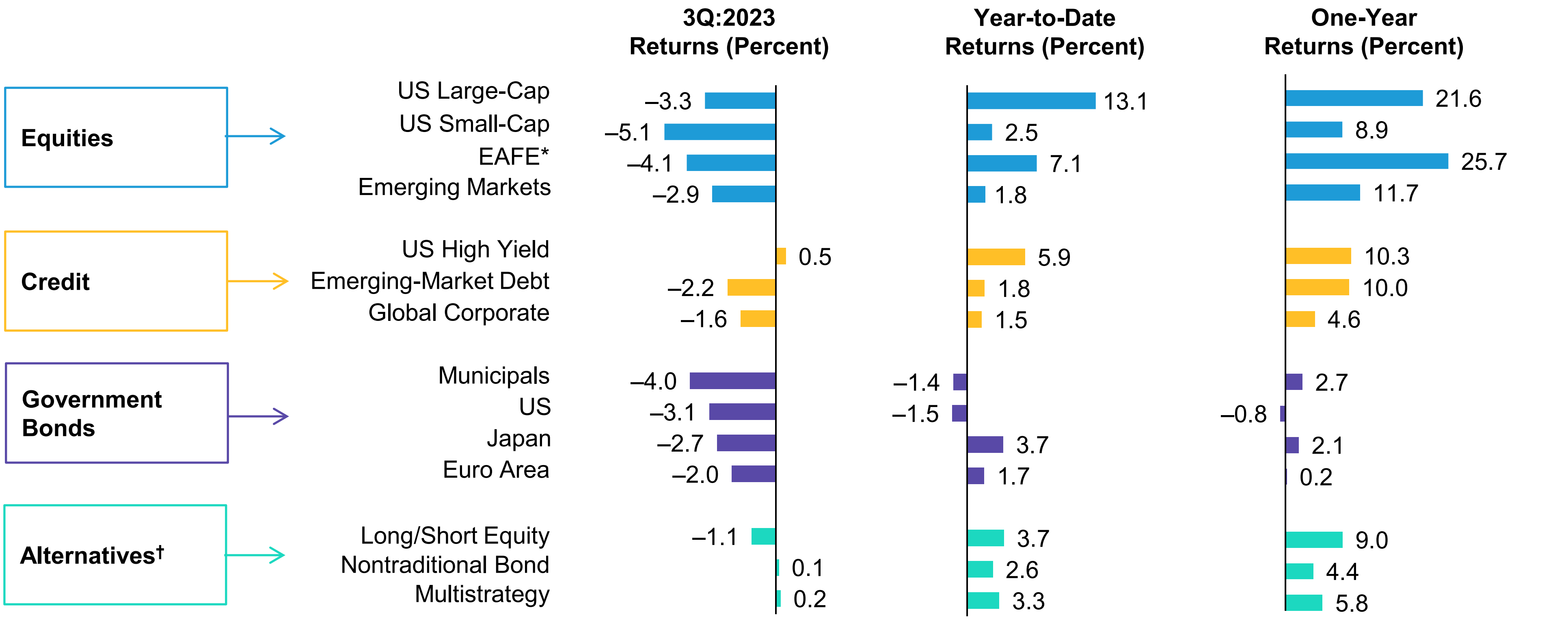
AllianceBernstein

Capital Markets Outlook

Finding the Path of Least Resistance

Fourth Quarter 2023

After a Strong First Half of the Year, Markets Struggled to Achieve a Lasting Push Higher During the Third Quarter



Past performance does not guarantee future results.

Returns in US dollars. EAFE and emerging-market returns are net returns; all other returns are total returns. Global corporates, Japan and euro-area government bonds in hedged USD terms. All other non-US returns in unhedged USD terms. US large-cap represented by S&P 500. US small-cap represented by Russell 2000. An investor cannot invest directly in an index, and its performance does not reflect the performance of any AB portfolio. The unmanaged index does not reflect the fees and expenses associated with the active management of a portfolio.

*Europe, Australasia and the Far East; †Returns reflect Morningstar US open-end fund category averages.

As of September 30, 2023

Source: Bloomberg, Morningstar Direct and AB

Market Summary Recap and Outlook

Three key themes

First Half (1H) of 2023: Resolution

- Many of the previous “known unknowns” plaguing the market were either resolved or saw material progress
  - Debt ceiling was lifted
  - Banking crisis was contained
  - Headline inflation was cut in half
  - Labor markets began to soften but showed resilience
  - Peak/near peak in rates was likely identified
  - Economic growth and S&P 500 earnings were stronger than anticipated
- Consequently, the S&P 500 entered a technical bull market, and a soft landing was priced in by many market participants

Second Half (2H) of 2023: Resistance

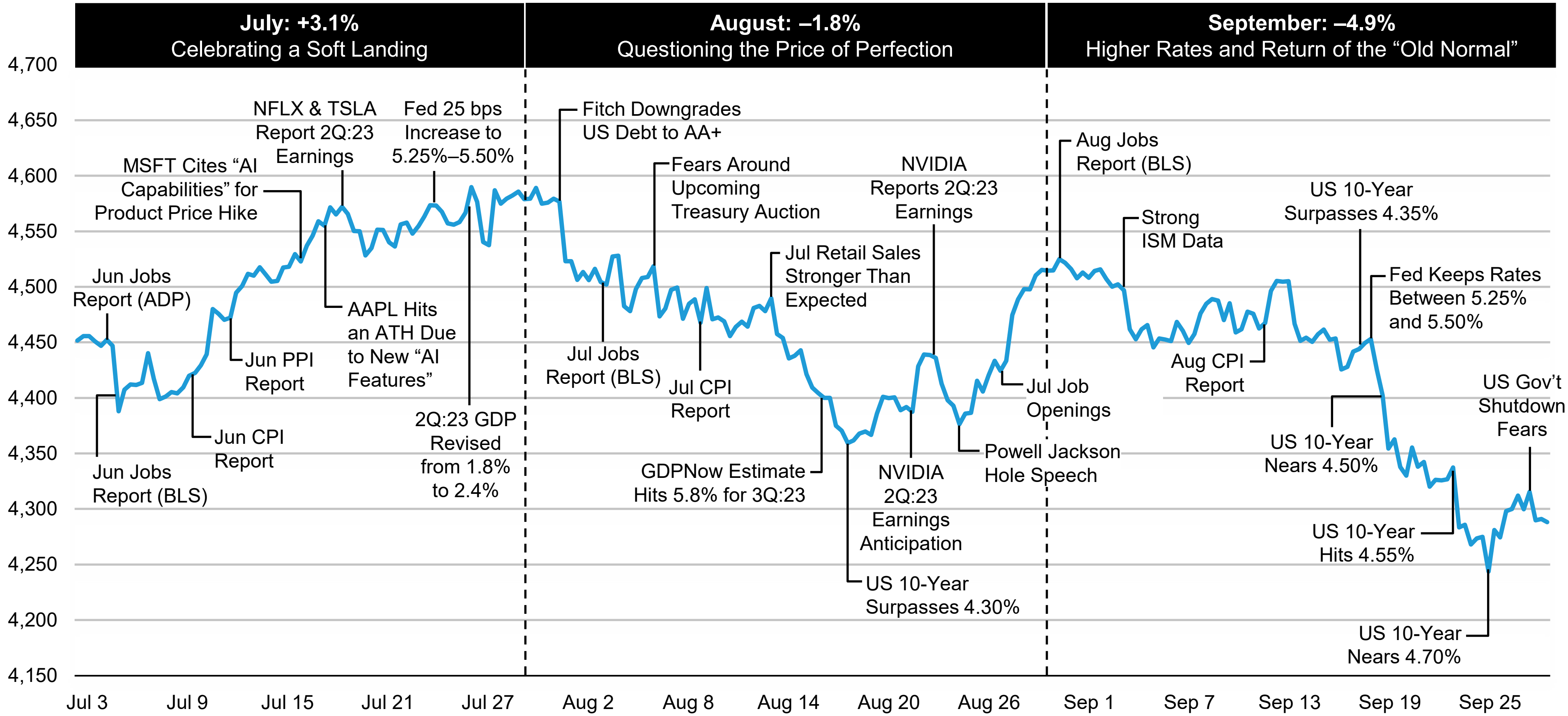
- Low-hanging fruit was picked during 1H, leaving markets with limited avenues for a sustained push higher
  - Equity multiples are trading at more expensive levels
  - Inflation is expected to rise slightly into year-end after bottoming out in June
  - Rates will likely remain high, increasing the chances of “breaking” something currently unknown
  - Unemployment is expected to rise
  - Growth is expected to hold up but show signs of softening as consumer finances weaken
  - Earnings face higher hurdles during 3Q and 4Q

2024: Normalization

- Many of the areas affected by COVID-19, such as growth, labor markets and inflation, will move toward trend
- From an economic perspective, we expect growth to slow down and inflation to return to long-term expectations by the end of 2024/early 2025
- In response to this relative economic normalization, we expect rate cuts to start in 2024
- The above will likely strengthen bond markets as rates fall, with potential multiple support to equity markets alongside reduced uncertainty premiums

Historical analysis and current forecasts do not guarantee future results.
As of September 30, 2023
Source: AB

3Q 2023: Markets Faced Resistance as High Valuations and Even Higher Rates Led to Questions Around the Long-Term Fair Value



Historical analysis and current forecasts do not guarantee future results.

AAPL: Apple; ATH: all-time high; bps: basis points; BLS: US Bureau of Labor Statistics; CPI: Consumer Price Index; GDP: gross domestic product; ISM: Institute for Supply Management; MSFT: Microsoft; NFLX: Netflix; PPI: Producer Price Index; TSLA: Tesla

Returns are price returns. Events are placed at approximate points.

As of September 30, 2023

Source: Bloomberg and AB

Where Does This Leave Long-Term Rates? Closer to the “Old Normal”

Breaking down our 10-year US Treasury forecast for 2023 and 2024

Nominal 10-Year: 10-Year BEI + 10-Year TIPS

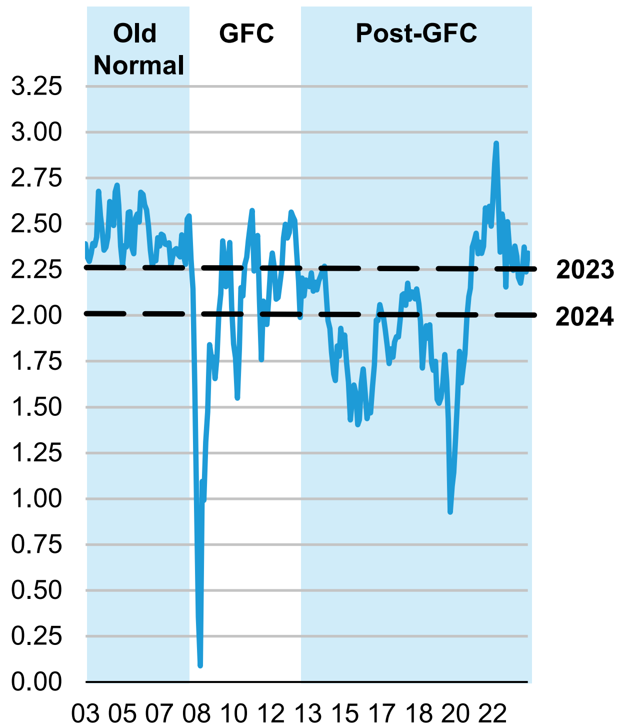
2023: 4%

2.25% + 1.75%

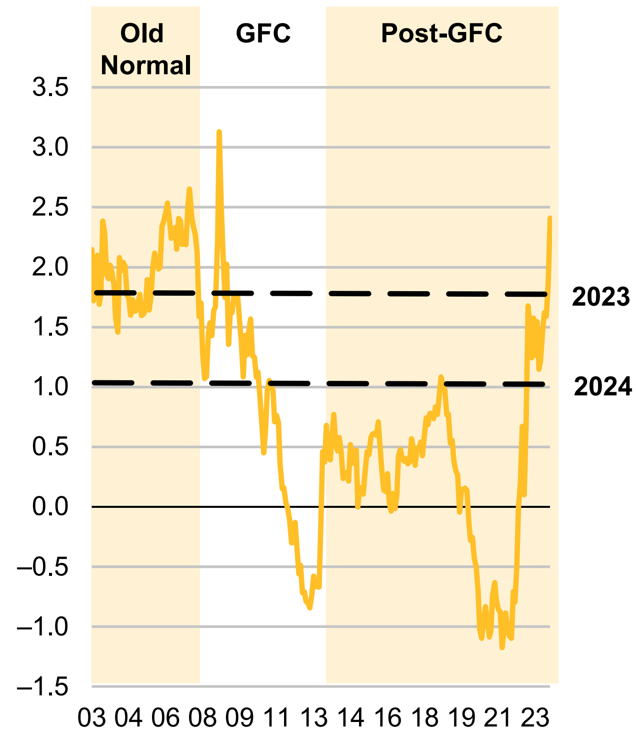
2024: 3%

2.00% + 1.00%

Break-Even Inflation (10-Year BEI)



Real Rates (10-Year TIPS)



Historical analysis and current forecasts do not guarantee future results.

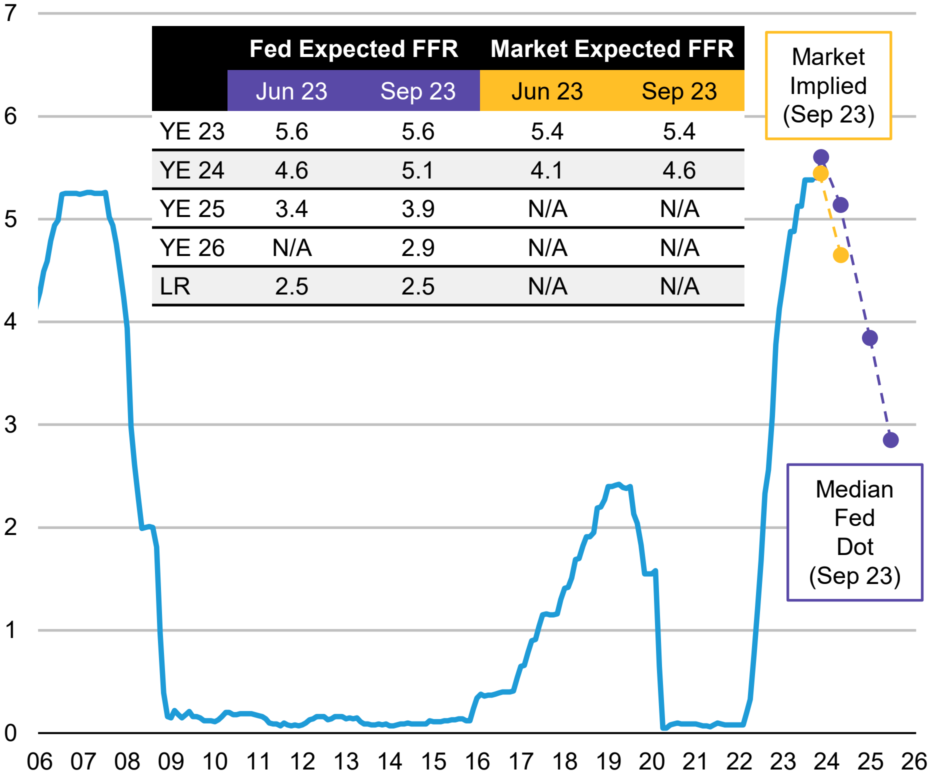
BEI: break-even inflation; GFC: global financial crisis; TIPS: Treasury Inflation-Protected Securities

As of October 3, 2023

Source: Bloomberg and AB

Higher Second-Half Inflation, and Stronger-Than-Expected Labor Market and Consumer Demand, Will Keep Short-Term Rates Higher This Year

Market vs. Fed Expectations



	Fed Expected FFR		Market Expected FFR	
	Jun 23	Sep 23	Jun 23	Sep 23
YE 23	5.6	5.6	5.4	5.4
YE 24	4.6	5.1	4.1	4.6
YE 25	3.4	3.9	N/A	N/A
YE 26	N/A	2.9	N/A	N/A
LR	2.5	2.5	N/A	N/A

Historical analysis and current forecasts do not guarantee future results.
FFR: fed funds rate; LR: long run; YE: year-end
As of September 30, 2023
Source: Bloomberg, US Federal Reserve and AB

Dot Plot (Percent)

	2023	2024	2025	2026	Longer Run
6.25	—	—	—	—	—
6.00	—	●	—	—	—
5.75	—	—	—	—	—
5.50	●●●●●●●●●●●	●	●	—	—
5.25	●●●●●●●	●●●●	●	—	—
5.00	—	●●●●	●	—	—
4.75	—	●●●●	●	●●	—
4.50	—	●●●	●	●	—
4.25	—	●●	—	—	—
4.00	—	—	●●●	●●	—
3.75	—	—	●●	●	●●
3.50	—	—	●●●	—	●
3.25	—	—	●●●	—	●
3.00	—	—	●	●●	●
2.75	—	—	●	●●	—
2.50	—	—	●	●●●●●●●●●	●●●●●●●●●●●●●
2.25	—	—	—	—	—
2.00	—	—	—	—	—

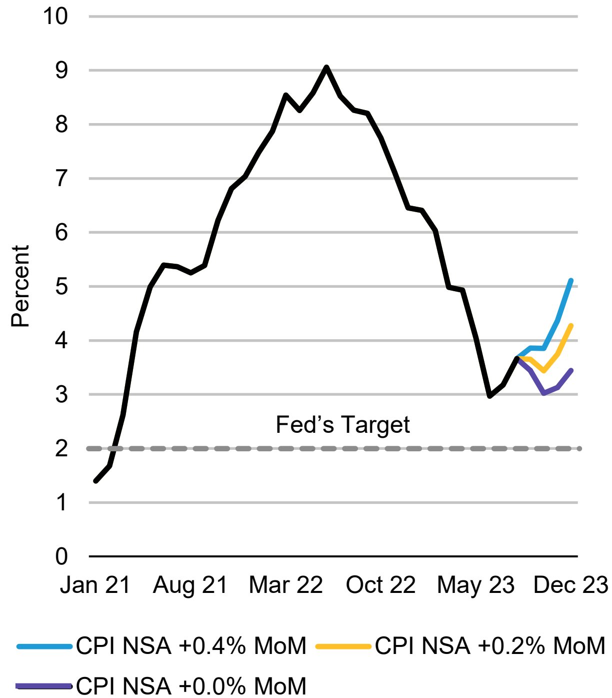
"Given how far we have come, we are in a position to proceed carefully as we assess the incoming data and the evolving outlook and risks…We're prepared to raise rates further if appropriate, and we intend to hold policy at a restrictive level until we're confident that inflation is moving down sustainably."

