.60	15.45	15.45

Source: Bloomberg. Indexes are total return. For illustrative purposes only.

Fixed Income Markets as of 12/31/2023

U.S. Fixed Income	MTD (%)	QTD (%)	YTD (%)	1Y (%)
Bloomberg U.S. Aggregate	3.83	6.82	5.53	5.53
Bloomberg Long Term Treasury	8.61	12.70	3.06	3.06
Bloomberg Long Term Corporate	7.36	14.01	10.93	10.93
Bloomberg U.S. TIPS	2.69	4.71	3.90	3.90
Bloomberg U.S. Credit	4.19	8.15	8.18	8.18
Bloomberg U.S. Corporate High Yield	3.73	7.16	13.45	13.45
S&P/LSTA Leveraged Loan	1.60	2.84	13.29	13.29

Source: Bloomberg. Indexes are total return. For illustrative purposes only.

Market Rates	Dec 31	Sept 30	June 30	Mar 31
10-Year Treasury	3.88	4.57	3.84	3.47
10-Year Breakeven Inflation	2.17	2.34	2.23	2.32

Source: Bloomberg. Indexes are total return.

Global Fixed Income	MTD (%)	QTD (%)	YTD (%)	1Y (%)
Bloomberg Global Aggregate	4.16	8.10	5.72	5.72
Bloomberg Global Aggregate (Hdg)	3.20	5.99	7.15	7.15
Bloomberg EM LC Gov't Universal	2.54	5.97	6.44	6.44
Bloomberg EM LC Gov't Universal (Hdg)	1.82	3.41	7.80	7.80

Source: Bloomberg. Indexes are total return. For illustrative purposes only.

Real Assets	MTD (%)	QTD (%)	YTD (%)	1Y (%)
Wilshire US Real Estate Securities Index SM	10.22	16.27	16.26	16.26
Wilshire Global Real Estate Securities Index SM	9.99	16.26	14.89	14.89
FTSE Global Core Infrastructure 50/50	4.52	11.11	3.10	3.10
Alerian Midstream Energy	(0.51)	6.45	14.02	14.02
Bloomberg Commodity	(2.69)	(4.63)	(7.91)	(7.91)
Gold	1.30	11.60	13.10	13.10
Bitcoin	11.08	55.88	152.94	152.94

Source: Bloomberg. Indexes are total return. For illustrative purposes only.

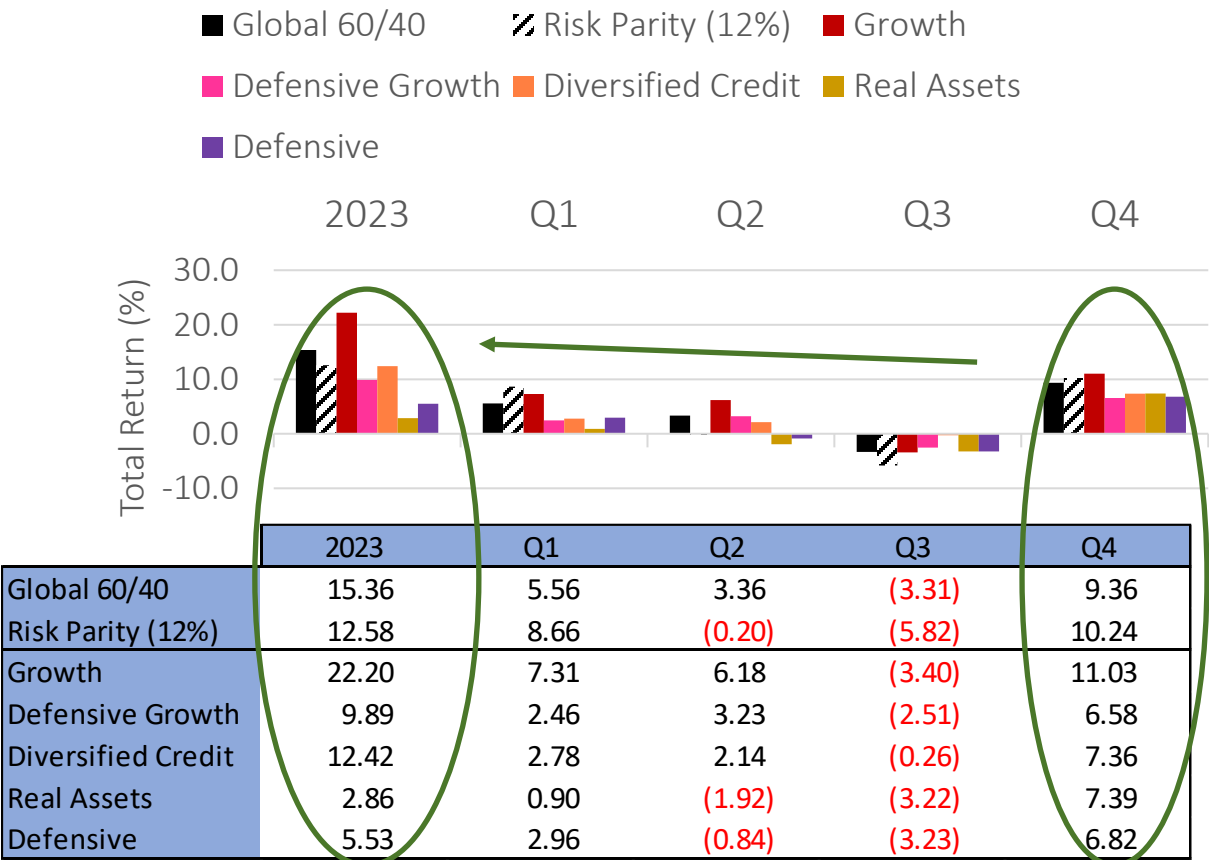
Alternatives	MTD (%)	QTD (%)	YTD (%)	1Y (%)
Wilshire Liquid Alternative Index SM	0.40	1.89	4.42	4.42
Wilshire Liquid Alternative Equity Hedge Index SM	(0.25)	2.79	8.62	8.62
Wilshire Liquid Alternative Event Driven Index SM	(1.01)	0.02	2.18	2.18
Wilshire Liquid Alternative Global Macro Index SM	(1.66)	(4.61)	(3.21)	(3.21)
Wilshire Liquid Alternative Multi-Strategy Index SM	(0.41)	0.92	4.54	4.54
Wilshire Liquid Alternative Relative Value Index SM	1.95	3.72	4.13	4.13

Source: Bloomberg. Indexes are total return. For illustrative purposes only.

