ALLIANCEBERNSTEIN®

Capital Markets Outlook

Season of the Known Unknowns

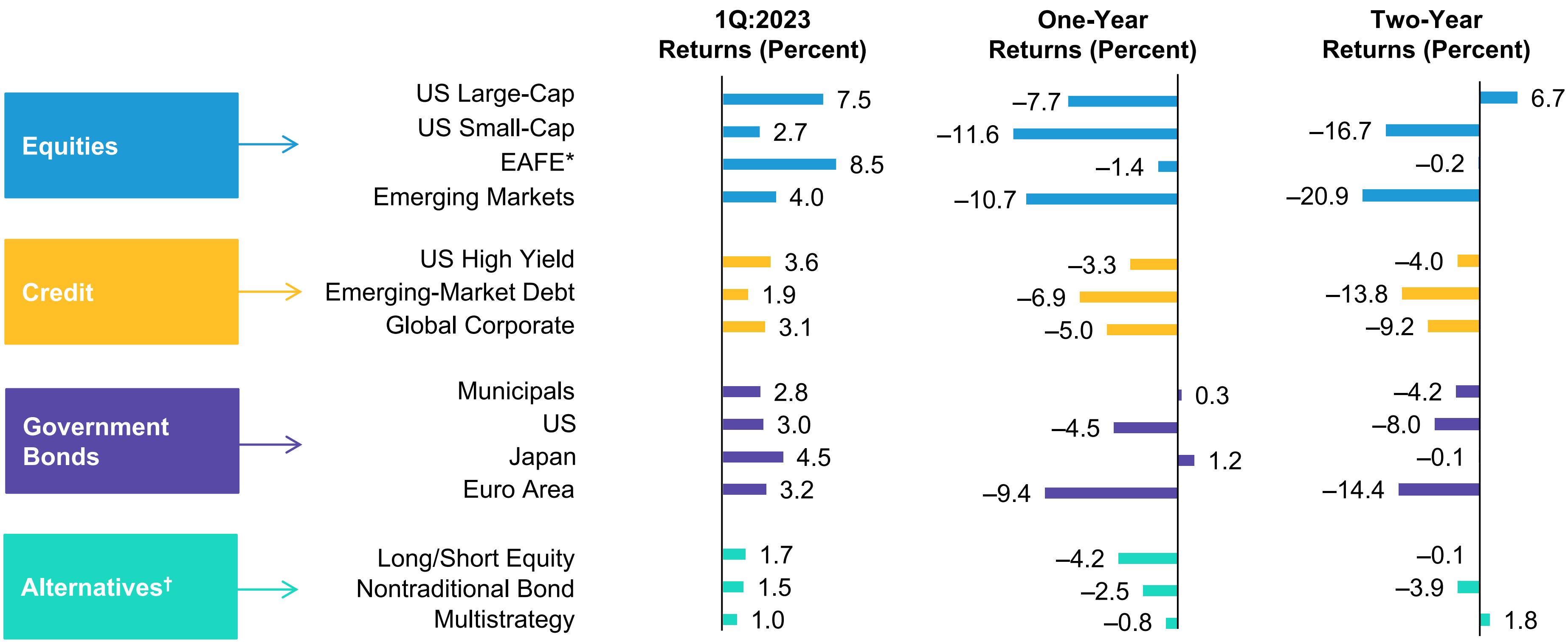
Second Quarter 2023

The information herein reflects prevailing market conditions and our judgments, which are subject to change, as of the date of this document. In preparing this document, we have relied upon and assumed, without independent verification, the accuracy and completeness of all information available from public sources. Opinions and estimates may be changed without notice and involve a number of assumptions that may not prove valid. There is no guarantee that any forecasts or opinions in this material will be realized. Information should not be construed as investment advice.

Investment Products Offered:

- **Are Not FDIC Insured**
- **May Lose Value**
- **Are Not Bank Guaranteed**

1Q 23: After a Roller-Coaster Quarter, Performance Was Solid Across the Board



Past performance does not guarantee future results.

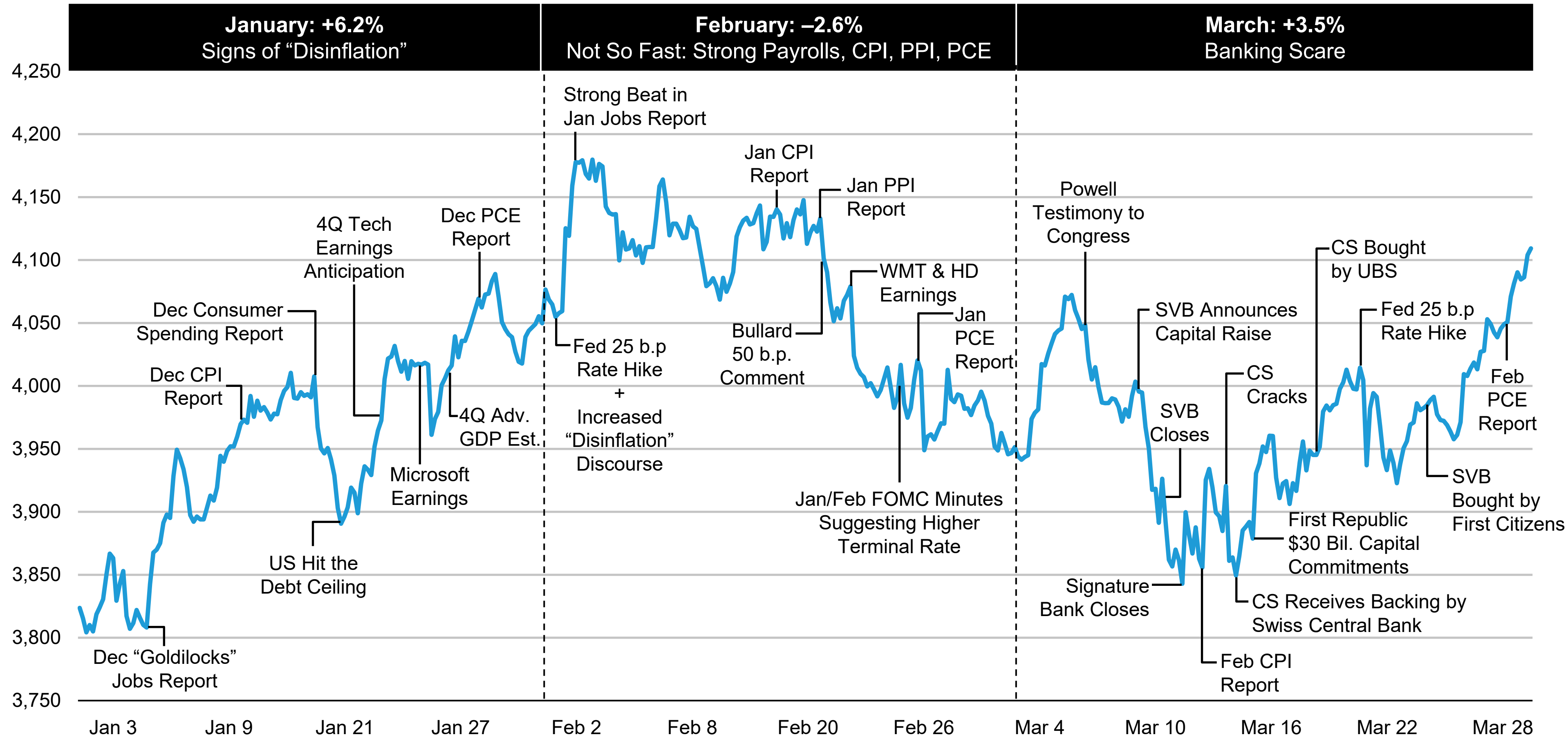
Returns in US dollars. EAFE and EM returns are net returns; all other returns are total returns. Global corporates, Japan and euro-area government bonds in hedged USD terms. All other non-US returns in unhedged USD terms. US Large-Cap represented by S&P 500. US Small-Cap represented by Russell 2000. 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 March 31, 2023

Source: Bloomberg, Morningstar Direct and AB

First Quarter S&P 500 Price Chart: Three Months, Three Stories



Historical analysis and current forecasts do not guarantee future results.

b.p.: basis points; CPI: Consumer Price Index; CS: Credit Suisse; FOMC: Federal Open Market Committee; HD: Home Depot; PCE: personal consumption expenditures; PPI: Producer Price Index; SVB: Silicon Valley Bank; WMT: Walmart

Returns are price returns.

As of March 31, 2023. Source: Bloomberg and AB

Known Unknown: Banking Scare (Known)

Timeline of Events: Banking Scare Idiosyncratic in Nature; Not Due to “Bad Assets” Like Previous Crises

March

- **8** Silicon Valley Bank (SVB) announces it would realize a $1.8 billion loss
- **9** Panic spreads through text and social media as depositors increasingly pull their money out of SVB
- **10** SVB shares are halted, and federal regulators take control of the bank
- **12** Federal regulators announce the takeover of Signature Bank and rollout of the Bank Term Funding Program (BTFP)
- **15** Fears spread to Europe as Credit Suisse announces emergency funding from Swiss Central Bank
- **16** First Republic receives $30 billion in funding from the 11 largest US banks to shore up deposits
- **19** UBS agrees to take over Credit Suisse in deal brokered by the Swiss gov.
- **21** Treasury Secretary Janet Yellen says the US government could step in to protect depositors if bank runs continue
- **27** First Citizens Bank acquires the majority of SVB’s assets

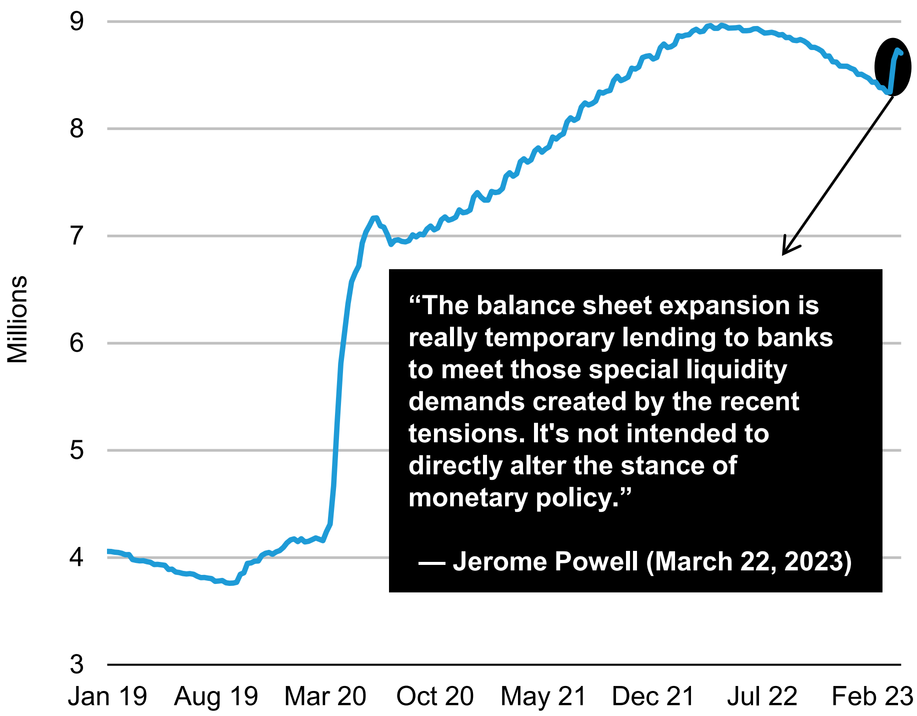
“At a basic level, Silicon Valley Bank management failed badly. They grew the bank very quickly, they exposed the bank to significant liquidity risk and interest-rate risk, and didn't hedge that risk” all while having a “very large group of connected depositors.” They were “a bank that was an outlier in terms of both its percentage of uninsured deposits and in terms of its holdings of duration risk.” “Our rate hikes were well telegraphed to the market, and many banks have managed to handle them.”

— Jerome Powell (March 22, 2023)

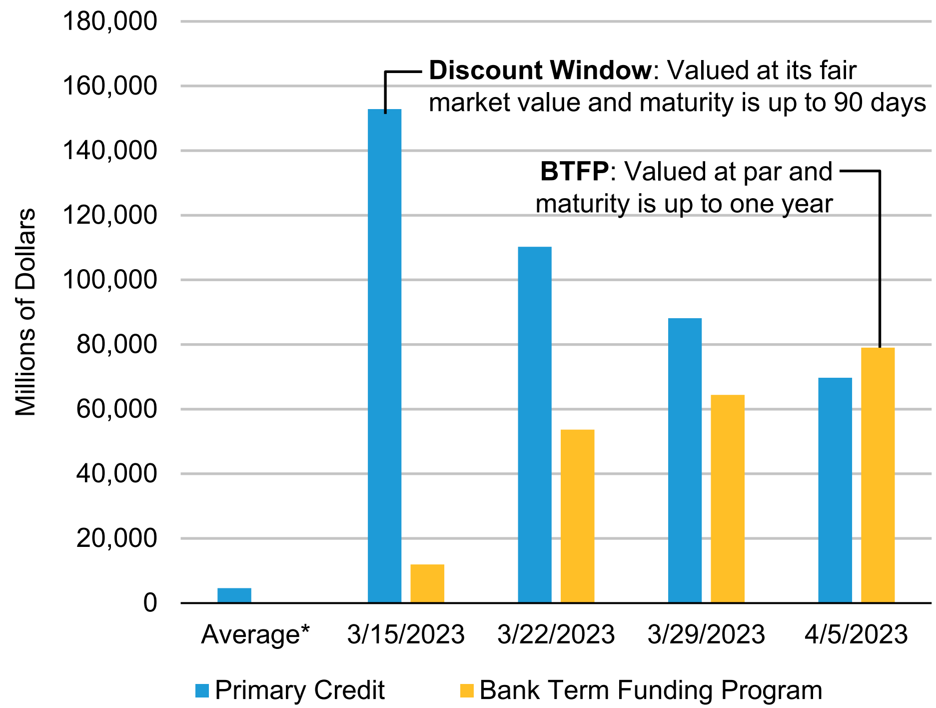
Historical analysis and current forecasts do not guarantee future results.
As of March 31, 2023
Source: *Wall Street Journal*, US Federal Reserve and AB

Known Unknown: Banking Scare (Known)

Fed's Balance Sheet Expanded…



…as Financials Accessed the Discount Window and Newly Created Bank Term Funding Program (BTFP)



Historical analysis and current forecasts do not guarantee future results.

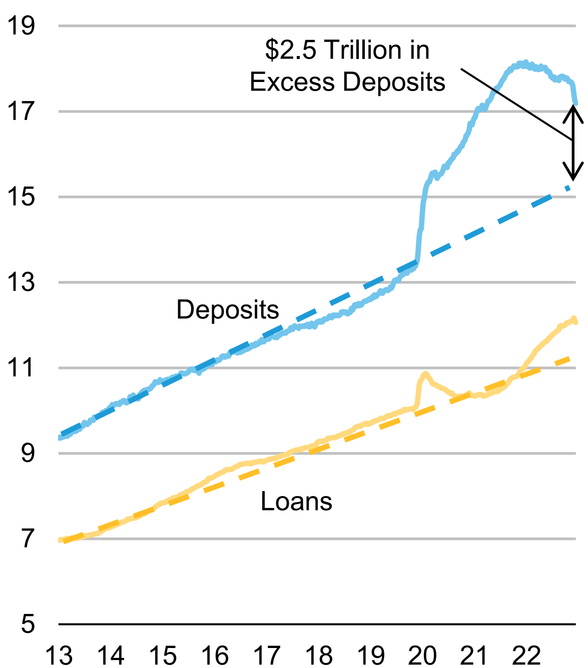
*Average since 2000

As of April 5, 2023

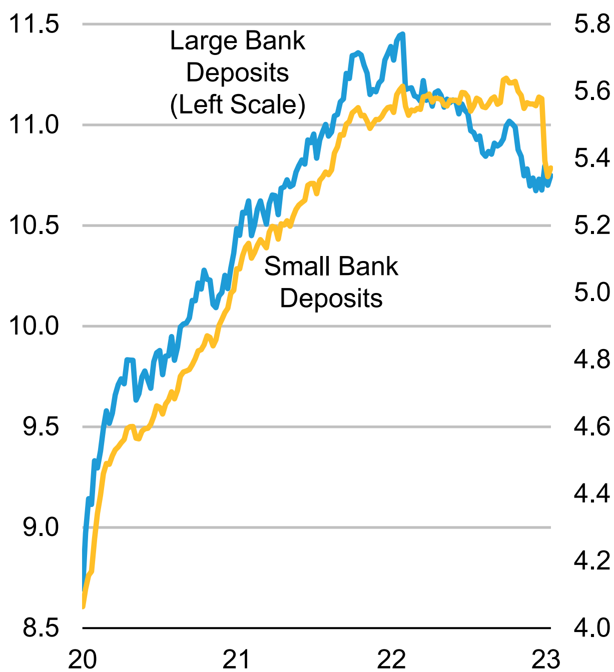
Source: Bloomberg, US Federal Reserve and AB

Market Fears Led to Large Outflows…and Inflows

Banks Saw Massive Inflows Due to the COVID-19 Crisis
Trillions of dollars



However, Recent Outflows Have Been Mostly Contained to Smaller Banks…
Trillions of dollars