—Jerome Powell (Sep 20, 2023)

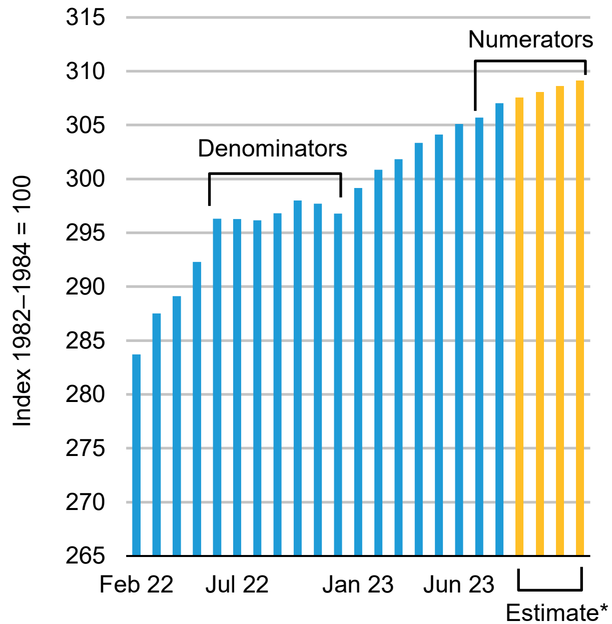
Understanding the Inflation "Bounce" into Year End—Do Not Panic

Two primary drivers of the recent headline inflation bounce

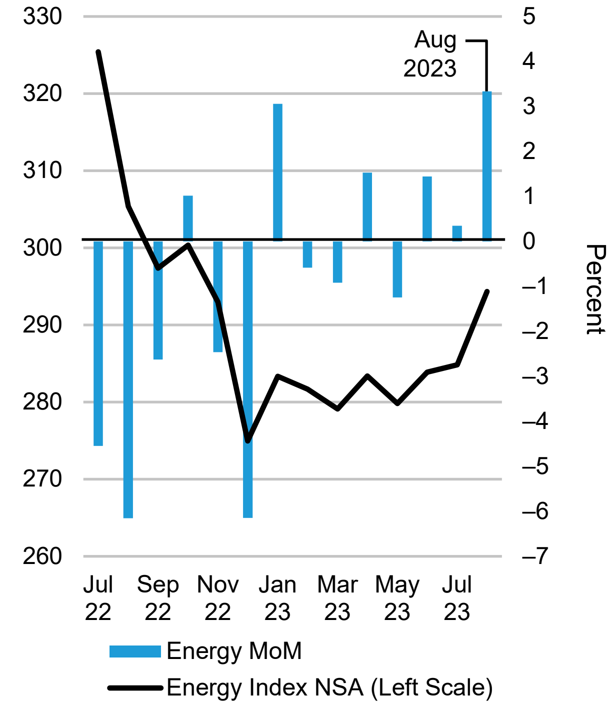
After Falling to 3% in June, We Expect Headline CPI to Hit Approx. 4% This December



Driver #1: Base Effects



Driver #2: Higher Oil Prices



Historical and current analyses do not guarantee future results.

CPI: Consumer Price Index; MoM: month over month; NSA: not seasonally adjusted

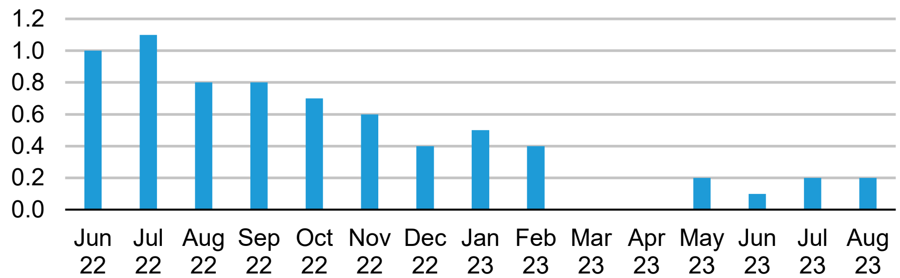
*Estimate assumes non-seasonally adjusted annualized month-over-month growth rate of 2% to headline CPI

As of September 30, 2023

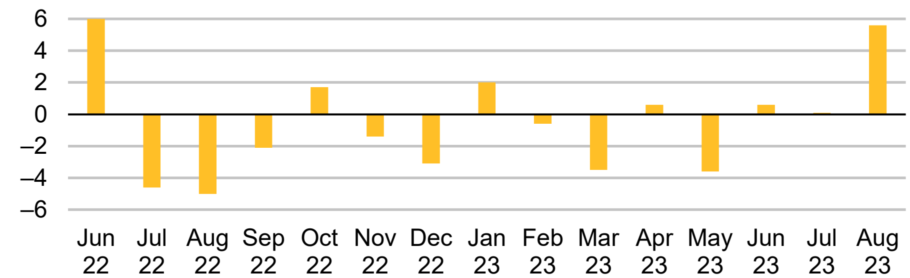
Source: Bloomberg, US Bureau of Labor Statistics and AB

Four Reasons Not to Panic: Main CPI Categories Are Pointing Toward Normalization

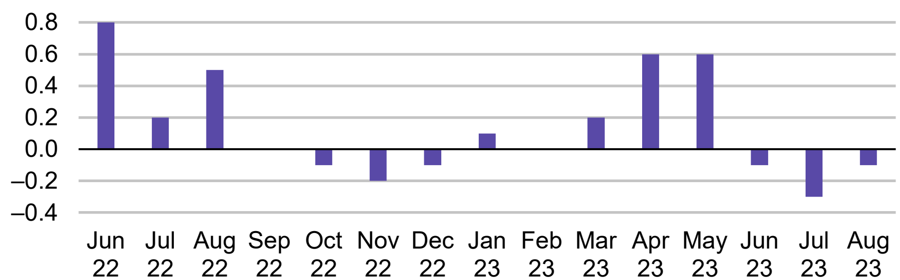
Food Prices MoM (Percent)



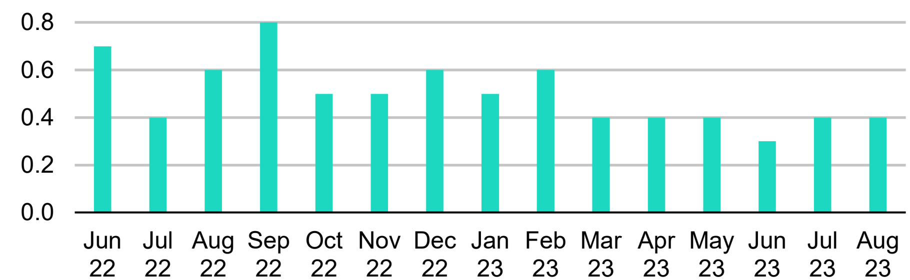
Energy Prices MoM (Percent)



Goods Prices MoM (Percent)



Service Prices MoM (Percent)



Historical analysis and current forecasts do not guarantee future results.

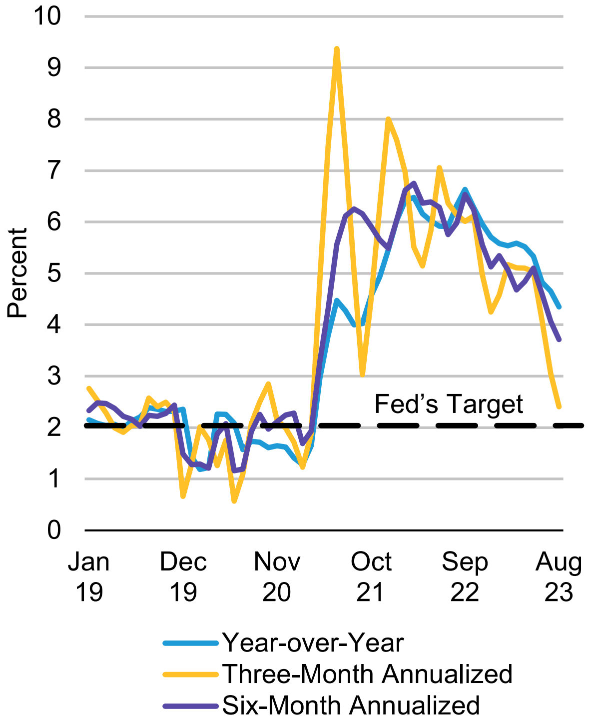
CPI: Consumer Price Index; MoM: month over month

As of September 30, 2023

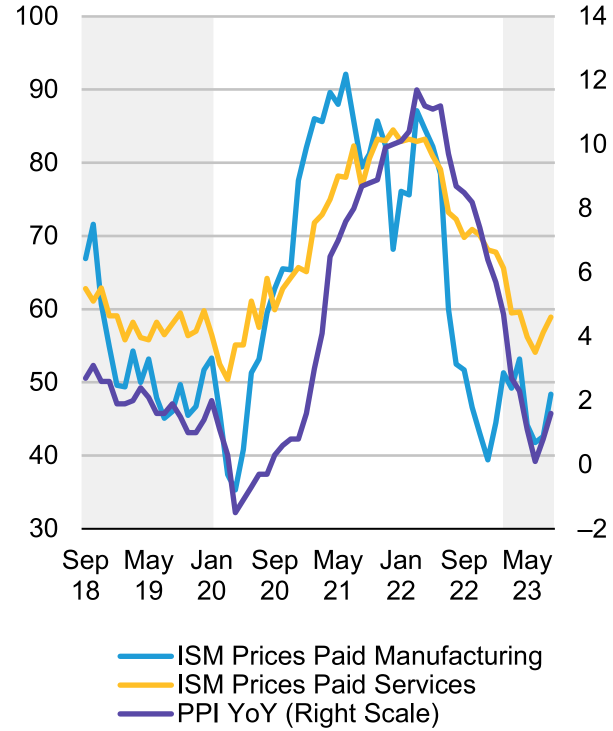
Source: Bloomberg, US Bureau of Labor Statistics and AB

The Remaining Underlying Inflation Picture Also Looks Healthy

Annualized MoM Core CPI Continues to Fall Toward Target



While Leading Indicators for Inflation Also Return to Pre-Pandemic Levels



Resulting in the Normalization of Consumer Inflation Expectations

Historical analysis and current forecasts do not guarantee future results.

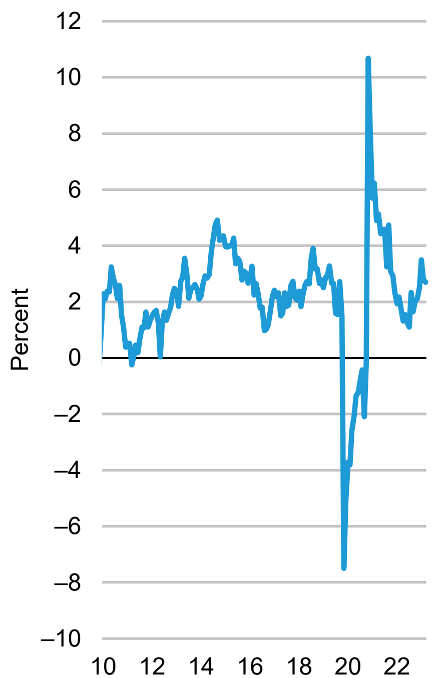
CPI: Consumer Price Index; ISM: Institute for Supply Management; PPI: Producer Price Index; YoY: year over year

As of September 30, 2023

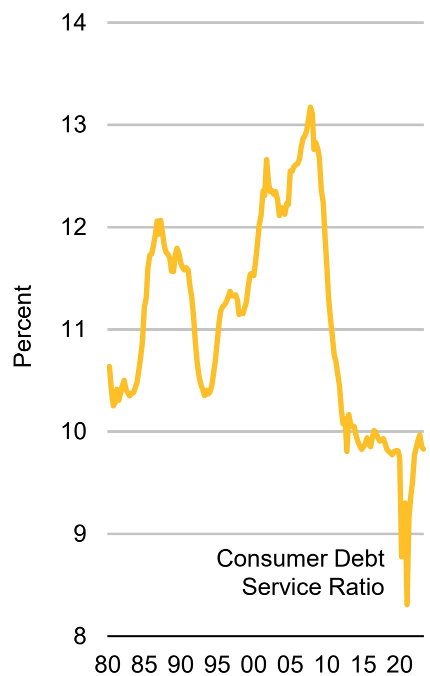
Source: Bloomberg, Institute for Supply Management, University of Michigan, US Bureau of Labor Statistics and AB

What to Keep an Eye On: Consumer Health

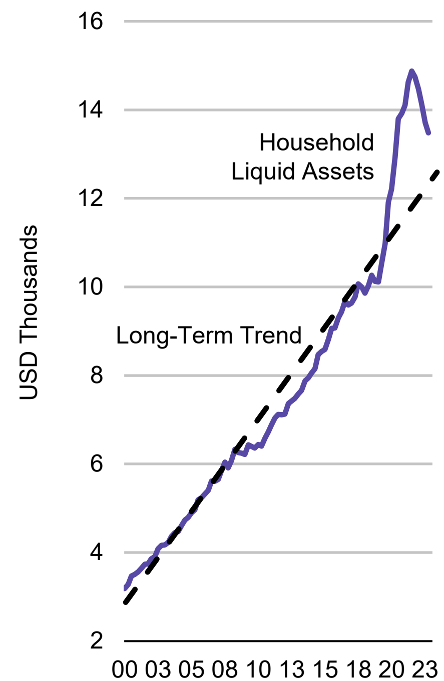
Rising Household Paycheck*
Disinflation boosts real income



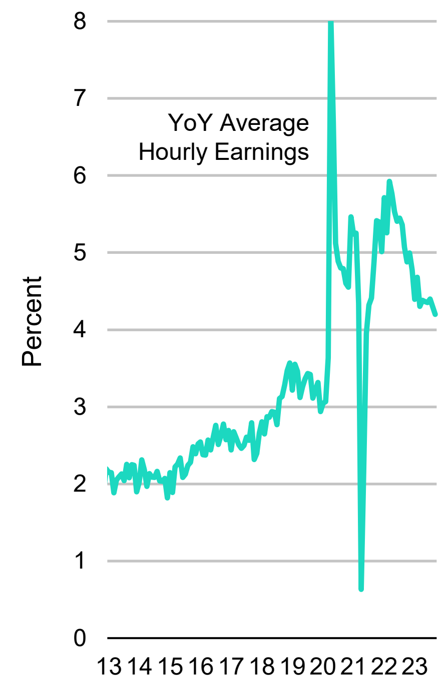
While Debt Payments Remain Manageable



However, Excess Savings Are Almost Eroded



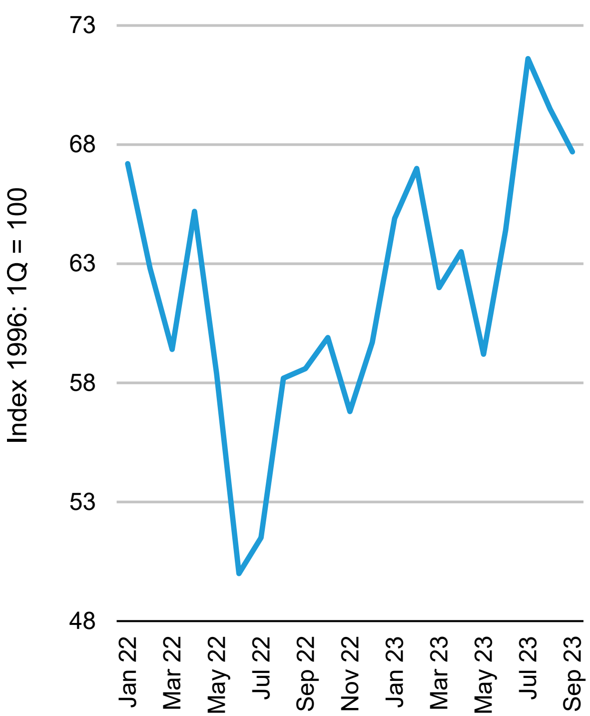
And Fewer Job Openings Means Slower Wage Growth



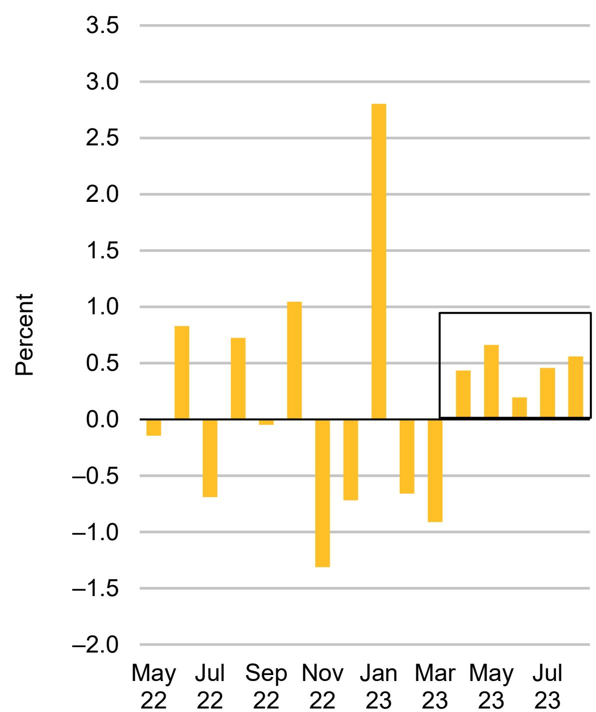
Historical analysis and current forecasts do not guarantee future results.
*Total workers' average weekly hours calculate hourly earnings less inflation, year-over-year percent change terms
Left display through August 31, 2023; middle displays through June 30, 2023; right display through September 30, 2023
Source: Refinitiv and AB

What to Keep an Eye On: Consumer Demand

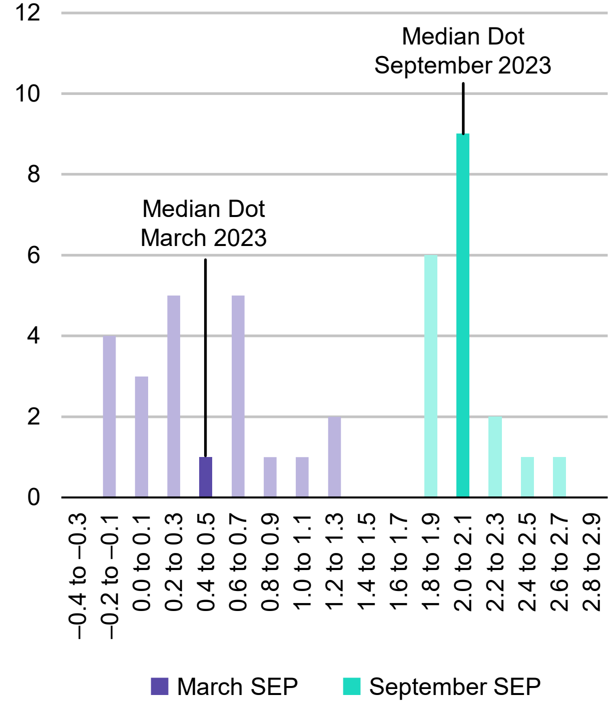
Consumer Confidence Recovered After Struggling for Much of Last Year



So Did Consumer Spending: Since March 2023, We've Seen Consistent Growth



Resulting in a Quintupling of the Fed's 2023 Real GDP Estimate in Six Months



Historical analysis and current forecasts do not guarantee future results.