Economic Backdrop: Rate Whiplash & Fed Pivot

2023 Thematic Return Stacks

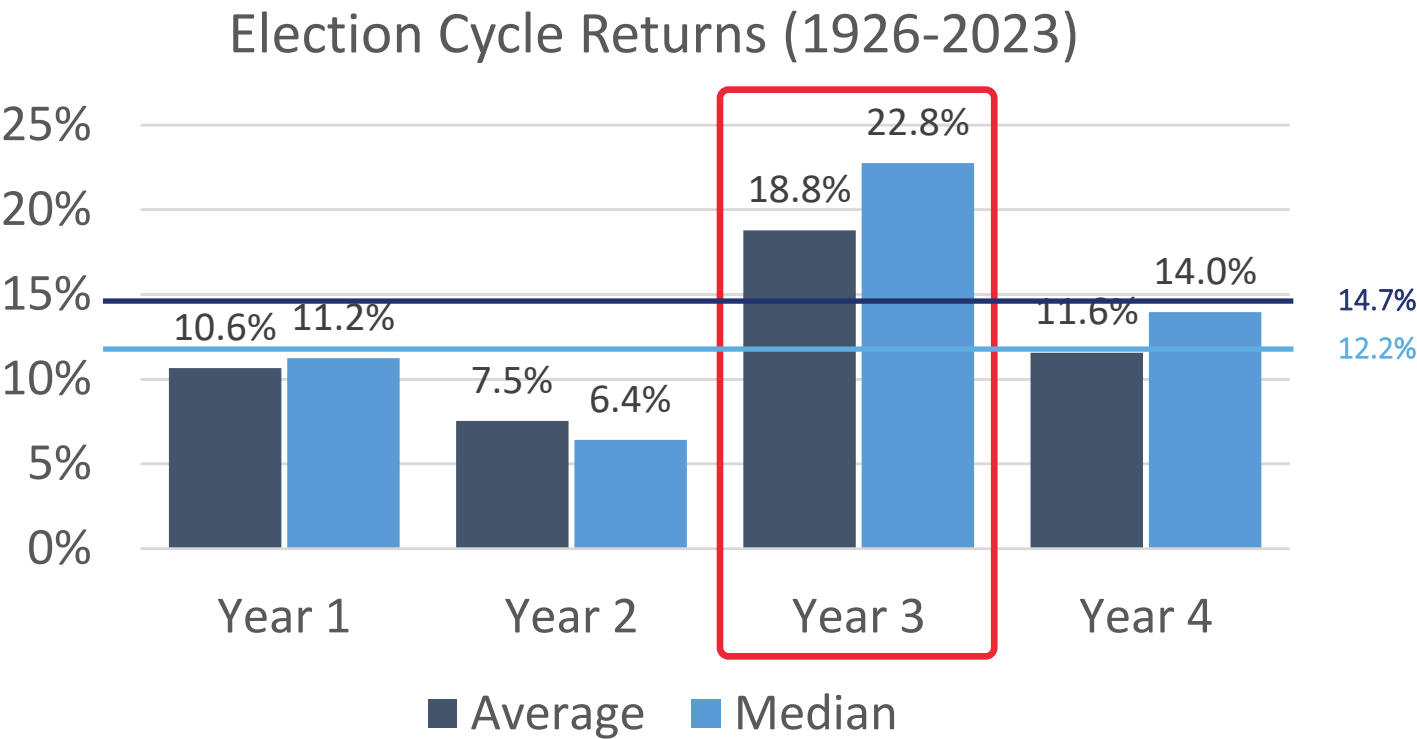
Asset Allocation & Thematic Returns



Broad Q4 rally drives strong 2023

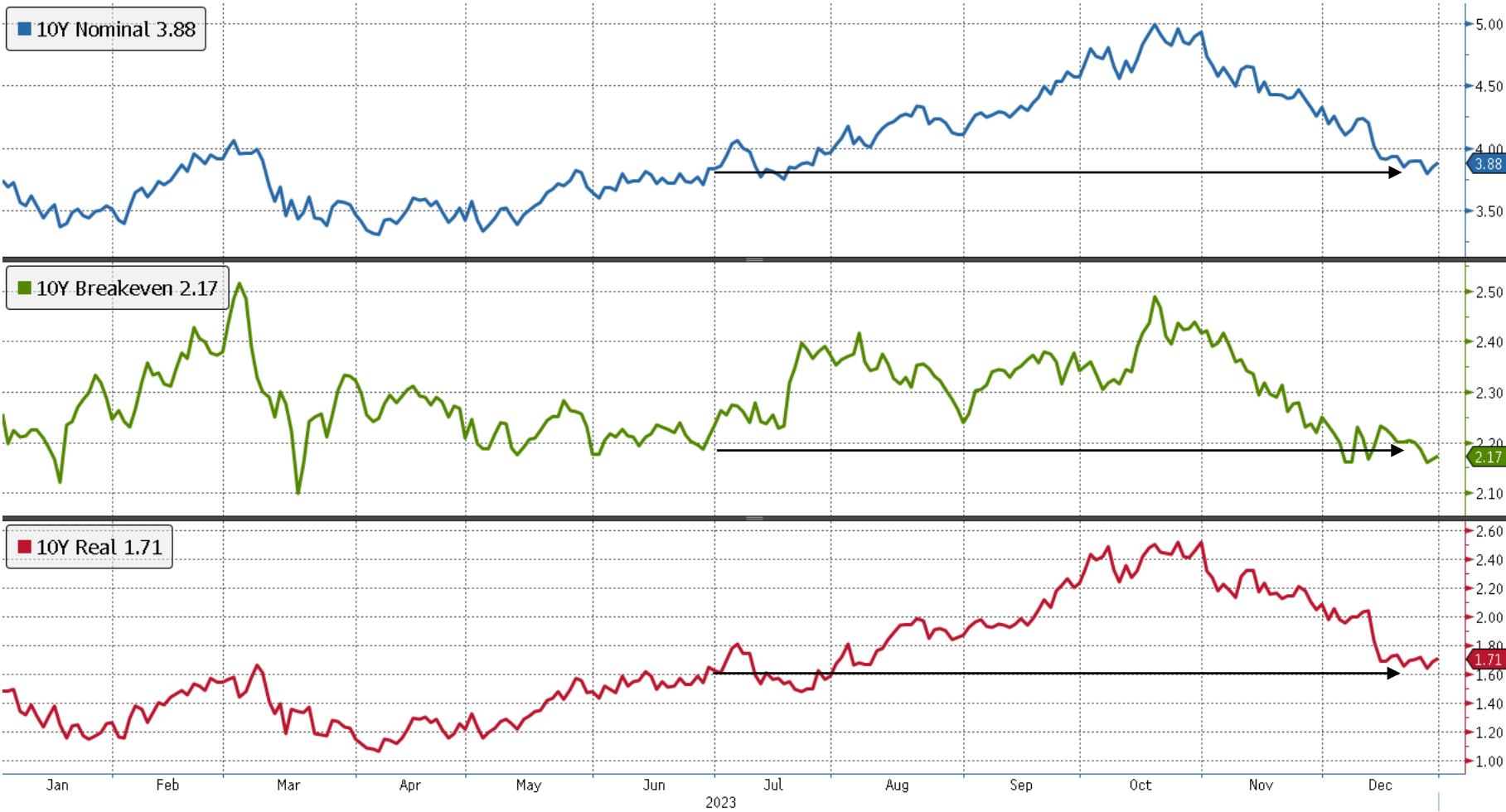
Data Source: Wilshire, Bloomberg

Election Cycle Returns



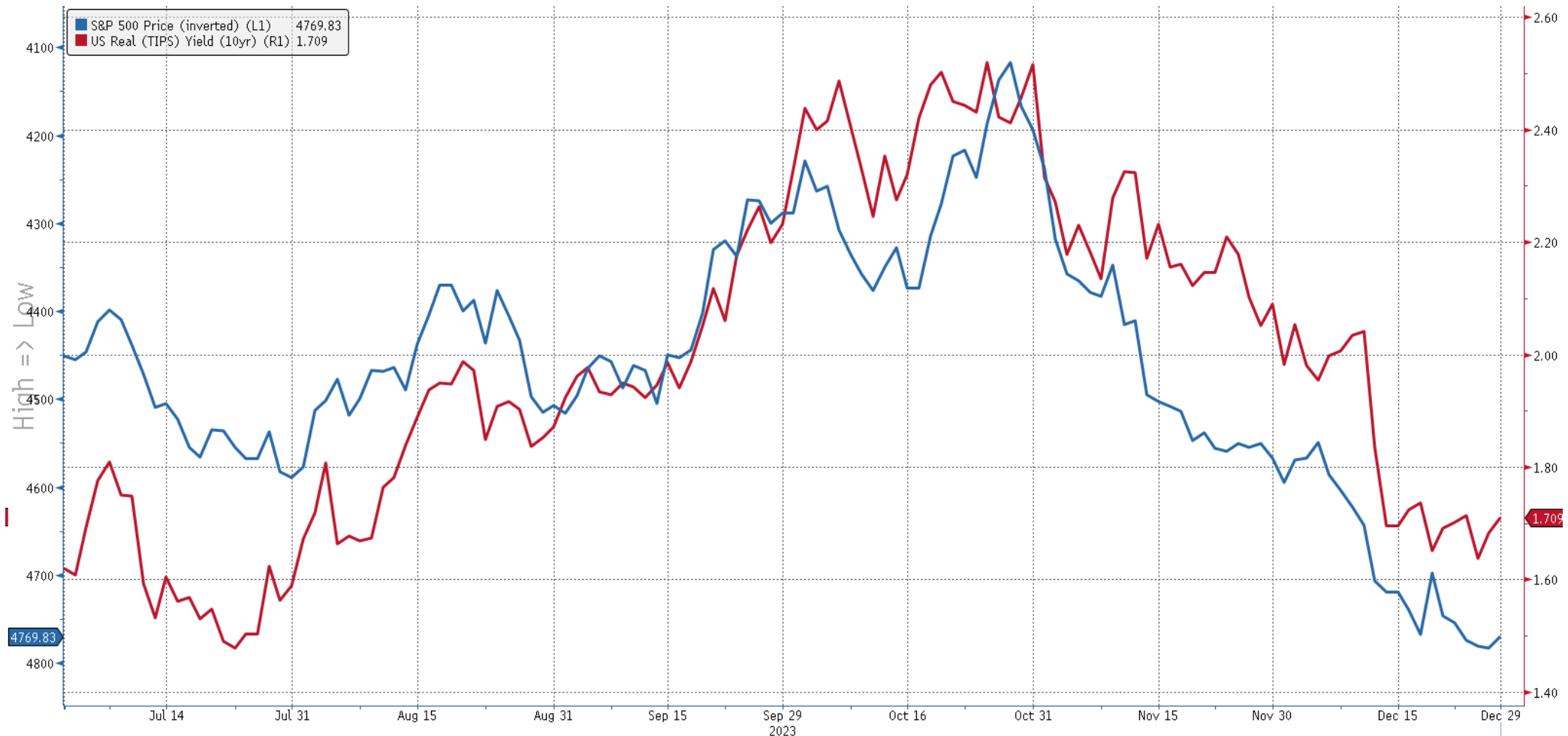
Data Source: Wilshire Compass

Yield Whiplash



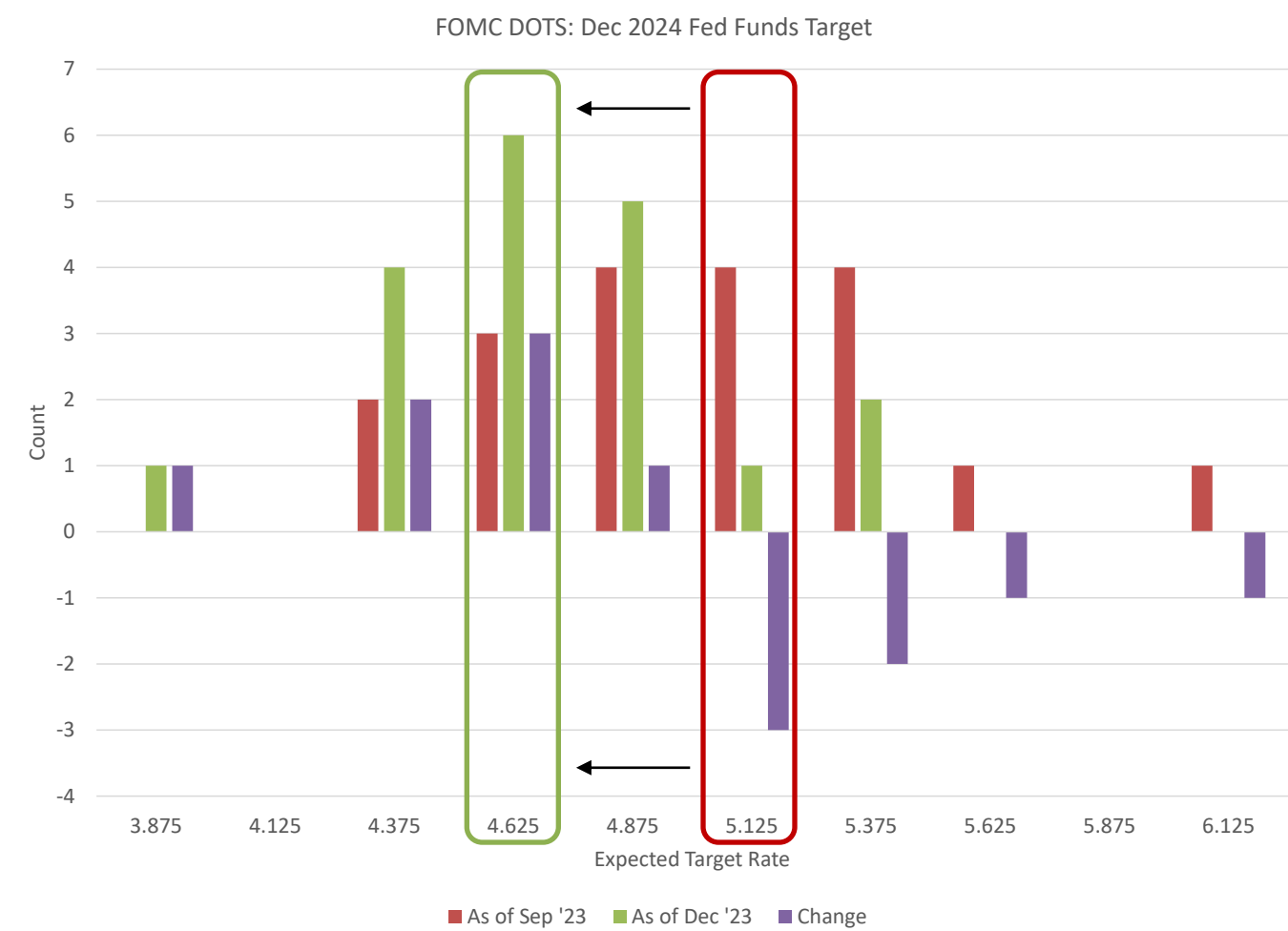
USGG10YR Index (US Generic Govt 10 Yr) 10yr Splits Daily 31DEC2022-29DEC2023 Copyright© 2024 Bloomberg Finance L.P. 05-Jan-2024 06:39:57
 Data Source: Bloomberg

Stock Prices Moving with Yields



SPX Index (S&P 500 INDEX) Stocks v Real Daily 30JUN2023-31DEC2023 Copyright© 2024 Bloomberg Finance L.P. 17-Jan-2024 08:14:14 Data Source: Bloomberg

Fed Pivot: Hinting at “Mission Accomplished?”



Data Source: Bloomberg

Changes to Fed Statement

First Paragraph:

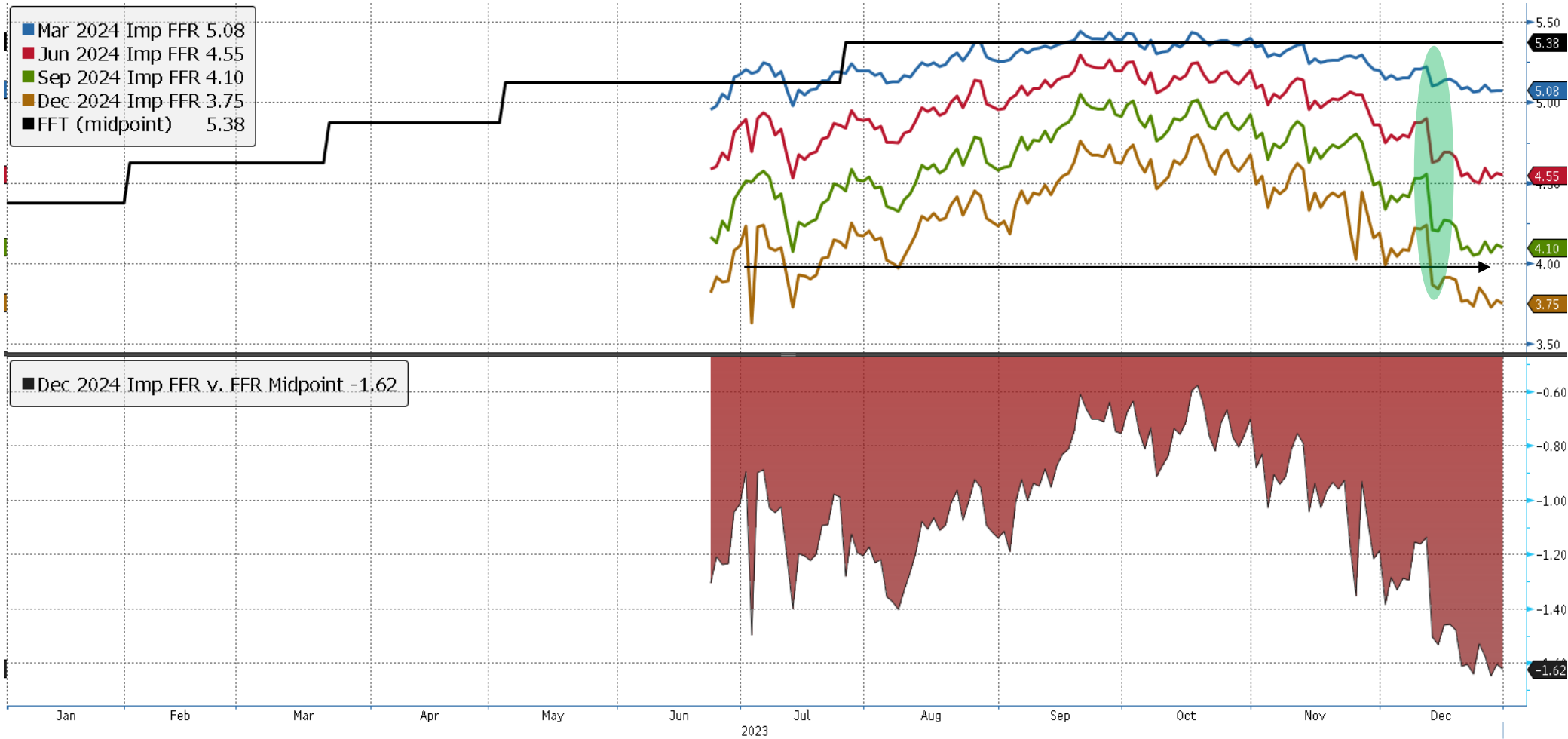
“Recent indicators suggest that growth of economic activity ~~expanded at a~~ has slowed from its strong pace in the third quarter.

... “Inflation has eased over the past year but remains elevated.”

Third Paragraph:

“In determining the extent of any additional policy firming that may be appropriate to return inflation to 2 percent over time, the Committee will”

Markets (Still) Expect More in Rate Cuts



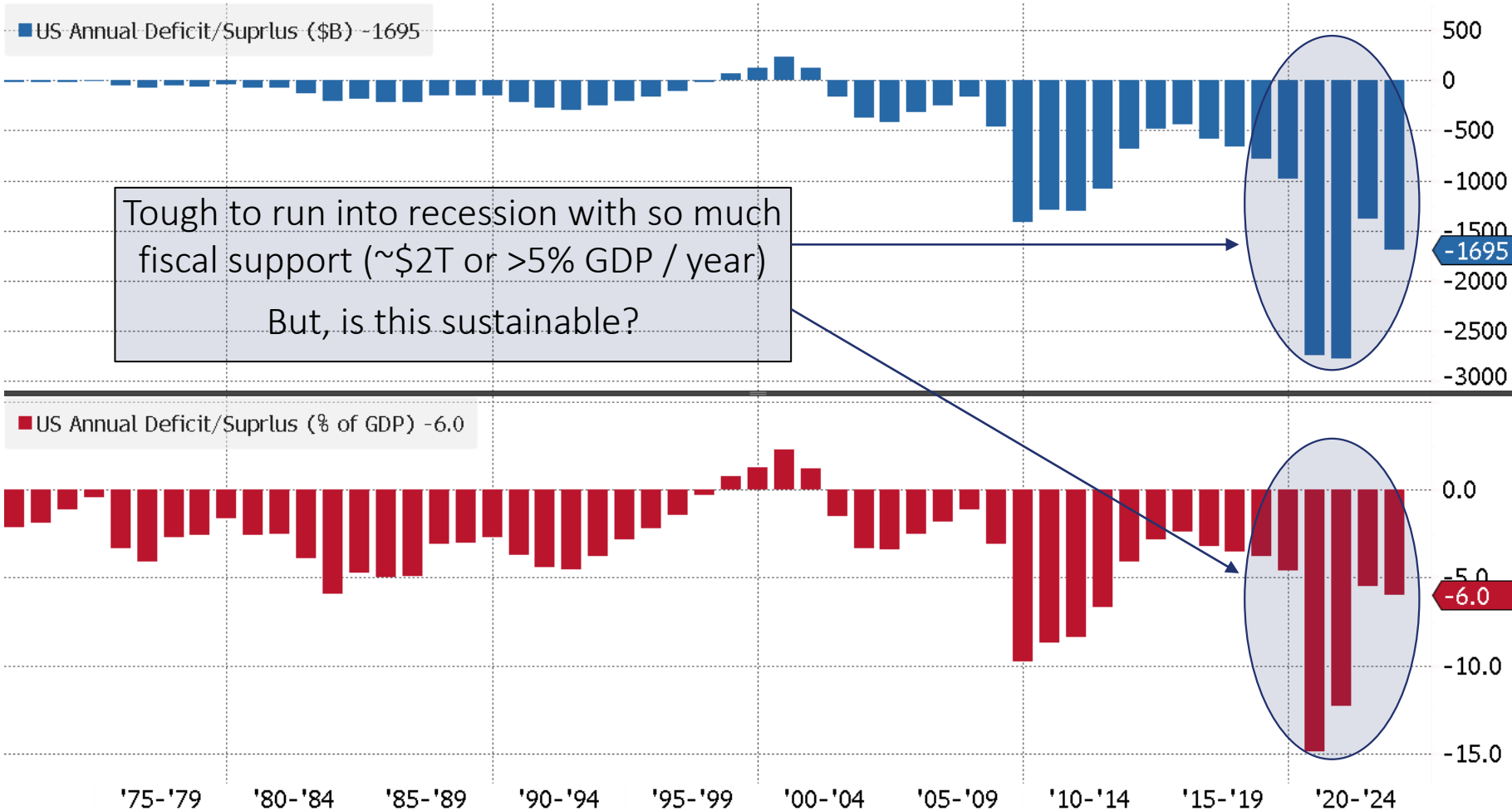
US0AFR MAR2024 Index (WIRP Implied Overnight Rate for FFR Implied) Daily 30DEC2022-31DEC2023

Copyright © 2024 Bloomberg Finance L.P.