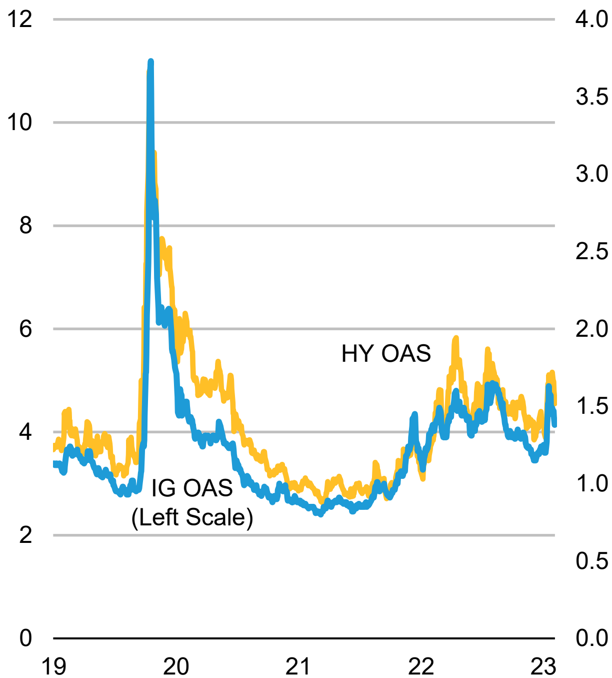


…with Outflows Going into Money Market Funds
Trillions of dollars

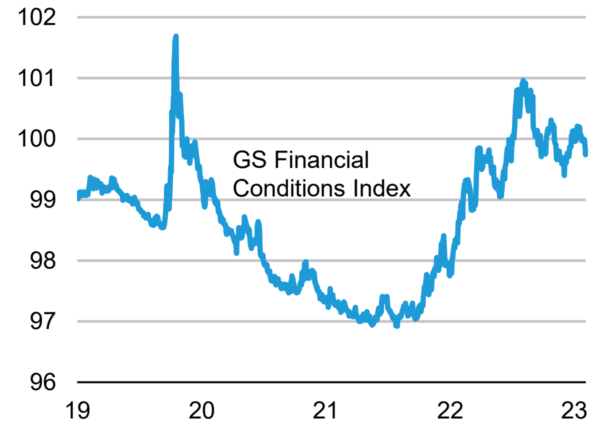
Historical analysis and current forecasts do not guarantee future results.
As of April 5, 2023
Source: Bloomberg, US Federal Reserve and AB

Will Regional Deposit Outflows Lead Banks to Cut Lending? (Unknown)

Spreads Haven't Seen a Material Widening in Response to the Banking Scare



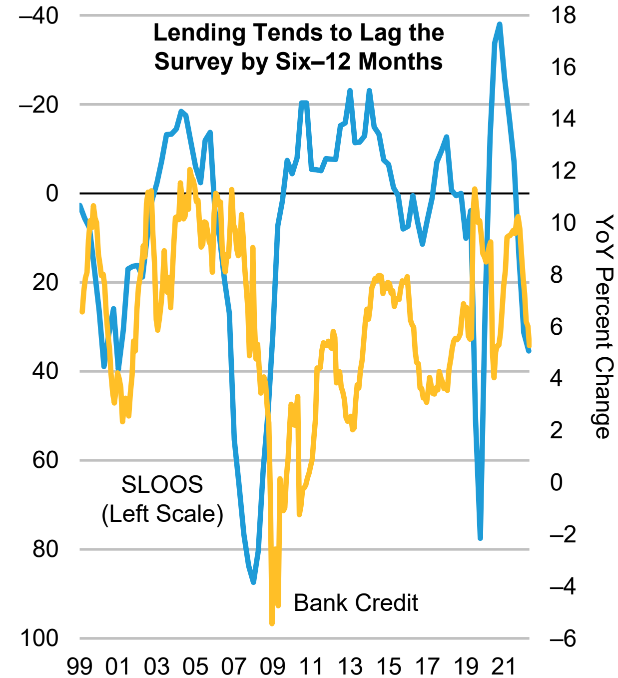
Consequently, Traditional Indexes Haven't Captured the Likely Impact of Recent Events



"Financial conditions seem to have tightened and probably by more than the traditional indexes say, because traditional indexes are focused a lot on rates and equities, and they don't necessarily capture lending conditions."

— Jerome Powell (March 22, 2023)

Senior Loan Officer Opinion Survey (SLOOS) Pointing to Credit Contraction



Historical analysis and current forecasts do not guarantee future results.

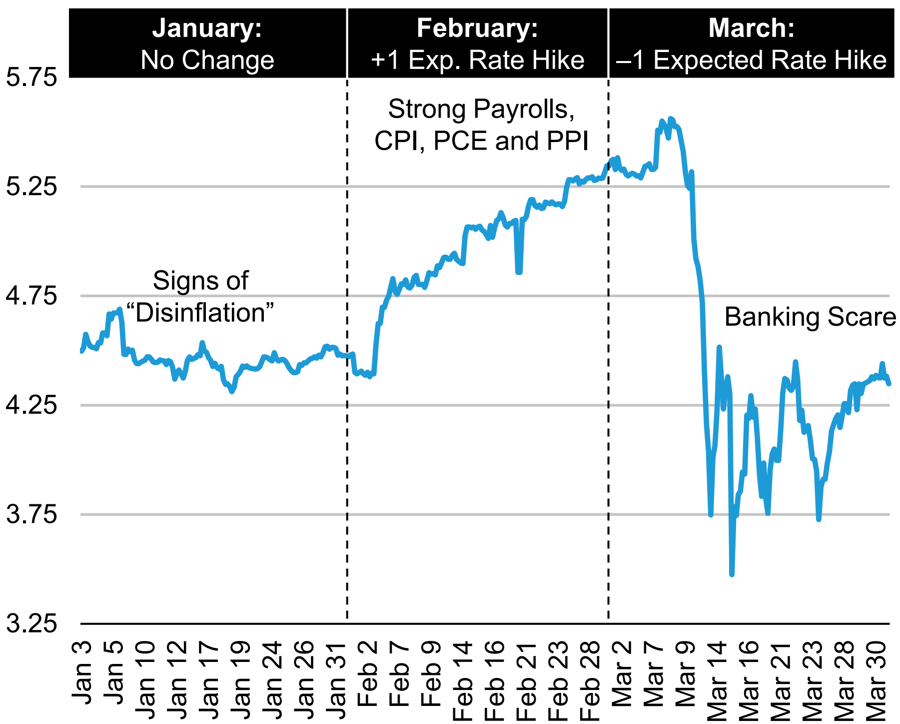
GS: Goldman Sachs; HY: high-yield; IG: investment-grade; OAS: option-adjusted spread; YoY: year over year

As of March 31, 2023

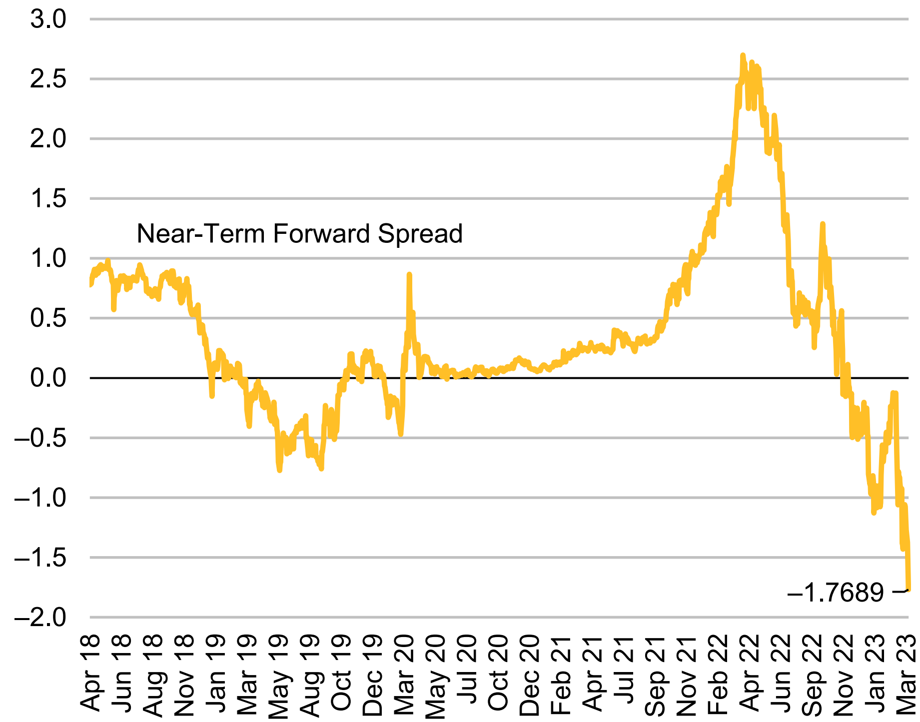
Source: Bloomberg, Goldman Sachs, US Federal Reserve and AB

Same Old Song and Dance: Rates Driving Markets

After the Dust Settled, Rate Expectations for 2023 Remained Largely Unchanged from the Start of the Quarter



However, Looking Further Out Shows Markets Expect Further Cuts



Historical analysis and current forecasts do not guarantee future results.

Near-term forward spread: three-month treasury, 18 months forward

As of March 31, 2023

Source: Bloomberg and AB

Duration at Terminal Rate, Not the Terminal Rate Itself, Is the More Important Variable

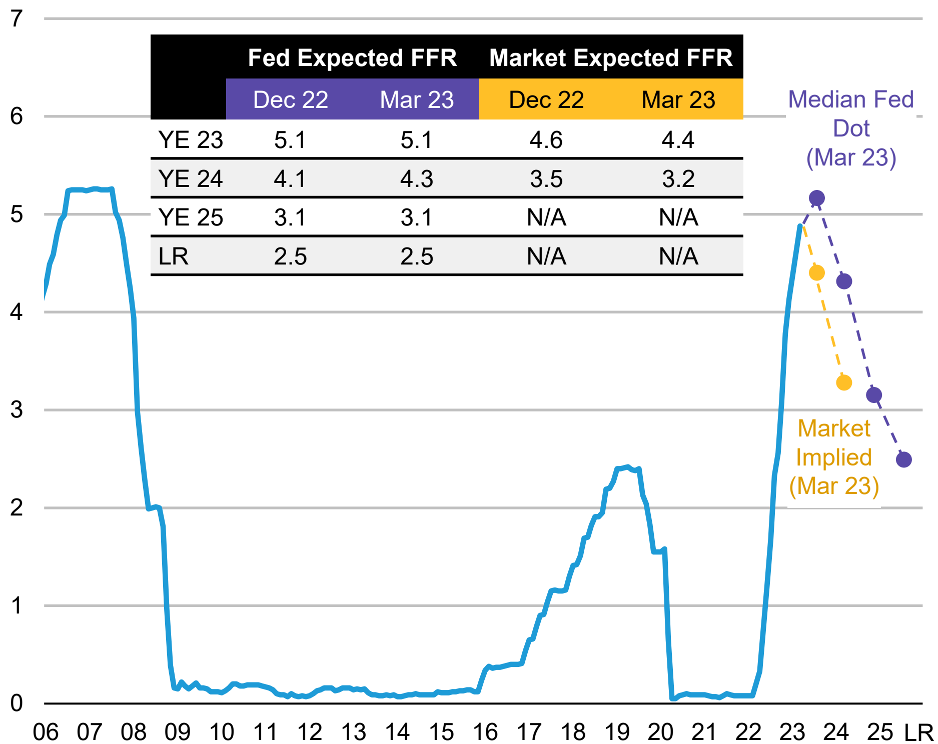
The Fed Also Expects Further Cuts…
Percent

	2023	2024	2025	Longer Run
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	—	—	—	—

"Policy has to be tight enough to bring inflation down to 2 percent over time. It doesn't all have to come from rate hikes, however; it can come from tighter credit conditions"…"As a result [of the banking crisis], we no longer state that we anticipate that ongoing rate increases *will* be appropriate to quell inflation; instead, we now anticipate that some additional policy firming *may* be appropriate."

— Jerome Powell (Mar 22, 2023)

…but Markets Expect Them Sooner Than Later
Percent

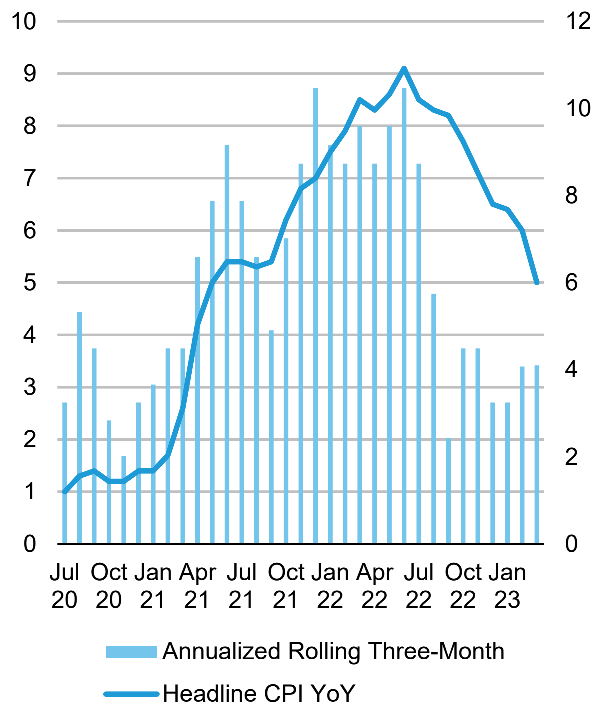


	Fed Expected FFR		Market Expected FFR	
	Dec 22	Mar 23	Dec 22	Mar 23
YE 23	5.1	5.1	4.6	4.4
YE 24	4.1	4.3	3.5	3.2
YE 25	3.1	3.1	N/A	N/A
LR	2.5	2.5	N/A	N/A

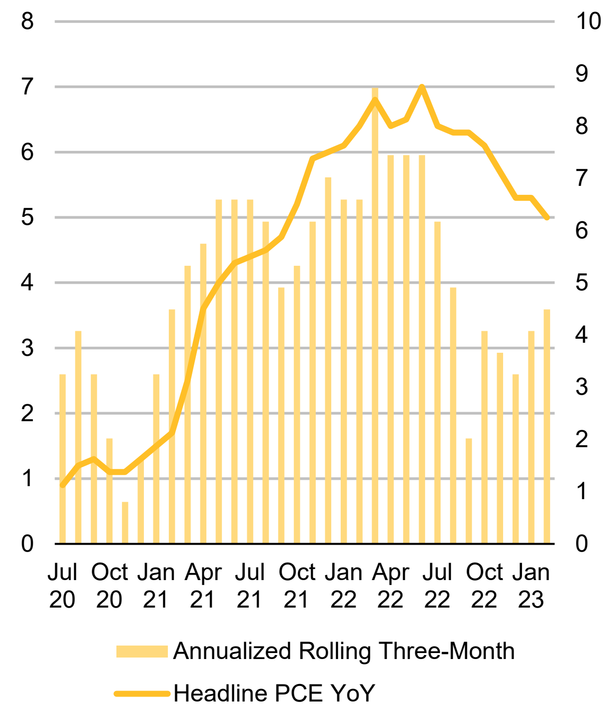
Historical analysis and current forecasts do not guarantee future results.
FFR: federal funds rate; LR: longer run; YE: year end
As of March 31, 2023
Source: Bloomberg, US Federal Reserve and AB

Good News: Inflation Measures Are Painting a Rosier Picture…

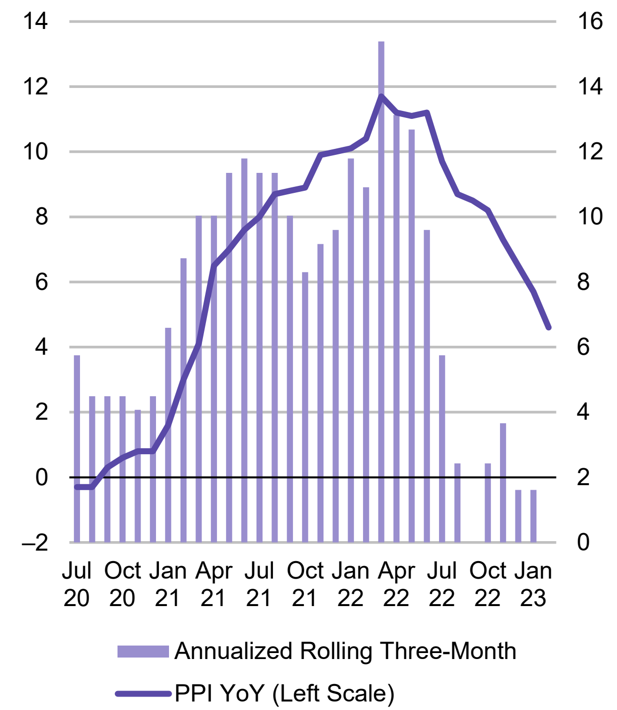
Headline CPI
Percent



Headline PCE
Percent



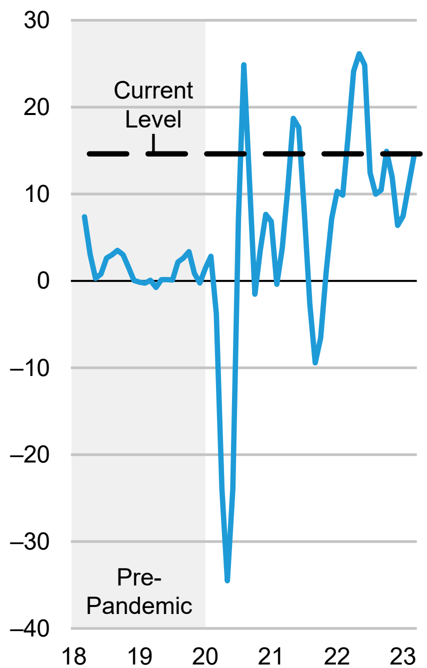
Headline PPI
Percent



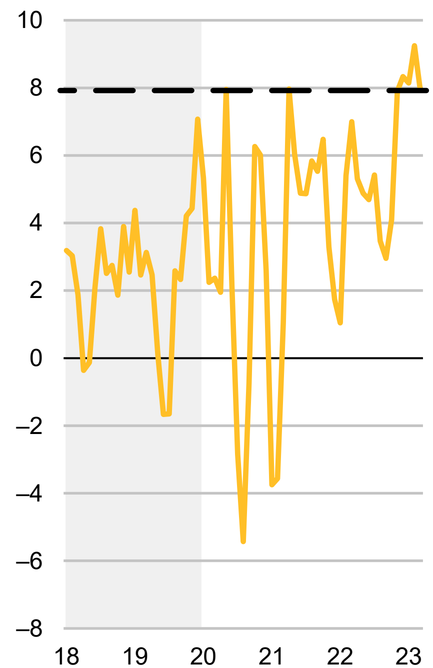
Historical analysis and current forecasts do not guarantee future results.
As of April 12, 2023
Source: Bloomberg, US Bureau of Labor Statistics and AB