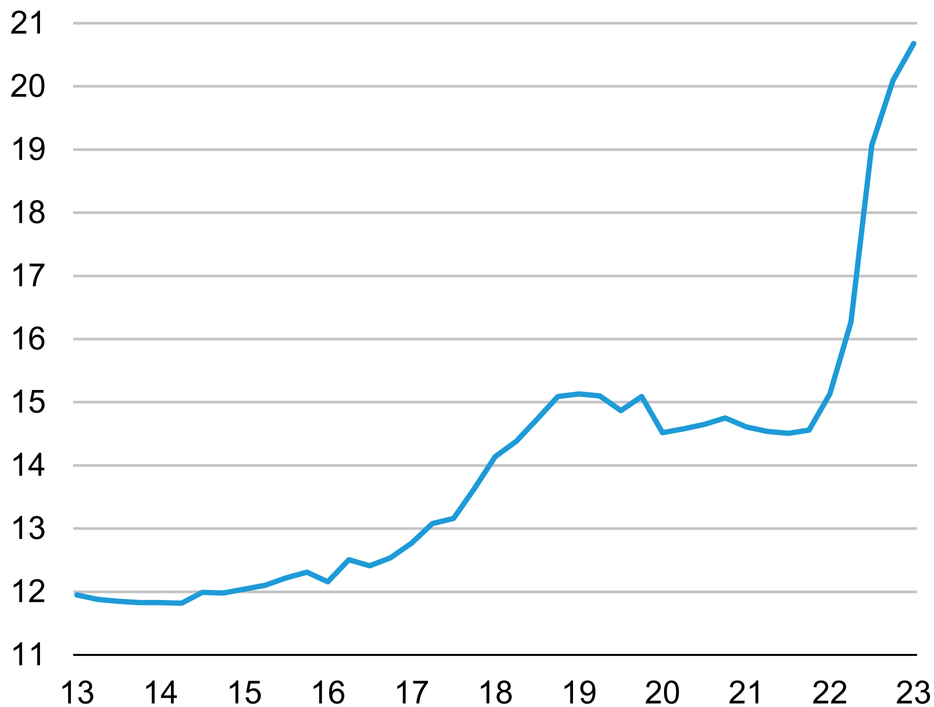
SEP: summary of economic projections

As of September 30, 2023

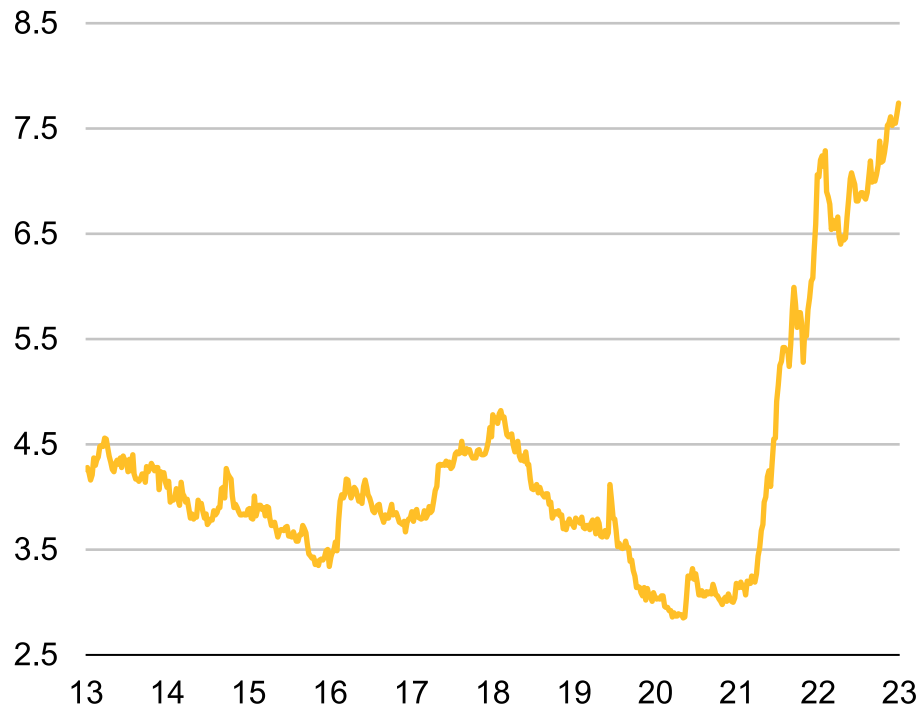
Source: Bloomberg and AB

However, Persistently Higher Interest Rates Will Impact Growth

Credit Card Rates (Percent)



Mortgage Rates (Percent)



Historical analysis and current forecasts do not guarantee future results.
Left display through May 31, 2023; right display through September 30, 2023
Source: Refinitiv and AB

Macro Summary

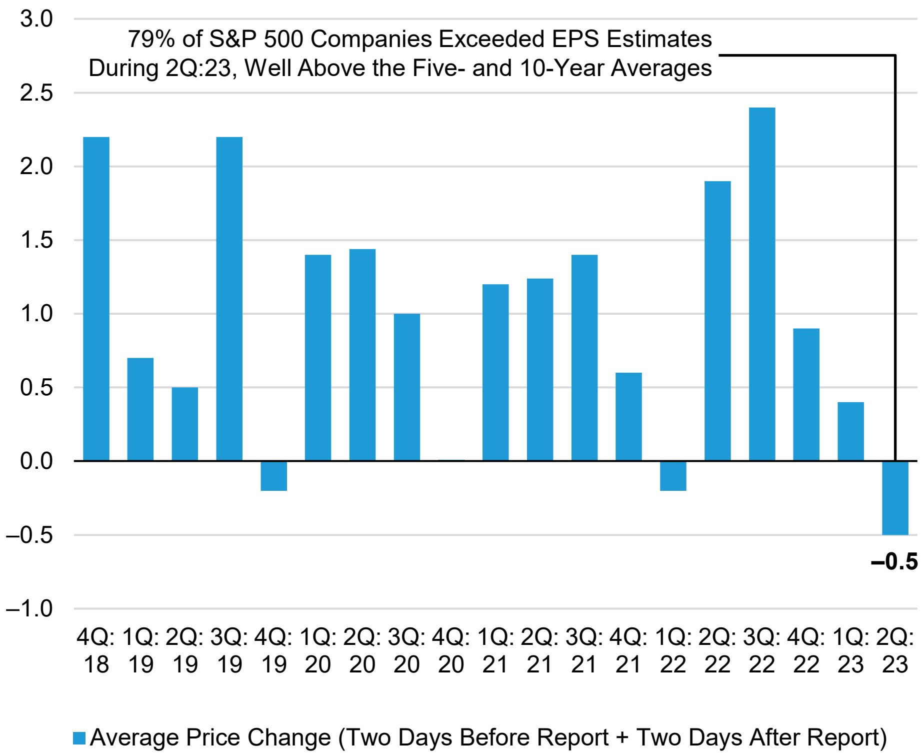
AB Global Economic Forecast

	Real Growth (Percent)		Inflation (Percent)		Official Rates (Percent)		Long Rates (Percent)	
	23F	24F	23F	24F	23F	24F	23F	24F
Global ex. Russia	**2.4**	**2.1**	**5.1**	**3.4**	**5.34**	**4.31**	**3.92**	**3.22**
Industrial Countries	1.4	0.9	4.2	2.3	4.40	3.52	3.28	2.50
Emerging Countries	3.7	3.7	6.3	5.1	6.83	5.71	4.62	4.17
US	**2.2**	**0.5**	**3.8**	**2.5**	**5.38**	**4.38**	**4.00**	**3.00**
Euro Area	0.3	0.5	5.0	2.3	4.00	3.00	2.75	2.00
UK	0.2	1.0	6.0	2.0	5.25	3.75	3.75	2.75
Japan	1.5	1.0	2.5	1.5	0.00	0.25	0.75	0.75
China	4.8	4.5	1.5	1.5	1.75	1.50	2.50	2.25

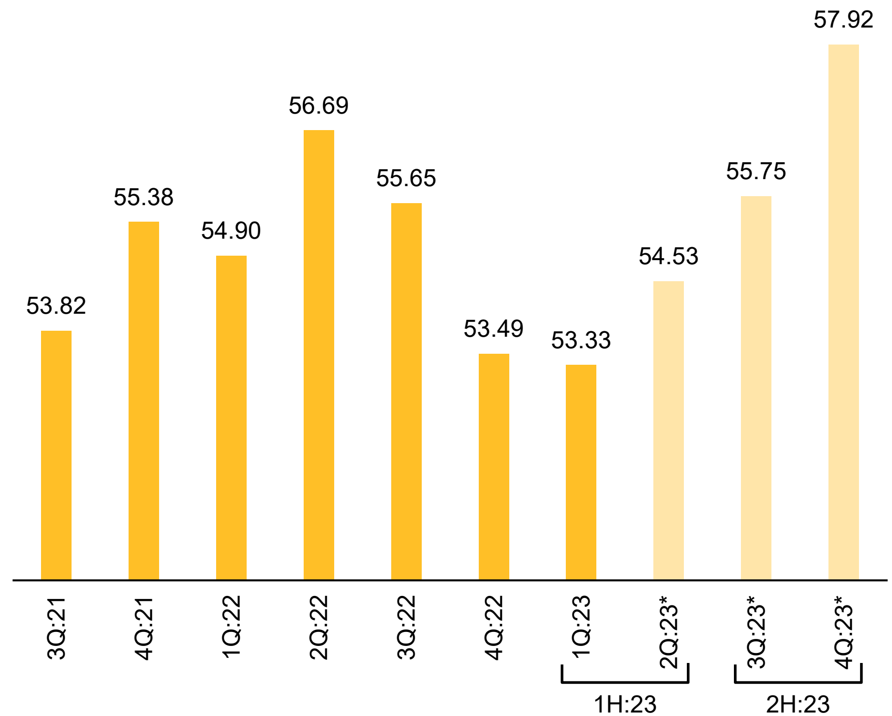
Past performance and current analysis do not guarantee future results.
Inflation is a core CPI estimate. Growth and inflation forecasts are calendar-year averages. Interest rates are year-end forecasts. Real growth aggregates represent 48 country forecasts, not all of which are shown. Long rates are 10-year yields.
As of September 30, 2023
Source: AB

Going Forward, Earnings Expectations Have a Higher Bar to Clear Compared to the First Half of the Year

Priced to Perfection? Strong 2Q:23 Earnings Season Didn't Move the Needle (Percent)



Comparisons Not Getting Any Easier: Earnings Expectations for 2023 Are Considerably Higher for the 2H



Historical analysis and current forecasts do not guarantee future results.

EPS: earnings per share; 1H: first half; 2H: second half

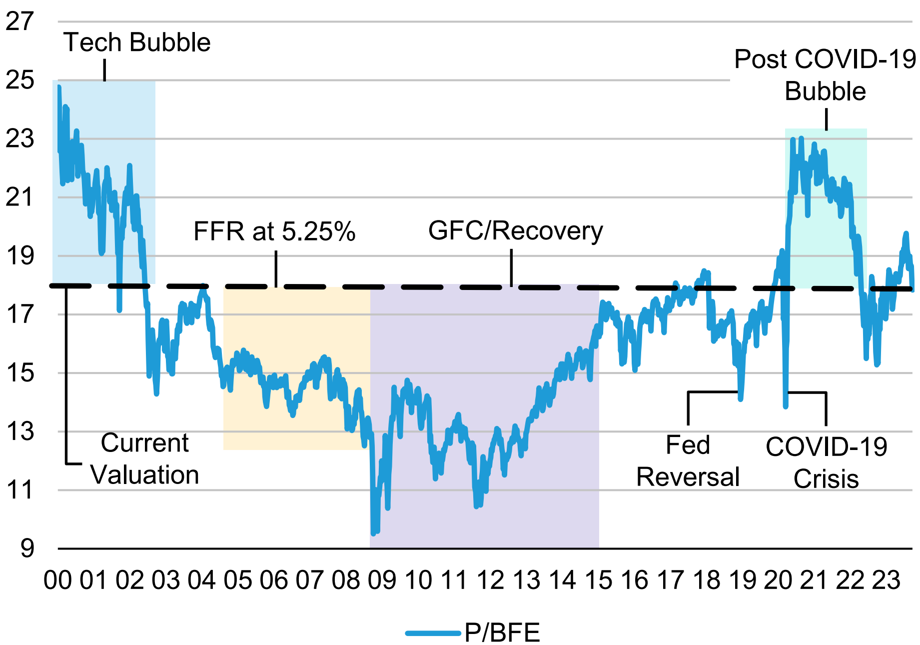
*Estimates

As of September 30, 2023

Source: Bloomberg, FactSet and AB

Valuations: As Fears Over Inflation and Growth Came Back into Focus, Valuations Retreated from Near-Bubble Levels

S&P 500 Multiples



Time Period	P/E	P/BFE	P/FE_1	P/FE_2	P/FE_3
September 30, 2023	**19.5**	**17.8**	**19.2**	**17.4**	**15.9**
June 30, 2023	19.9	19.3	20.2	18.4	16.8
December 31, 2022	18.6	16.7	17.5	16.4	15.0
Pre-Pandemic*	21.5	18.8	19.3	17.3	15.5
10-Year Average	19.2	17.7	18.8	17.0	15.6
Pre-Pandemic Five-Year Average	19.8	16.9	17.8	16.0	14.4
January 2014–November 2016	18.5	16.2	17.1	15.3	13.7
Average P/E When Rates Are Increasing†	19.2	16.1	17.1	15.4	14.3
Average Since 2000	18.5	15.9	17.5	15.9	14.3

Historical analysis and current forecasts do not guarantee future results.

FFR: fed funds rate; GFC: global financial crisis

Price/earnings (P/E) is for the trailing 12 months; price/blended forward earnings (P/BFE) is for the next 12 months; price/forward earnings (P/FE_1) is for the calendar year 2023; P/FE_2 is for the calendar year 2024; P/FE_3 is for the calendar year 2025.

*February 21, 2020

†Last two Fed cycle hikes, excluding the current one

As of September 30, 2023

Source: Bloomberg and AB

Scenario Chart: Choose Your Own Adventure

S&P 500 Return Scenario Chart

2023	14	15	16	17	18	19	20	21	22	S&P Price Level	2023 Price Return*
200	2,800	3,000	3,200	3,400	3,600	3,800	4,000	4,200	4,400	**3,740**	–12.8%
205	2,870	3,075	3,280	3,485	3,690	3,895	4,100	4,305	4,510	**3,870**	–9.7
210	2,940	3,150	3,360	3,570	3,780	3,990	4,200	4,410	4,620	**3,960**	–7.6
215	3,010	3,225	3,440	**3,655**	**3,870**	**4,085**	**4,300**	**4,515**	4,730	**4,180**	–2.5
220	3,080	3,300	3,520	**3,740**	**3,960**	**4,180**	**4,450**	**4,620**	4,840	**4,288**	0.0
225	3,150	3,375	3,600	**3,825**	**4,050**	**4,288**	**4,500**	**4,725**	4,950	**4,370**	1.9
230	3,220	3,450	3,680	**3,910**	**4,140**	**4,370**	**4,600**	**4,830**	5,060	**4,450**	3.8
235	3,290	3,525	3,760	3,995	4,230	4,465	4,700	4,935	5,170	**4,620**	7.7
240	3,360	3,600	3,840	4,080	4,320	4,560	4,800	5,040	5,280	**4,725**	10.2

2024	12	13	14	15	16	17	18	19	20	S&P Price Level	2023–24 Price Return†
220	2,640	2,860	3,080	3,300	3,520	3,740	3,960	4,180	4,400	**3,675**	–11.6%
225	2,700	2,925	3,150	3,375	3,600	3,825	4,050	4,275	4,500	**3,840**	–8.4
230	2,760	2,990	3,220	3,450	3,680	3,910	4,140	4,370	4,600	**4,080**	–3.9
235	2,820	3,055	3,290	**3,525**	**3,760**	**3,995**	**4,230**	**4,465**	4,700	**4,165**	–2.3
240	2,880	3,120	3,360	**3,600**	**3,840**	**4,080**	**4,450**	**4,560**	4,800	**4,288**	0.0
245	2,940	3,185	3,430	**3,675**	**3,920**	**4,288**	**4,410**	**4,655**	4,900	**4,450**	3.0
250	3,000	3,250	3,500	**3,750**	**4,000**	**4,250**	**4,500**	**4,750**	5,000	**4,560**	5.0
255	3,060	3,315	3,570	3,825	4,080	4,335	4,590	4,845	5,100	**4,750**	8.5
260	3,120	3,380	3,640	3,900	4,160	4,420	4,680	4,940	5,200	**5,000**	13.1

September 30, 2023 June 30, 2023

Historical analysis and current forecasts do not guarantee future results.

*Based on S&P 500's 3Q:23 closing price of 4,288; September 30, 2023, and June 30, 2023, use rounded numbers for earnings and multiples.

†Annualized return from the "As of" date to the end of 2024

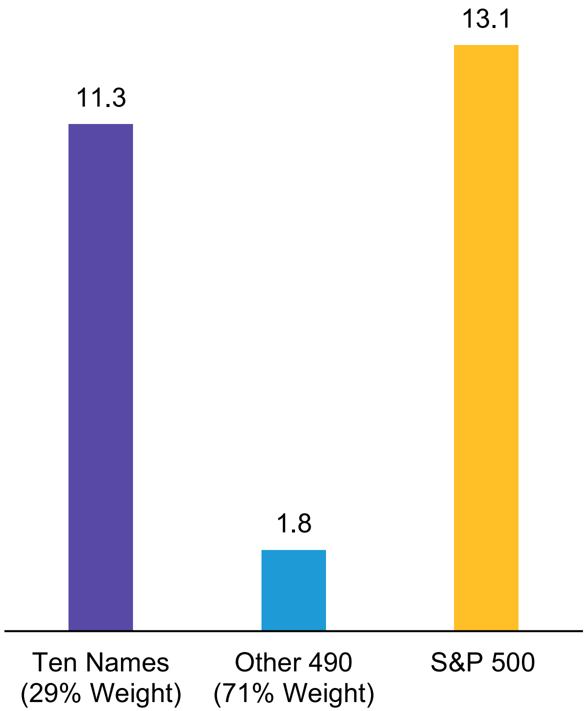
As of September 30, 2023

Source: Bloomberg and AB

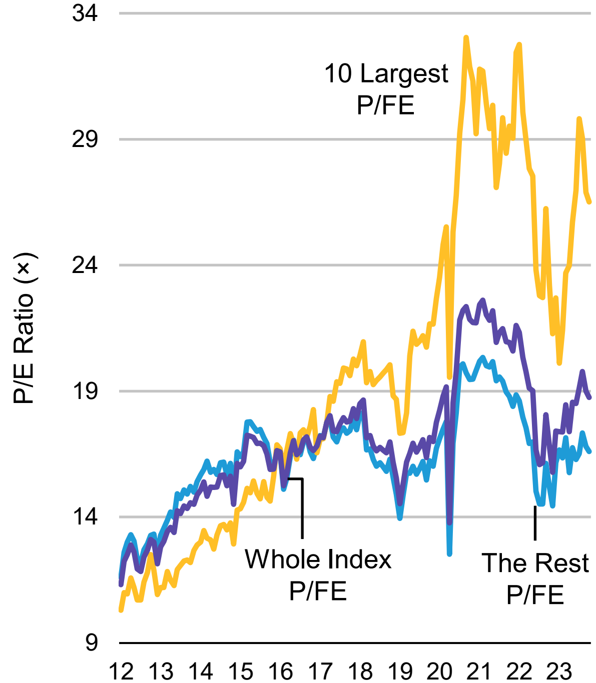
Popular Indices Appear Expensive, but Let's Have a Closer Look

Although market concentration persisted, return opportunities are not limited to the largest stocks

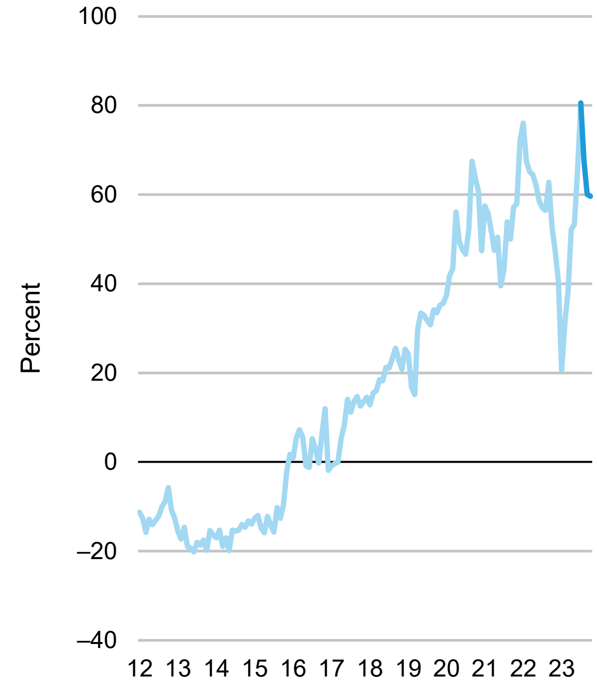
S&P 500 YTD Returns Still Mostly Driven by the Largest Mega-Cap Names…



…Which Trade at a Large Premium Relative to the Other 490



This Premium Remains High Despite This Quarter's Pullback (Dark Blue Line)



Past performance does not guarantee future results.

YTD: year-to-date

Ten names include: Alphabet Inc., Amazon, Apple, Berkshire Hathaway, Exxon Mobil Corporation, Meta Platforms, Microsoft, NVIDIA, Tesla and UnitedHealth Group.