17-Jan-2024 07:18:22

Data Source: Bloomberg

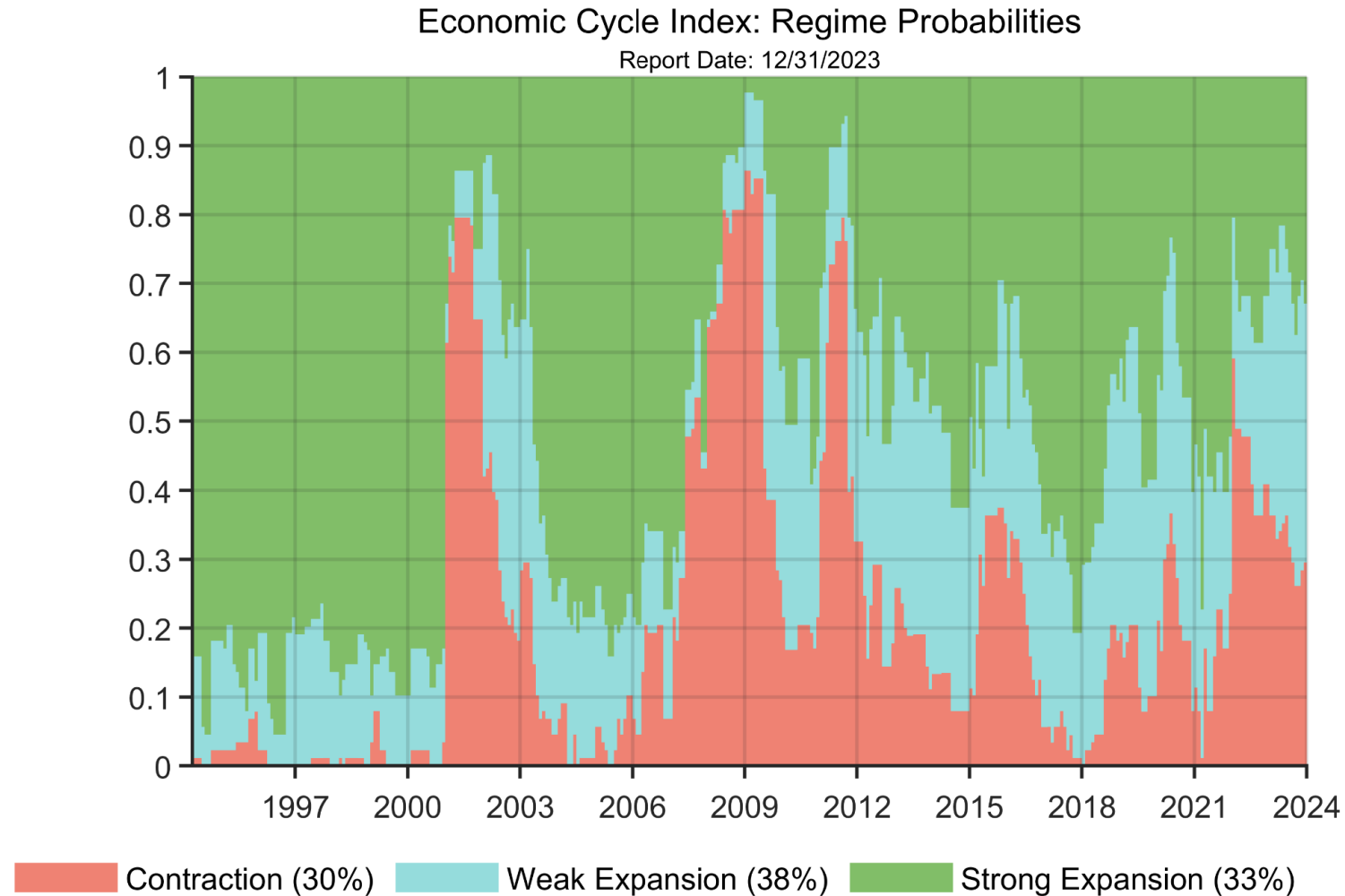
Recession Risks: How Did So Many Get It So Wrong?



FDEBTY Index (US Treasury Federal Budget Yearly Summary Deficit Or Surplus) Deficits Yearly 31DEC1971-31DEC2023 Copyright© 2024 Bloomberg Finance L.P. 07-Jan-2024 15:43:00
Data Source: Bloomberg

Economic & Market Outlook

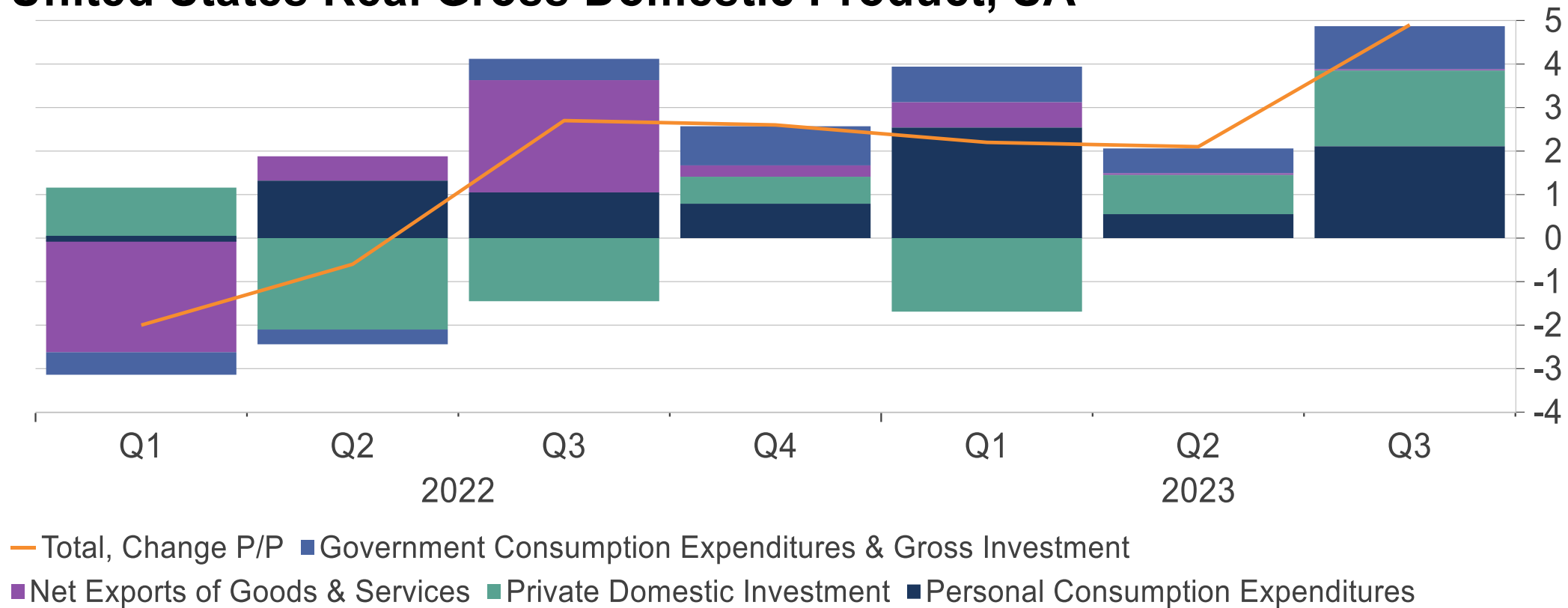
Wilshire's Economic Cycle Model Shows a Growing Risk of Contraction



Data Source: Wilshire

Will the U.S. Economy Continue to Expand on Consumption and Private Investment?

United States Real Gross Domestic Product, SA

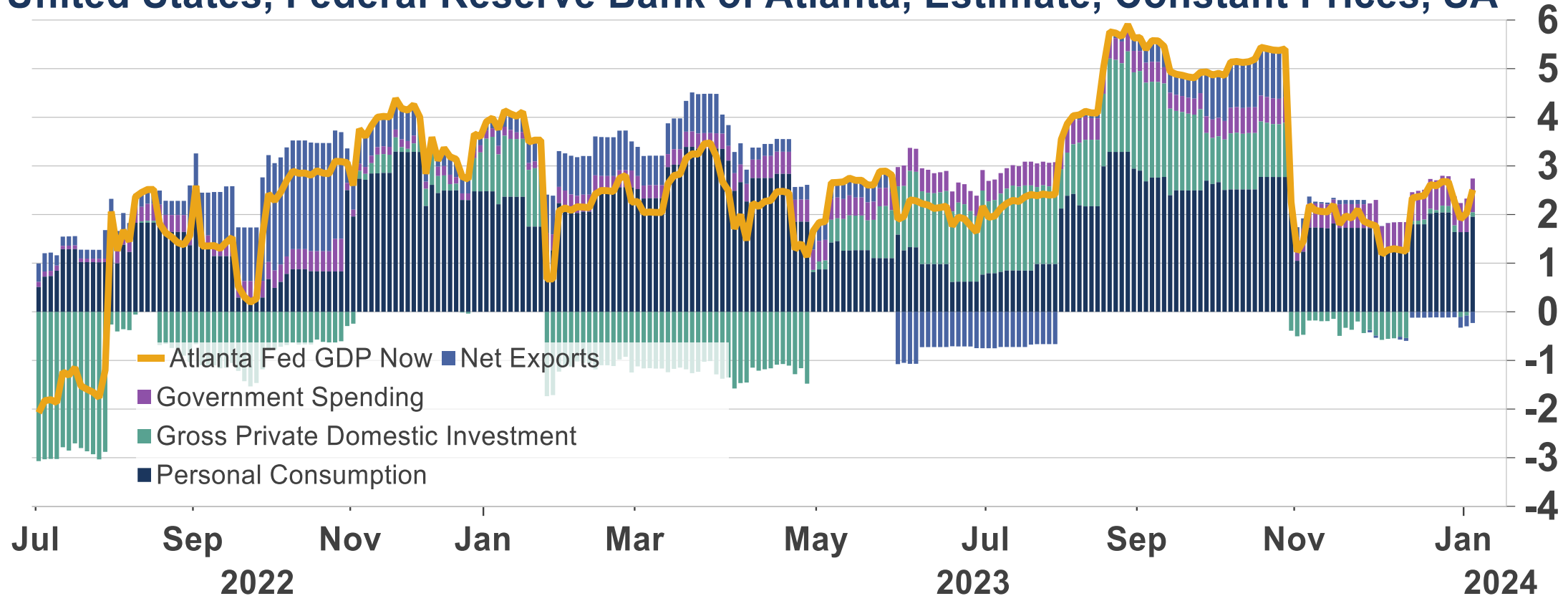


Source: U.S. Bureau of Economic Analysis (BEA), Macrobond

Data Source: Bloomberg

Growth Estimates have Declined but Remain Healthy

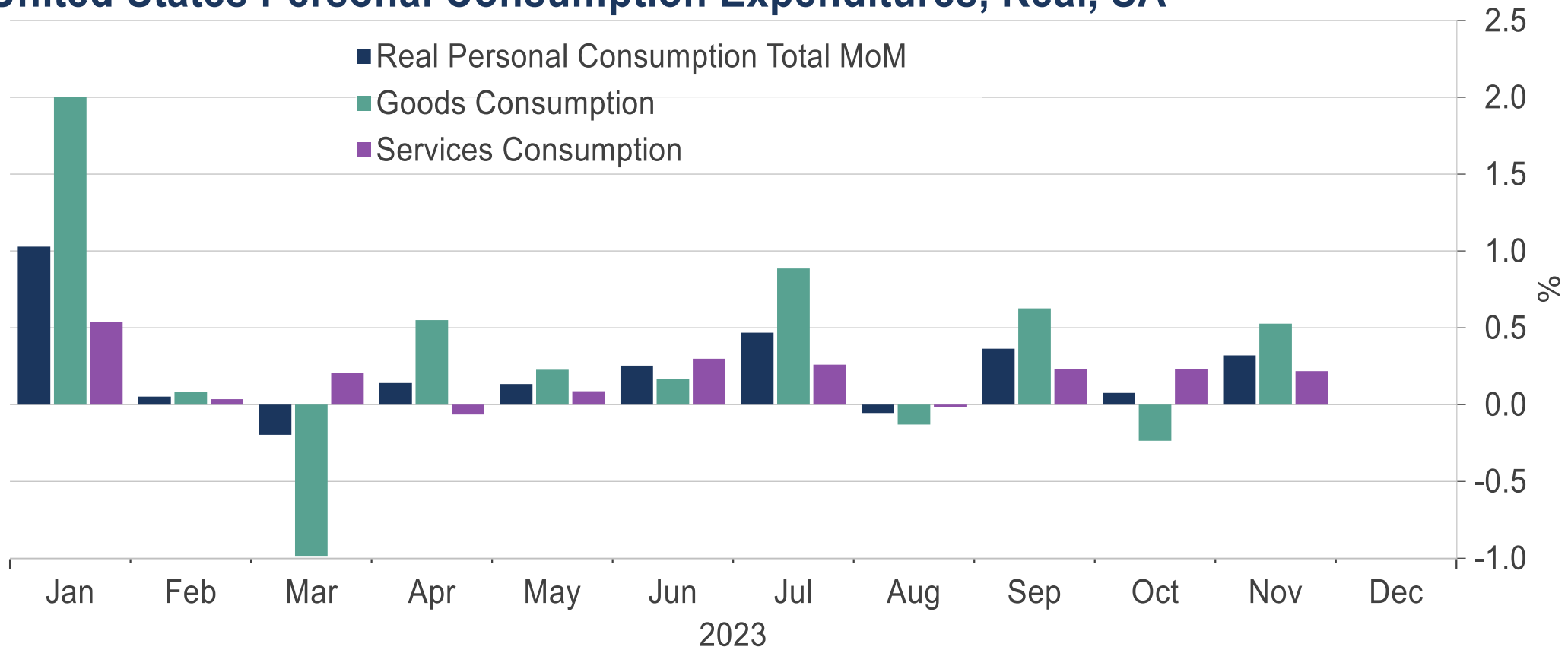
United States, Federal Reserve Bank of Atlanta, Estimate, Constant Prices, SA



Source: Federal Reserve Bank of Atlanta, Macrobond

Consumption Trend Remains Positive, for Now

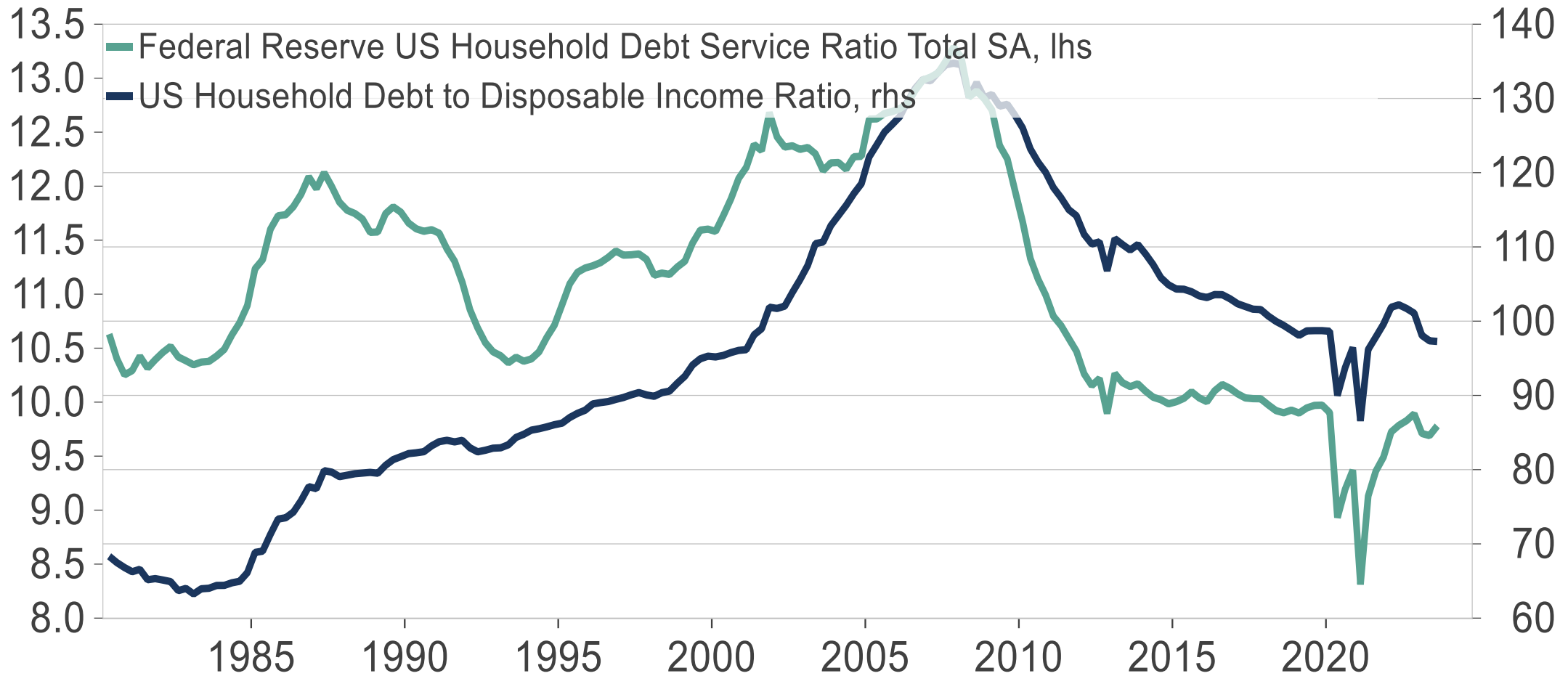
United States Personal Consumption Expenditures, Real, SA