…However, We Are Not Out of the Woods Yet: Most Services Ex-Shelter Categories Remain Elevated

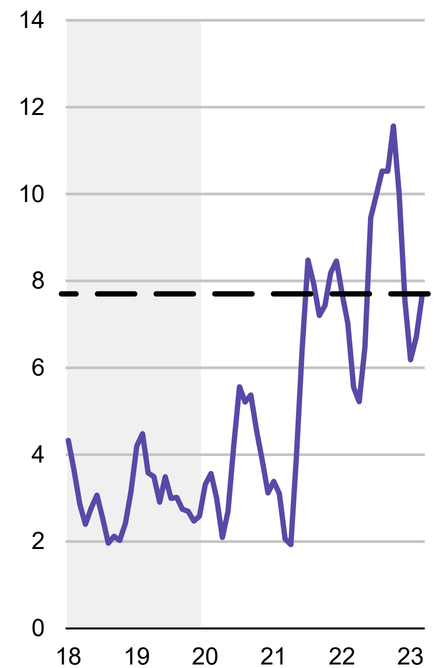
Transportation Services
Annualized rolling three-month (percent)



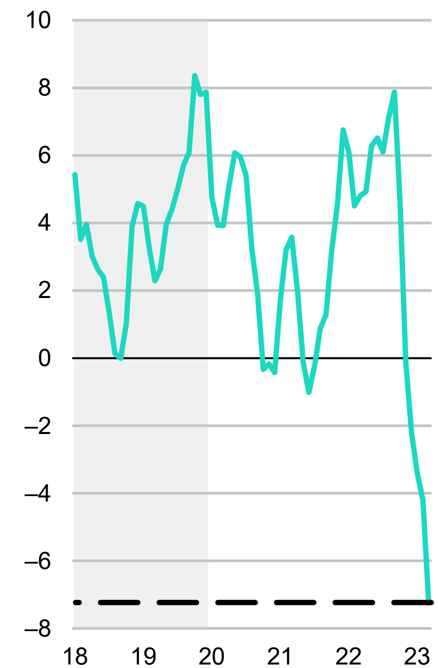
Recreation Services
Annualized rolling three-month (percent)



Food Away from Home
Annualized rolling three-month (percent)



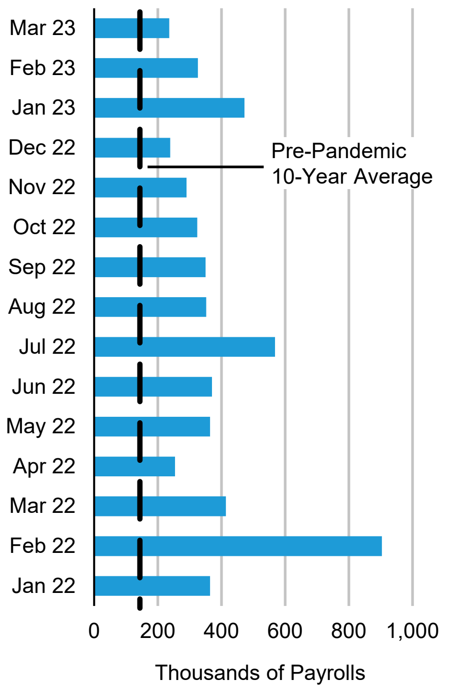
Medical Care Services
Annualized rolling three-month (percent)



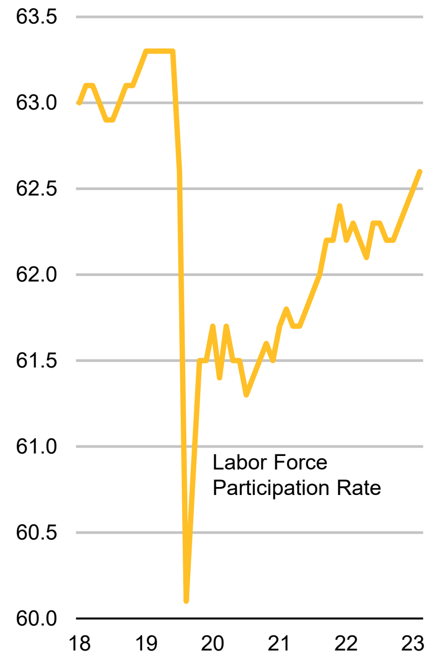
Historical analysis and current forecasts do not guarantee future results.
As of April 12, 2023
Source: Bloomberg, US Bureau of Labor Statistics and AB

Bringing a More "Natural" Balance to the Labor Market Remains the Fed's Top Priority

We Continue to Add Jobs at an Above-Average Pace

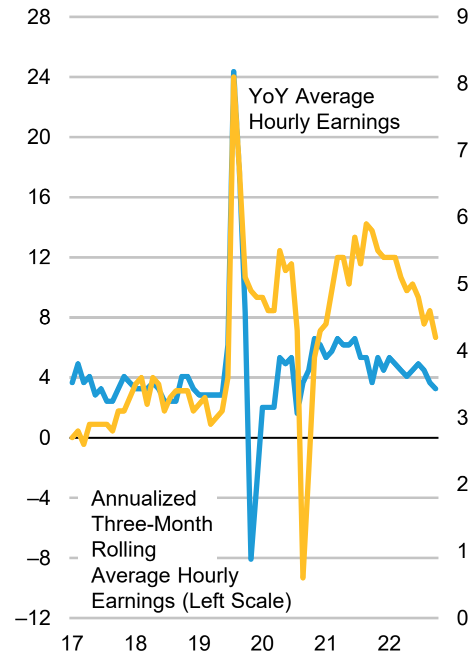


As Workers Return to the Labor Force (Percent)



However, We Are Seeing Signs of Softening

Leading to a Deceleration in Wage Growth (Percent)



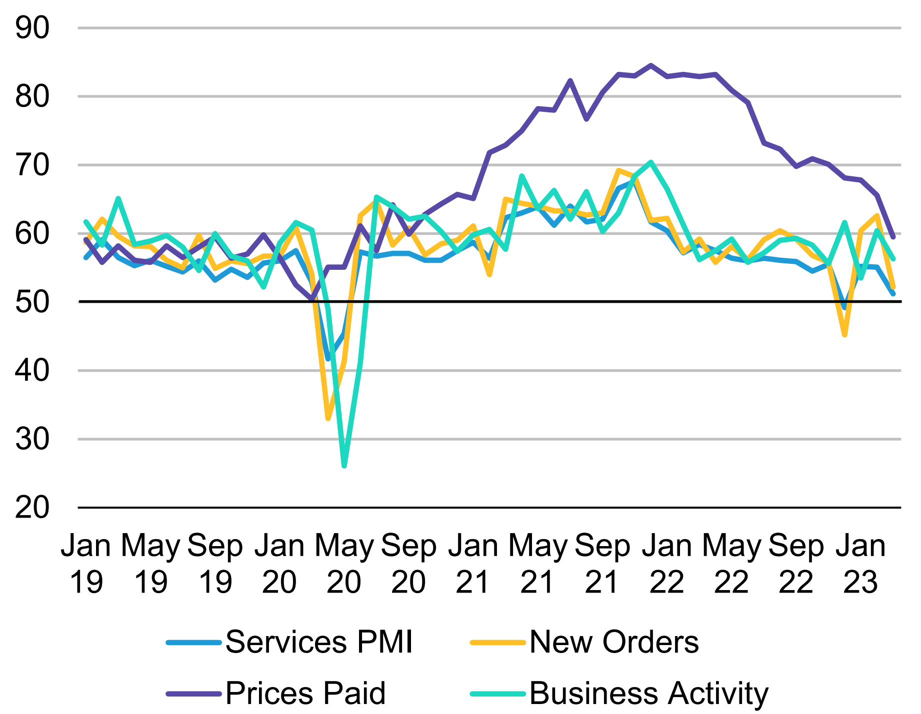
Historical analysis and current forecasts do not guarantee future results.

As of April 7, 2023

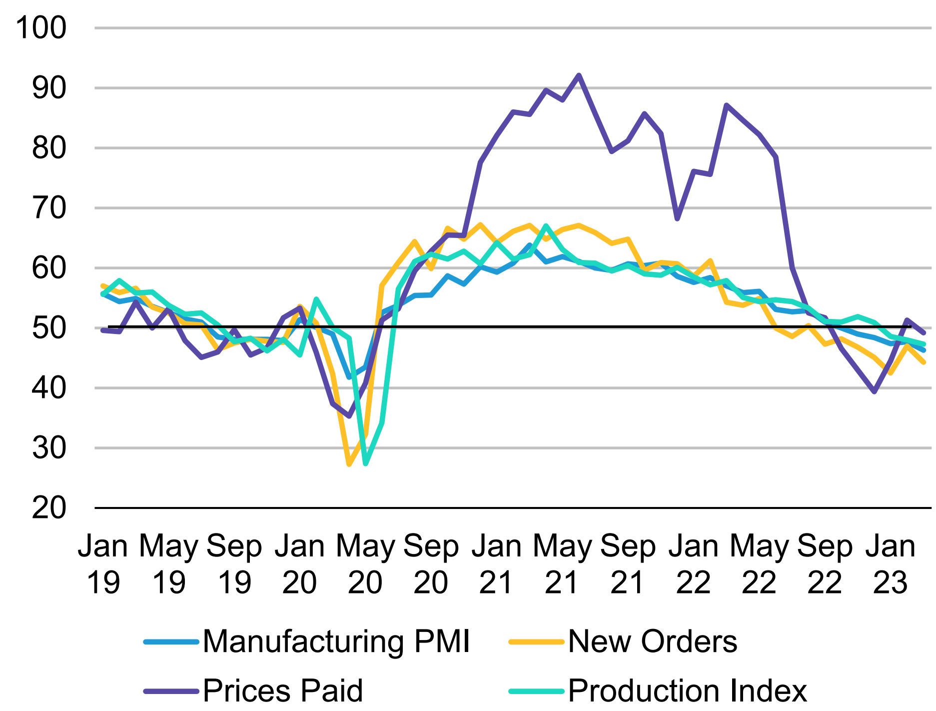
Source: Bloomberg, US Bureau of Labor Statistics and AB

In Order to Soften the Labor Market, the Fed Must Weaken Demand, but Has It Done Enough?

ISM Services



ISM Manufacturing



Historical analysis and current forecasts do not guarantee future results.
ISM: Institute for Supply Management; PMI: Purchasing Managers Index
As of March 31, 2023
Source: Bloomberg, ISM and AB

Macro Summary

Global growth to remain challenged throughout 2023

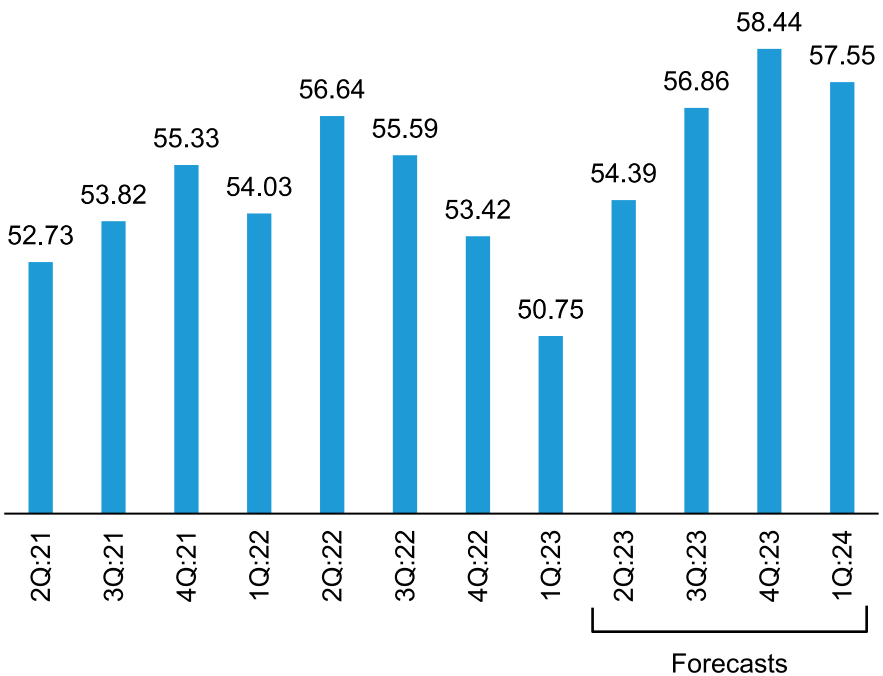
AB Global Economic Forecast: April 2023

	Real Growth (Percent)		Inflation (Percent)		Official Rates (Percent)		Long Rates (Percent)	
	23F	24F	23F	24F	23F	24F	23F	24F
Global ex. Russia	2.0	2.5	5.1	3.2	4.74	3.46	3.67	3.11
Industrial Countries	0.7	1.5	4.0	2.0	3.71	2.50	2.90	2.15
Emerging Countries	3.7	3.9	6.6	5.0	6.35	5.20	4.58	4.37
US	**–0.1**	**1.8**	**3.5**	**2.0**	**4.63**	**3.13**	**3.50**	**2.50**
Euro Area	0.5	0.7	5.0	2.0	3.25	2.00	2.50	1.75
UK	–0.5	1.0	6.0	1.8	4.00	2.50	3.00	2.50
Japan	1.5	1.0	2.0	1.5	0.25	0.25	0.75	0.75
China	5.1	5.0	2.3	2.3	2.00	2.00	3.10	3.10

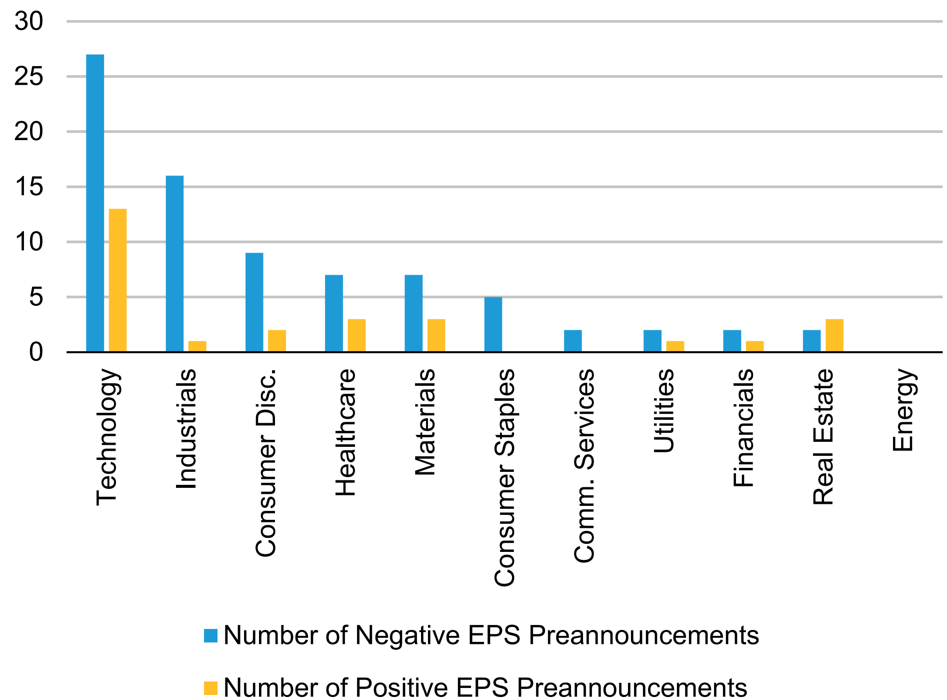
Past performance and current analysis do not guarantee future results.
Growth and inflation forecasts are calendar-year averages. Interest rates are year-end forecasts. Real growth aggregates represent 48 country forecasts, not all of which are shown. Long rates are 10-year yields.
As of March 31, 2023
Source: AB

Earnings Preview

Bottom-Up Earnings Expectations Are Expected to Bottom Out this Quarter…



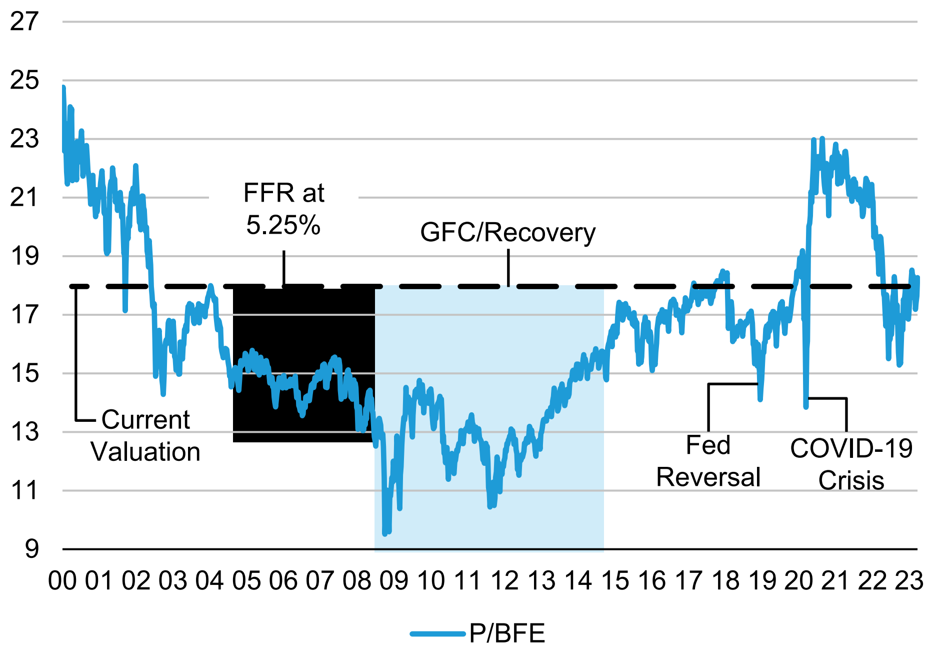
…as Available Guidance Remains Mostly Negative



Historical analysis and current forecasts do not guarantee future results.
EPS: earnings per share
As of March 31, 2023
Source: Bloomberg, FactSet and AB

Valuations: As Earnings Growth Stalls, Valuations Hover Near a Ceiling Only Breached During the Dot-Com Bubble and Post COVID-19 Period

S&P 500 Multiples



Time Period	P/E	P/BFE	P/FE_1	P/FE_2	P/FE_3
March 31, 2023	**19.7**	**18.3**	**18.8**	**17.0**	**15.6**
December 31, 2022	18.6	16.7	17.5	16.4	15.0
December 31, 2021	24.6	21.4	22.7	21.0	19.2
Five-Year Average	22.0	18.7	20.2	17.9	16.4
Pre-Pandemic*	21.5	18.8	19.3	17.3	15.5
10-Year Average	20.3	17.5	18.8	16.9	15.4
Pre-Pandemic Five-Year Average	19.8	16.9	17.8	16.0	14.4
Average P/E When Rates Are Increasing†	19.2	16.1	17.1	15.4	14.3
Average Since 2000	19.0	16.3	17.7	15.9	14.6
January 2014–November 2016	18.5	16.2	17.1	15.3	13.7

Historical analysis and current forecasts do not guarantee future results.