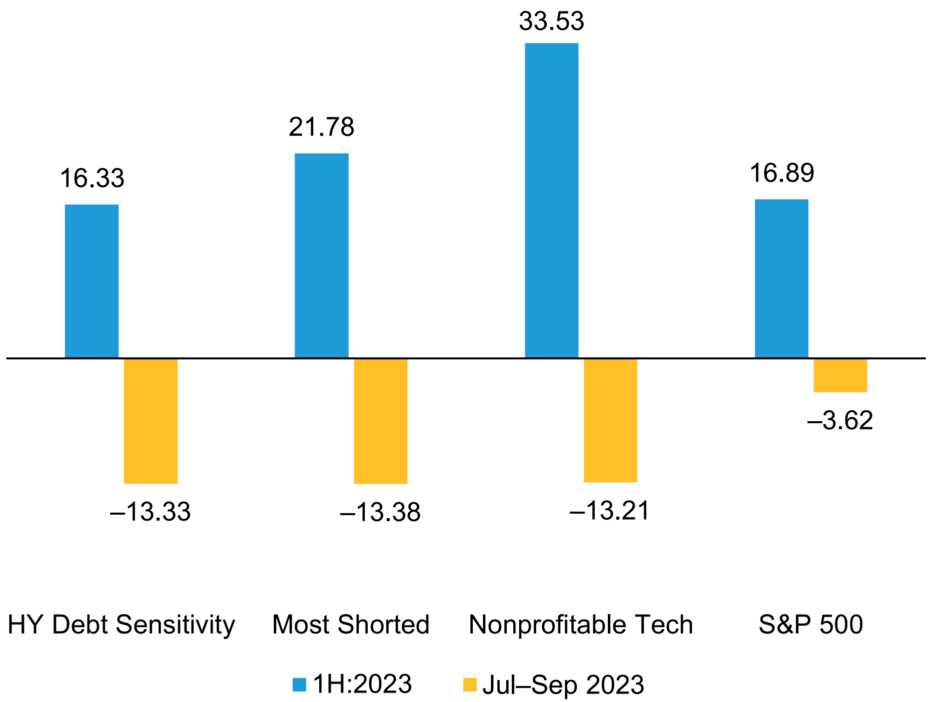
As of September 30, 2023

Source: Bloomberg, S&P and AB

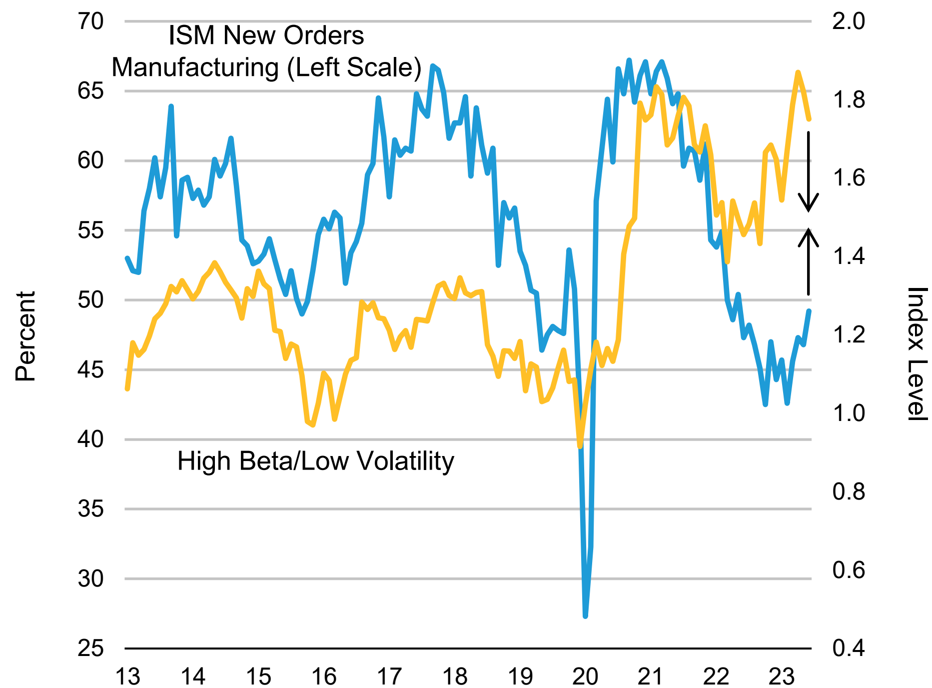
Higher-Beta Stocks Hit a Speed Bump in the Face of Resistance

The gravitational pull of higher rates, extended valuations and weak fundamentals

Speculative Stocks Have Reversed Course in the Third Quarter (Percent)



Higher-Beta Stocks Not Immune to Mean Reversion, After All



Past performance does not guarantee future results.

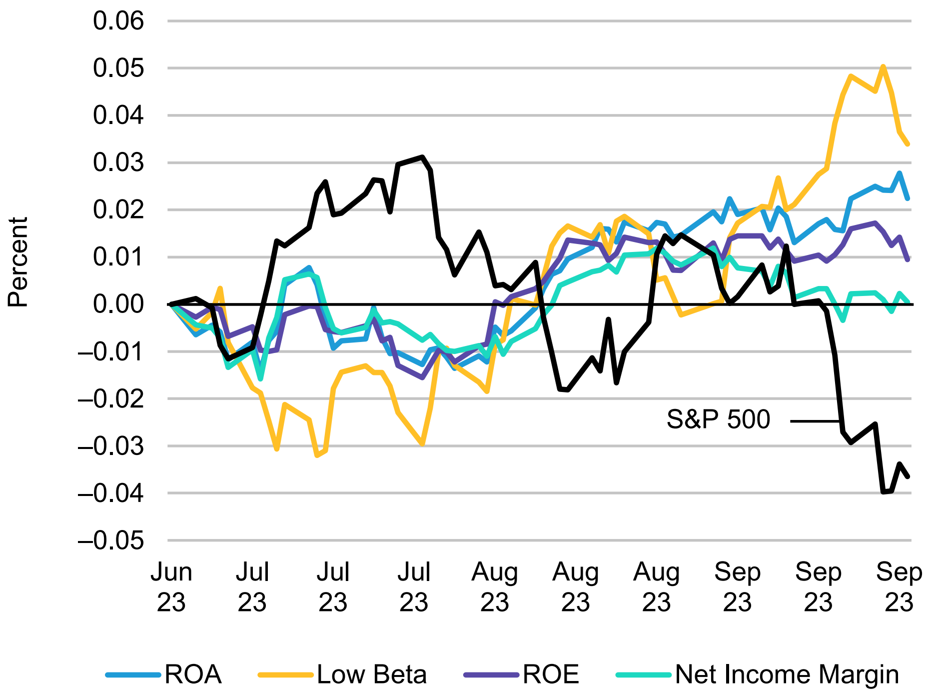
HY: high-yield; ISM: Institute for Supply Management

As of September 30, 2023

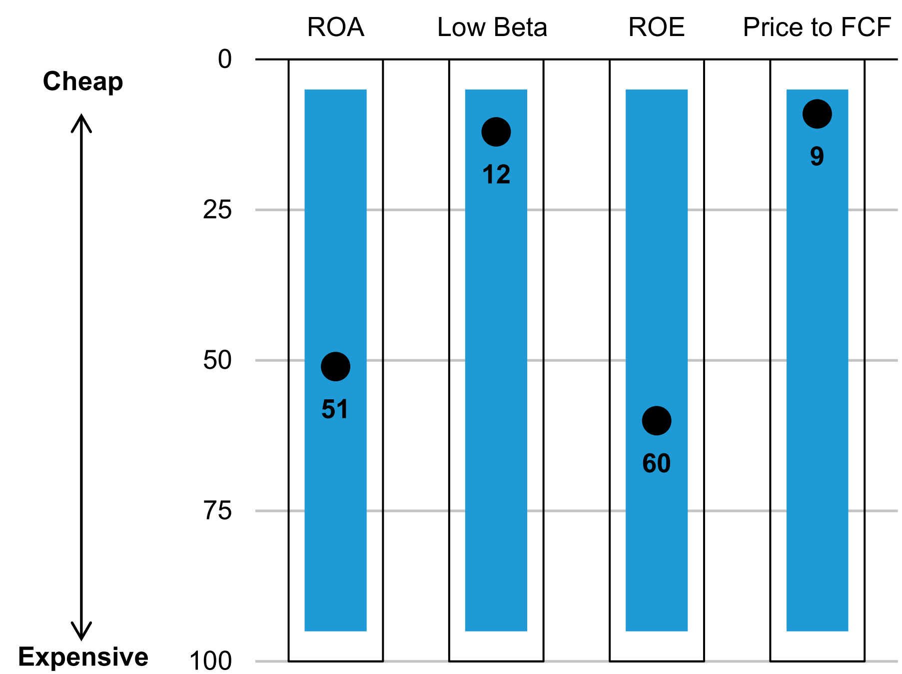
Source: Bloomberg, Goldman Sachs and AB

We Advise Staying in a Better Neighborhood in the Current Environment

During Period of "Resistance," Our Preferred and Other Defensive Factors Outperformed the Market…



…and Still Are Attractive to Fairly Valued*



Past performance does not guarantee future results.

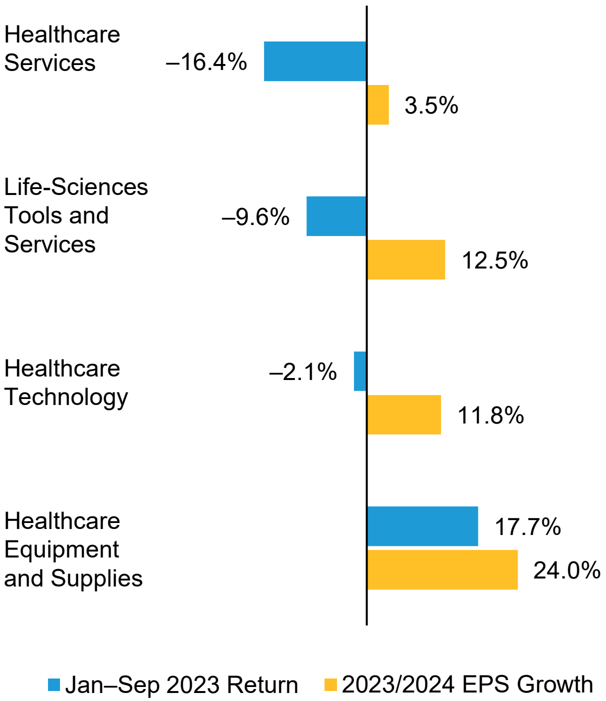
*Percentile rankings are based on monthly valuations (i.e., relative P/E of 1Q for each factor vs. Russell 1000) from 1990 to present. Return on assets (ROA): LTM earnings divided by average total assets. Low beta: exponentially weighted beta with a one-year half-life over the last five years. Return on equity (ROE): net income divided by average shareholder's equity. Price to FCF: LTM cash flow from operations less three-year average CAPEX to market cap.

Left display as of September 30, 2023; right display as of August 31, 2023. Source: Bloomberg, Piper Sandler and AB

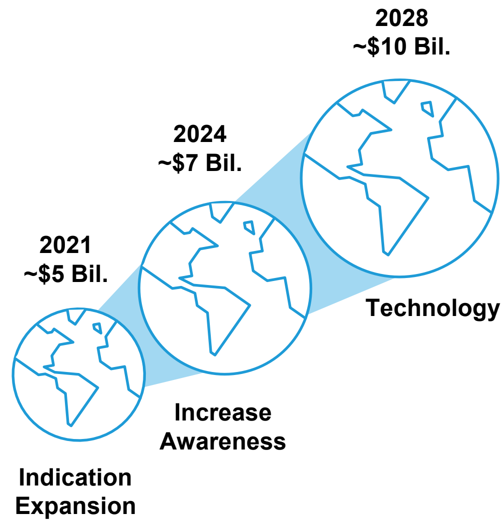
Quality Growth: A Continued Emphasis on Selective Healthcare

Durable trends (e.g., heart valve replacements) at attractive price points

Many Healthcare Stocks Have Lagged but Have a Favorable Earnings Outlook

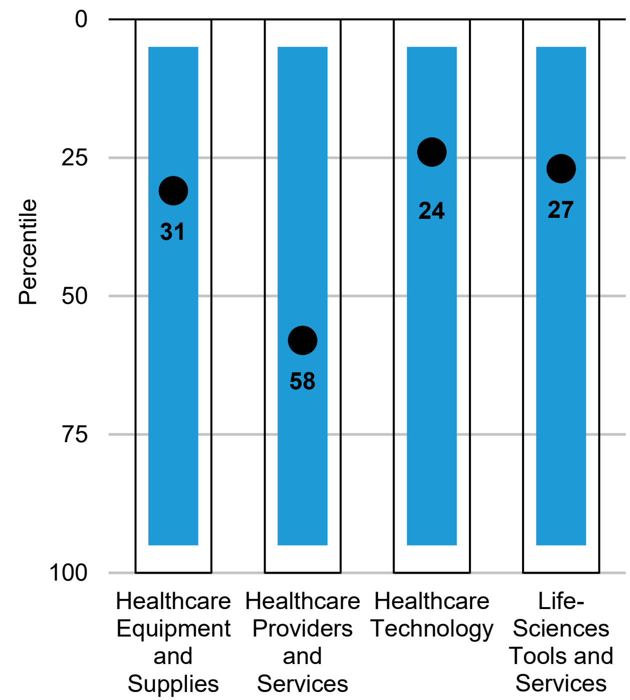


Growth Potential for Transcatheter Aortic Valve Replacement (TAVR)



- The TAVR addressable market is expected to reach >US$10 billion by 2028 versus US$5 billion today
- TAVR is an innovative, minimally invasive procedure that improves outcomes for patients, including survival

Valuations Remain Attractive Among a Broad Array of Companies



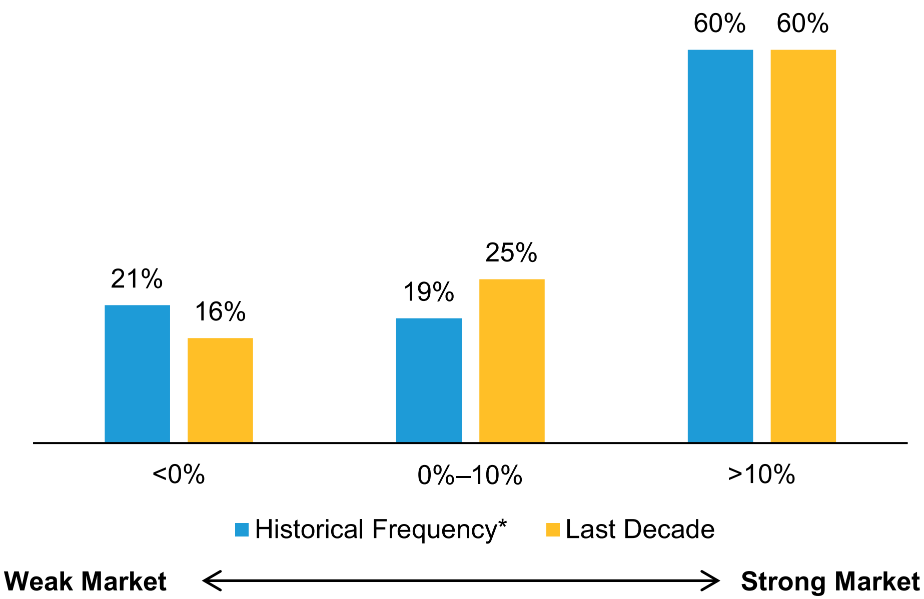
Past performance does not guarantee future results.
Based on consensus estimates
Right display: industries within MSCI World Healthcare
Left and right displays as of September 30, 2023; middle display as of June 30, 2023
Source: *The Lancet*, OECD, S&P, Strategas Research Partners and AB

Low Volatility: After a Relatively Benign Decade, Expect Choppier Markets

Higher-for-longer rates and the lower likelihood of Fed rate-cut rescues should heighten risk aversion

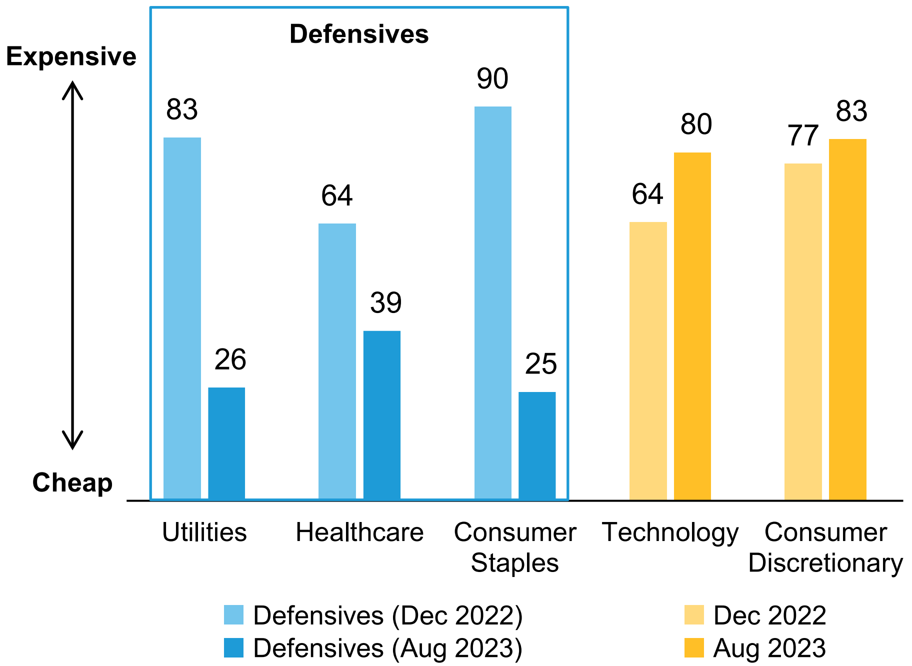
The Last Decade Has Had Fewer Downside Events

US stocks (S&P 500): frequency of rolling 12-month returns



In a Volatile World, the Pattern of Returns Matters More†

Relative valuation percentiles of defensive sectors are attractive



Past performance does not guarantee future results.

Return buckets are based on returns for the S&P 500. Forward 12-month returns are calculated monthly with the average taken across all months in the period.

*January 1,1970, to September 30, 2013

†Valuation percentiles for sectors are cap-weighted average price-to-next 12 months earnings forecast relative to benchmark and relative to their own history. The investable benchmark is Russell 1000.