Source: U.S. Bureau of Economic Analysis (BEA), Macrobond

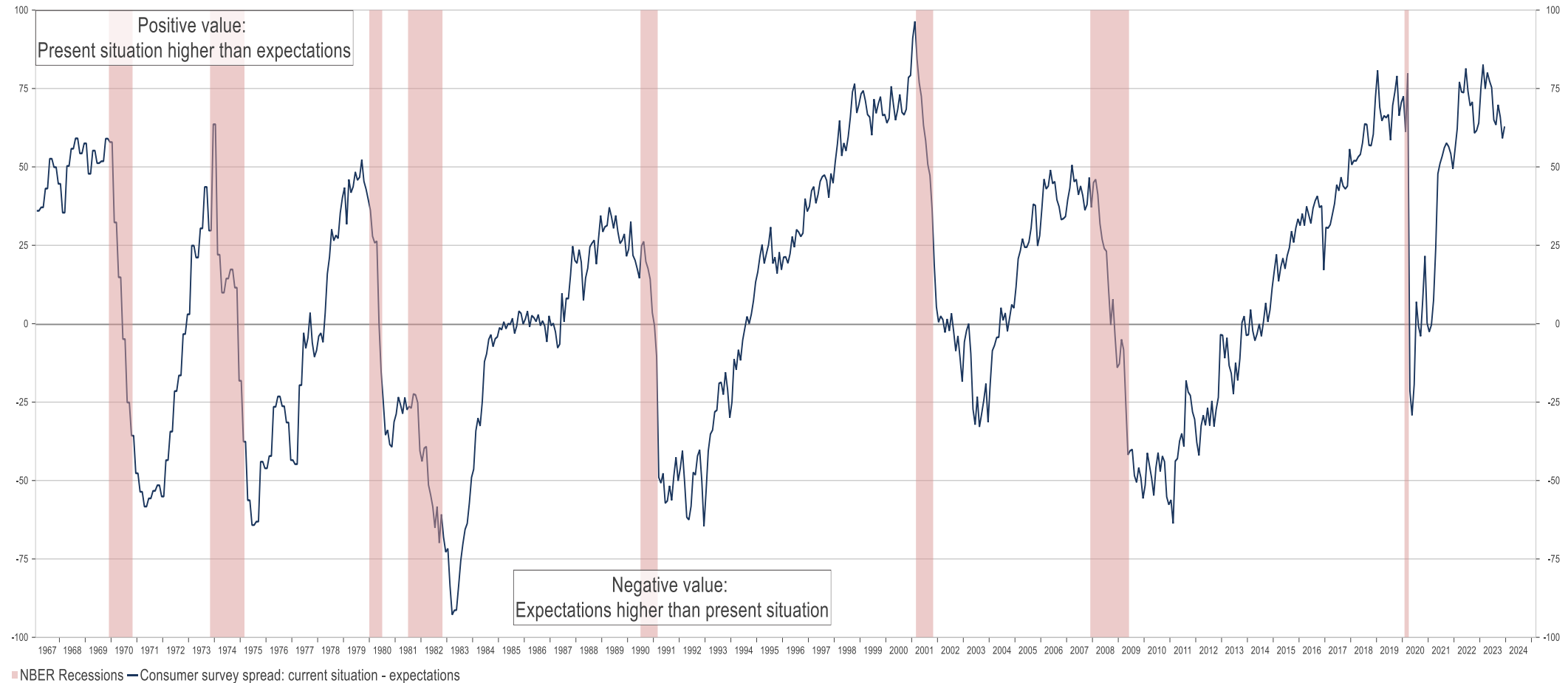
Data Source: Macrobond

U.S. Household Debt Service is Still Manageable



Source: Bloomberg, Macrobond

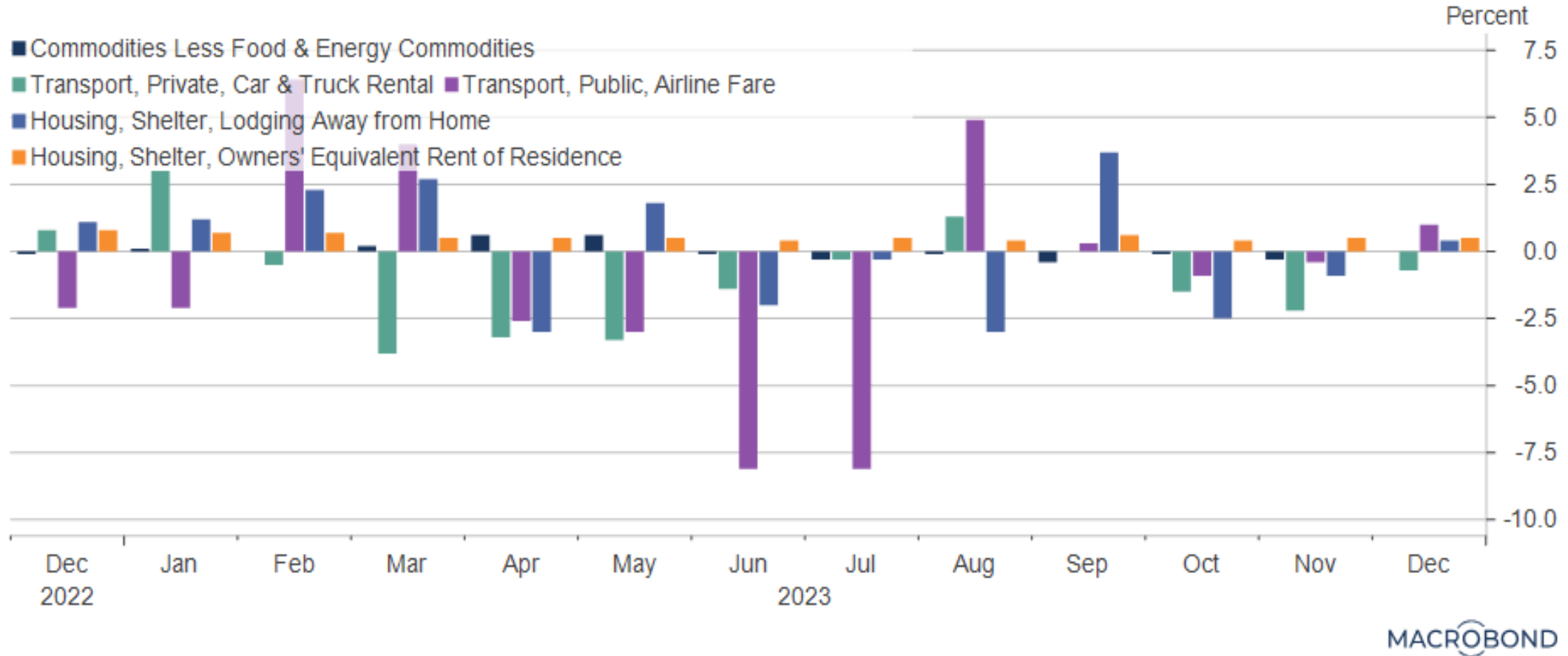
There's a Lag Between How Consumers Feel About the Future & Economic Downturns



Data Source: Wilshire

Peeling Back the Onion: Underlying Flexible Inflation is an Indication of Demand

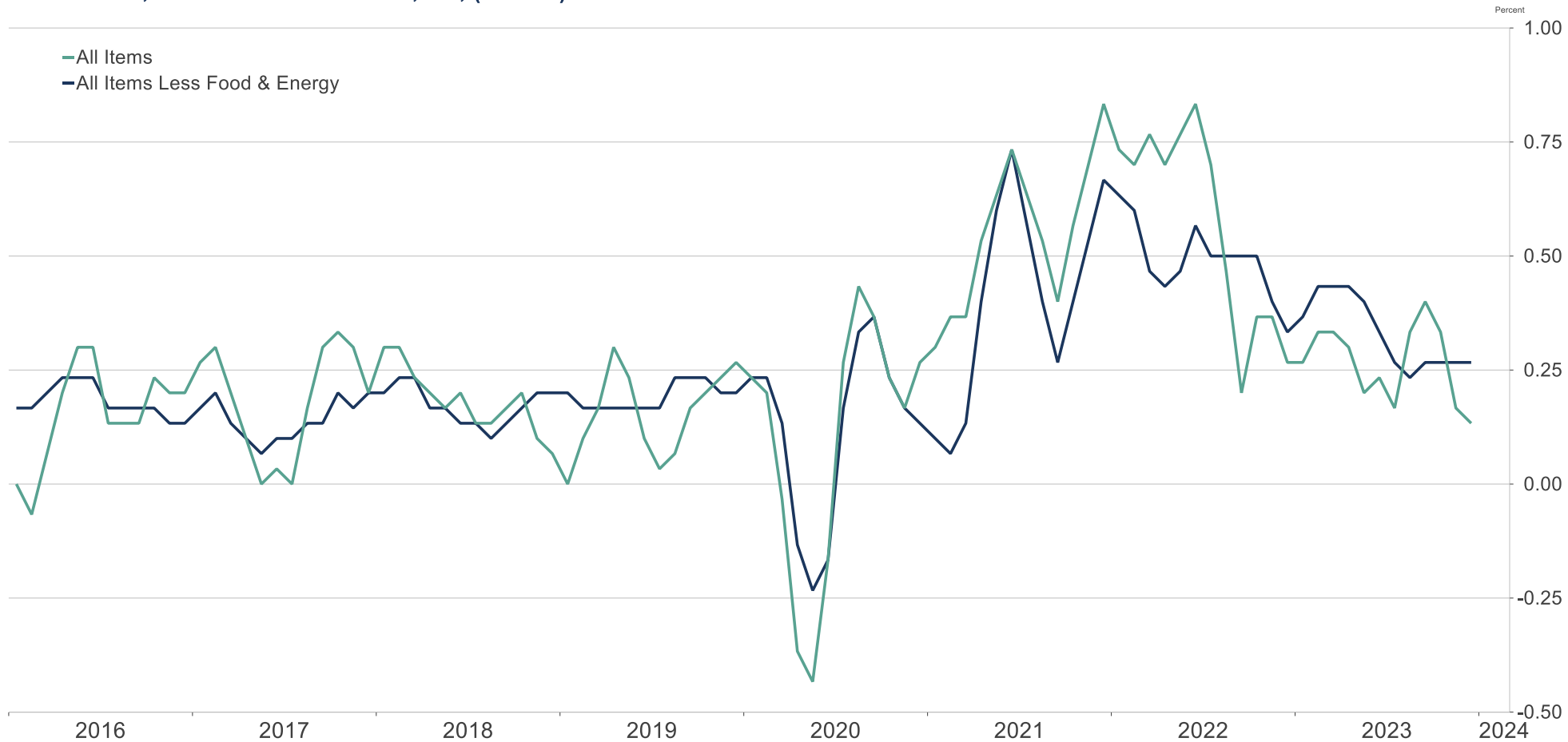
United States, Consumer Price Index, All Urban Consumers, U.S. City Average, SA, Change P/P



Data Source: Bureau of Labor Statistics (BLS)

Measures of Inflation have Been Drifting Lower

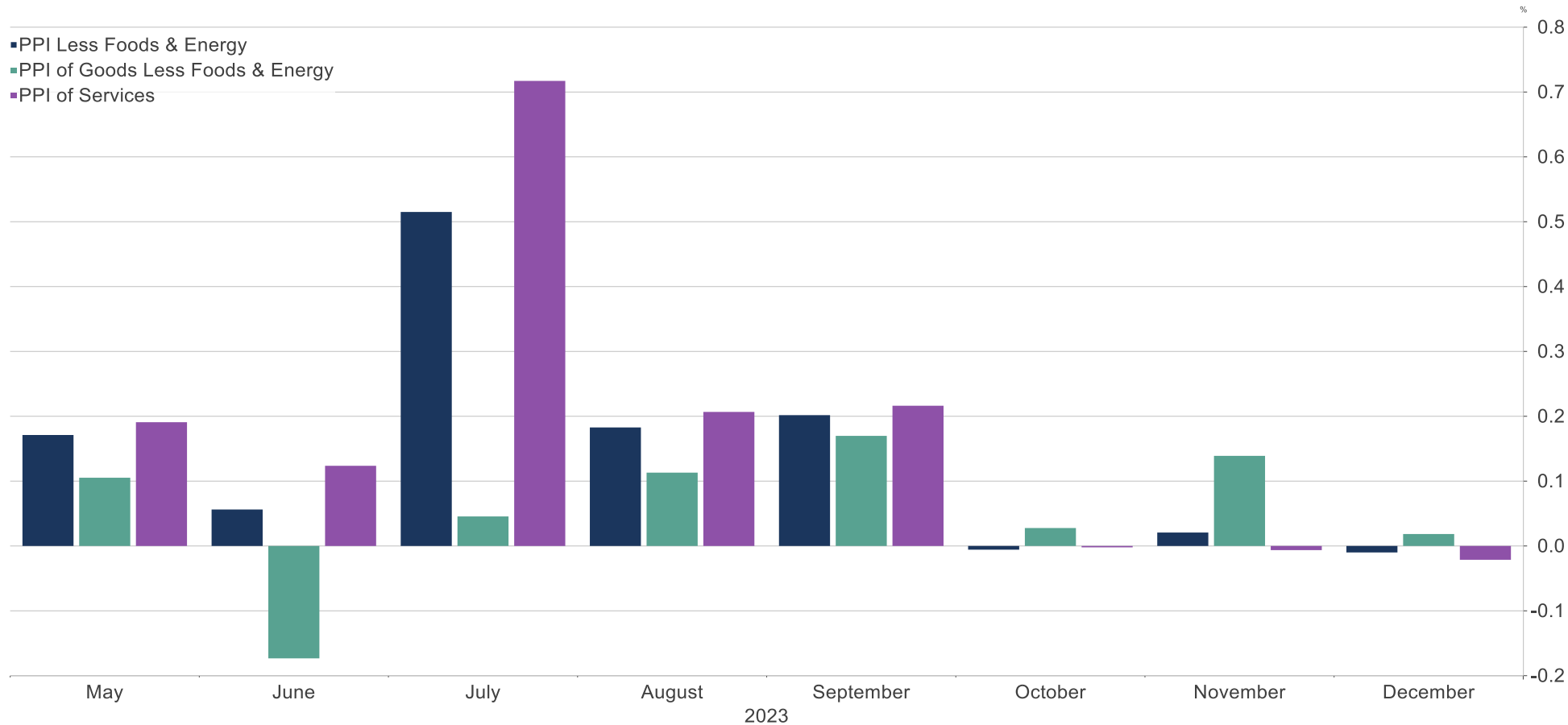
United States, Consumer Price Index, SA, (3M MA)