FFR: federal 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 March 31, 2023

Source: Bloomberg, S&P and AB

Scenario Chart: Choose Your Own Adventure

S&P 500 Return Scenario Chart

2023

	13	14	15	16	17	18	19	20	21
200	2,600	2,800	3,000	3,200	3,400	3,600	3,800	4,000	4,200
205	2,665	2,870	3,075	3,280	3,485	3,690	3,895	4,100	4,305
210	2,730	2,940	3,150	**3,360**	**3,570**	**3,780**	**3,990**	**4,200**	4,410
215	2,795	3,010	3,225	**3,440**	**3,655**	**3,870**	**4,085**	**4,300**	4,515
220	2,860	3,080	3,300	**3,520**	**3,740**	**3,960**	**4,109**	**4,400**	4,620
225	2,925	3,150	3,375	**3,600**	**3,839**	**4,050**	**4,275**	**4,500**	4,725
230	2,990	3,220	3,450	**3,680**	**3,910**	**4,140**	**4,370**	**4,600**	4,830
235	3,055	3,290	3,525	3,760	3,995	4,230	4,465	4,700	4,935
240	3,120	3,360	3,560	3,840	4,080	4,320	4,560	4,800	5,040

S&P Price Level	2023 Price Return*
3,360	–18.23%
3,520	–14.33%
3,740	–8.98%
3,870	–5.82%
3,960	–3.63%
4,050	–1.44%
4,109	0.00%
4,275	4.04%
4,500	9.52%

2024

	11	12	13	14	15	16	17	18	19
220	2,420	2,640	2,860	3,080	3,300	3,520	3,740	3,960	4,180
225	2,475	2,700	2,925	3,150	3,375	3,600	3,825	4,050	4,275
230	2,530	2,760	2,990	**3,220**	**3,450**	**3,680**	**3,910**	**4,140**	4,370
235	2,585	2,820	3,055	**3,290**	**3,525**	**3,760**	**3,995**	**4,230**	4,465
240	2,640	2,880	3,120	**3,360**	**3,560**	**3,840**	**4,109**	**4,320**	4,560
245	2,695	2,940	3,185	**3,430**	**3,675**	**3,920**	**4,165**	**4,410**	4,655
250	2,750	3,000	3,250	**3,500**	**3,750**	**3,839**	**4,250**	**4,500**	4,725
255	2,805	3,060	3,315	3,570	3,825	4,080	4,335	4,590	4,845
260	2,860	3,120	3,380	3,640	3,900	4,160	4,420	4,680	4,940

S&P Price Level	2023–24 Price Return†
3,220	–12.97%
3,430	–9.78%
3,600	–7.26%
3,760	–4.93%
3,920	–2.65%
4,109	0.00%
4,250	1.94%
4,320	2.90%
4,500	5.32%

March 31, 2023　December 31, 2022

Historical analysis and current forecasts do not guarantee future results.

*Based on S&P 500's 1Q closing price of 3,109; closing price uses rounded numbers for earnings and multiples

†Annualized return based on same closing price

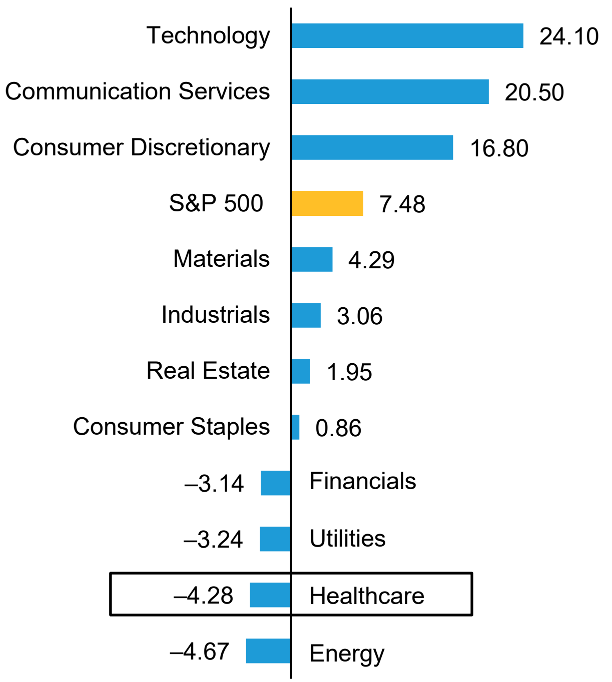
As of March 31, 2023

Source: Bloomberg, S&P and AB

Narrow Leadership Is a Reversal from Last Year's Broadening Market

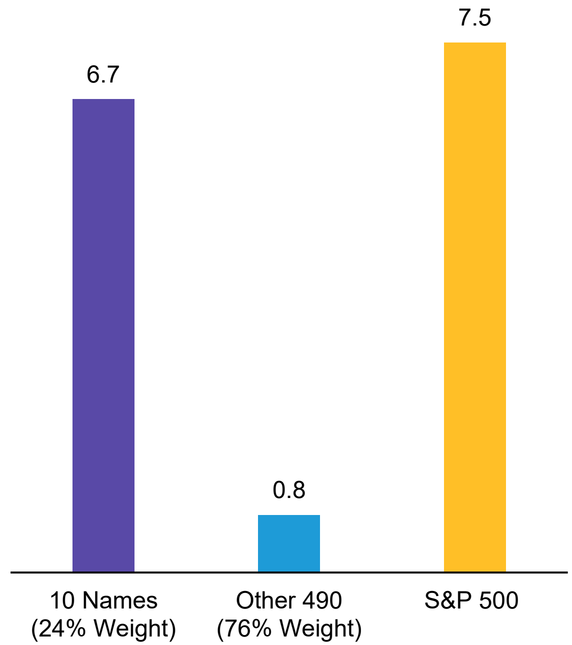
S&P 500's first-quarter returns driven by only three sectors outperforming the index

Outperformers: Driven in Part by the Prospects of an Easing Fed and Lower GDP; Healthcare Should Also Benefit

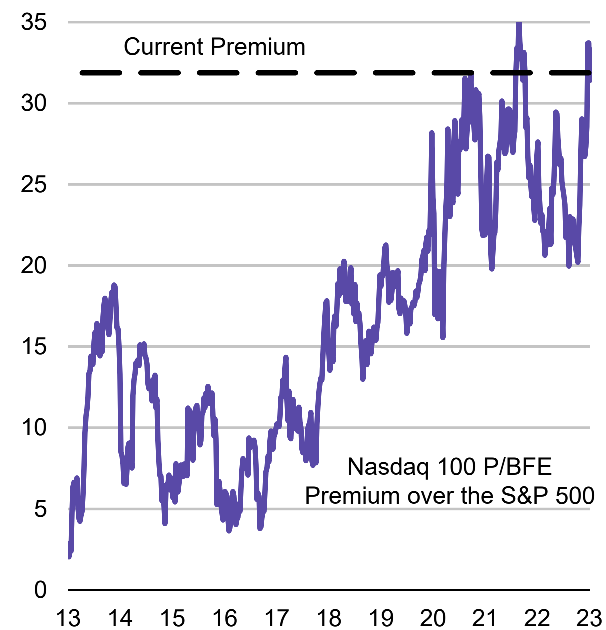


In the Quarter, 90% of the S&P 500's Return Was Generated by Just 10 Names from Sector Leaders

1Q:23



What and How Much You Own in These Sectors Matters, as Mega-Caps Now Trade at a Higher Premium (Percent)



Past performance does not guarantee future results.

P/BFE: price to blended forward earnings

10 names include: Advanced Micro Devices, Alphabet Inc., Amazon, Apple, Broadcom, Meta Platforms, Microsoft, NVIDIA, Salesforce.com and Tesla

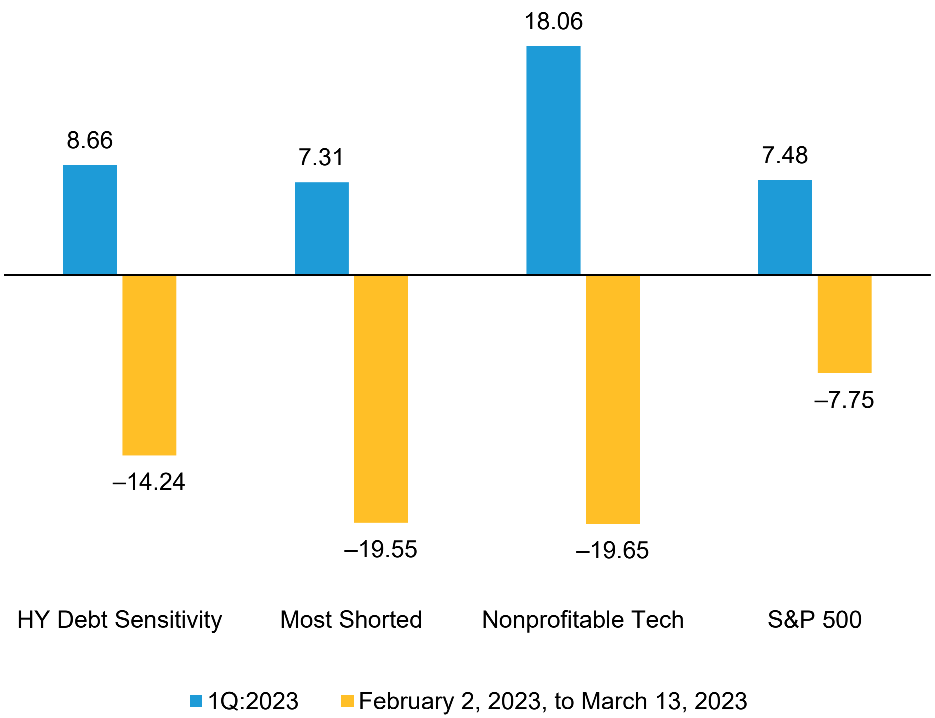
As of March 31, 2023

Source: Bloomberg and AB

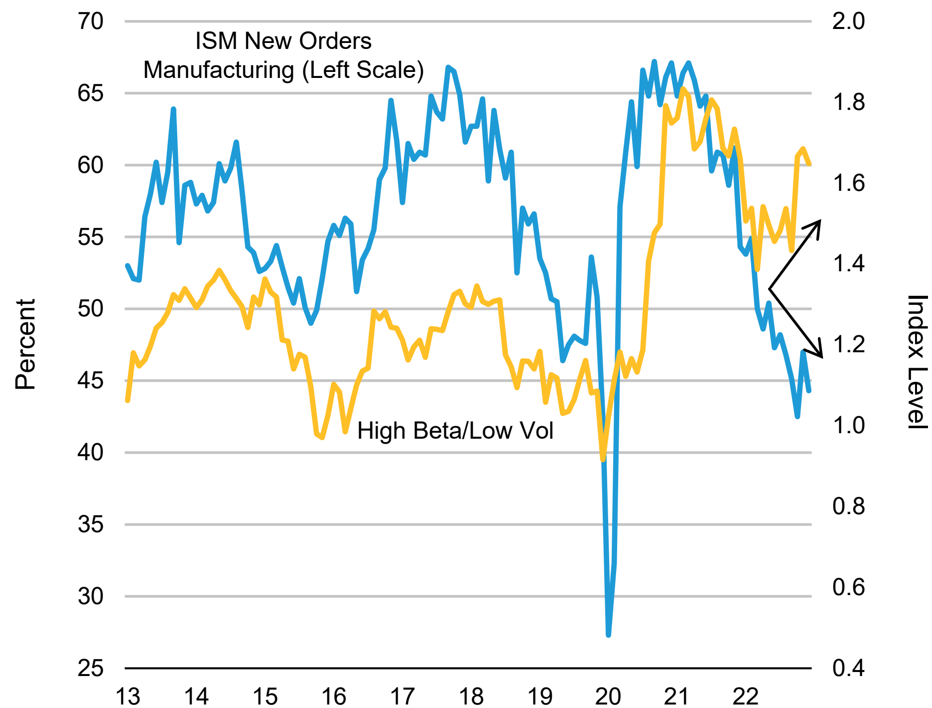
Taking Another Step Below the Surface

Speculative stocks: the new comeback kids?

More Suspect Groups of Stocks Did Not Exhibit Grace Under Pressure as Economic Growth Fears Emerged (Percent)



Higher-Beta Stocks Have Jumped, Even as Economic Growth Has Slowed; Expect This to Revert Back to Prior Trends



Past performance does not guarantee future results.

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

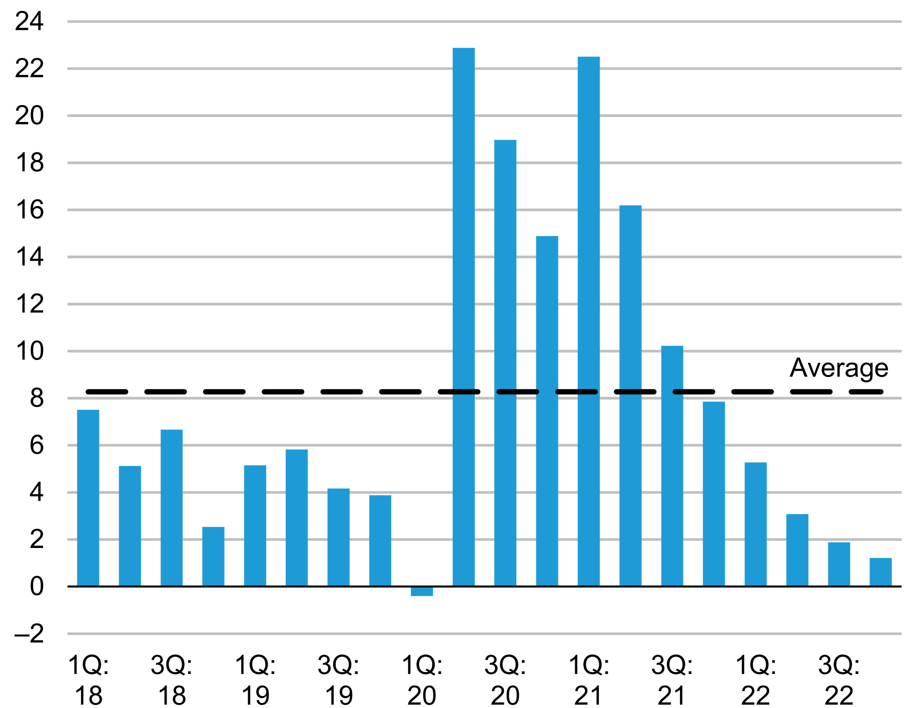
As of March 31, 2023

Source: Bloomberg, Goldman Sachs and AB

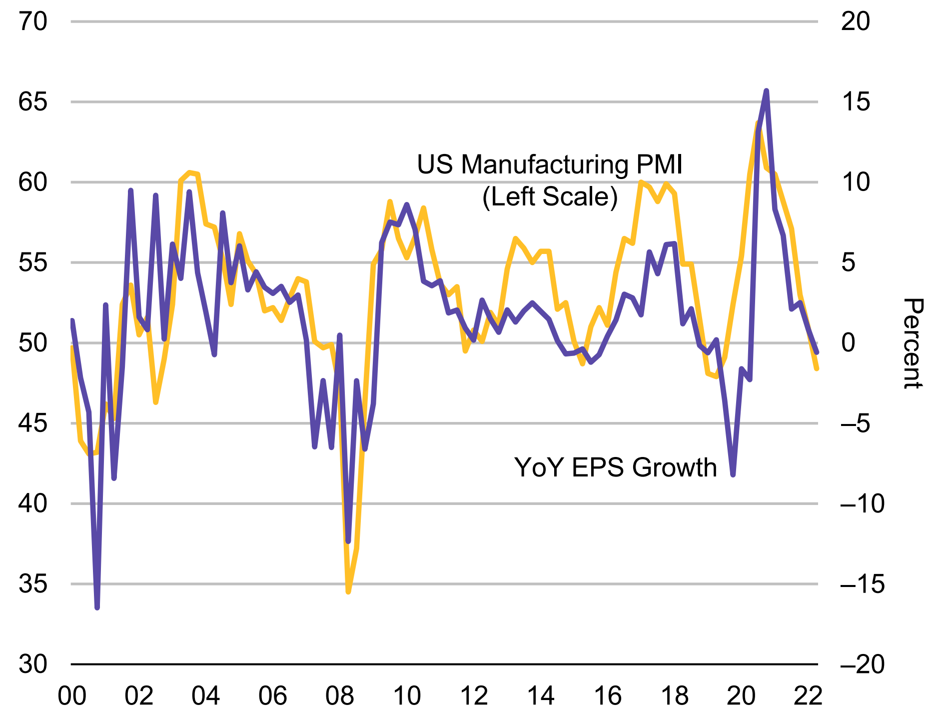
Earnings Surprises and Growth Are Likely to Remain Subdued

Tighter financial conditions and slower economic growth have their consequences

Upside Surprises Running Well Below the Recent Average
S&P 500 earnings surprise (percent)



Changes in Earnings and PMIs Are Highly Correlated
US Manufacturing PMI vs. sequential change in S&P 500 EPS



Historical analysis and current forecasts do not guarantee future results.
EPS: earnings per share
As of March 31, 2023
Source: Bloomberg, Institute for Supply Management, Piper Sandler, Thomson Reuters I/B/E/S and AB

What You Own Matters, Especially When Earnings Are Slowing

Peak in NTM EPS	Trough in NTM EPS	ROA (Percent)	Net Income Margin (Percent)	FCF to EV (Percent)	Debt to MV (Percent)	Beta (Percent)	Negative Earnings (Percent)
		Best-Performing Factors When EPS Estimates Fall			Worst-Performing Factors When EPS Estimates Fall		
Jan 1986	May 1986	10.00	7.90	9.00	–5.60	–5.00	–10.30
Sep 1989	Apr 1991	36.90	29.90	16.60	–20.10	–2.70	–17.20
Sep 2000	Nov 2001	0.50	2.60	36.40	28.30	–19.50	–10.00
Oct 2007	May 2009	7.40	4.40	16.80	–5.30	–4.10	–16.60
Sep 2014	Mar 2016	4.80	4.30	1.90	–9.40	–19.60	–27.90
Feb 2020	May 2020	14.70	15.00	–1.30	–18.40	–5.40	–11.30
	Average	**12.40**	**10.70**	**13.20**	**–5.10**	**–9.40**	**–15.60**
	Hit Rate	100	100	83.30	16.70	0.00	0.00

Highest Hit Rate and Best Performance When Earnings Are Falling

Lowest Hit Rate and Worst Performance When Earnings Are Falling

Past performance does not guarantee future results.