Left display as of September 30, 2023; right display as of August 31, 2023

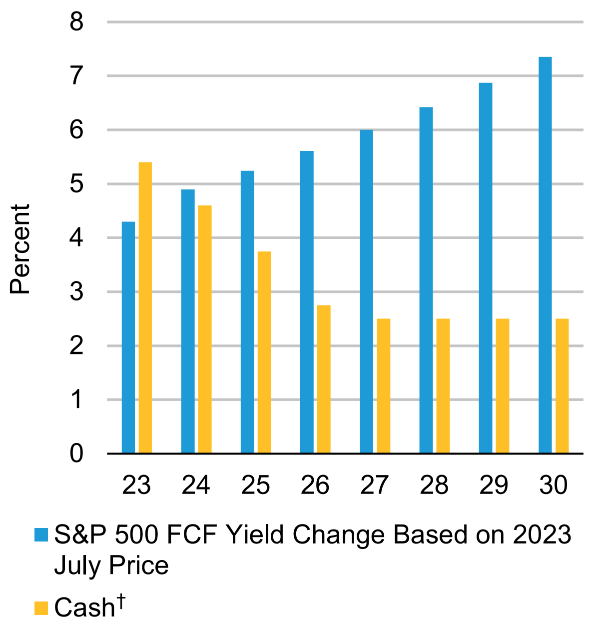
Source: I/B/E/S, MSCI, Refinitiv, Russell Investments and AB

Dividend Equities: Many Favorable Attributes

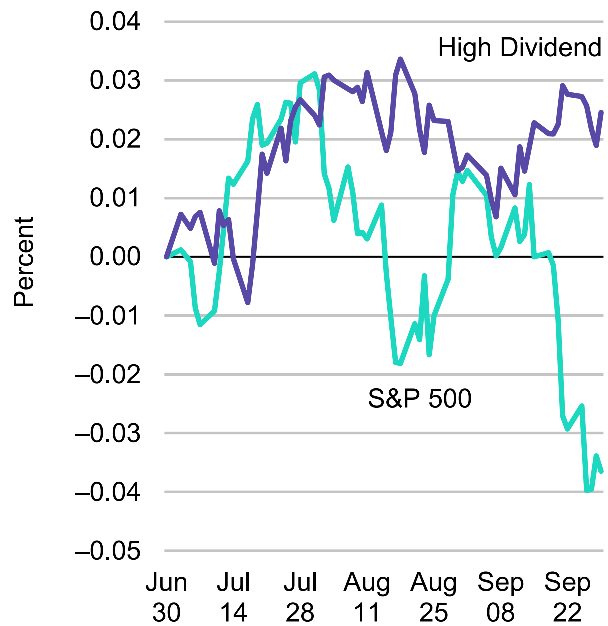
Rising income growth potential, defensive qualities and the price is right

S&P 500 FCF Yield

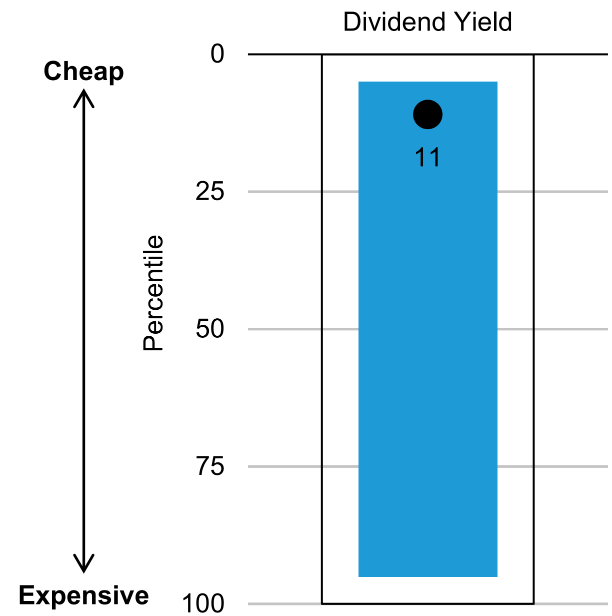
A growing stream over time vs. the prospect of lower fed funds and cash rates*



High Dividend Factor Outperformed During Most Recent Quarter (Percent)



While Valuations Remain Cheap Relative to History



Past performance does not guarantee future results.

*Assuming investing on July 31, 2023; using consensus free-cash-flow forecast for 2023 and 2024, while assuming free-cash-flow grows at 7% annually afterwards. Data extends out to 2030 as the average maturity year of the Bloomberg US Aggregate Index is eight years.

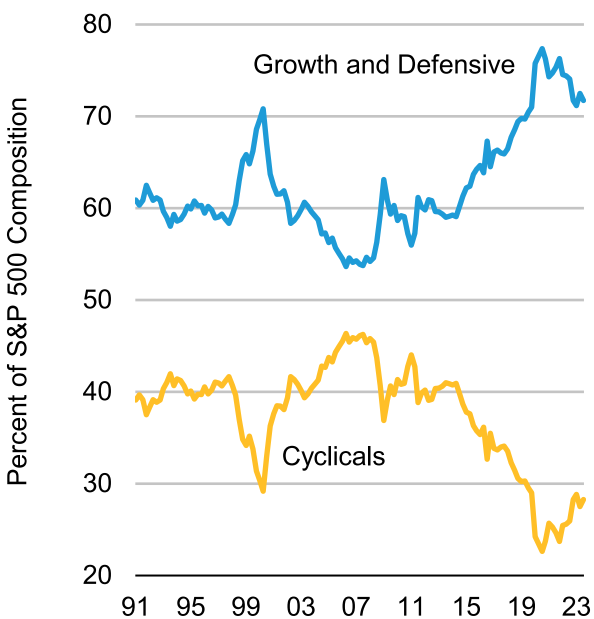
†Using fed funds rate as proxy; 2023 and 2024 fed funds rate forecasts are based on future implied rate, while 2025 and onward are based on Fed dot plot (2025, 2026 and long-run) forecasts.

Left and middle displays as of September 30, 2023; right display as of August 31, 2023

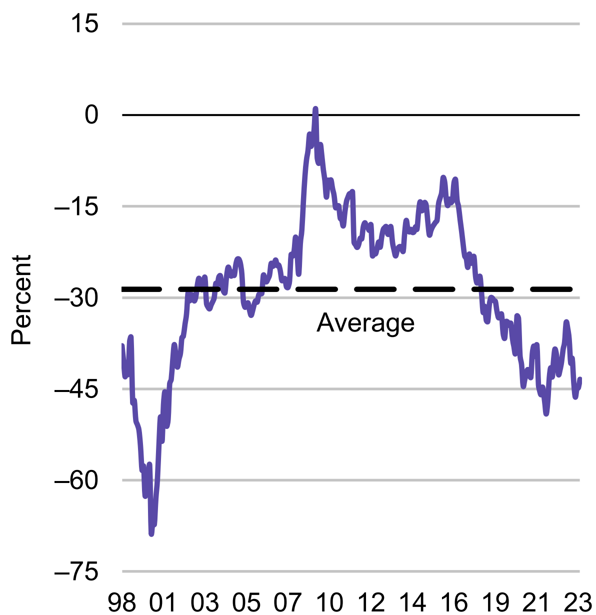
Source: Bloomberg, US Federal Reserve and AB

Value Equities: An Attractive Entry Point to Selectively Rebalance

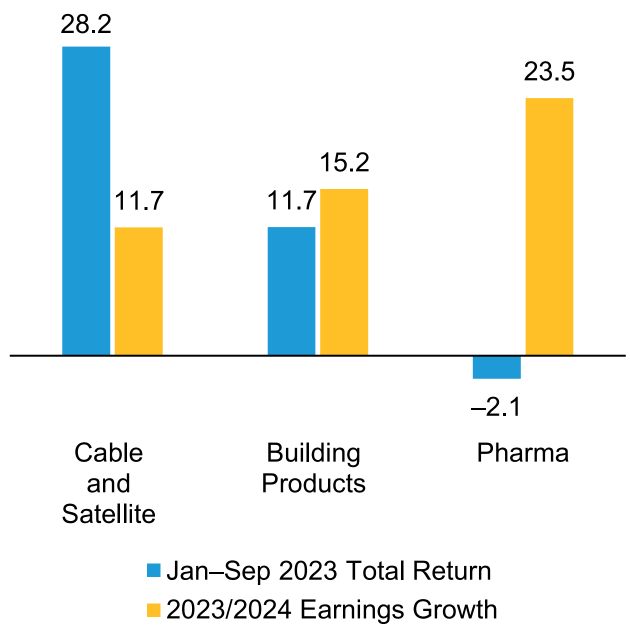
Cyclical Sectors Have Room to Expand in What Is Now a Growth-Centric Index*



Value at a Compelling Price
Russell 1000 Value vs. Russell 1000 Growth price/blended forward earnings discount



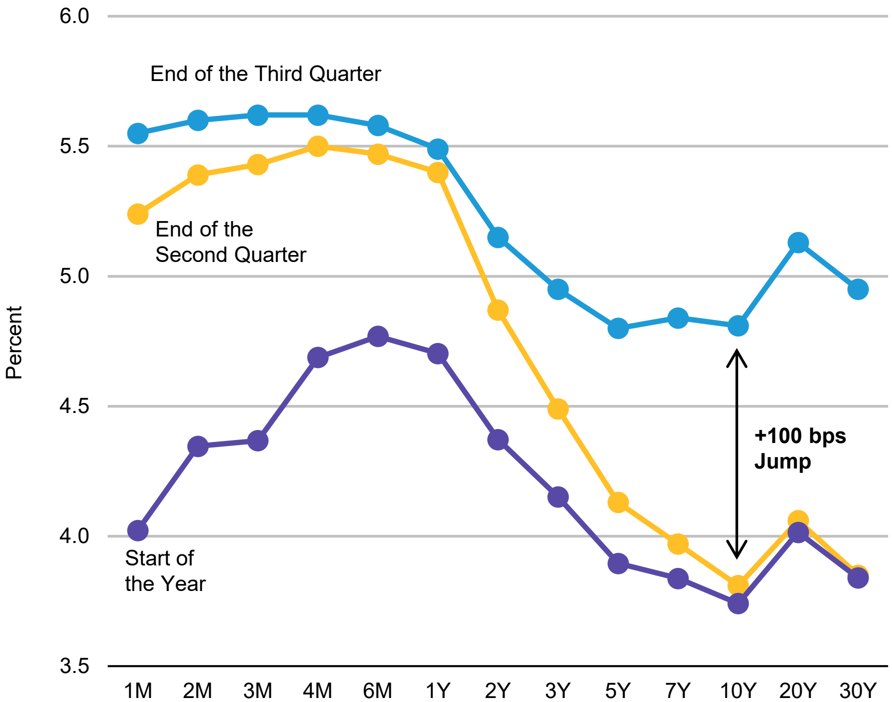
Favored Industries
A focus on durable earnings growth (percent)



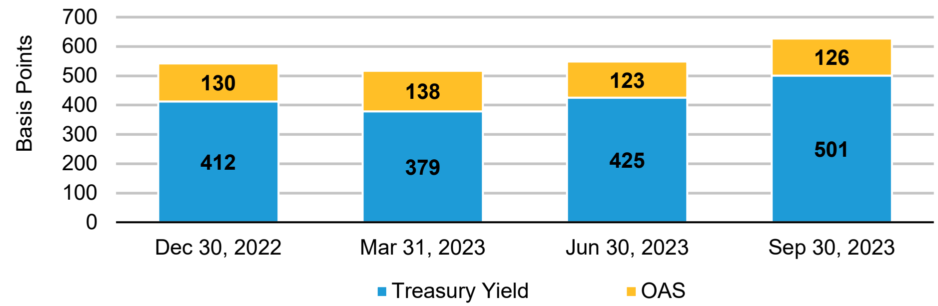
Past performance and current analysis do not guarantee future results.
Pharma: pharmaceuticals
*Cyclical exposure is the sum of energy, industrials, materials and financials sectors. Growth and defensive exposure is the sum of technology, communication services, consumer staples, healthcare, consumer discretionary, REITs and utilities sectors.
As of September 30, 2023
Source: Bloomberg and AB

The Return of the Bond Vigilantes? The Yield Curve Flattened on the Back of Higher Long-Term Rates

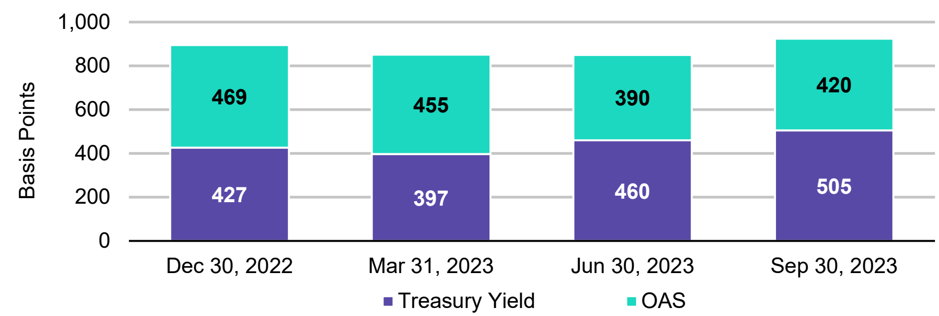
Long-Term Rates Returned to Levels Not Seen Since Pre-Global Financial Crisis



Investment-Grade YTW Jumped Higher on the Back of Higher Rates, Not Spreads



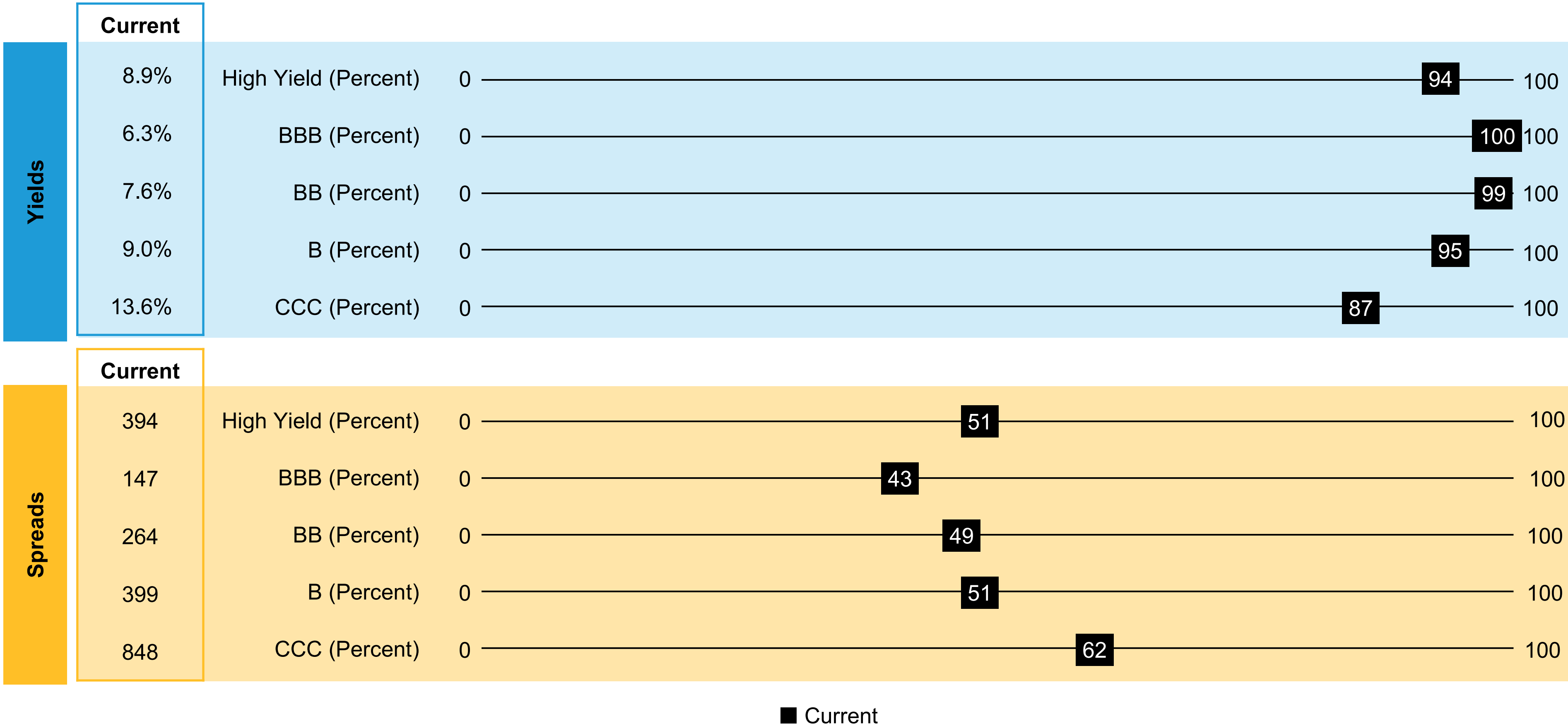
While in HY, Spreads Widened and Treasury Yields Increased Meaningfully



Historical analysis does not guarantee future results.
HY: high yield; OAS: option-adjusted spread; YTW: yield to worst
As of October 3, 2023
Source: Bloomberg and AB

Yields Are at 10-Year Highs and Spreads Still Around Average

Percent of time yields and spreads were below today’s levels since 2013



Past performance does not guarantee future results.

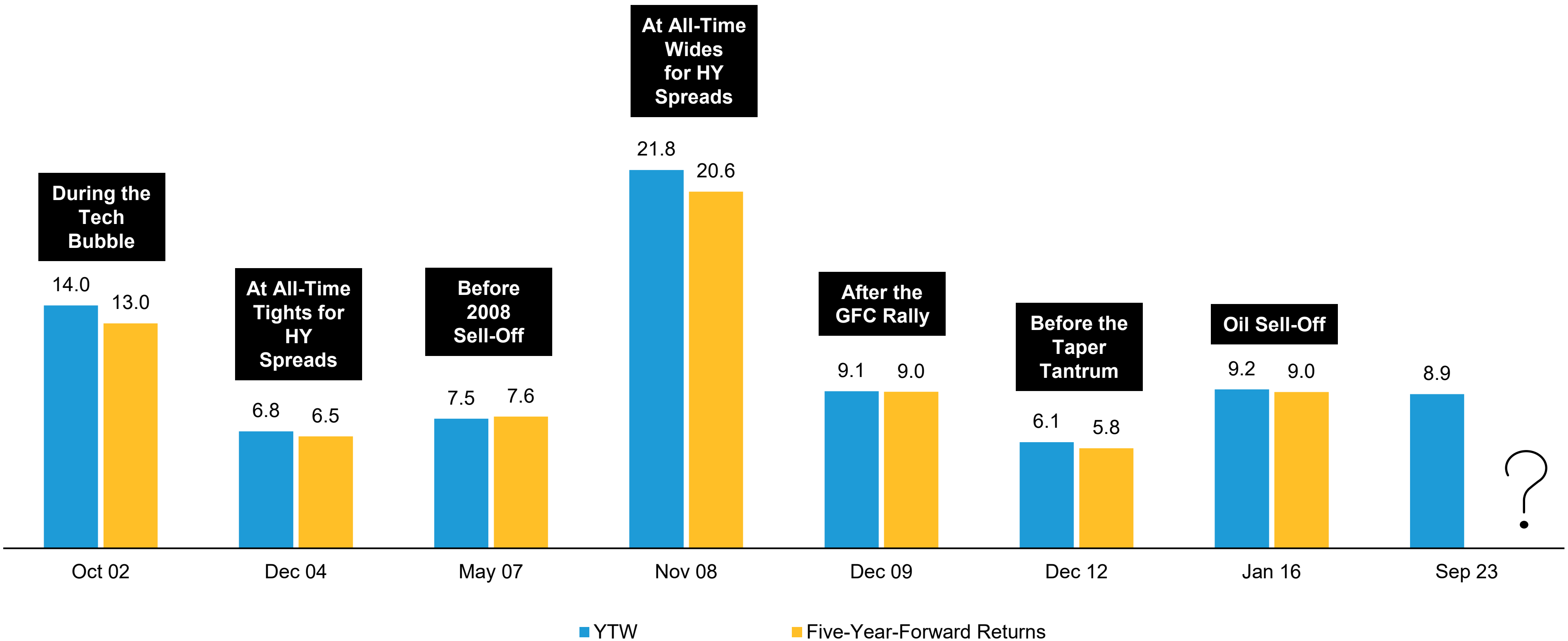
Spread: option-adjusted spread. High yield is represented by Bloomberg US Corporate High Yield Index. Quality index spreads measured by the credit quality sub-indices of Bloomberg US Corporate High Yield. BBB is represented by quality sub-index of Bloomberg US Corporate Index. Data from September 2013 to September 2023.