Source: U.S. Bureau of Labor Statistics (BLS), Macrobond

Producer Prices Continue to Exhibit Limited Inflationary Pressure

US Core Producer Prices

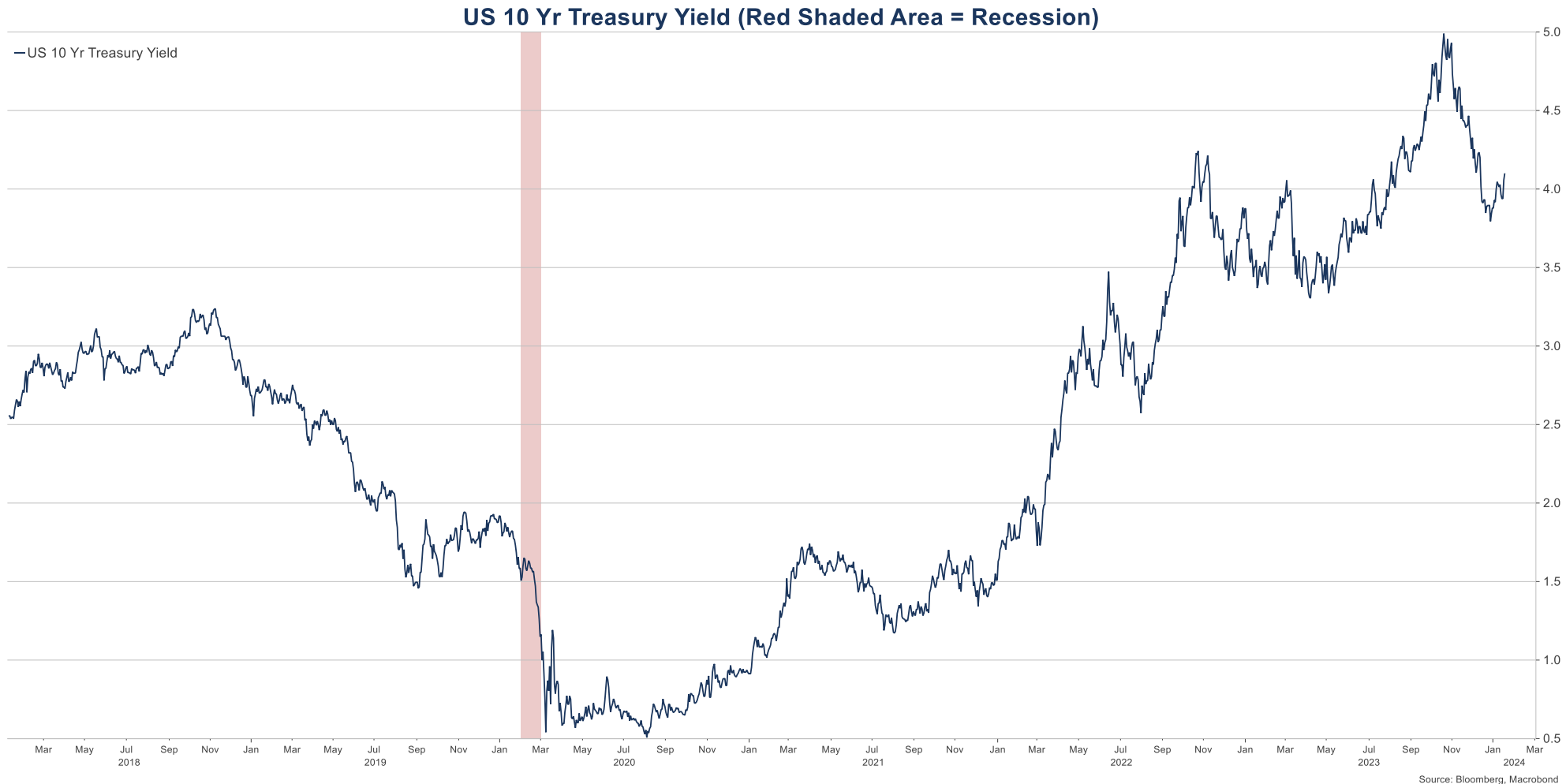


Source: U.S. Bureau of Labor Statistics (BLS), Macrobond

The end of the hiking cycle has come

MACROBOND

Treasury Yields Tumbled, Supporting Equity Valuations



Data Source: Macrobond, Bloomberg Data

Wilshire 10-Year Fair Valuation Model is Roughly in Line with the Market Now



Data Source: Wilshire

Equities Found Support Yet Again... All Riding on Lower Rates



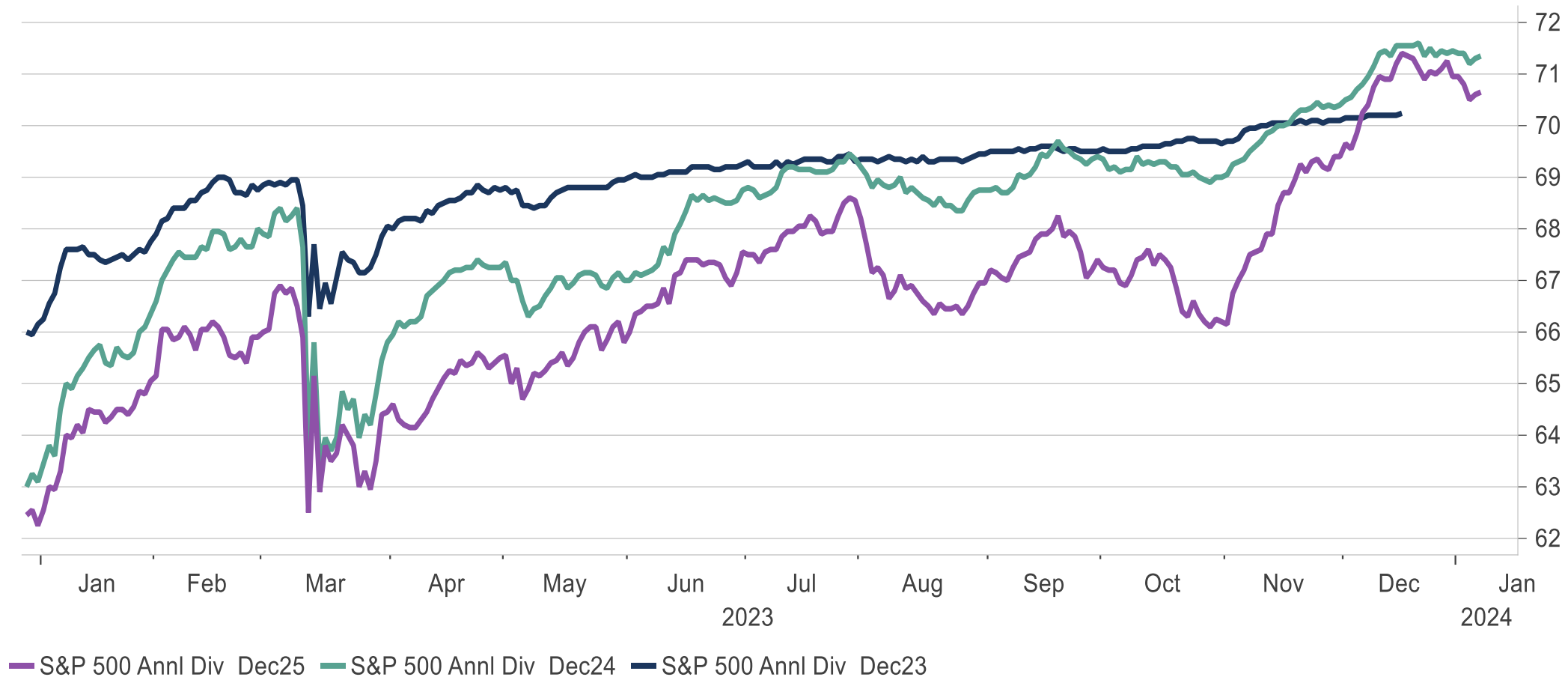
Data Source: Bloomberg

Equity Valuations: Prices have Adjusted More Than Yields, Leading to Higher Valuations

		US 10 Year Treasury Yield (%)														
		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50
US Equity 2024 EPS (\$)	275	8%	3%	-1%	-5%	-9%	-13%	-16%	-19%	-22%	-24%	-27%	-29%	-31%	-33%	-35%
	270	6%	1%	-3%	-7%	-11%	-14%	-17%	-20%	-23%	-25%	-28%	-30%	-32%	-34%	-36%
	265	4%	-1%	-5%	-9%	-13%	-16%	-19%	-22%	-24%	-27%	-29%	-31%	-33%	-35%	-37%
	260	2%	-3%	-7%	-11%	-14%	-17%	-20%	-23%	-26%	-28%	-31%	-33%	-35%	-37%	-38%
	250	-2%	-6%	-10%	-14%	-17%	-21%	-23%	-26%	-29%	-31%	-33%	-35%	-37%	-39%	-41%
	245	-4%	-8%	-12%	-16%	-19%	-22%	-25%	-28%	-30%	-32%	-35%	-37%	-38%	-40%	-42%
	240	-6%	-10%	-14%	-18%	-21%	-24%	-27%	-29%	-32%	-34%	-36%	-38%	-40%	-41%	-43%
	235	-8%	-12%	-16%	-19%	-22%	-25%	-28%	-31%	-33%	-35%	-37%	-39%	-41%	-43%	-44%
	230	-10%	-14%	-18%	-21%	-24%	-27%	-30%	-32%	-34%	-37%	-39%	-40%	-42%	-44%	-45%
	225	-12%	-16%	-19%	-23%	-26%	-29%	-31%	-34%	-36%	-38%	-40%	-42%	-43%	-45%	-47%
	220	-14%	-18%	-21%	-24%	-27%	-30%	-33%	-35%	-37%	-39%	-41%	-43%	-45%	-46%	-48%
	215	-16%	-20%	-23%	-26%	-29%	-32%	-34%	-37%	-39%	-41%	-43%	-44%	-46%	-48%	-49%
	210	-18%	-21%	-25%	-28%	-31%	-33%	-36%	-38%	-40%	-42%	-44%	-46%	-47%	-49%	-50%
	205	-20%	-23%	-27%	-30%	-32%	-35%	-37%	-39%	-42%	-43%	-45%	-47%	-49%	-50%	-51%
	200	-22%	-25%	-28%	-31%	-34%	-36%	-39%	-41%	-43%	-45%	-47%	-48%	-50%	-51%	-53%
	195	-24%	-27%	-30%	-33%	-36%	-38%	-40%	-42%	-44%	-46%	-48%	-50%	-51%	-52%	-54%
	190	-26%	-29%	-32%	-35%	-37%	-40%	-42%	-44%	-46%	-48%	-49%	-51%	-52%	-54%	-55%
	185	-28%	-31%	-34%	-36%	-39%	-41%	-43%	-45%	-47%	-49%	-51%	-52%	-54%	-55%	-56%
	180	-29%	-33%	-35%	-38%	-41%	-43%	-45%	-47%	-49%	-50%	-52%	-53%	-55%	-56%	-57%

Data Source: Wilshire Advisors, Bloomberg Data

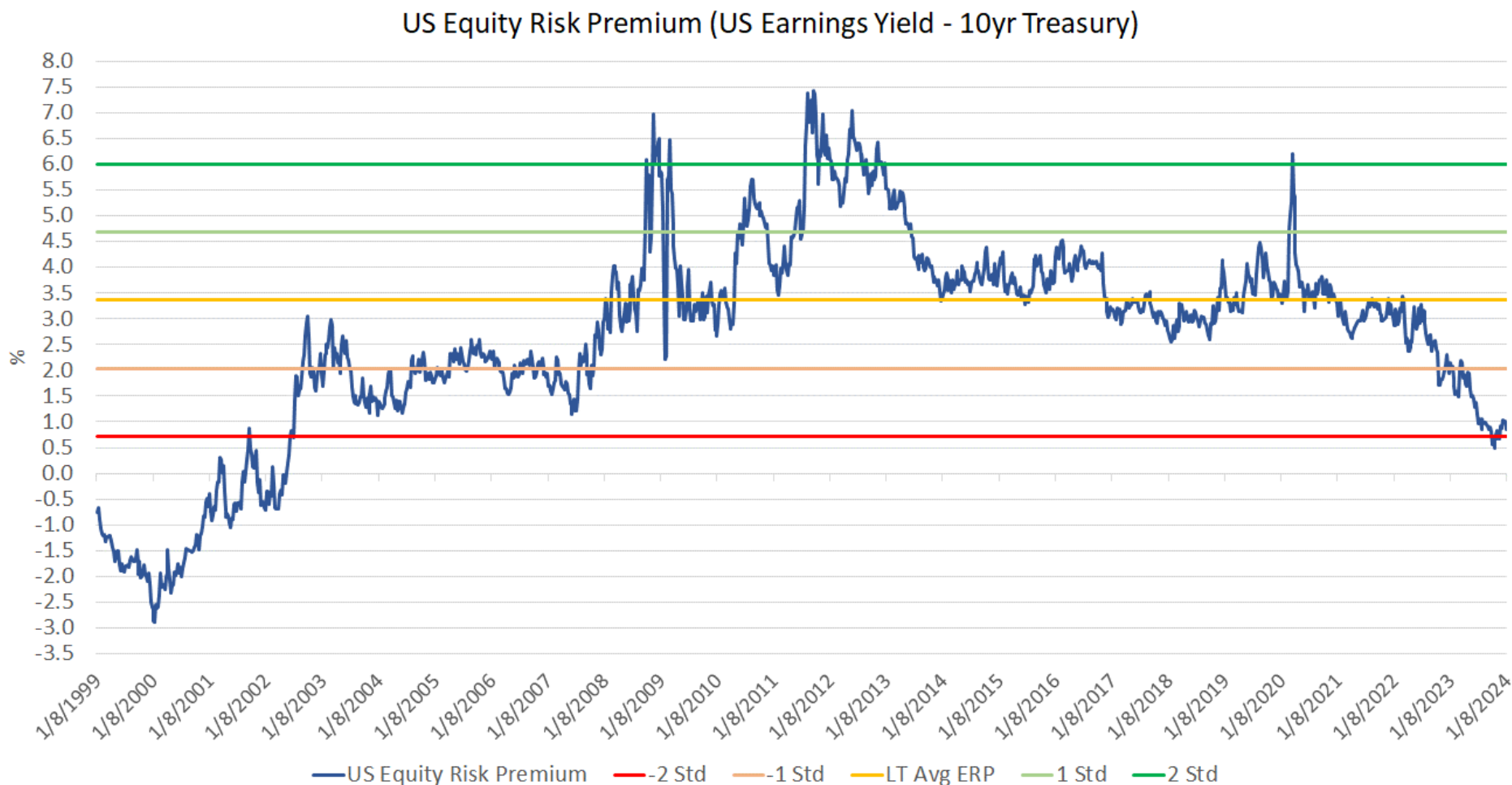
Dividend Futures Show a Dramatic Increase in Fundamental Outlook through 2025



Data Source: Macrobond

MACROBOND

Equity Valuations: History Shows that Markets Can Become Irrational...