EPS: earnings per share; EV: enterprise value; FCF: free cash flow; MV: market value; NTM: next 12 months; ROA: return on assets

Figures shown represent S&P 500 factor performance high to low (Q1 vs. Q5), sector adjusted

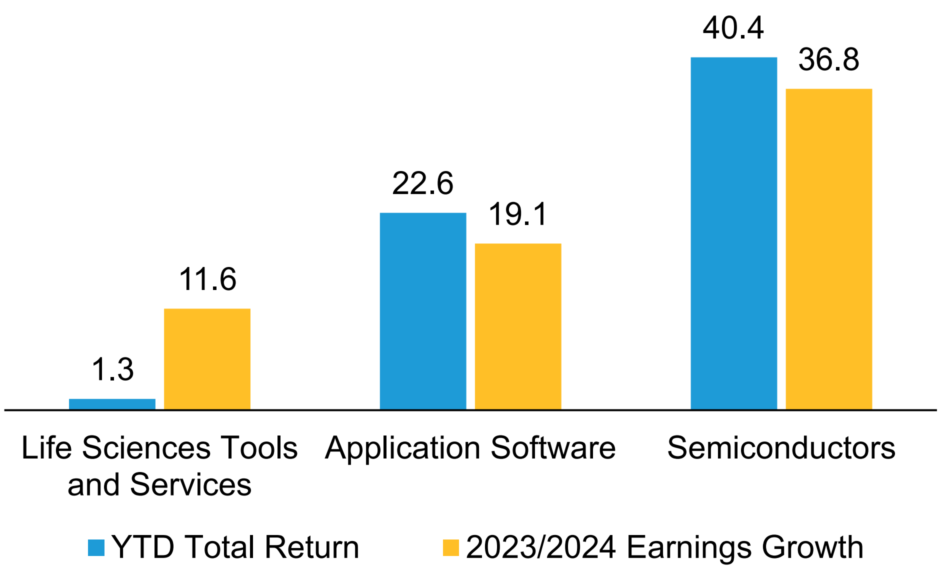
As of December 31, 2022

Source: Piper Sandler, S&P and AB

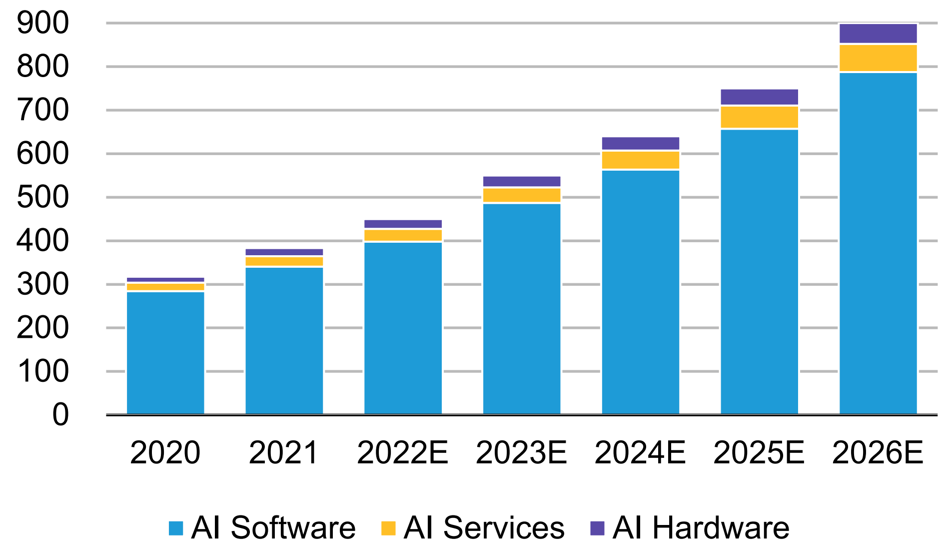
Opportunities in Quality Growth: Selective Healthcare and Technology

A balance of lower-cyclical healthcare and in areas of technology where further recovery is expected

Drilling Deeper: Discovering Attractive Risk/Reward Potential at the Industry Level in Healthcare and Tech
Percent



Rapid Adoption of Artificial Intelligence (AI) Has Growth Implications for Widespread Technology Applications
USD billions



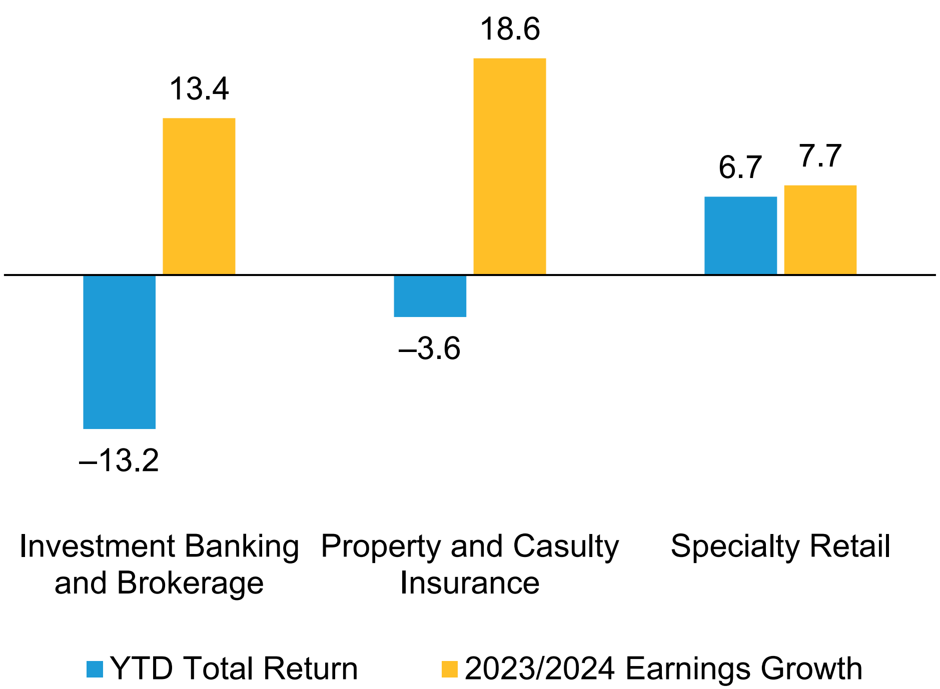
- Global AI market is expected to grow at 19% CAGR to reach $900 billion by 2026

Past performance does not guarantee future results.
CAGR: compound annual growth rate
Based on consensus estimates.
As of March 31, 2023
Source: Bloomberg, BofA Global Research, International Data Corporation, S&P, Strategas Research Partners and AB

A Diverse Set of Opportunities in Value Equities Having Earnings Visibility

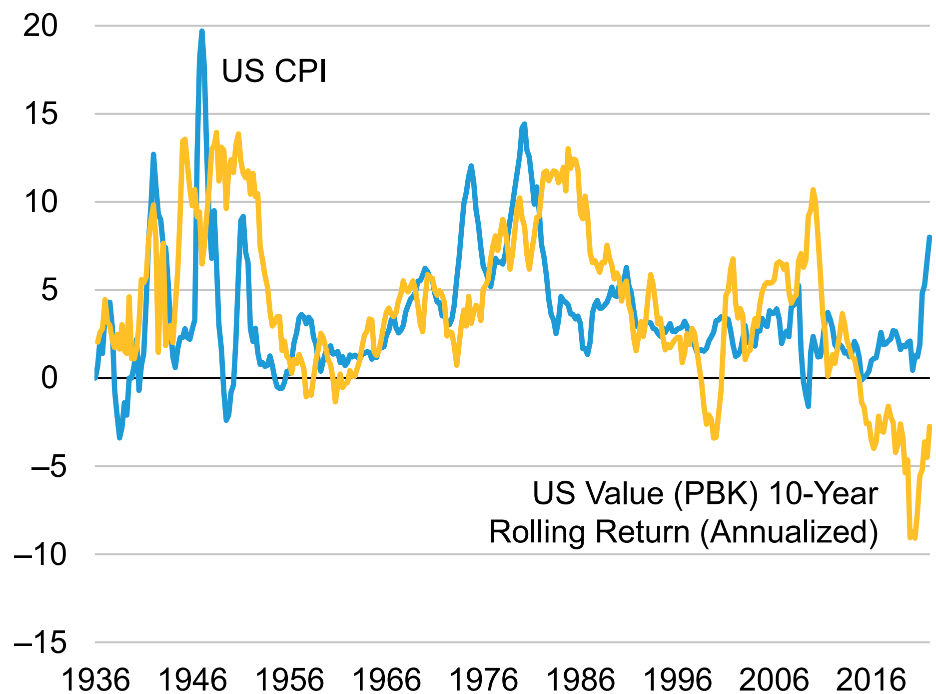
Attractive valuations and lingering inflation support maintaining balance by style

Favored Industries Among Value (Percent)



90 Years of Inflation and Value: Is Inflation All That Was Missing?

US consumer price inflation and US value returns (percent)



Past performance does not guarantee future results.

PBK: the annualized 10-year rolling return for the cheapest quintile price/book stocks in an AB value universe

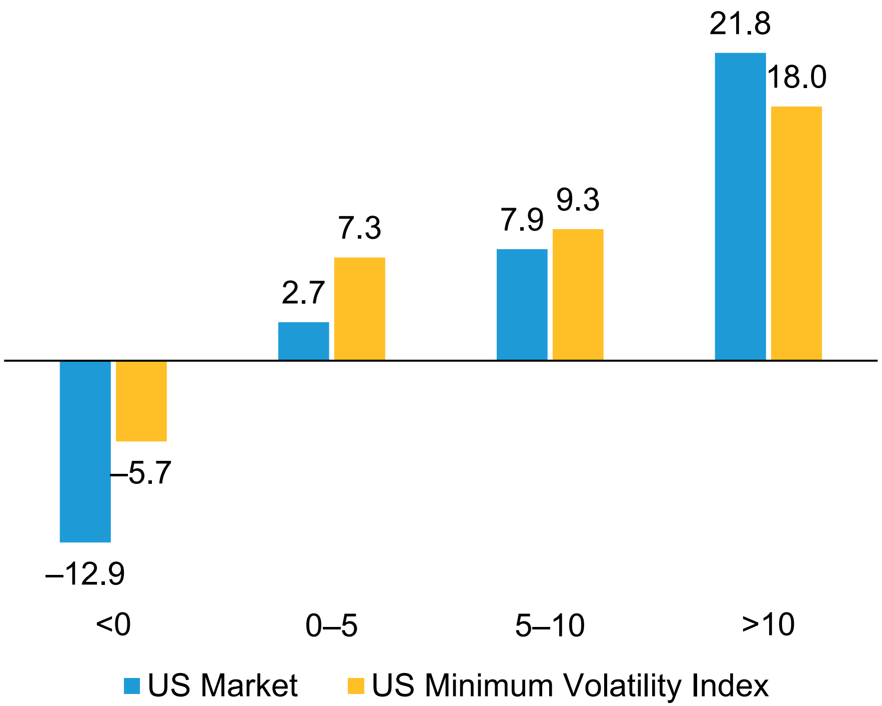
Based on consensus estimates.

Left display as of March 31, 2023; right display as of March 31, 2022

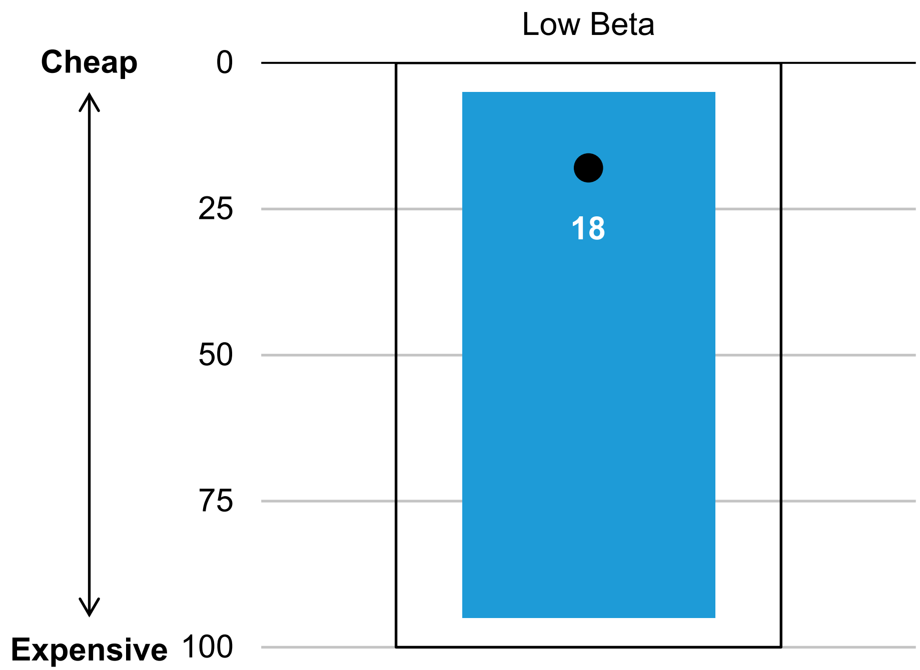
Source: Bloomberg, S&P, Strategas Research Partners and AB

Low Volatility: Versatile Equity Exposure Trading at a Discount

Low-Volatility Performance in Different Market-Return Regimes (Percent)



Low-Beta Valuation Percentile Rank Is Compelling*



Historical analysis and current estimates do not guarantee future results.

Annual data from 1988 through 2022

US Market is represented by MSCI USA; US Minimum Volatility is represented by MSCI USA Minimum Volatility.

*Percentile rankings are based on monthly valuations (i.e., relative P/E of 1Q for each factor vs. Russell 1000) from 1990 to present. Low Beta: Exponentially weighted beta with a one-year half life over the last five years

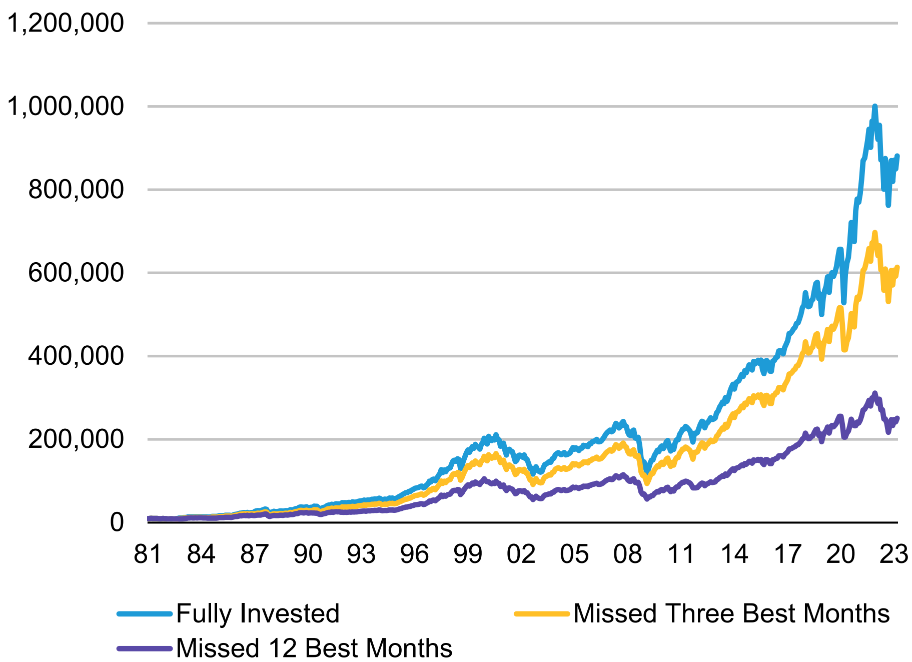
Left display as of March 31, 2023; right display as of December 31, 2022. Source: MSCI, Thomson Reuters Datastream and AB

Remain Invested and Focus on Risk Mitigation

Consider your alternatives…defensive equity exposures can take on different textures

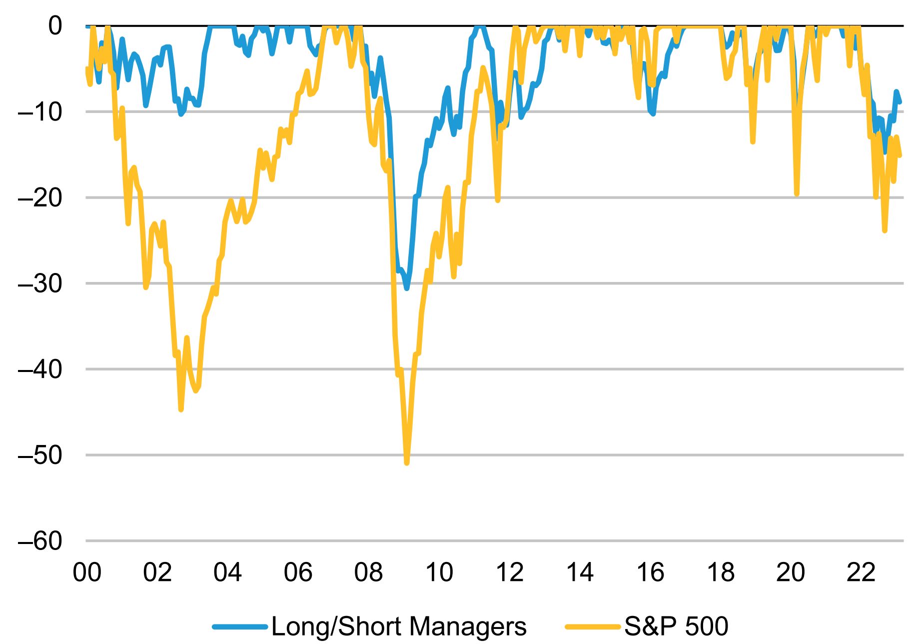
In It to Win It: A Proof Statement…

S&P 500: hypothetical growth of US$10,000



…but Beware of Drawdowns

Underwater drawdown (percent)



Historical analysis and current forecasts do not guarantee future results.