As of September 30, 2023

Source: Bloomberg, J.P. Morgan and AB

Good News: Elevated Yields Suggest Attractive Five-Year-Forward Returns

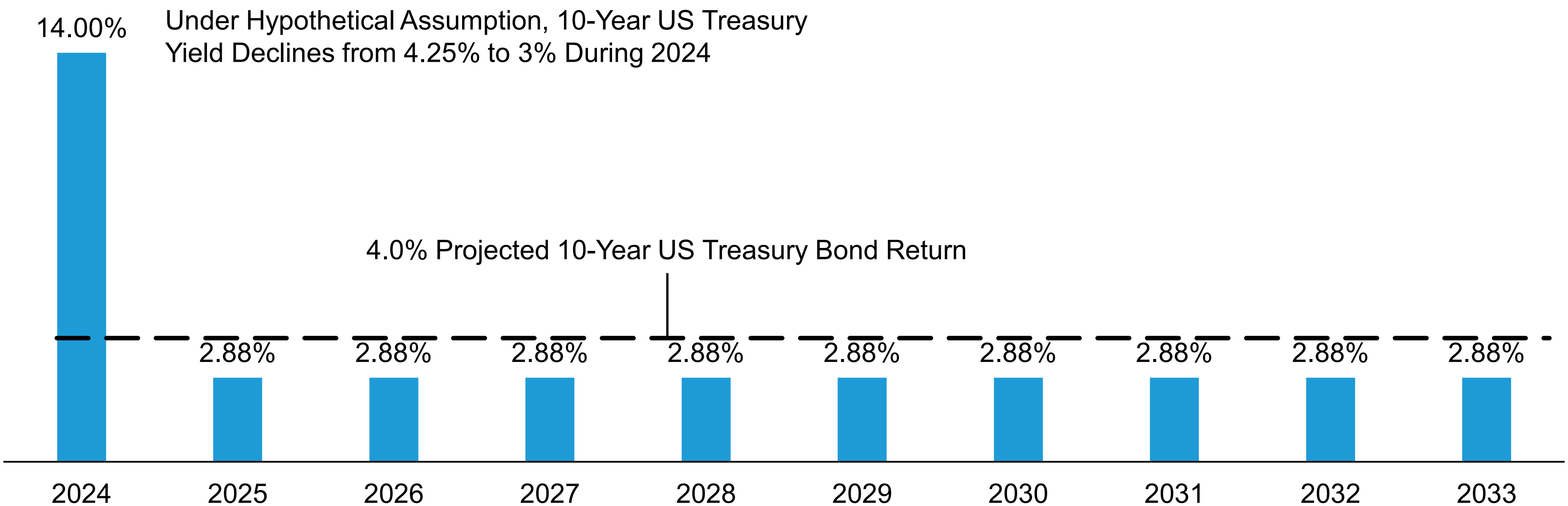
If You Invested (Percent)



Past performance and historical analysis do not guarantee future results.
HY: high-yield; GFC: global financial crisis; YTW: yield to worst
YTW and returns represent Bloomberg US Corporate High Yield Index
As of September 30, 2023
Source: Bloomberg and AB

However, We Expect Returns to Be Heavily Front-Loaded

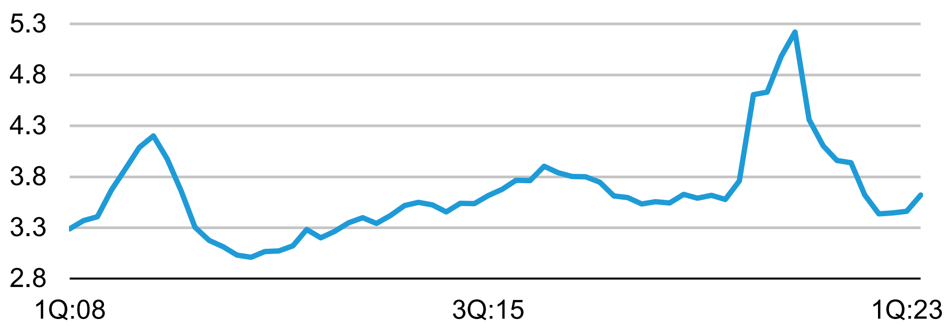
Simplified Return Illustration: 10-Year US Treasury Bond



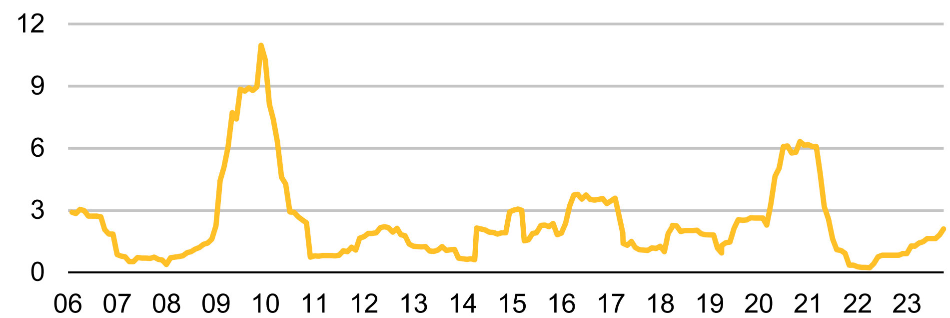
Past performance and current analysis do not guarantee future results.
Simulated or hypothetical performance results have certain inherent limitations. Simulated or hypothetical trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. No representation is being made that any account will or is likely to achieve returns or a volatility profile similar to those being shown. Returns are simplified and thus for illustrative purposes only; they assume a 4% coupon, eight-year duration and 125-basis-point yield decline over the first year. Convexity, roll, term premium and coupon reinvestment are excluded from this approximation.
As of September 30, 2023
Source: AB

US High-Yield Fundamentals: Strong Starting Point but Inflecting from Cyclical Peaks

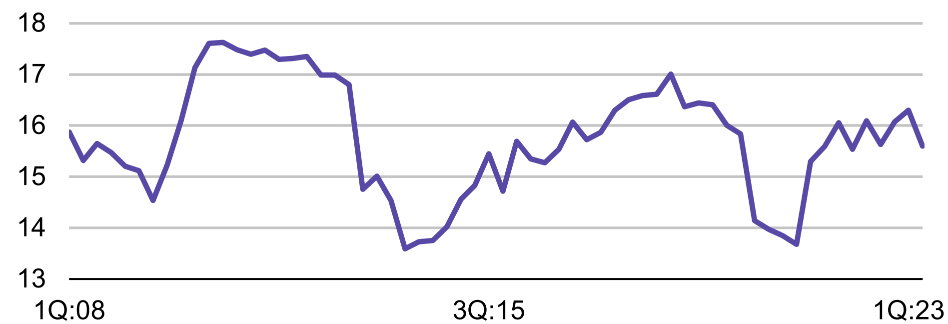
Net Leverage (Debt/EBITDA)



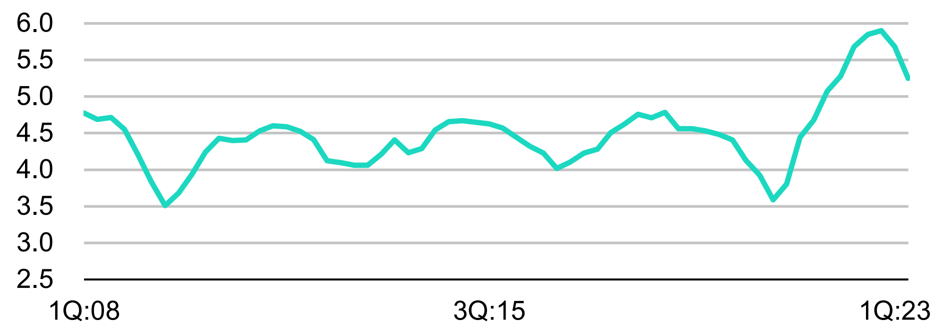
Default Rates (Percent)



EBITDA Margin (Percent)



Interest Coverage (EBITDA/Interest)



Historical and current analyses do not guarantee future results.

EBITDA: earnings before interest, taxes, depreciation and amortization

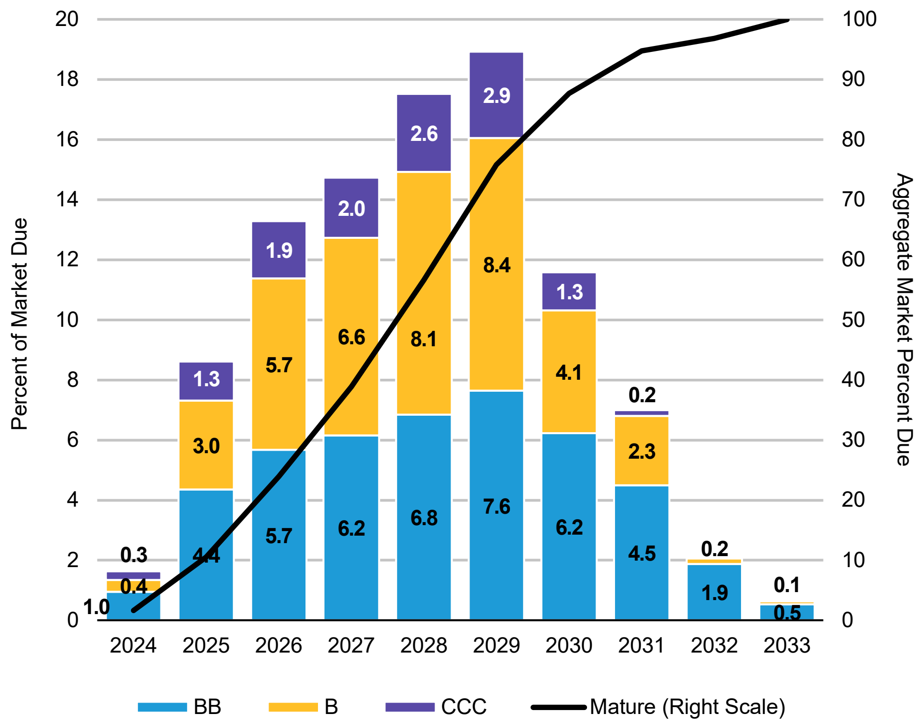
Metrics data are calculated using weighted average.

Fundamentals as of June 30, 2023; defaults as of September 30, 2023

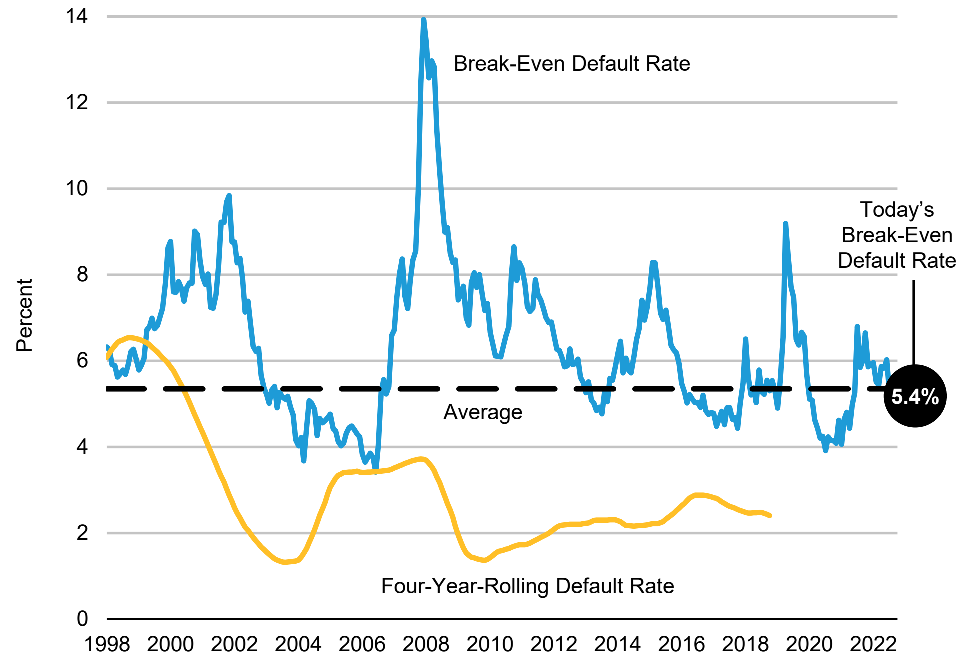
Source: J.P. Morgan and AB

Manageable Upcoming Maturities and High Default Compensation Provide a Healthy Cushion for Investors

Over the Next Two Years, 10% of the Market Matures; Less than 2% Is in CCCs



The Current Risk Premium Is Paying Investors for Break-Even Defaults of 5%+ per Year Over the Next Four Years



Past performance does not guarantee future results.
Maturity represented by Bloomberg US Corporate High Yield Index
As of September 30, 2023
Source: Bloomberg and AB

Even if Spreads Widen, High Yield Should Deliver Solid Returns

Downside Scenario
Hard landing

Assumptions:
- Spreads widen 250 bps
- Treasury yields decline 75 bps
- Default rate: 6.5%
- Recovery rate: 20%

Price Change	–6.59%
Yield	8.88%
Default Loss	–5.20%
Total Return	**–2.91%**
Yield in 12 Months	10.63%
Three- to Five-Year Expected Return	8.88%

Base Case Scenario
Softish landing

Assumptions:
- Spreads widen 50 bps
- Treasury yields decline 50 bps
- Default rate: 4.5%
- Recovery rate: 30%

Price Change	–0.09%
Yield	8.88%
Default Loss	–3.15%
Total Return	**5.26%**
Yield in 12 Months	8.88%
Three- to Five-Year Expected Return	8.88%

Upside Case Scenario
Strong growth

Assumptions:
- Spreads tighten 35 bps
- Treasury yields increase 25 bps
- Default rate: 3.5%
- Recovery rate: 30%

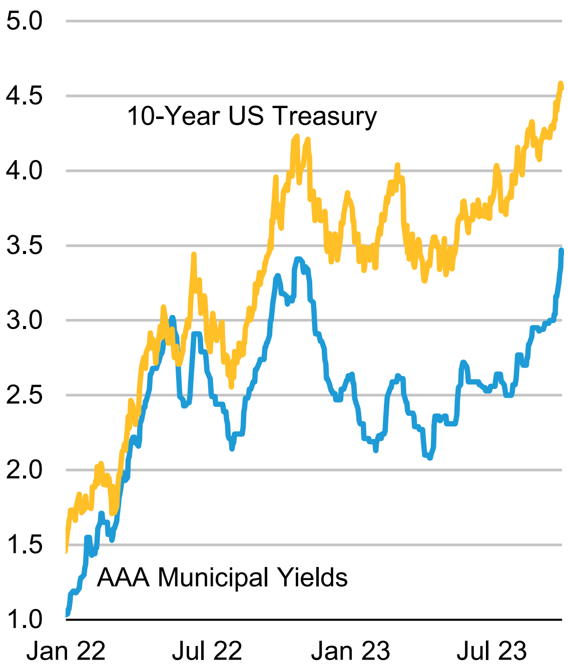
Price Change	0.41%
Yield	8.88%
Default Loss	–2.45%
Total Return	**6.84%**
Yield in 12 Months	8.78%
Three- to Five-Year Expected Return	8.88%

Current and historical analyses do not guarantee future results.
High yield is represented by Bloomberg US Corporate High Yield Index. The shock analysis assumes the potential impact of an instantaneous change in Treasury yields and high-yield spreads and the benefit of yield over the next 12 months. The analysis ignores correlations between Treasuries and other sectors. The actual moves in spreads and Treasury yields may differ meaningfully from the sample moves shown in the displays. Simulated or hypothetical performance results have certain inherent limitations. Simulated or hypothetical trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. No representation is being made that any account will or is likely to achieve returns or a volatility profile similar to those being shown.
As of September 30, 2023
Source: Bloomberg and AB

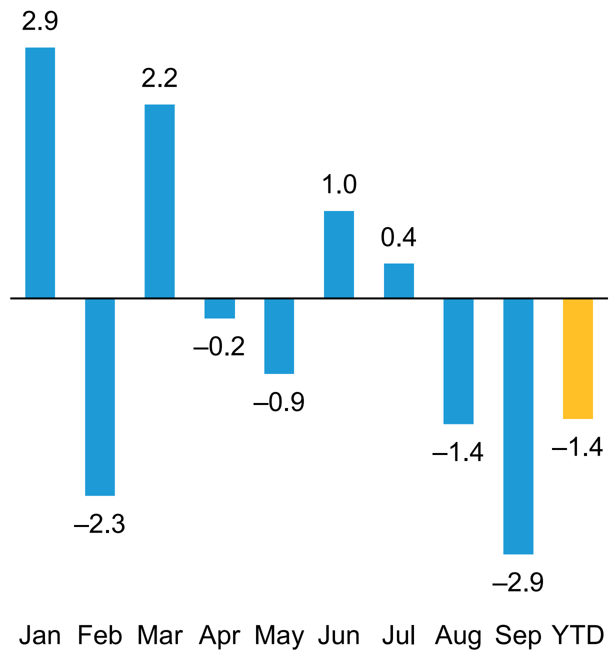
Muni Yields Followed Treasury Yields Higher in 3Q

Outflows increased, causing after-tax spreads to widen

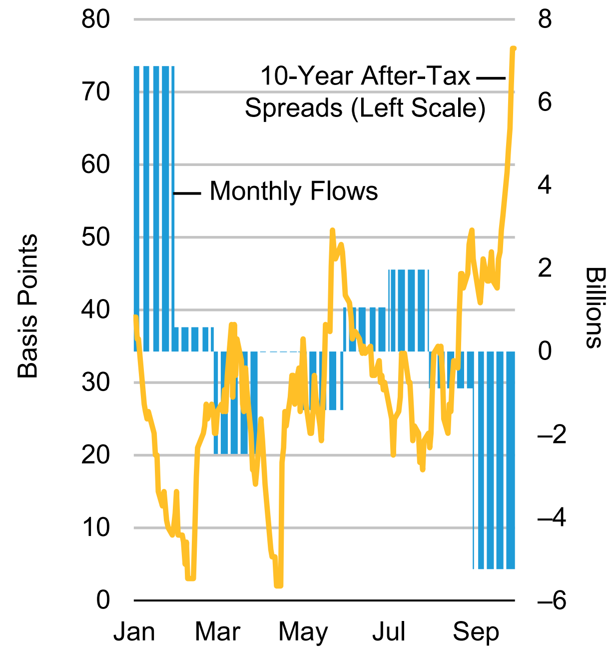
10-Year US Treasury and AAA Municipal Yields (Percent)



Bloomberg Municipal Index Monthly Returns (Percent)



Municipal Flows and 10-Year After-Tax Muni Spreads



Past performance does not guarantee future results.

YTD: year to date

Municipal market returns are represented by the Bloomberg Municipal Bond Index.

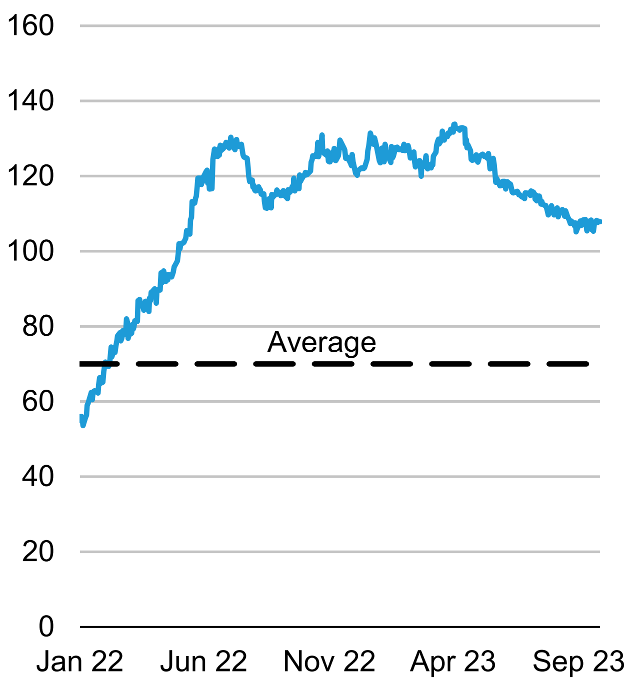
As of September 30, 2023

Source: Bloomberg, Morningstar and Municipal Market Data

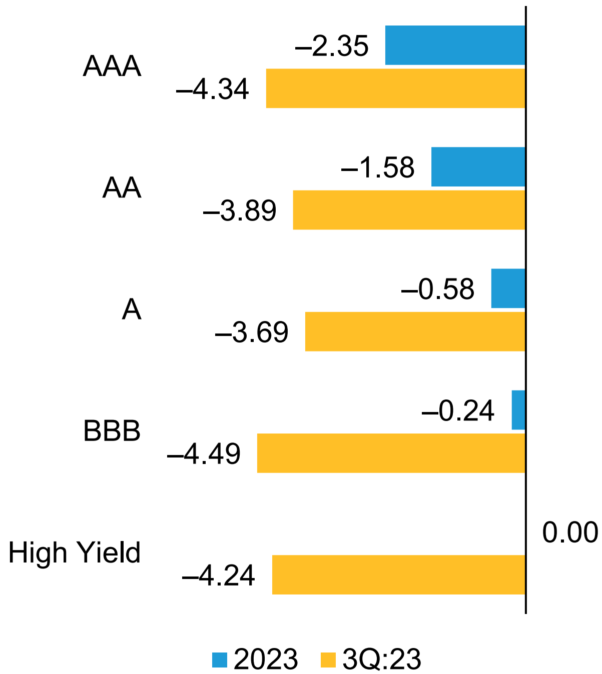
Credit Spreads Have Compressed, Fueling Outperformance of Muni Credit

Spreads are tighter but still wide to historical averages; supply outlook offers support

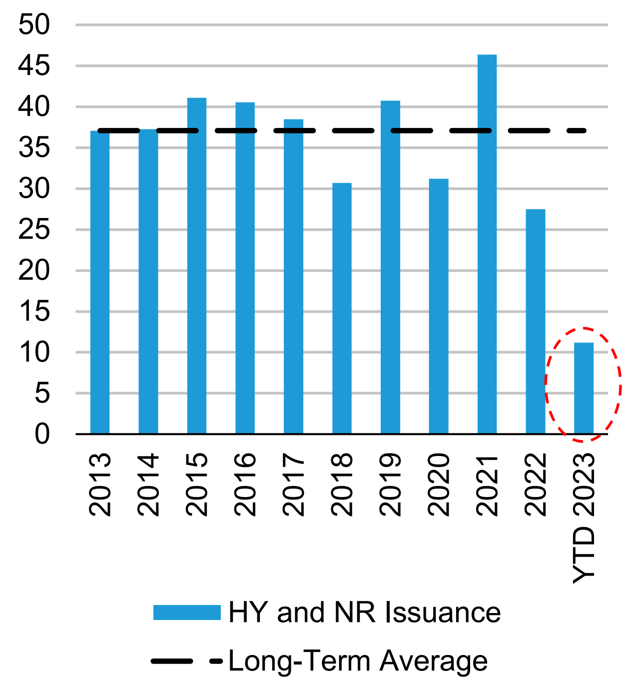
BBB-Rated Municipal Spreads
Basis points



QTD and YTD Returns by Credit Quality
Percent



Low Issuance Should Offer Support to HY
Billions



Past performance does not guarantee future results.