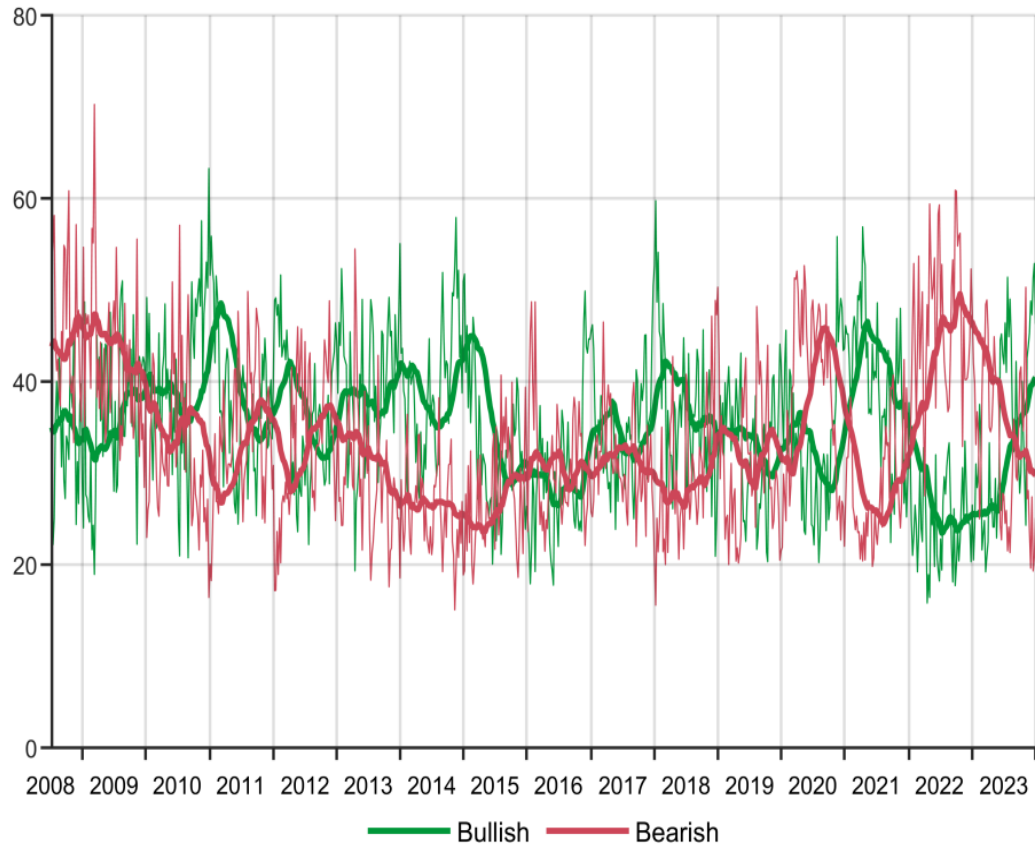


Data Source: Wilshire Advisors, Bloomberg Data

Investor Sentiment has Improved from Lows and is Getting Extended

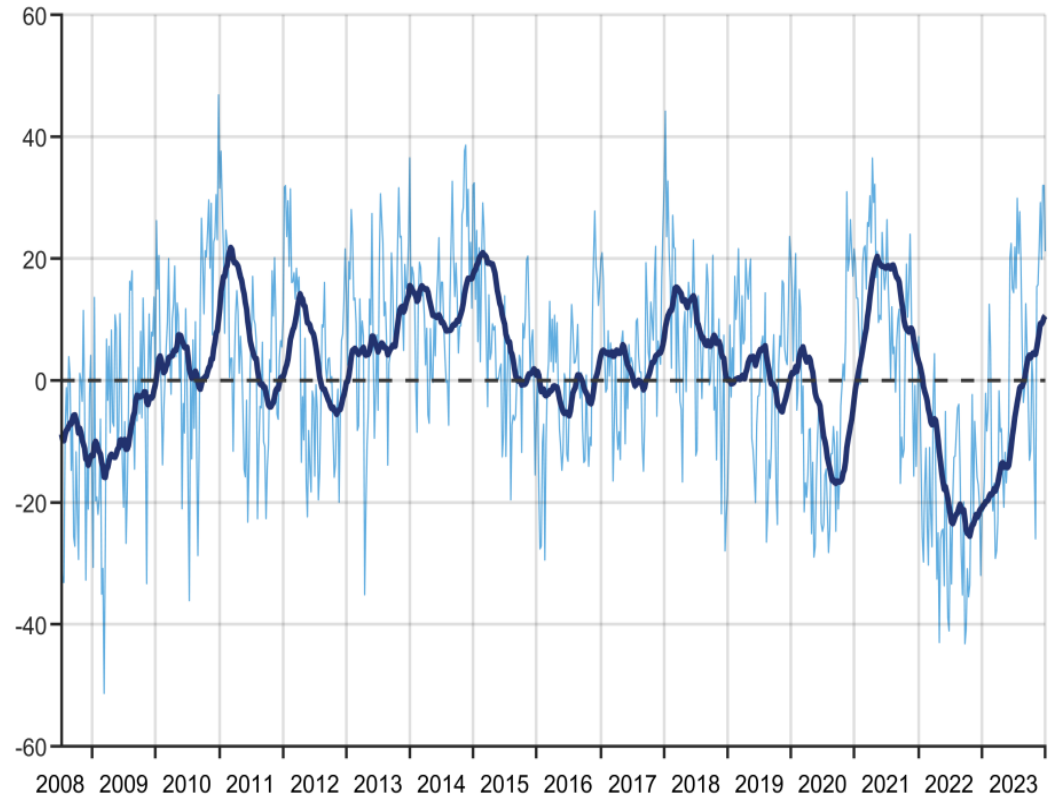
AAll US Investor Sentiment Indices With 26W Moving Average

Last Observation: 12/29/2023



AAll Bull Bear Spread With 26W Moving Average

Last Observation: 12/29/2023



Data Source: Wilshire Advisors, Bloomberg Data

There are Outsized Valuation Opportunities

Global Equity Markets Fundamentals As of 12/31/2023

	Dividend Yield			Profit Margin			Price to Sales			Price to Book			TR12M P/E			Forward P/E		
	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y
U.S. Equity	1.5	-0.8	-1.3	10.4	0.2	0.8	2.6	0.3	1.2	4.5	1.0	1.8	22.9	0.2	1.0	20.4	0.3	1.2
Developed Market	3.2	0.1	-0.3	8.8	0.7	1.4	1.4	0.6	1.3	1.8	1.0	1.2	15.0	-0.4	-0.4	14.2	-0.3	-0.0
Eurozone	3.1	0.1	-0.5	8.5	0.8	1.6	1.2	0.3	1.1	1.6	0.3	1.0	13.4	-0.6	-0.4	12.9	-0.6	-0.1
Japan	2.2	-0.4	0.3	6.3	0.4	0.9	1.0	0.6	1.2	1.4	0.5	0.8	16.5	-0.1	-0.3	14.9	-0.2	-0.2
UK	4.1	-0.4	-0.2	11.4	1.1	1.8	1.2	-0.1	0.5	1.7	0.5	0.1	11.0	-0.9	-1.0	11.8	-0.3	-0.5
Emerging Market	2.7	0.0	0.1	8.9	-0.3	0.0	1.3	-0.1	0.5	1.6	-0.1	-0.1	15.4	0.2	0.4	12.6	-0.2	0.5
China	2.7	1.4	0.4	8.9	-0.7	-1.5	1.0	-1.1	-1.0	1.1	-1.4	-1.5	11.6	-1.0	-0.5	9.6	-1.2	-0.8
India	1.2	-0.4	-0.6	9.0	0.6	-0.1	2.6	0.9	1.6	3.7	0.8	1.2	28.7	0.5	1.4	24.9	0.9	1.6
Brazil	5.1	-0.2	0.4	12.3	0.1	0.6	1.1	-0.7	-0.7	1.7	-0.5	0.1	8.7	-0.5	-1.1	7.9	-0.7	-1.4
South Korea	1.4	-2.9	-0.5	4.6	-1.1	-1.1	0.8	0.2	0.9	1.0	0.1	-0.5	19.8	1.2	2.2	12.4	0.5	1.0

U.S. Equities Fundamentals As of 12/31/2023

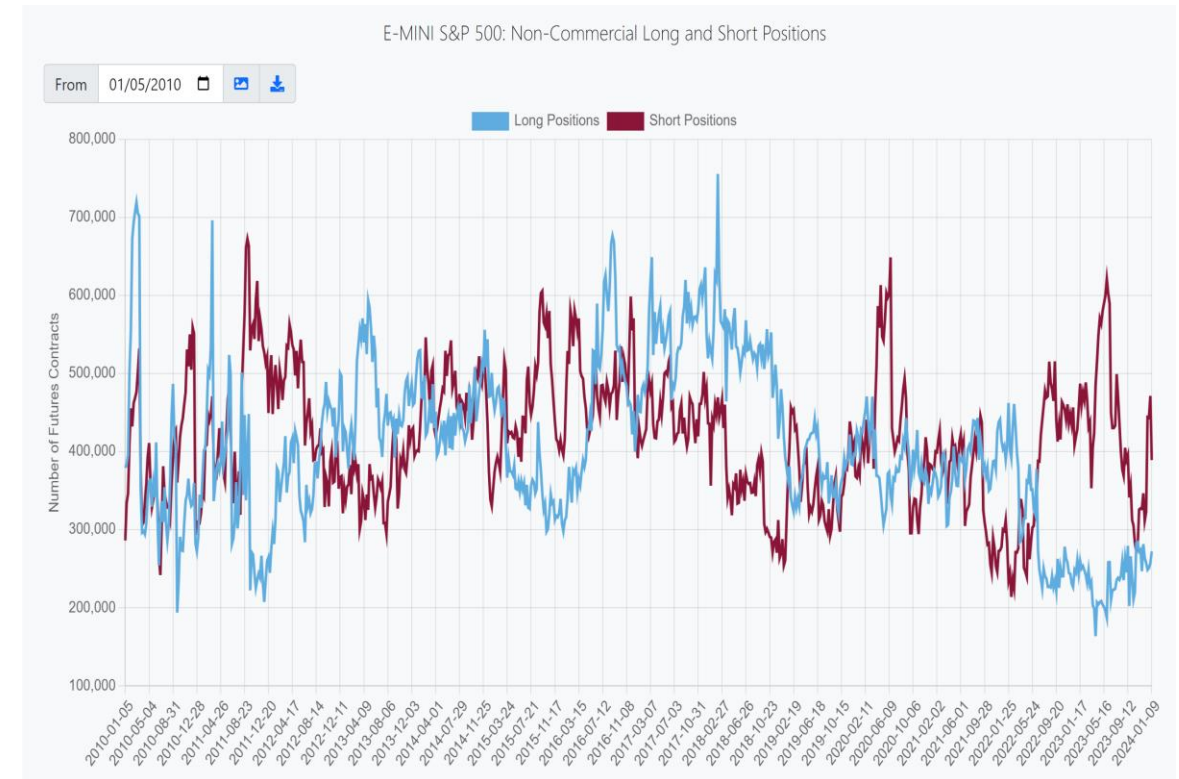
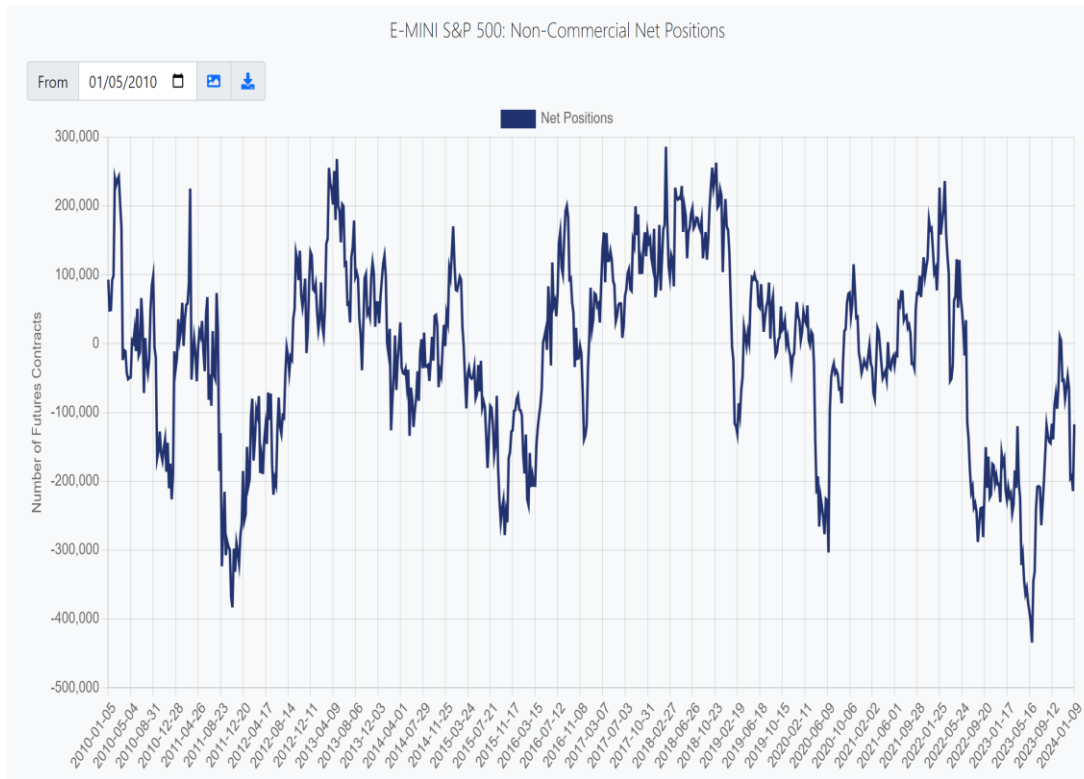
	Dividend Yield			Profit Margin			Price to Sales			Price to Book			TR12M P/E			Forward P/E		
	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y
Large Cap	1.5	-0.8	-1.3	10.4	0.2	0.8	2.6	0.3	1.2	4.5	1.0	1.8	22.9	0.2	1.0	20.4	0.3	1.2
Large Cap Growth	0.7	-1.0	-1.8	12.3	-0.1	1.1	4.4	0.4	1.4	12.2	0.8	1.8	33.2	0.3	1.4	26.8	0.2	1.3
Large Cap Value	2.3	-0.2	-0.4	8.7	0.3	0.7	1.7	-0.2	0.6	2.5	0.5	1.4	17.5	-0.1	0.2	16.0	-0.1	0.4
Mid Cap	1.7	-0.1	-0.4	6.3	0.3	0.6	1.7	-0.3	0.5	3.0	0.0	0.9	22.2	-0.4	-0.1	18.7	-0.4	0.1
Small Cap	1.5	0.3	0.1	1.8	0.2	0.2	1.3	-0.1	0.4	2.1	-0.3	0.0	30.9	-0.5	-0.5	26.8	-0.2	0.2

Equities Relative Fundamentals As of 12/31/2023

	Dividend Yield			Profit Margin			Price to Sales			Price to Book			TR12M P/E			Forward P/E		
	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y
US vs. EAFE	-1.7	-0.8	-1.2	1.6	-1.4	-1.1	1.9	-0.5	0.9	2.5	0.5	1.4	1.5	1.3	1.7	1.4	1.2	1.9
EAFE vs. EM	0.4	0.2	-0.6	-0.0	1.5	1.9	1.1	1.0	0.9	1.1	1.4	0.8	1.0	-2.1	-1.1	1.1	-0.4	-0.7
US LC vs. US SC	-0.1	-1.3	-2.1	8.6	-0.1	0.9	2.1	0.7	1.6	2.1	1.5	2.2	0.7	1.1	1.7	0.8	0.4	0.9
US LCG vs. US LCV	-1.6	-0.6	-1.0	3.5	-0.5	0.3	2.6	0.9	1.8	4.9	0.7	1.7	1.9	0.8	1.7	1.7	0.5	1.5