Long/short managers represented by the HFRI Equity Hedge, which represents the performance of fundamental growth, fundamental value, energy/basic materials, equity-market neutral, technology/healthcare, quantitative directional, short-bias and other hedge-fund managers. Index cited for comparison only and should not be understood to mean that there is a correlation between the index and the Fund. An index does not reflect fees and expenses associated with active management, and an investor generally cannot invest in an index.

Left display through March 31, 2023; right display from January 31, 2000, through February 28, 2023

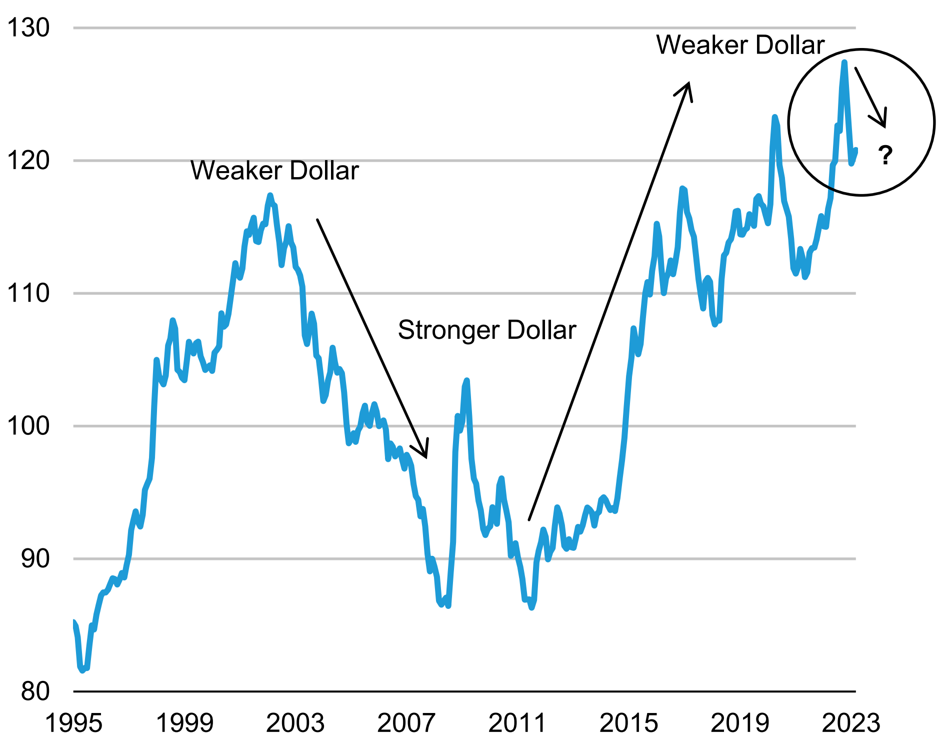
Source: Hedge Fund Research, S&P and AB

International Equities: Unique Alpha Opportunities with an Improved Setup

US investors: a further weakening US dollar could be a key tailwind for international stocks

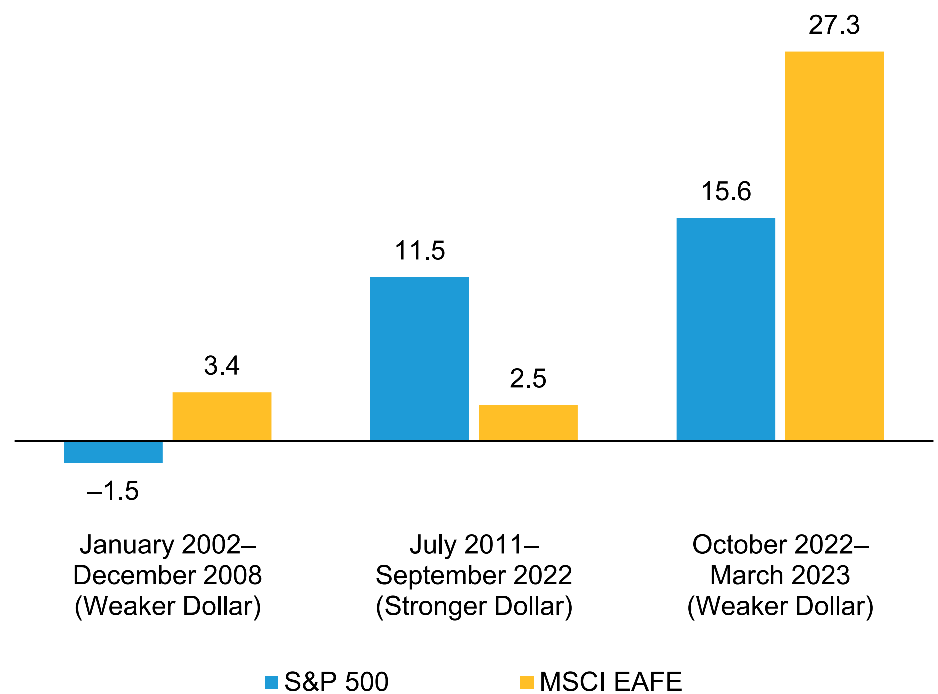
The Start of a New Phase?

Monthly trade-weighted dollar index (2006=100)



Weaker Dollar Boosts International Equity Returns (Percent)

Annualized returns (US dollars)



Past performance does not guarantee future results.

As of March 31, 2023

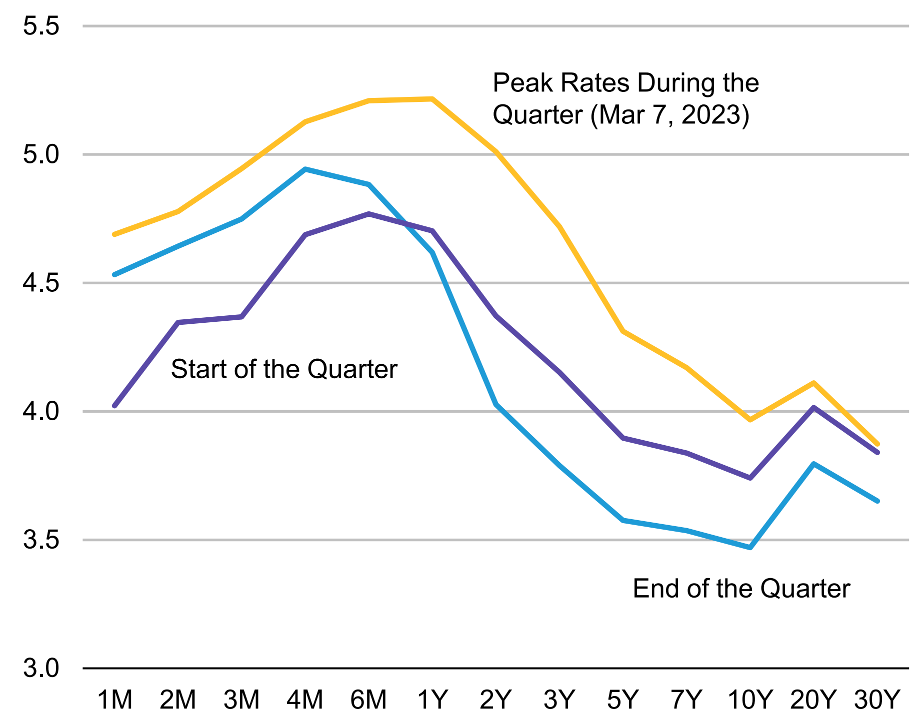
Source: Federal Reserve Bank of St. Louis; home of the Federal Reserve Economic Data (FRED), Morningstar, MSCI, S&P and AB

Bonds Rallied as Rate Expectations Dropped Dramatically on the Back of Bank Runs

Bond Returns (Percent)

US Treasuries	Yield (Mar 31, 2023)	Yield (Dec 31, 2022)	2023 Return
TIPS	1.16	1.58	3.34
Two-Year	4.06	4.41	1.46
Five-Year	3.60	3.99	2.39
10-Year	3.48	3.88	3.76
30-Year	3.67	3.97	5.99
Sector	**Yield (Mar 31, 2023)**	**Yield (Dec 31, 2022)**	**2023 Return**
US Aggregate	4.40	4.68	2.96
IG Corps	5.17	5.42	3.50
US HY	8.52	8.96	3.57
Municipals	3.25	3.55	2.78
MBS	4.51	4.71	2.53
Leveraged Loans	11.31	11.41	3.26

Largest One-Day Drop in Bond Yields Since the Volker Era Two-Year Dropped Over 100 b.p. in Just a Few Days



Historical analysis does not guarantee future results.

IG: investment-grade; HY: high yield; MBS: mortgage-backed securities; TIPS: Treasury Inflation-Protected Securities

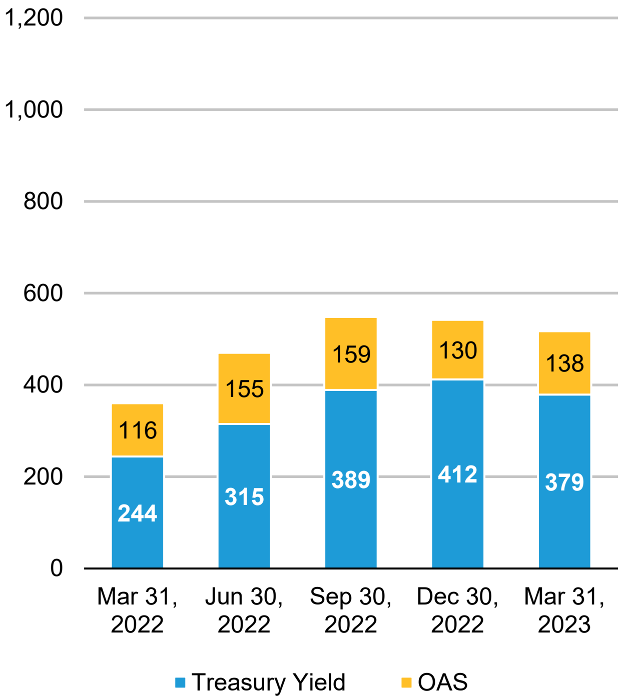
Sector indices provided by Bloomberg

As of March 31, 2023

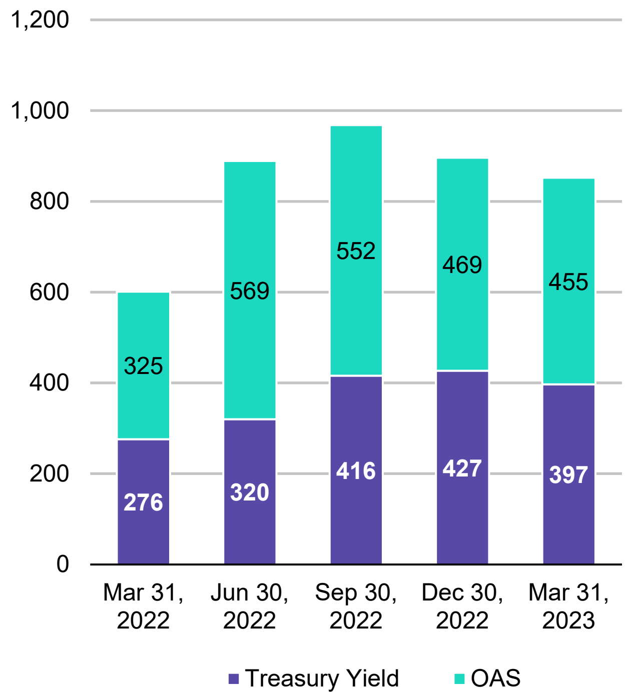
Source: Bloomberg, J.P. Morgan and AB

US Corporate Credit Yields Turned Lower

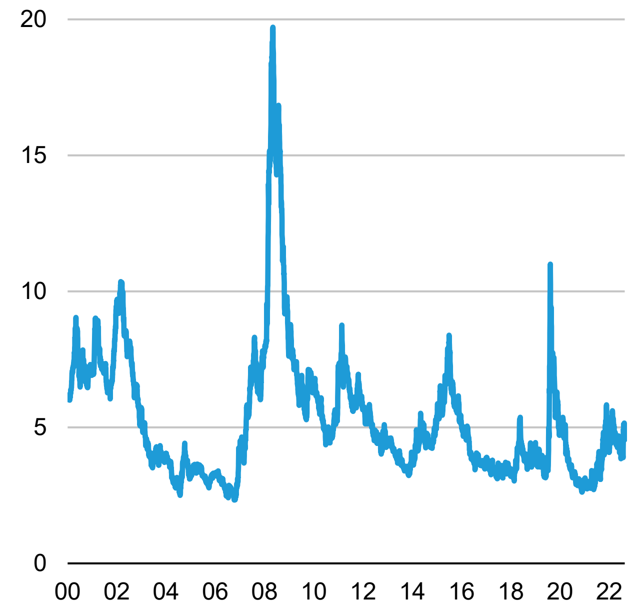
Investment-Grade YTW Fell for a Second Consecutive Quarter…



…While High-Yield YTW Experienced a Similar Compression as Both the Spread and Rate Continued Lower



There Is Still a Fear for Further Widening: US High-Yield Spreads Remain Relatively Narrow



Historical analysis does not guarantee future results.

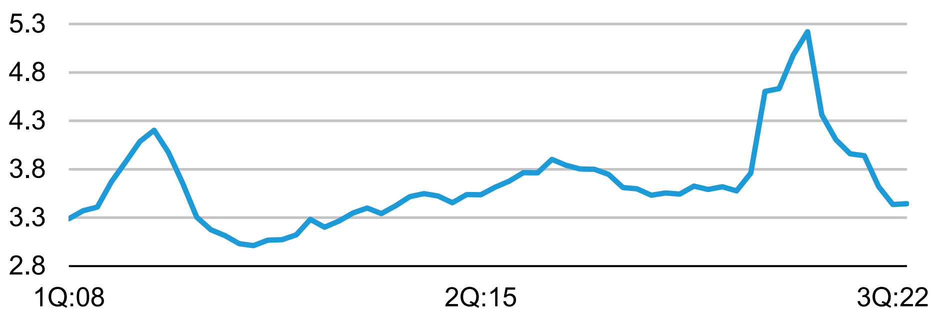
OAS: option-adjusted spread; YTW: yield to worst

Through March 31, 2023

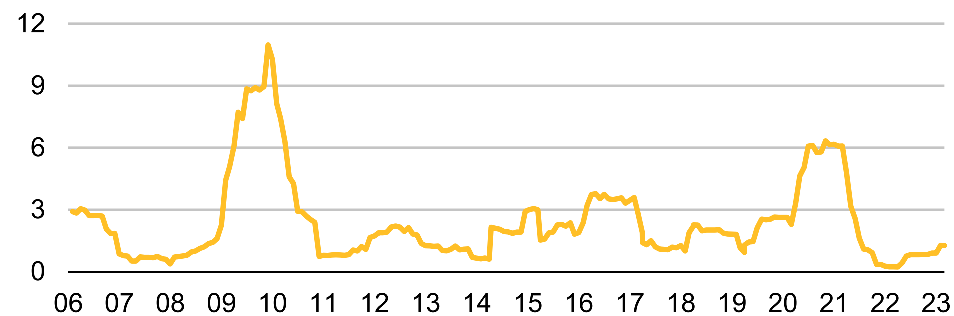
Source: Bloomberg and AB

US High-Yield Fundamentals: Strong Starting Point

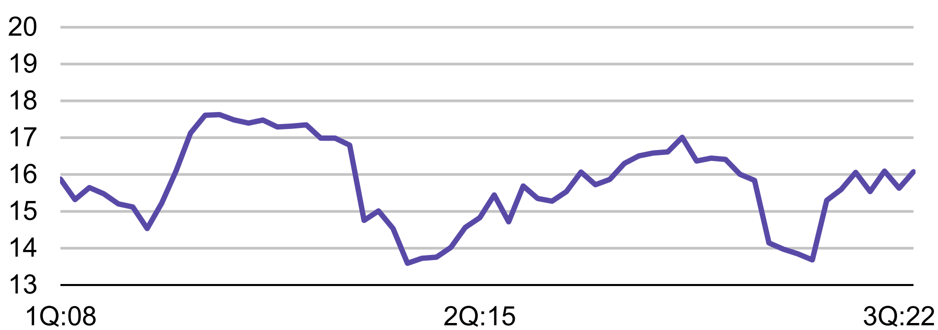
Net Leverage (Debt/EBITDA)



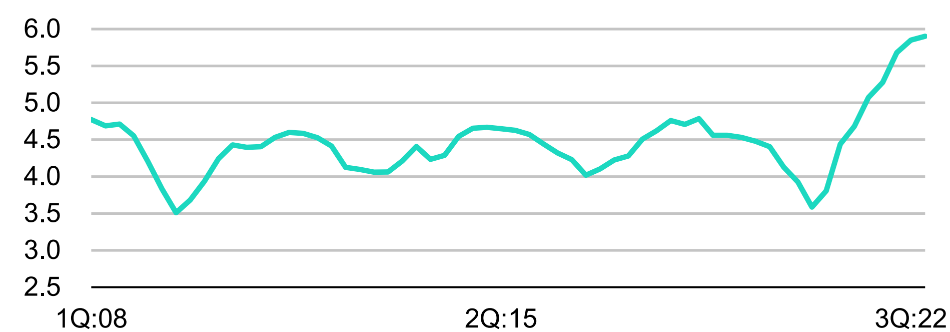
Default Rates (Percent)



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 median.