HY: high-yield; NR: not-rated; QTD: quarter-to-date; YTD: year-to-date

Returns by credit quality are represented by Bloomberg Municipal Credit Quality Indices.

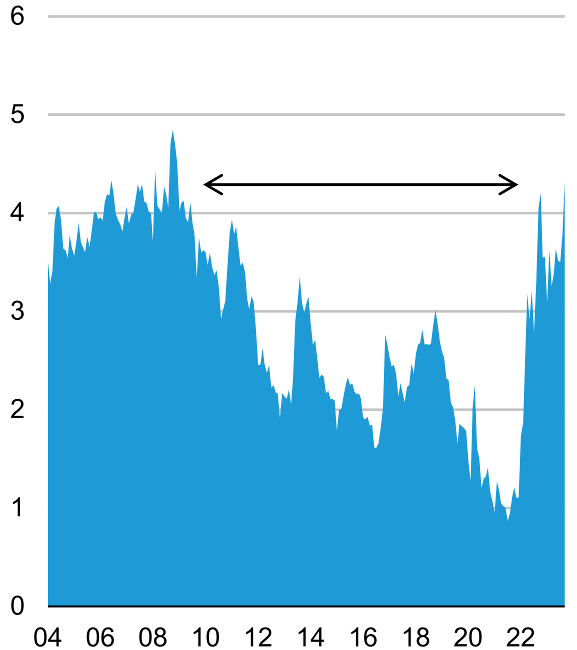
As of September 30, 2023

Source: Bloomberg, J.P. Morgan and AB

Investor Entry Point Is Attractive Today

A powerful combination of high yields, cheap valuations and wide credit spreads

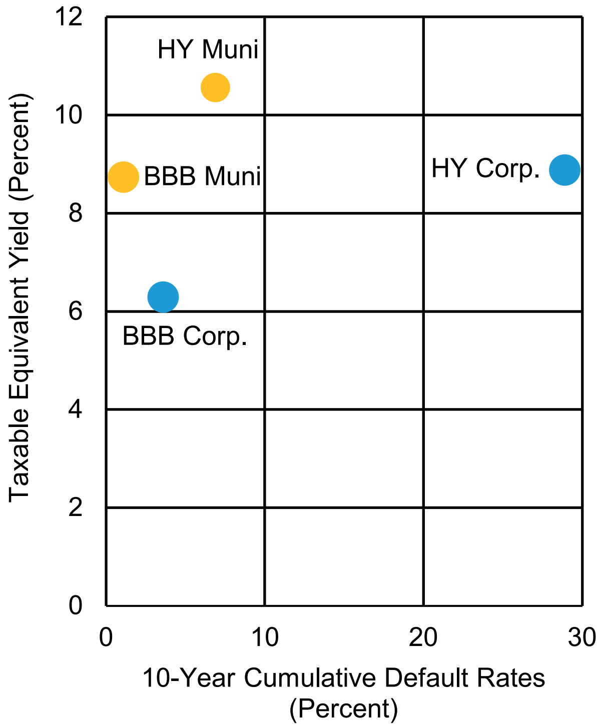
Bloomberg Municipal Index Yield to Worst (Percent)



Muni/Treasury After-Tax Spreads
Basis points

Maturity	Jun 30, 2023	Sep 30, 2023	Five-Yr. Average
Two-Year	2	66	16
Five-Year	15	65	22
10-Year	32	72	49
15-Year	83	115	73
20-Year	86	124	80
30-Year	121	155	92

Compelling Tax-Equivalent Yield Pickup vs. Default Risk in Municipal Credit



Past performance does not guarantee future results. There is no guarantee any investment objective will be achieved.

HY: high-yield

Tax rate assumed is 40.8%.

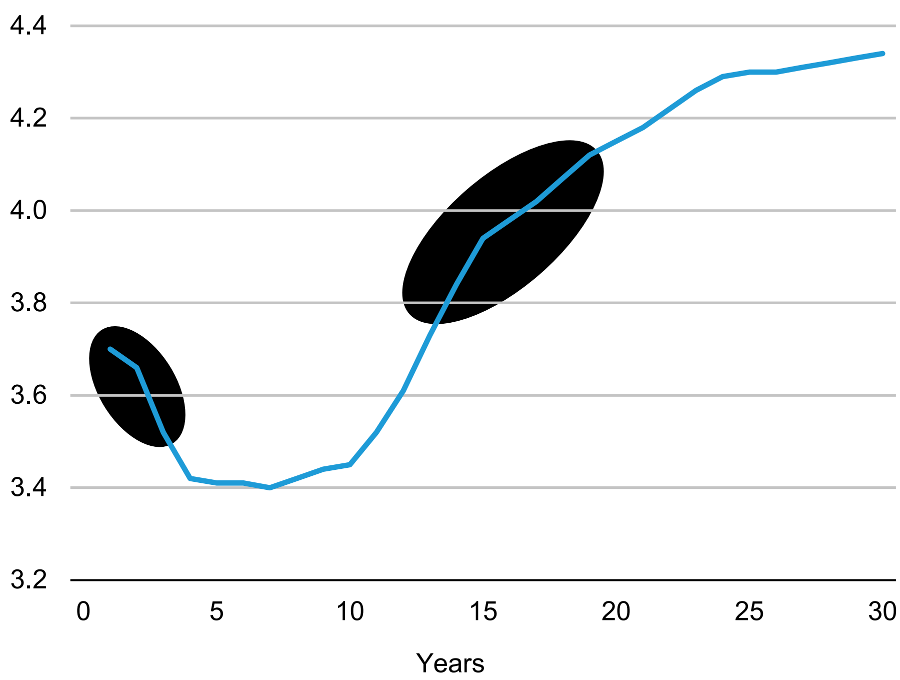
As of September 30, 2023

Source: Bloomberg, Moody's and AB

Add Duration and Construct a Barbell Maturity Exposure to Achieve Target

Capitalize on high front-end yields and steeper curve slope in the 12–20-year range

AAA Municipal Yield Curve (Percent)



Portfolio Construction for Today's Environment*

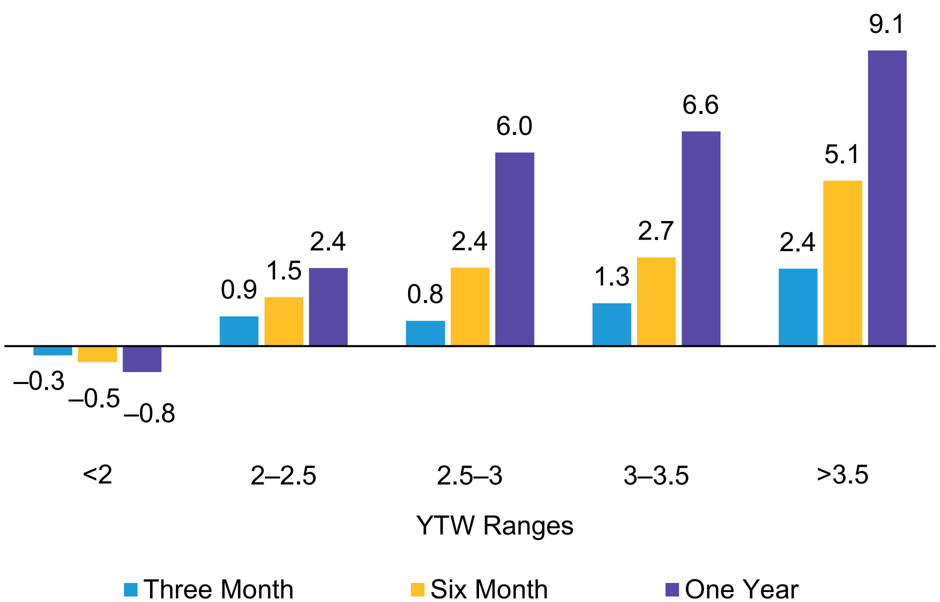
	Yield to Worst (Percent)	Duration	Jan–Sep 2023 Performance (Percent)
Barbell	4.35	5.50	–0.95
Concentrated	3.97	5.56	–1.57
Ladder	4.23	5.55	–1.11

Past performance does not guarantee future results.
For illustrative purposes only. Portfolio positioning is subject to change.
*Hypothetical portfolio is calculated using Bloomberg Municipal Indices. Barbell is 40% to the one- and three-year indices and 60% to the 15- and 20-year indices. Concentrated is 100% to the 10-year index. Ladder is equal 12.5% weights to the one-year through 22-year indices.
As of September 30, 2023
Source: Bloomberg, Municipal Market Data and AB

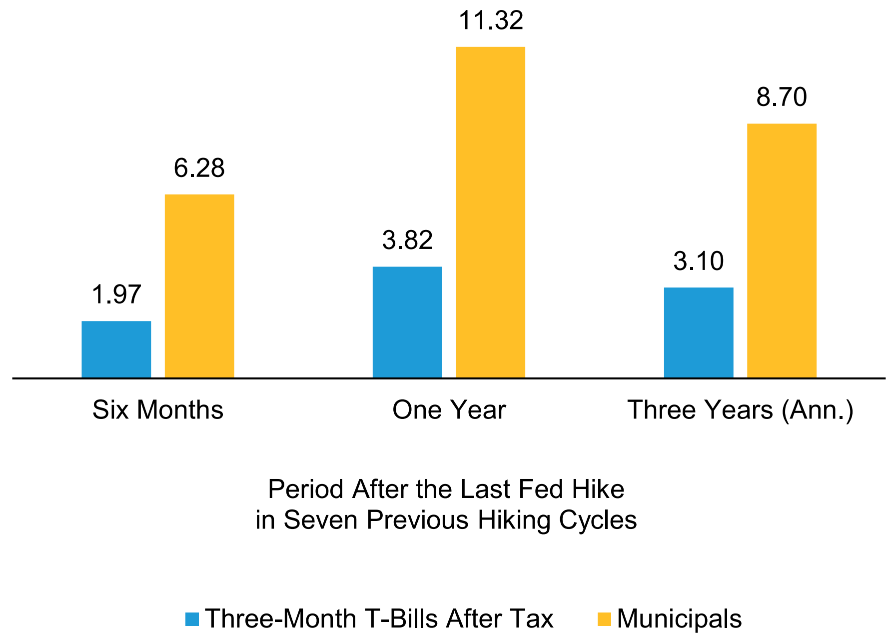
Will History Repeat Itself?

Munis are set up for strong absolute and relative performance

Average Forward Returns of the Municipal Index in Different YTW Ranges (July 2008–June 2023)
Return (percent)



Municipals Tend to Outperform Cash After the Fed Pauses*
Percent



Past performance does not guarantee future results. There is no guarantee any investment objective will be achieved.

YTW: yield-to-worst

*Municipal returns are for the Bloomberg Municipal Index. Tax rate assumed is 40.8%. Data represent average returns for the six-month, one-year and three-year periods following Fed rate hike pauses on the following dates: September 1, 1974; October 1, 1987; March 1, 1989; March 1, 1995; June 1, 2000; July 1, 2006; and January 1, 2019. As of August 31, 2023

As of September 30, 2023

Source: Bloomberg, J.P. Morgan and AB

Asymmetry of Returns Is Astounding

Bond math favors muni investors

Yield Provides Cushion to Offset Future Price Volatility
Hypothetical outcomes based on 10-year US Treasury movement

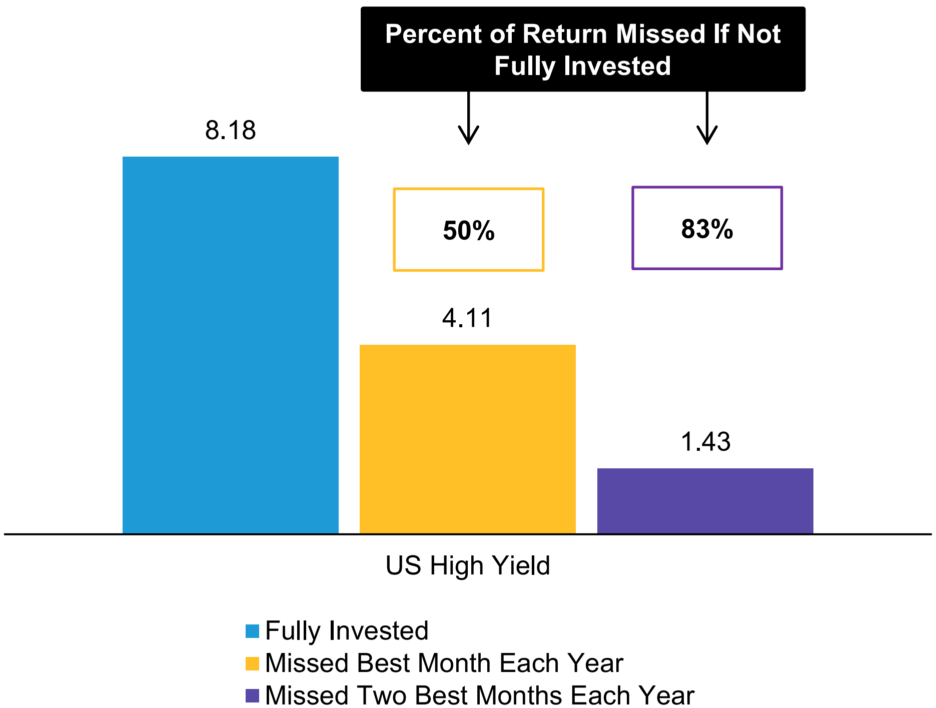
	Starting Point: 10-Year UST Yield of 4.70%			
10-Year UST Change	**50 bps increase**	**100 bps increase**	**100 bps decline**	**50 bps decline**
Muni Index Duration	6.70	6.70	6.70	6.70
Price Return*	–2.01%	–4.02%	+4.02%	+2.01%
Muni Index YTW	4.33%	4.33%	4.33%	4.33%
Expected Total Return	**2.32%**	**0.31%**	**8.35%**	**6.34%**

Current analysis does not guarantee future results.
bps: basis points; YTW: yield to worst
Analysis provided for illustrative purposes only and is subject to revision. Hypothetical analysis based on total return components. Return estimate is based on the Bloomberg Municipal Bond Index, which has a duration of 6.7 years. *This analysis implies a 60% beta of municipal yields to US Treasury yields. Simulated or hypothetical performance results have certain inherent limitations. Simulated or hypothetical trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. No representation is being made that any account will or is likely to achieve returns or a volatility profile similar to those being shown. There is no guarantee any investment objective will be achieved. Characteristics are subject to change. Numbers may not sum due to rounding.
As of September 30, 2023. Source: Bloomberg, Morningstar and AB

Appendix

Investors Trying to Time the Best Entry Point Could Miss Out on Most of the Returns

Annualized Total Returns Since Inception



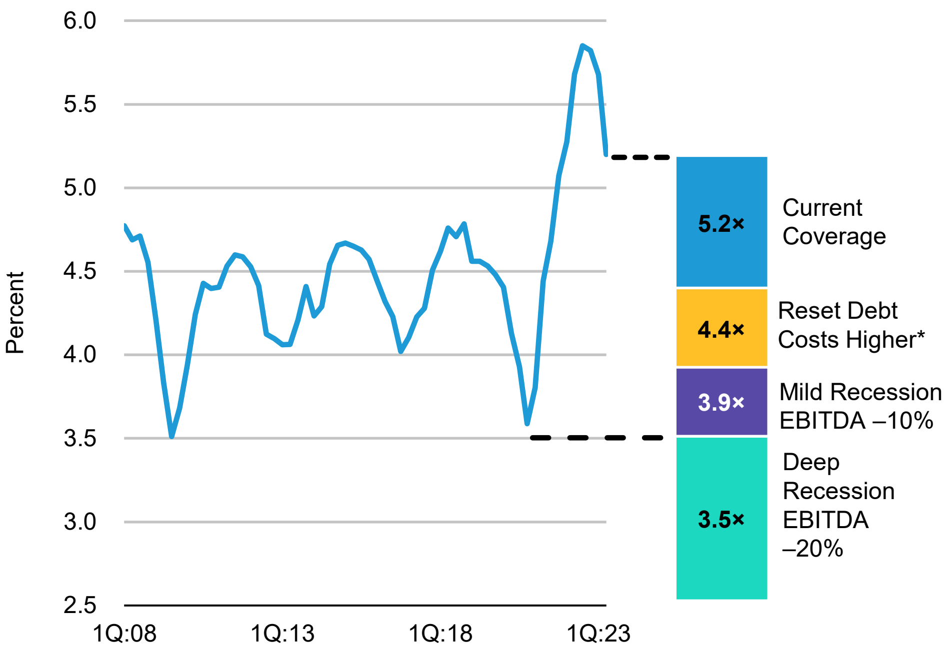
High Yield Recovers Quickly with Strong Returns After a Drawdown

When Drawdowns Were…	
…–5% or More (13 Instances)	
Average recovery time (in months)	**5**
Average 12-month return after drawdown	22%
Average 24-month return after drawdown	17%
…–10% or More (Five Instances)	
Average recovery time (in months)	**6**
Average 12-month return after drawdown	41%
Average 24-month return after drawdown	25%

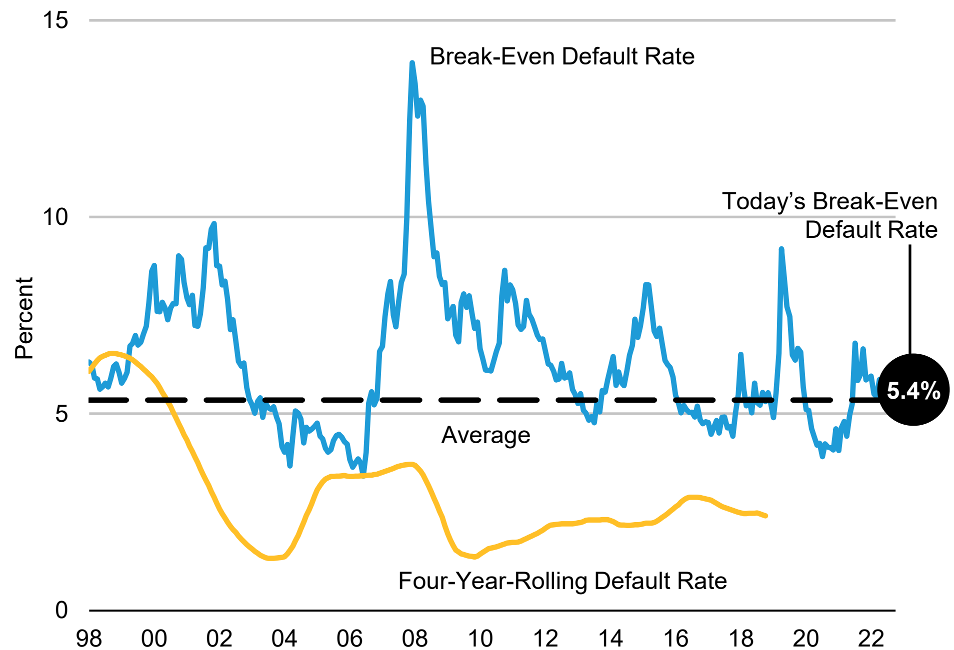
Past performance does not guarantee future results.
Performance is based on US high yield defined as Bloomberg US Corporate High Yield Index (inception date: July 1, 1983).
As of September 30, 2023
Source: Bloomberg and AB

Why the Starting Point Matters: Interest Coverage Provides Cushion

Interest Coverage (EBITDA/Interest): If EBITDA Declines 20% (Similar to GFC), Interest Coverage Is Still Over 3.0×



The Current Risk Premium Is Paying Investors for Break-Even Defaults of 5%+ per Year Over the Next Four Years



Past performance and current analysis do not guarantee future results. For illustrative purposes only.