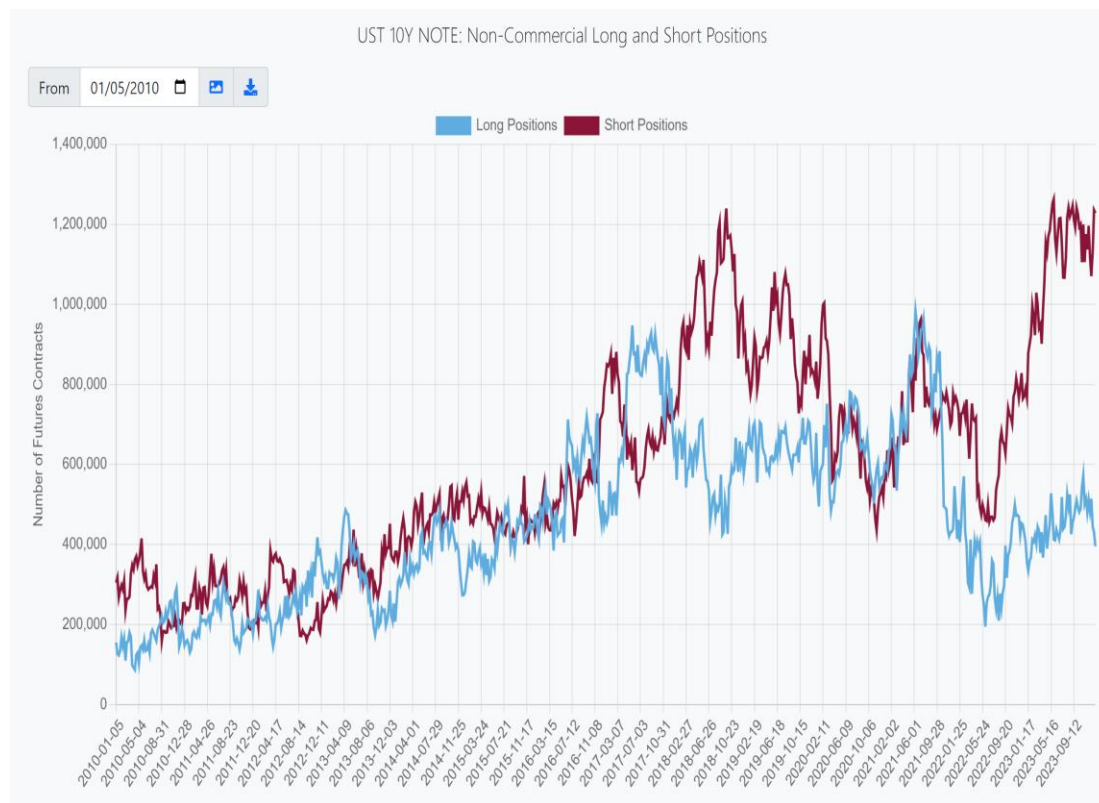
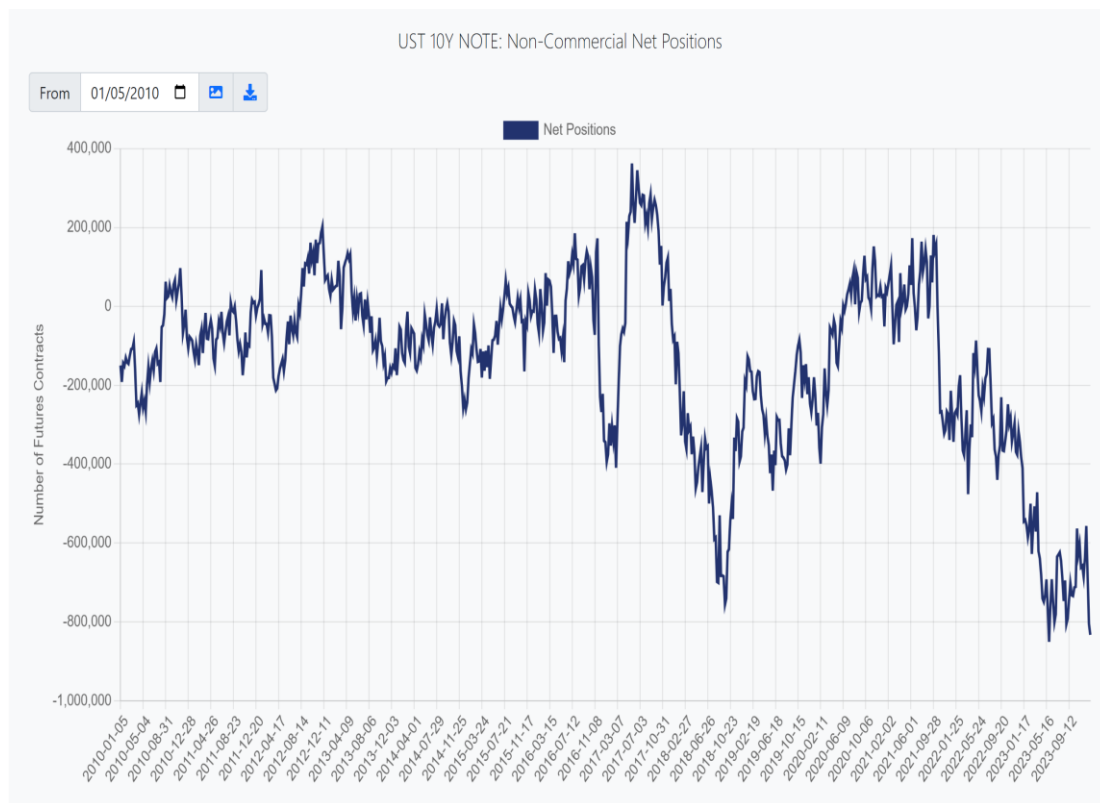
Data Source: Wilshire Advisors, Bloomberg Data

The Market is Getting Short Again



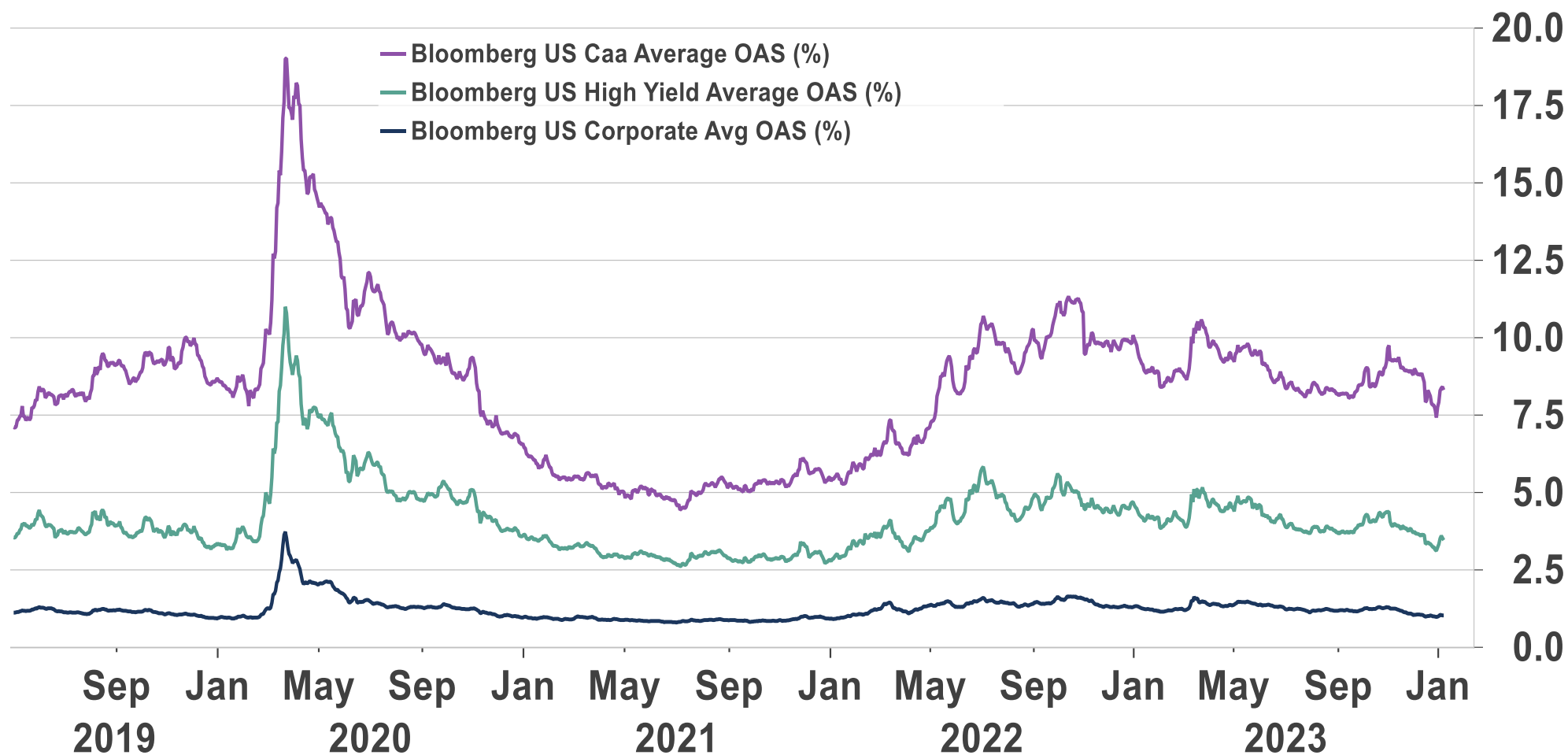
Data Source: CFTC, Wilshire Advisors

Investors are Increasingly Short Treasuries Again



Data Source: CFTC, Wilshire Advisors

Spreads Compressed, but Lowest Quality Credit Spreads Remain Elevated

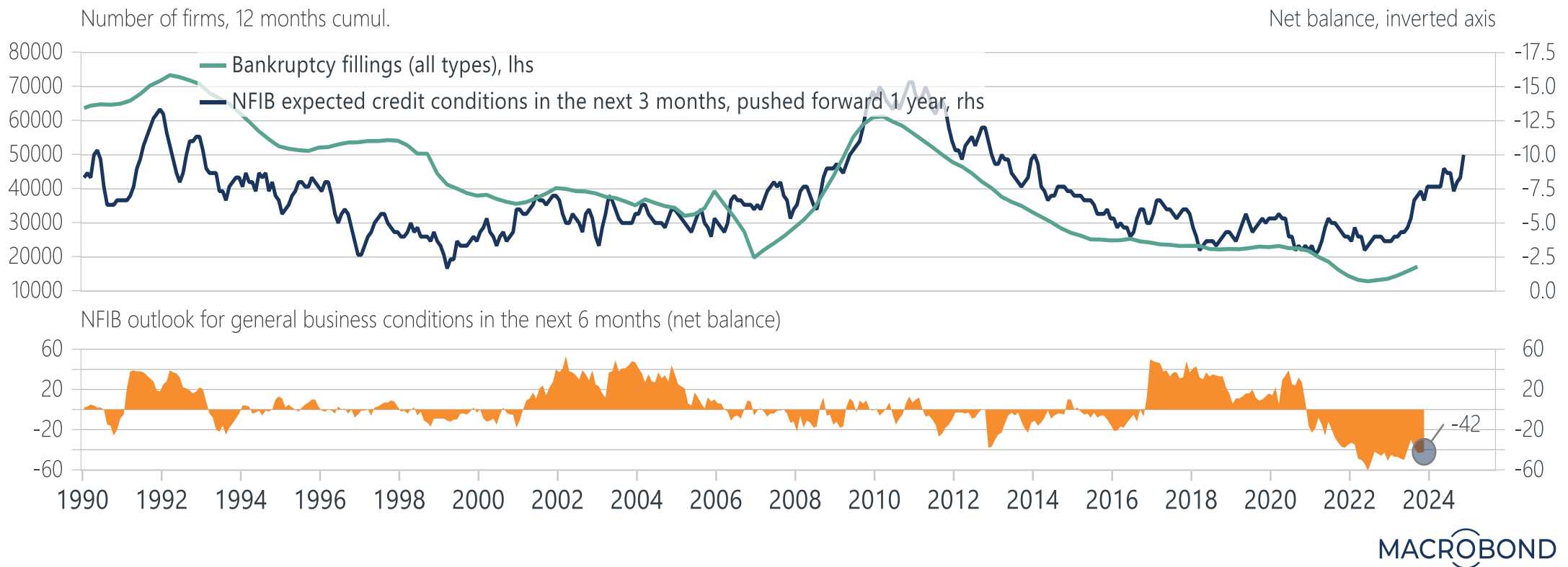


Data Source: Macrobond, Bloomberg Data

How Long Will Corporate Debt Service Remain Manageable?

United States: Small business, credit perceptions and bankruptcies

Source: National Federation of Independent Business, U.S. Federal Courts



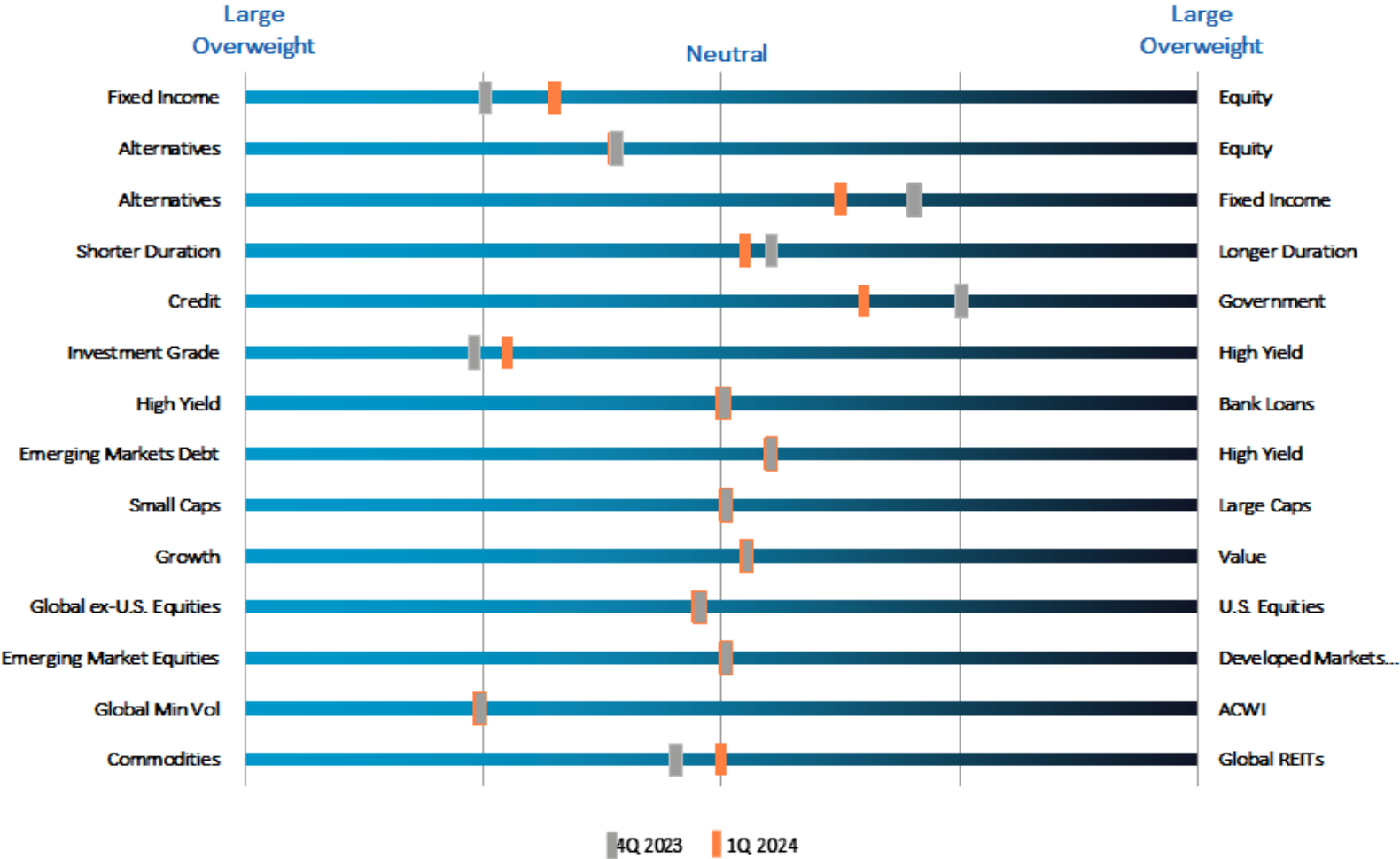
Equities Moving Based on Rate Expectations, Except in Risk-Off Environments

Rolling 6-Month Correlation of the FT Wilshire 5000 Index & Bloomberg U.S. Aggregate Bond Index (Daily)



Data Source: Wilshire Advisors, Bloomberg Data

Wilshire Investment Strategy Views



Market Forecasts

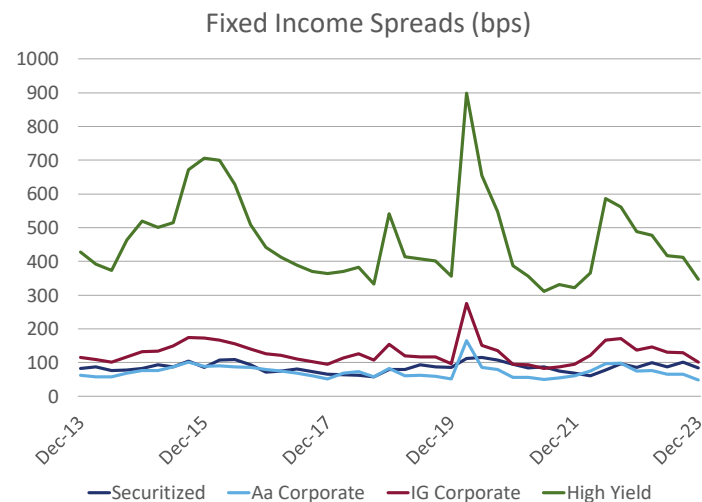
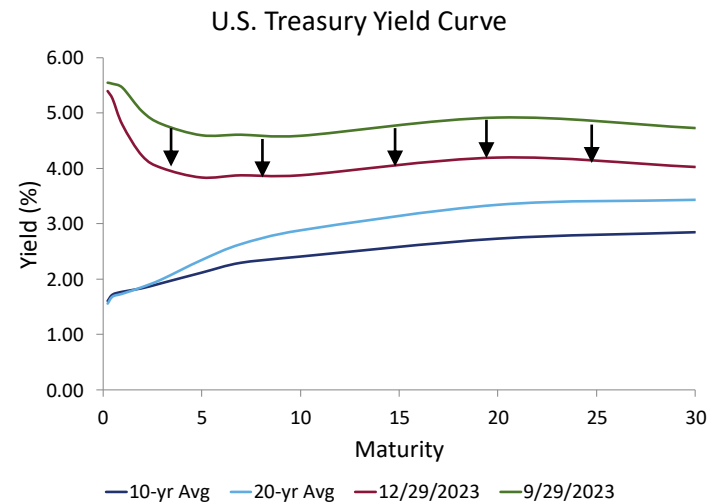
CMA Forecasts: Summary of Changes