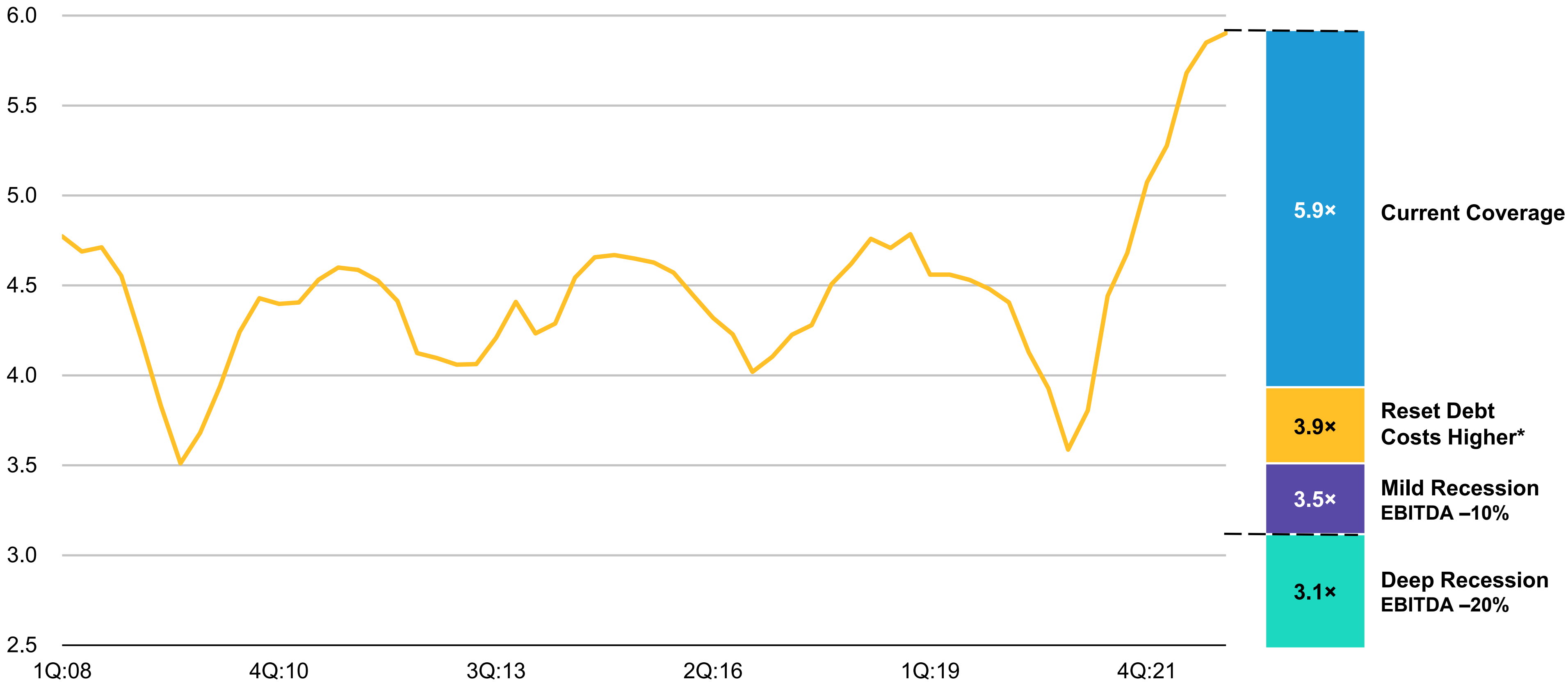
As of March 31, 2023

Source: J.P. Morgan and AB

Why Starting Point Matters—Interest Coverage Provides Cushion

If EBITDA declines 20% (similar to GFC), interest coverage remains at over 3.0×

Interest Coverage (EBITDA/Interest)



Current analysis does not guarantee future results.

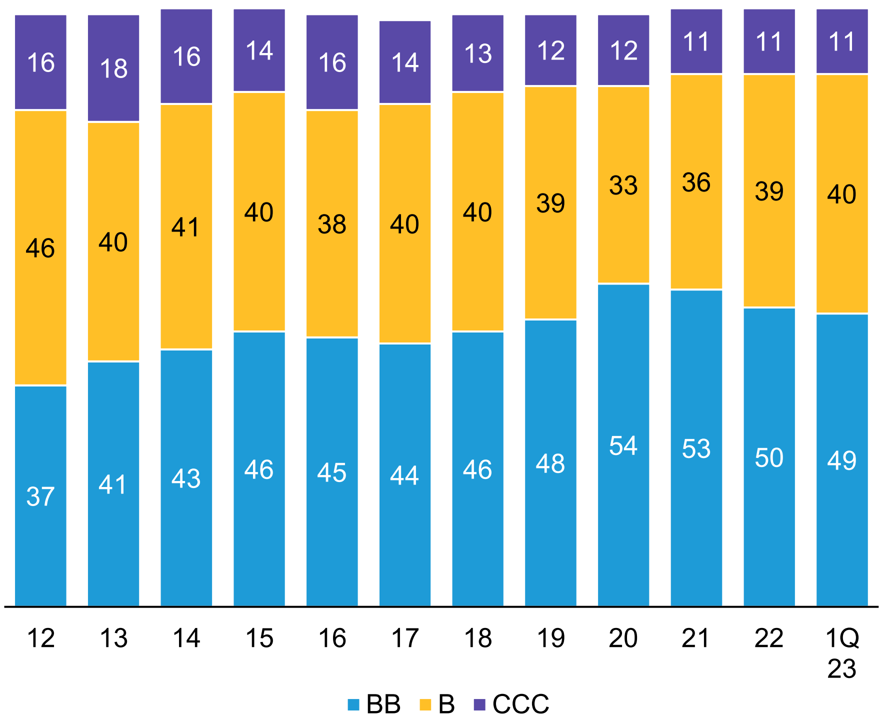
EBITDA: earnings before interest, taxes, depreciation and amortization; GFC: global financial crisis

*Reprice 50% of all existing debt to current market rates (8.5%). Historic data considered from 1Q:08 to 2Q:22. Data provided as medians.

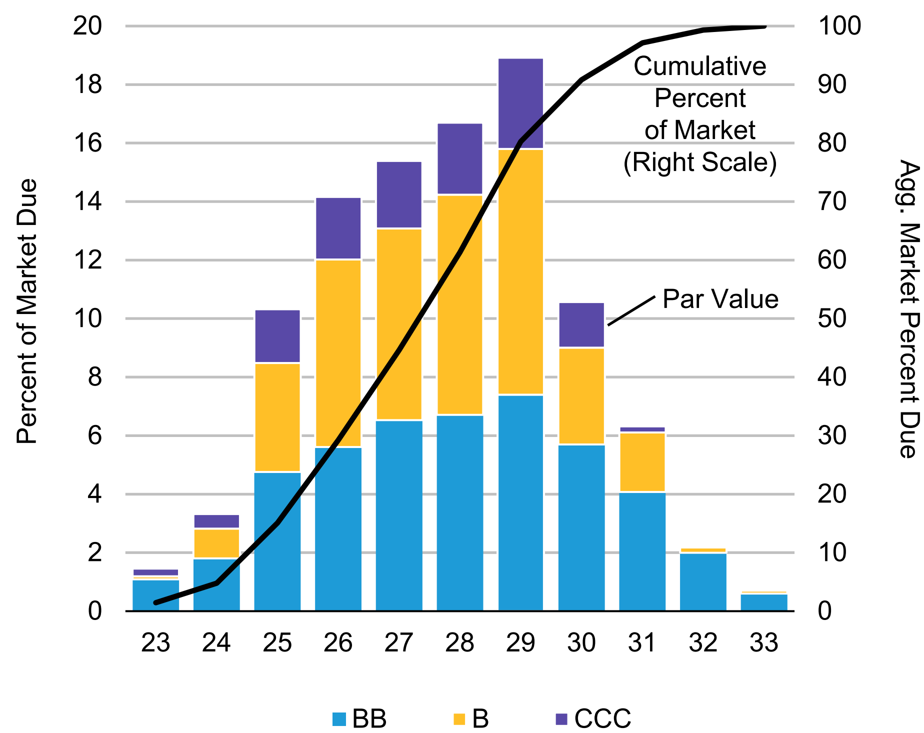
As of December 31, 2022. Source: J.P. Morgan and AB

Today, the High-Yield Market Is Higher Quality, with Manageable Maturities

The US High Yield Index Is Much Higher Quality Today



Over the Next Two Years, Only 5% of the Market Matures; Less Than 1% Is in CCCs



Past performance does not guarantee future results.

High yield and assumed yield to worst by Bloomberg US Corporate High Yield 2% Constrained

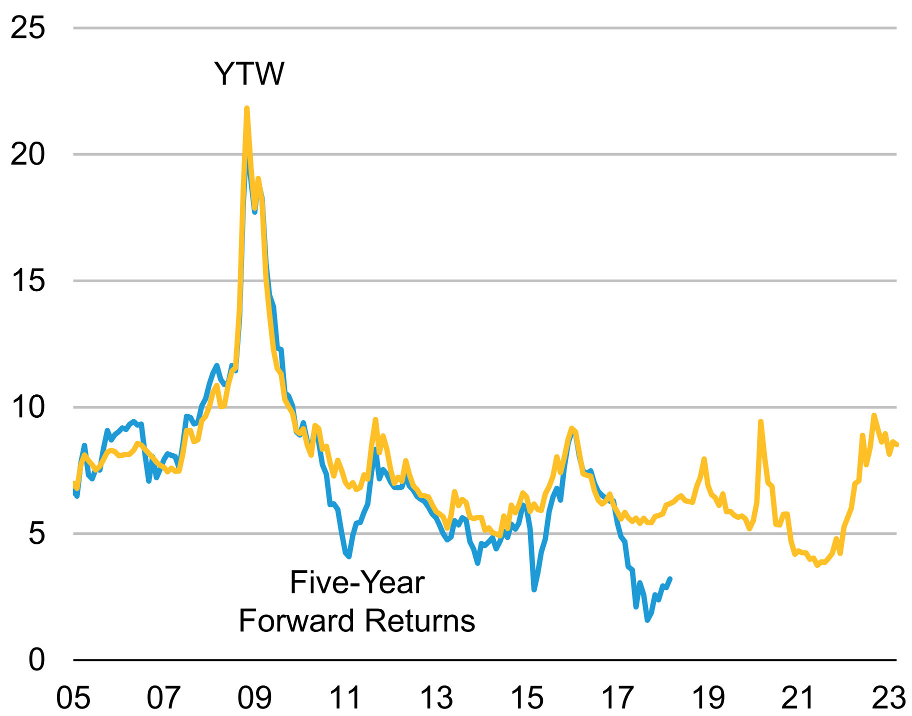
As of March 31, 2023

Source: Bloomberg, J.P. Morgan and AB

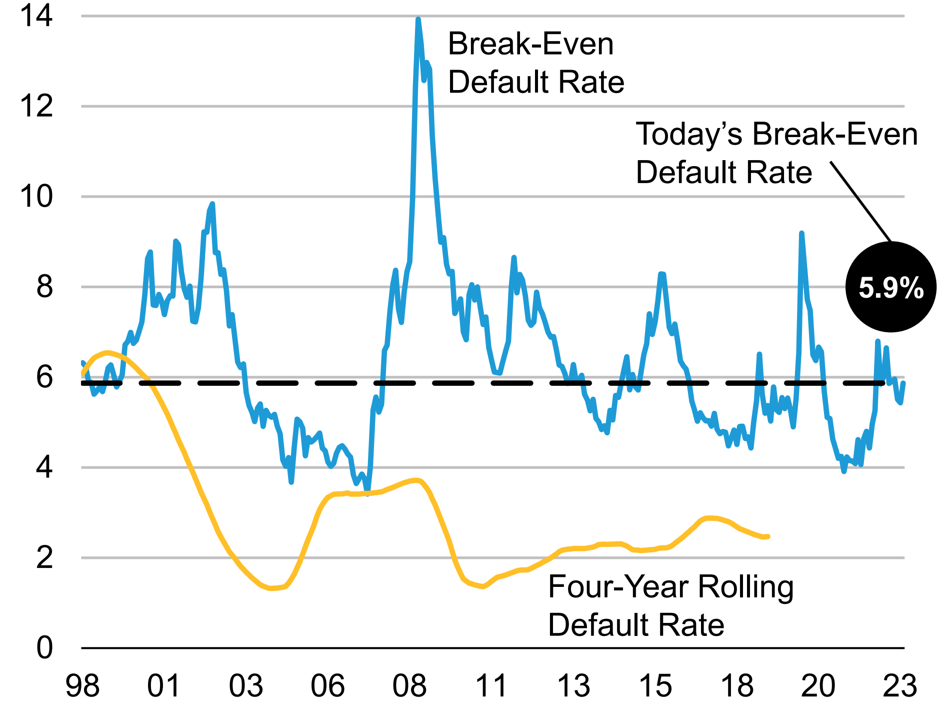
Attractive Entry Point and Getting Paid for Higher Defaults

Historically, YTW has been a good predictor for returns over the next five years

Starting YTW vs. Five-Year Forward Annualized Returns
Percent



At Current Spread Levels, Break-Even Defaults Almost 6.0% per Year, for the Next Four Years



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

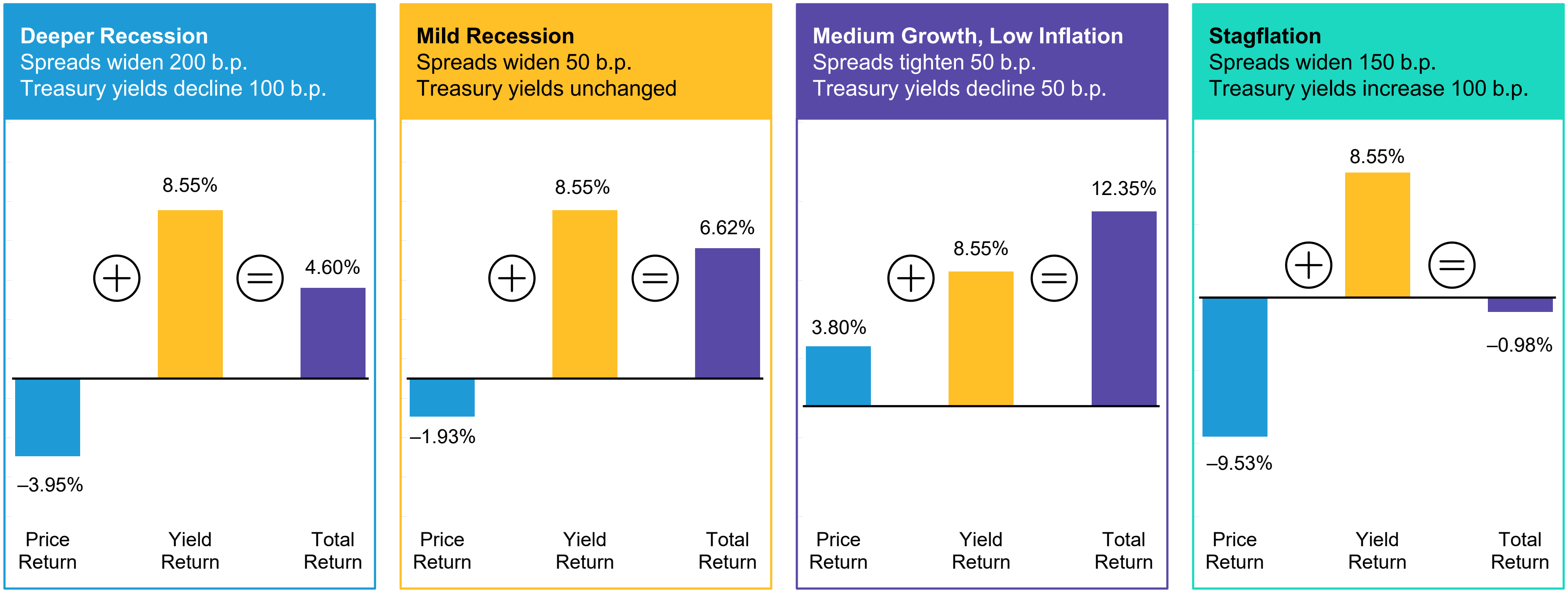
Implied default rates represented by Bloomberg US Corporate High Yield; high-yield market defaults by J.P. Morgan high-yield market default data; default rise by change from lowest default rate to highest in the period; US HY represented by Bloomberg US Corporate High Yield Index. YTW: yield to worst

As of March 31, 2023

Source: Bloomberg, J.P. Morgan and AB

High Yield Could Have Solid to Strong Returns Under Different Economic Scenarios

Sample 12-month forward returns



Duration: 3.75 **Spread Duration:** 3.85 **Yield to Worst:** 8.55

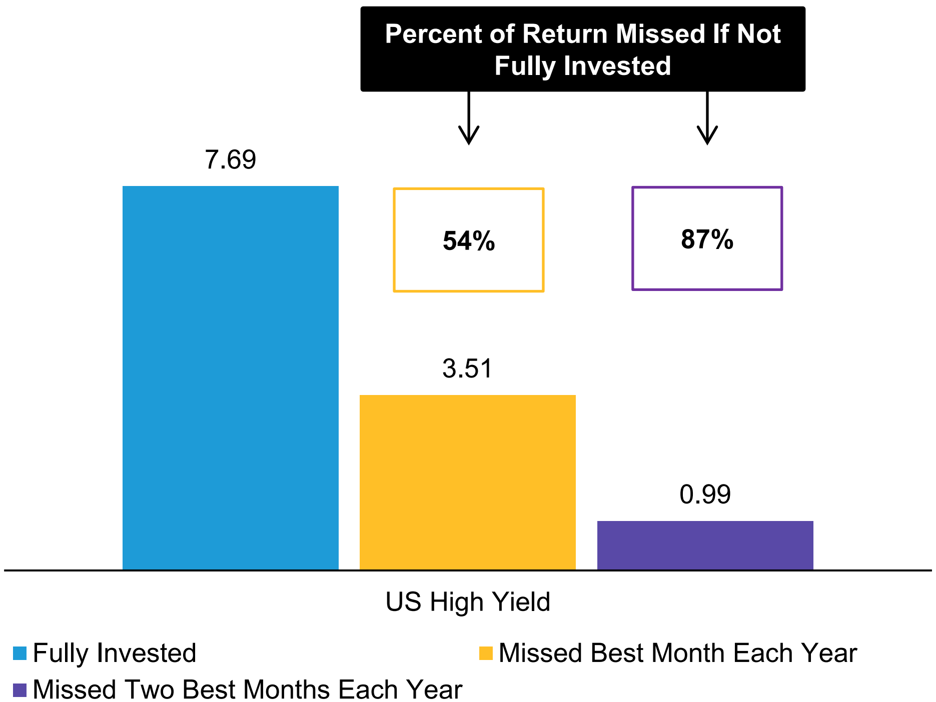
Past performance does not guarantee future results.