EBITDA: earnings before interest, taxes, depreciation and amortization; GFC: global financial crisis

*Repriced upcoming three years of maturity of the market, which is 27% to current market rates (8.5%). Historic data considered from 1Q:08 to 1Q:23. Data provided as weighted average. Implied default rates represented by Bloomberg US Corporate High Yield; high-yield market defaults by J.P. Morgan high-yield market default data; default rise by change from lowest default rate to highest in the period.

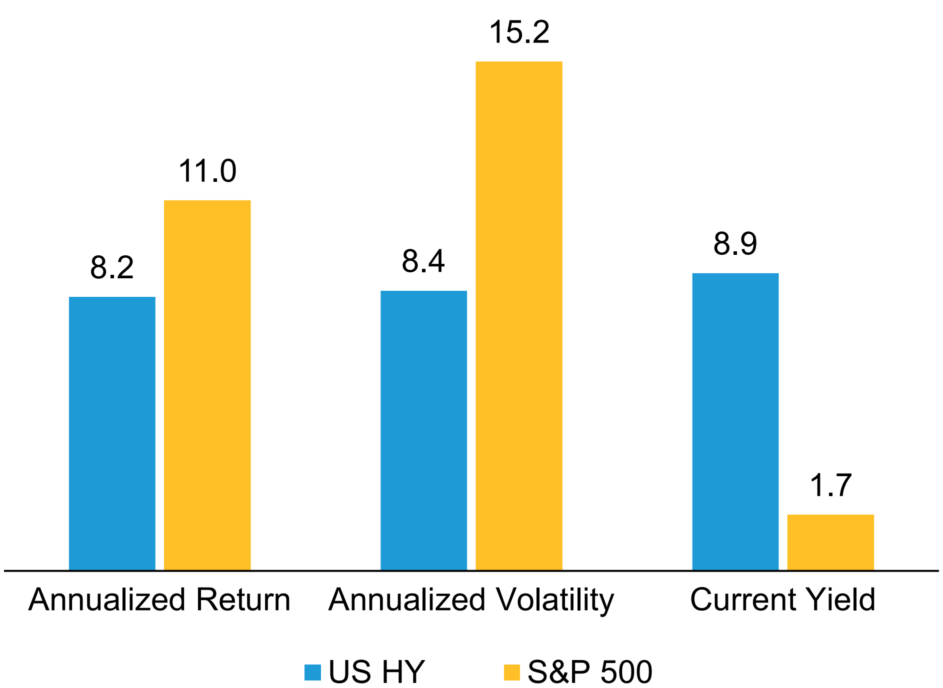
Left display as of June 30, 2023; right display as of September 30, 2023

Source: Bloomberg, J.P. Morgan and AB

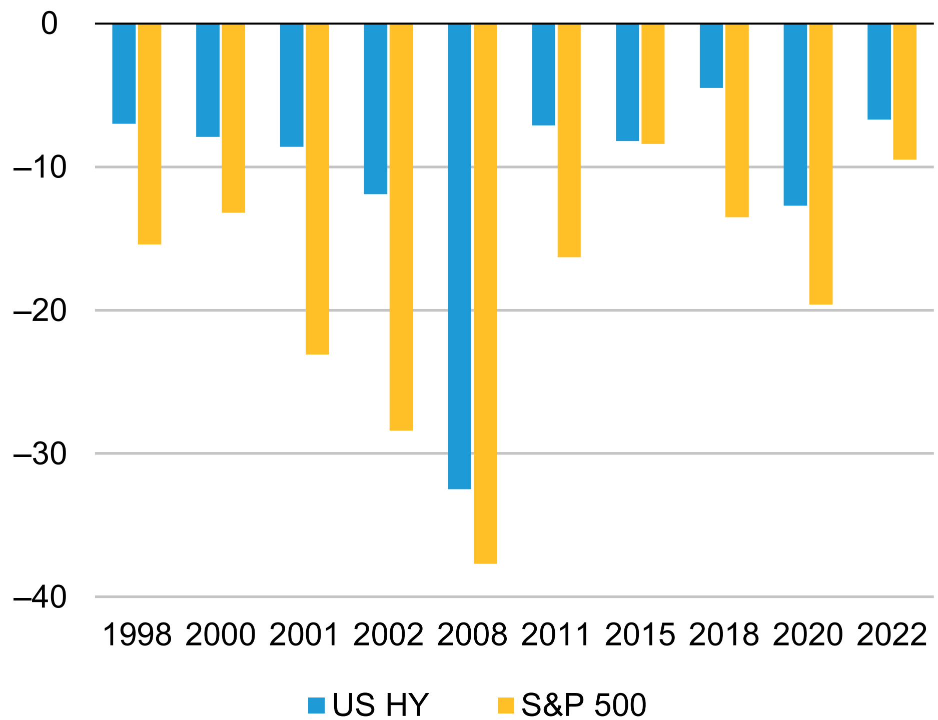
Opportunity to "De-risk" into HY

High-yield bonds may generate equity-like returns with almost half the risk

Historical Returns and Volatility with Potential Future Yields
July 1983–June 2023 (percent)



When HY Draws Down ~5%, Equities Draw Down More
Calendar year max drawdown (percent)

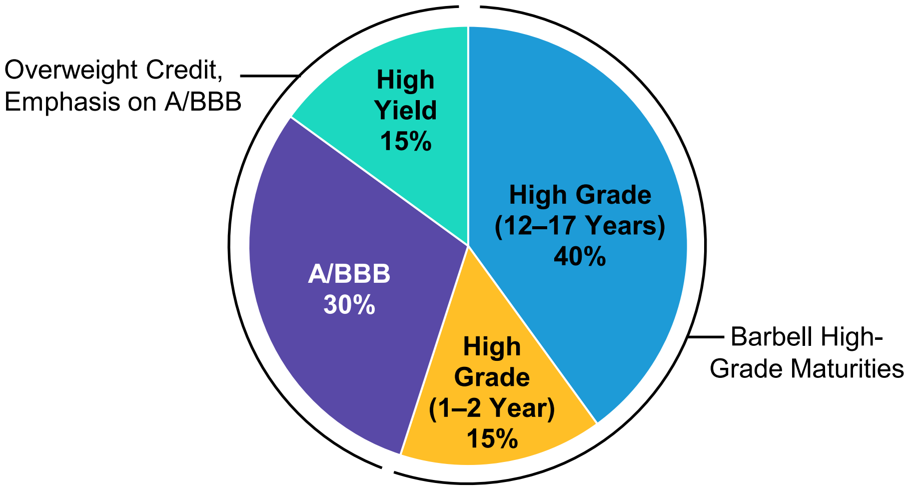


Past performance and historical analysis do not guarantee future results. Individuals cannot invest directly in an index.
HY: high yield. Current yield for S&P 500 calculated as estimated forward dividend yield and for high yield based on current yield to worst.
US HY is represented by Bloomberg US Corporate High Yield Index. Based on monthly returns.
As of September 30, 2023
Source: Bloomberg, S&P and AB

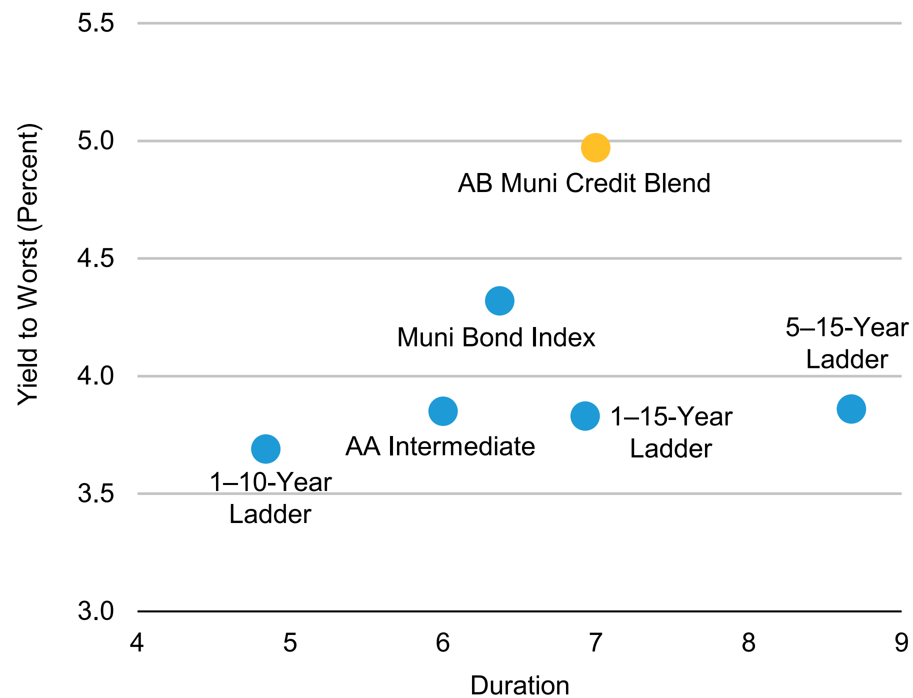
Portfolio Construction for Today's Environment

Overweight municipal credit, duration overweight and barbell maturity structure

AB Municipal Credit Blend



Active Better Positioned than Passive



Current analysis does not guarantee future results.

AB Muni Credit Blend is a blend of Bloomberg Muni Indices: 55% high grade, 30% A/BBB and 15% high yield.

As of September 30, 2023

Source: Bloomberg and AB

Disclosures and Important Information

Hypothetical, back-tested or simulated performance has many inherent limitations only some of which are described herein. The hypothetical performance shown herein has been constructed with the benefit of hindsight and does not reflect the impact that certain economic and market factors might have had on the decision-making process. No hypothetical, back-tested or simulated performance can completely account for the impact of financial risk in actual performance. Therefore, it will invariably show better rates of return. The hypothetical performance results herein may not be realized in the actual management of accounts. No representation or warranty is made as to the reasonableness of the assumptions made or that all assumptions used in constructing the hypothetical returns have been stated or fully considered. Assumption changes may have a material impact on the returns presented. This material is not representative of any particular client's experience. Investors should not assume that they will have an investment experience similar to the hypothetical, back-tested or simulated performance shown. There are frequently material differences between hypothetical, back-tested or simulated performance results and actual results subsequently achieved by any investment strategy. Prospective investors are encouraged to contact the representatives of the investment manager to discuss the methodologies (and assumptions) used to calculate the hypothetical performance shown herein.

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Important Risk Information Related to Investing in Equity and Short Strategies

All investments involve risk. Equity securities may rise and decline in value due to both real and perceived market and economic factors as well as general industry conditions.

A short strategy may not always be able to close out a short position on favorable terms. Short sales involve the risk of loss by subsequently buying a security at a higher price than the price at which it sold the security short. The amount of such loss is theoretically unlimited (since it is limited only by the increase in value of the security sold short). In contrast, the risk of loss from a long position is limited to the investment in the long position, since its value cannot fall below zero. Short selling is a form of leverage. To mitigate leverage risk, a strategy will always hold liquid assets (including its long positions) at least equal to its short position exposure, marked to market daily.

Important Risk Information Related to Investing in Emerging Markets and Foreign Currencies

Investing in emerging-market debt poses risks, including those generally associated with fixed-income investments. Fixed-income securities may lose value due to market fluctuations or changes in interest rates. Longer-maturity bonds are more vulnerable to rising interest rates. A bond issuer's credit rating may be lowered due to deteriorating financial condition; this may result in losses and potentially default, or failure to meet payment obligations. The default probability is higher in bonds with lower, noninvestment-grade ratings (commonly known as "junk bonds").

There are other potential risks when investing in emerging-market debt. Non-US securities may be more volatile because of the associated political, regulatory, market and economic uncertainties; these risks can be magnified in emerging-market securities. Emerging-market bonds may also be exposed to fluctuating currency values. If a bond's currency weakens against the US dollar, this can negatively affect its value when translated back into US-dollar terms.

Bond Ratings Definition

A measure of the quality and safety of a bond or portfolio, based on the issuer's financial condition, and not based on the financial condition of the fund itself. AAA is highest (best) and D is lowest (worst). Ratings are subject to change. Investment-grade securities are those rated BBB and above. If applicable, the Pre-Refunded category includes bonds which are secured by US government securities and therefore are deemed high-quality investment grade by the advisor.

Index Definitions

Following are definitions of the indices referred to in this presentation. It is important to recognize that all indices are unmanaged and do not reflect fees and expenses associated with the active management of a mutual fund portfolio. Investors cannot invest directly in an index, and its performance does not reflect the performance of any AB mutual fund.

- **Bloomberg/ASX Corporate BBB Index:** Includes all bonds in the Bloomberg/ASX Corporate Bond Index that have the minimum required BBB- rating at each monthly rebalancing
- **Bloomberg Global Aggregate Corporate Bond Index:** Tracks the performance of investment-grade corporate bonds publicly issued in the global market and found in the Global Aggregate. (Represents global corporate on slide 2)
- **Bloomberg Global High-Yield Bond Index:** Provides a broad-based measure of the global high-yield fixed-income markets. It represents the union of the US High-Yield, Pan-European High Yield, US Emerging Markets High-Yield, CMBS High Yield and Pan-European Emerging Markets High-Yield indices
- **Bloomberg Global Treasury Index:** Tracks fixed-rate local currency government debt of investment-grade countries. The index represents the treasury sector of the Global Aggregate Bond Index.
- **Bloomberg Global Treasury: Euro Bond Index:** Includes fixed-rate, local-currency sovereign debt that makes up the euro-area treasury sector of the Global Aggregate Bond Index. (Represents euro-area government bonds on slide 2)
- **Bloomberg Global Treasury: Japan Bond Index:** Includes fixed-rate, local-currency sovereign debt that makes up the Japanese treasury sector of the Global Aggregate Bond Index. (Represents Japan government bonds on slide 2)
- **Bloomberg High Yield Corporate Bond Index:** A subindex of the Bloomberg Bond Index, seeks to measure the performance of US corporate debt issued by constituents in Bloomberg with a high-yield rating. The Bloomberg Bond Index is designed to be a corporate-bond counterpart to Bloomberg, which is widely regarded as the best single gauge of large-cap US equities
- **Bloomberg Municipal Bond Index:** A rules-based, market value–weighted index engineered for the long-term tax-exempt bond market. (Represents municipals on slide 2)
- **Bloomberg Municipal Bond BBB Rating Band Index: I**ncludes all bonds in the Bloomberg Municipal Bond Index that have a Bloomberg rating of between “BBB+” and “BBB-”, a Moody’s rating of between “Baa1” and “Baa3” and a Fitch rating of between “BBB+” and “BBB-”. If there are multiple ratings, the lowest rating is used
- **Bloomberg Municipal Bond High-Yield Index:** Consists of bonds in the Bloomberg Municipal Bond Index that are not rated or are rated below investment grade
- **Bloomberg US Aggregate Bond Index:** A broad-based benchmark that measures the investment-grade, US dollar–denominated, fixed-rate, taxable bond market, including US Treasuries, government-related and corporate securities, mortgage-backed securities (MBS [agency fixed-rate and hybrid ARM pass-throughs]), asset-backed securities (ABS), and commercial mortgage-backed securities (CMBS)

Index Definitions (cont.)

- **Bloomberg US Corporate High-Yield Bond Index:** Represents the corporate component of the Bloomberg Barclays US High-Yield Index. (Represents US high yield on slide 2)

- **Bloomberg U.S. High Yield Index:** Covers the universe of fixed-rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P and Fitch) 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 bonds (PIKs, as of October 1, 2009) are also included

- **Bloomberg US Treasury Index:** Includes fixed-rate, local-currency sovereign debt that makes up the US Treasury sector of the Global Aggregate Index. (Represents US government bonds on slide 2)

- **Credit Suisse Leveraged Loan Index:** Tracks the investable market of the US dollar–denominated leveraged loan market. It consists of issues rated 5B or lower, meaning that the highest-rated issues included in this index are Moody's/S&P ratings of Baa1/BB+ or Ba1/BBB+. All loans are funded term loans with a tenor of at least one year and are made by issuers domiciled in developed countries

- **HFRI Equity Hedge Index:** Investment managers who maintain positions both long and short in primarily equity and equity derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques; strategies can be broadly diversified or narrowly focused on specific sectors and can range broadly in terms of levels of net exposure, leverage employed, holding period, concentrations of market capitalizations and valuation ranges of typical portfolios. Equity Hedge managers would typically maintain at least 50% exposure to, and may in some cases be entirely invested in, equities, both long and short

- **J.P. Morgan Emerging Market Bond Index Global:** A benchmark index for measuring the total return performance of government bonds issued by emerging-market countries that are considered sovereign (issued in something other than local currency) and that meet specific liquidity and structural requirements. In order to qualify for index membership, the debt must be more than one year to maturity, have more than $500 million outstanding, and meet stringent trading guidelines to ensure that pricing inefficiencies don't affect the index. (Represents emerging-market debt on slide 2)

- **MSCI EAFE Index:** A free float–adjusted, market capitalization–weighted index designed to measure developed-market equity performance, excluding the US and Canada. It consists of 22 developed-market country indices. (Represents EAFE on slide 2)

- **MSCI Emerging Markets Index:** A free float–adjusted, market capitalization–weighted index designed to measure equity market performance in the global emerging markets. It consists of 21 emerging-market country indices. (Represents emerging markets on slide 2)

- **MSCI Europe ex UK Index:** Captures large- and mid-cap representation across 14 developed markets countries in Europe. With 345 constituents, the index covers approximately 85% of the free float–adjusted market capitalization across European developed markets, excluding the UK

Index Definitions (cont.)

- **MSCI Japan Index**: Designed to measure the performance of the large- and mid-cap segments of the Japanese market. With 321 constituents, the index covers approximately 85% of the free float–adjusted market capitalization in Japan

- **MSCI United Kingdom Index:** Designed to measure the performance of the large- and mid-cap segments of the UK market. With 97 constituents, the index covers approximately 85% of the free float–adjusted market capitalization in the UK

- **MSCI World Index:** A market capitalization–weighted index that measures the performance of stock markets in 24 countries

- **Russell 1000 Index**: A stock market index that represents the highest-ranking 1,000 stocks in the Russell 3000 Index, representing about 90% of the total market capitalization of that index

- **Russell 2000 Index:** Measures the performance of the small-cap segment of the US equity universe. It is a subset of the Russell 3000 Index, representing approximately 8% of the total market capitalization of that index. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership. (Represents US small-cap on slide 2)

- **S&P 500:** Includes a representative sample of 500 leading companies in leading industries of the US economy. (Represents US large-cap on slide 2)

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