- Yield curve down across the maturity spectrum
 - Curve movements resulted in lower forecasts for fixed income asset classes
 - Decrease in spreads for investment grade and high yield bonds
- Yields on public real asset securities are down from last quarter; inflation assumption down slightly to 2.25%
- Equity assumptions are down, mainly on higher current valuations but also lower income return
- Equity risk premium continues to fall

Asset Class Assumption	Total Return (%)			Risk (%)
	Sep 2023	Change	Dec 2023	
Inflation	2.35	-0.10	2.25	1.75
Cash Equivalents	4.25	-0.45	3.80	0.75
Treasuries	5.00	-0.75	4.25	5.00
Core Bonds	5.60	-0.85	4.75	4.70
LT Core Bonds	5.55	-0.85	4.70	9.85
High Yield Bonds	6.85	-0.95	5.90	10.00
Private Credit	8.95	-0.55	8.40	12.75
Global RE Securities	6.35	-0.60	5.75	16.45
Private Real Estate	6.20	0.10	6.30	13.90
U.S. Stocks	6.00	-1.00	5.00	17.00
Dev. ex-U.S. Stocks	7.00	-1.00	6.00	18.00
Emerging Market Stocks	7.25	-1.00	6.25	26.00
Private Equity	9.65	-1.00	8.65	29.65
Global 60/40 (ACWI/U.S. Core)	6.55	-1.00	5.55	10.75

Implied Risk Premia	Relative Return (%)		
	Sep 2023	Change	Dec 2023
Cash - Inflation	1.90	-0.35	1.55
Treasury - Cash	0.75	-0.30	0.45
Core - Treasury	0.60	-0.10	0.50
Long-Term Core - Core	-0.05	0.00	-0.05
High Yield - Core	1.25	-0.10	1.15
Global RESI - Core	0.75	0.25	1.00
U.S. Stocks - Core	0.40	-0.15	0.25
Private Equity - U.S. Stocks	3.65	0.00	3.65
Implied Real Return (ACA - CPI)			
U.S. Stocks	3.65	-0.90	2.75
U.S. Bonds	3.25	-0.75	2.50
Cash Equivalents	1.90	-0.35	1.55

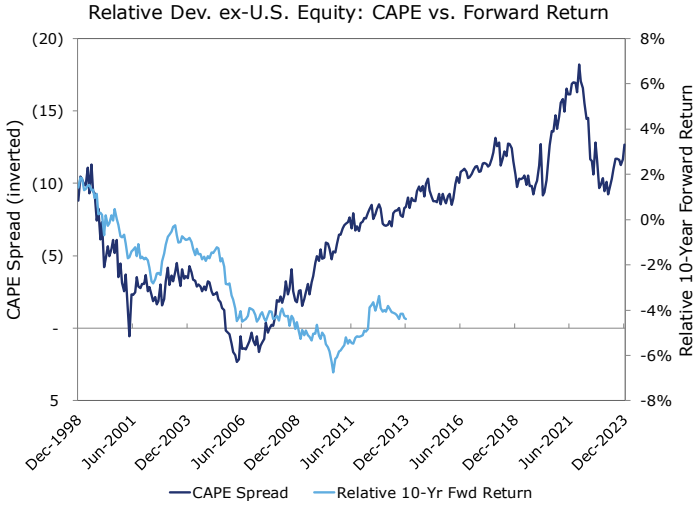
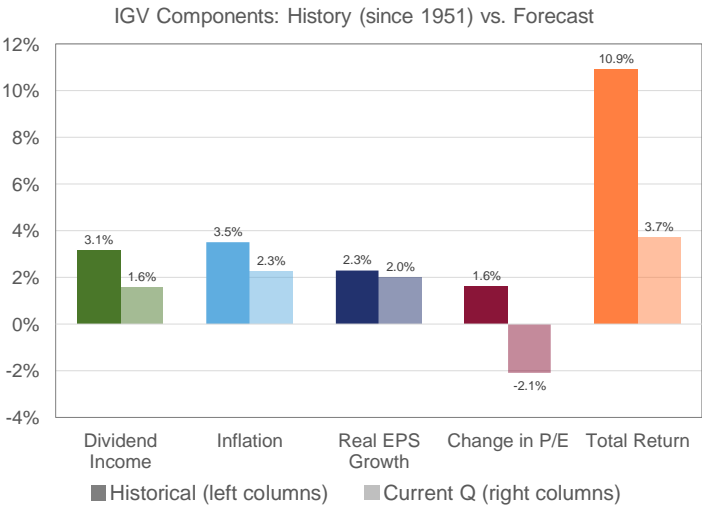
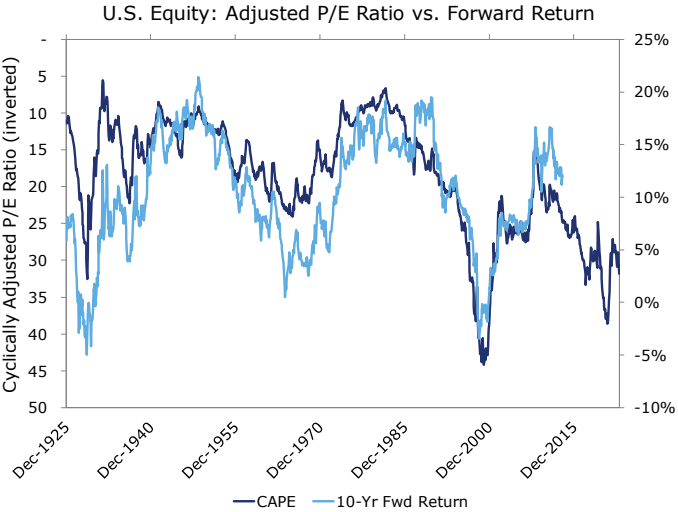
Fixed Income Markets



Inflation & Fixed Income		Sep 2023	Change	Dec 2023
Inflation	10-Year Treasury Yield	4.57	(0.69)	3.88
	10-Year Real Yield	<u>2.23</u>	<u>(0.52)</u>	<u>1.71</u>
	Breakeven Inflation	2.34	(0.17)	2.17
	Inflation Forecast	2.35	(0.10)	2.25
Cash	91-Day T-Bill Yield	5.55	(0.15)	5.40
	T-Bill Yield in 10 Yrs	4.00	(0.50)	3.50
	Cash Forecast	4.25	(0.45)	3.80
Treasury	U.S. Treasury Idx Yield	4.85	(0.77)	4.08
	Treasury Idx Yield in 10 Yrs	5.25	(0.75)	4.50
	Treasury Idx Forecast	5.00	(0.75)	4.25
	U.S. LT Treasury Idx Yield	4.85	(0.72)	4.14
	LT Treasury Idx Yield in 10 Yrs	4.84	(0.66)	4.18
	LT Treasury Idx Forecast	4.85	(0.70)	4.15
Spread	U.S. Corporate Idx OAS	1.29	(0.29)	1.01
	Corporate Idx OAS in 10 Yrs	1.53	0.00	1.53
	Corporate Idx Forecast	6.10	(0.85)	5.25
	U.S. Core Bond Forecast	5.60	(0.85)	4.75
	U.S. LT Core Bond Forecast	5.55	(0.85)	4.70
	U.S. High Yield Idx OAS	4.12	(0.66)	3.46
	High Yield Idx OAS in 10 Yrs	5.31	(0.01)	5.30
	High Yield Bond Forecast	6.85	(0.95)	5.90

Equity Markets

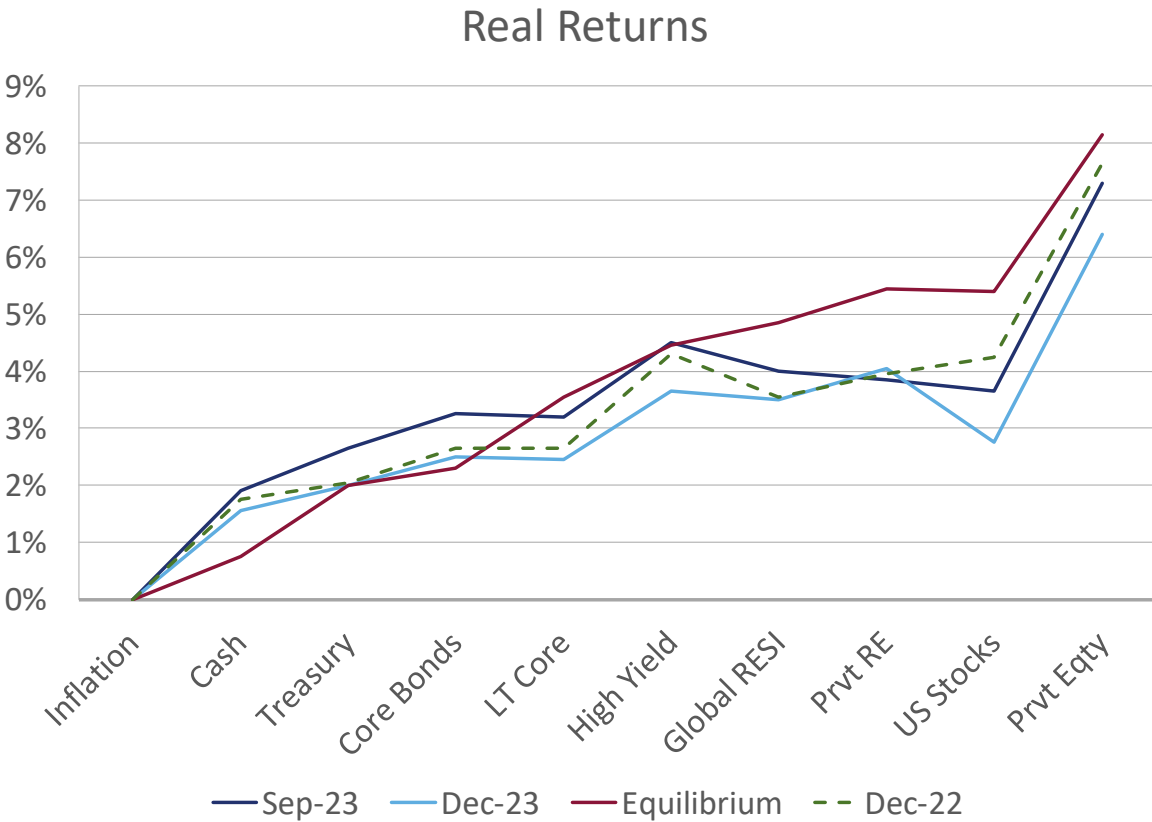
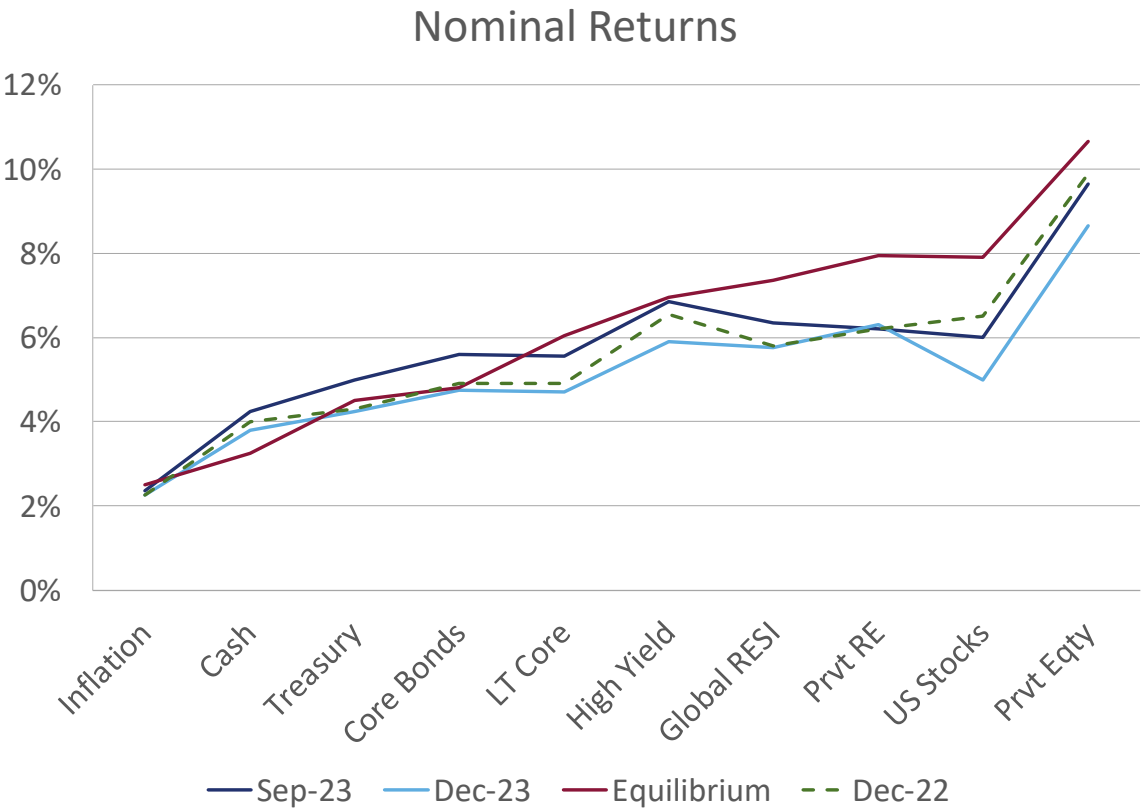
Equity: Public & Private		Sep 2023	Change	Dec 2023
Equity	DDM	6.85	(0.30)	6.55
	IGV	5.10	(1.40)	3.70
	CAPE	5.85	(1.00)	4.85
U.S. Equity Forecast		6.00	(1.00)	5.00
Dev-ex-US Equity Forecast		7.00	(1.00)	6.00
EM Equity Forecast		7.25	(1.00)	6.25
Private	Cost of Debt (Public)	6.25	(0.60)	5.65
	Cost of Debt (Private)	8.20	(0.45)	7.75
	Private Market Basket Forecast	9.65	(1.00)	8.65



Data Source:: Wilshire, Bloomberg, S&P

Current vs. Equilibrium Forecasts

Current versus Equilibrium Asset Class Assumptions



Question & Answer

Thank you for joining us!

Please use the Q&A panel to submit questions.



The screenshot shows a web interface for asking questions. At the top, there are three tabs: 'Ask a question' (highlighted in green), 'Rate this', and 'Details'. Below the tabs is a section titled 'Ask a question' containing a text input field with the placeholder 'Type your question here...'. At the bottom of this section is a link that says 'Not hearing audio? Click here for help'. To the right of the input field is a grey button labeled 'Send question'. Two red arrows originate from the text 'Please use the Q&A panel to submit questions.': one points to the 'Ask a question' tab, and the other points to the 'Send question' button.

To find out more about our solutions or speak to one of our experts, we're ready to connect you to the right team and answer any of your questions.

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