The shock analysis assumes the potential impact of 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 Portfolio invests in. The actual moves in spreads and Treasury yields may differ meaningfully from the sample moves listed in the display. High yield is represented by Bloomberg US Corporate High Yield 2% Constrained.

As of March 31, 2023. Source: AB

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

Annualized Total Returns Since Inception



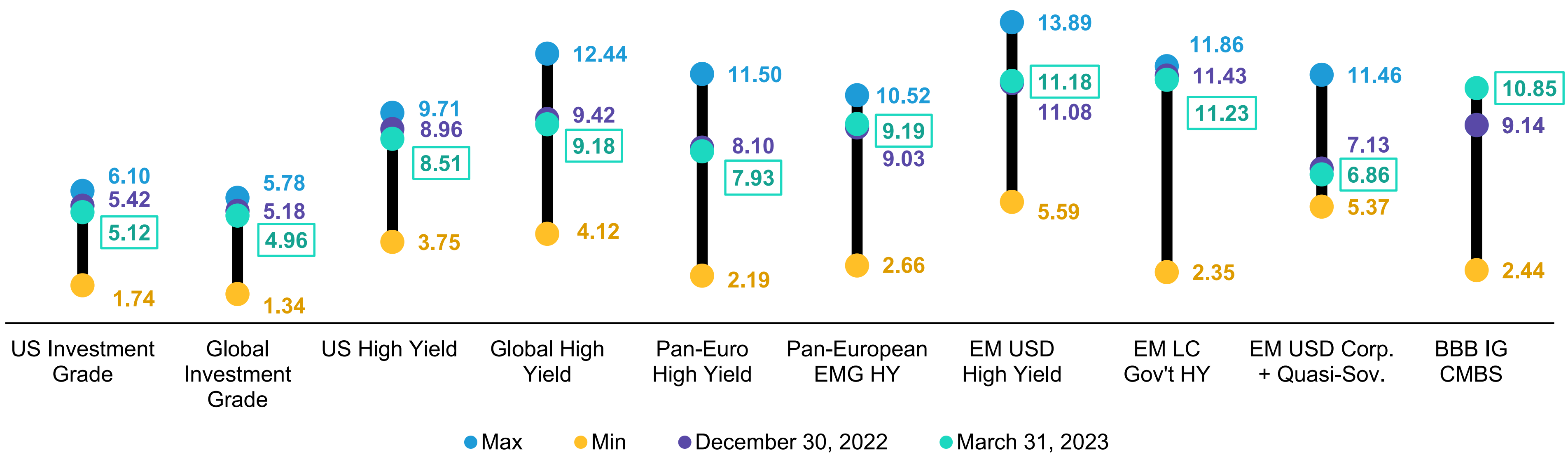
High Yield Recovers Quickly with Strong Returns After a Drawdown

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 March 31, 2023
Source: Bloomberg and AB

Yields Remain near 10-Year Highs for Much of the Bond Market…but for How Long?

Ten-Year Yield-to-Worst Range
April 2013–March 2023

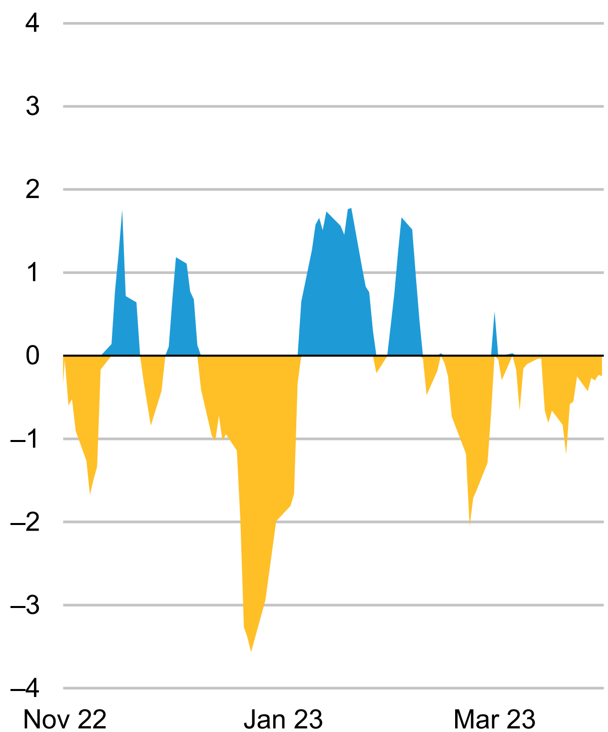


Past performance does not guarantee future results.
CMBS: commercial mortgage-backed securities; EM: emerging markets; EMG: emerging; LC: local currency; USD: US dollar
Historical information provided for illustrative purposes only. US Investment Grade represented by Bloomberg US Agg Corporate Index; Global Investment Grade represented by Bloomberg Global Agg Corporate Index; US High Yield represented by Bloomberg US High Yield Corporate Index; Global High Yield represented by Bloomberg Global High Yield Corporate Index; Pan-Euro High Yield represented by Bloomberg Pan-European High Yield; Pan-European EMG HY represented by Bloomberg Pan-European EMG High Yield; EM USD High Yield represented by Bloomberg EM USD Sovereign High Yield; EM LC Gov't HY represented by Bloomberg EM Local Currency Government High Yield; EM USD Corp. + Quasi-Sov. represented by Bloomberg EM USD Corp + Quasi Sovereign High Yield; BBB IG CMBS represented by Bloomberg CMBS IG BBB Index.
As of March 31, 2023
Source: Bloomberg, Morningstar and AB

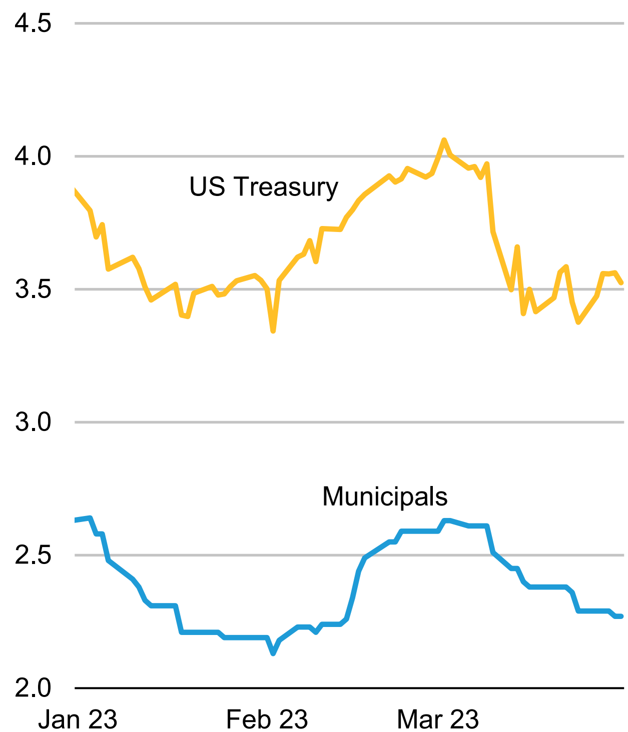
Volatility Was Heightened During 1Q

Municipal market was supported by better technicals

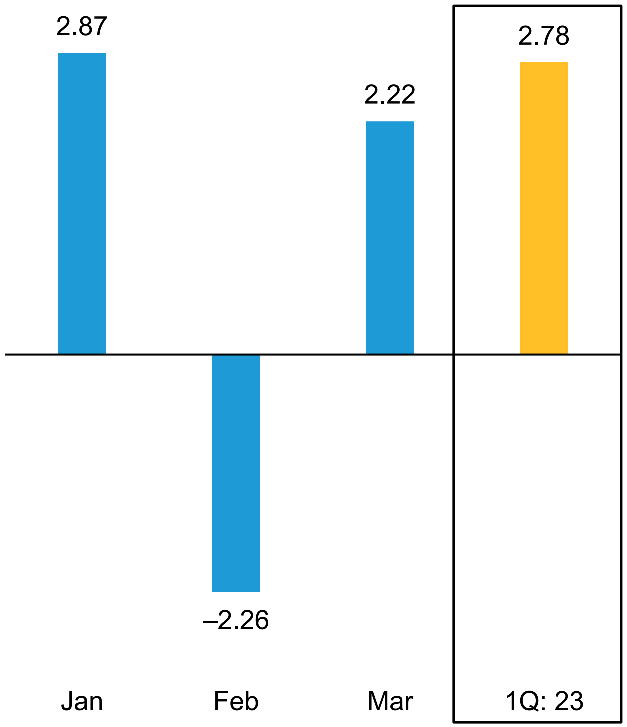
Rolling Five-Day Municipal Flows
USD billions



US Treasury and AAA Municipal Yields
Percent



Bloomberg Municipal Index Return
Percent



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

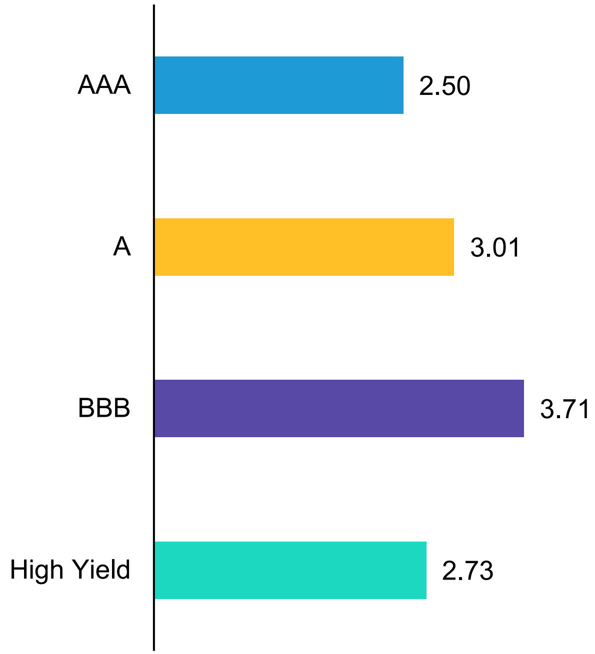
As of March 31, 2023

Source: Bloomberg, Morningstar, Municipal Market Data and AB

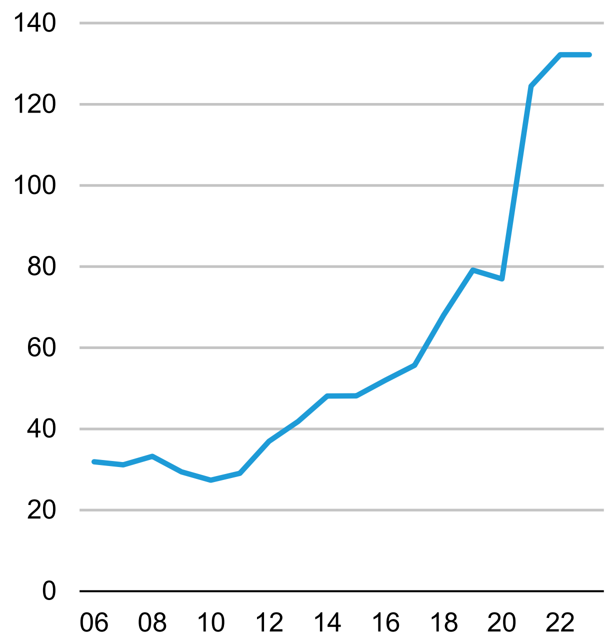
Midgrade and High Yield Outperformed High Grade

Municipal credit fundamentals are historically strong

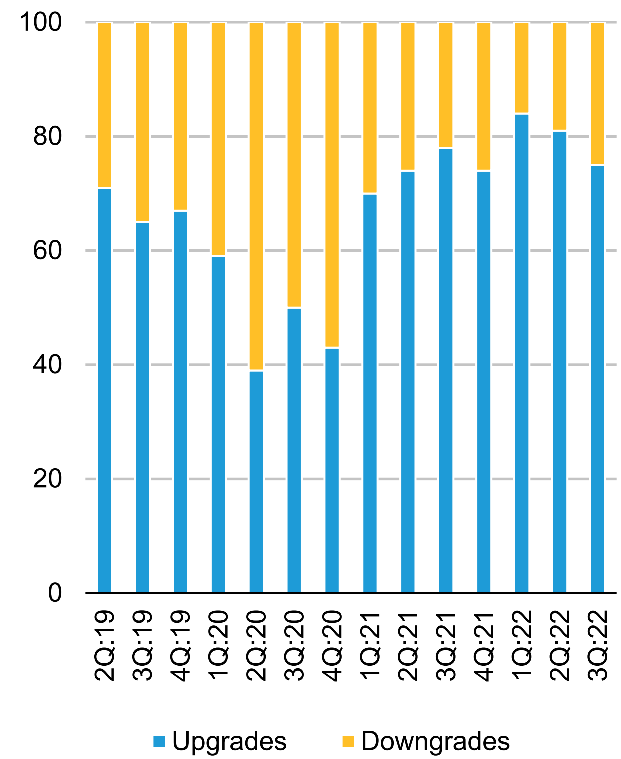
Year-to-Date Returns by Credit Quality
Percent



State Rainy Day Fund Balances Are at All-Time Highs
USD billions



Upgrades Have Outpaced Downgrades for Seven Consecutive Quarters
Percent



Past performance does not guarantee future results.

As of March 31, 2023

Source: Bloomberg, Moody's, National Association of State Budget Officers (NASBO), US Census Bureau and AB

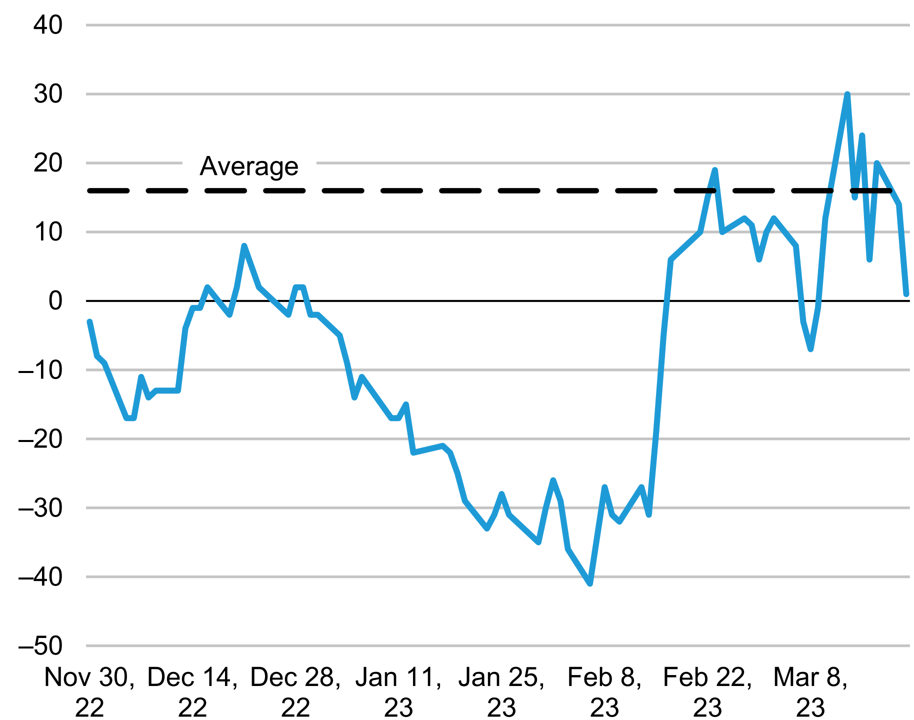
Cross-Market Trades Have Benefits

Munis went from expensive to cheap then back to expensive at the end of the quarter

AAA Muni vs. UST After-Tax Spreads
Basis points

Maturity	Dec 31, 2022	Feb 6, 2023	Mar 20, 2023	Mar 31, 2023	Five-Yr. Average
2Y	–4	–42	14	–4	17
5Y	13	-20	18	6	23
10Y	38	11	33	23	52
15Y	84	69	90	76	74
20Y	91	72	94	83	82
30Y	124	102	125	113	91

Two-Year AAA Muni/UST After-Tax Spread
Basis points



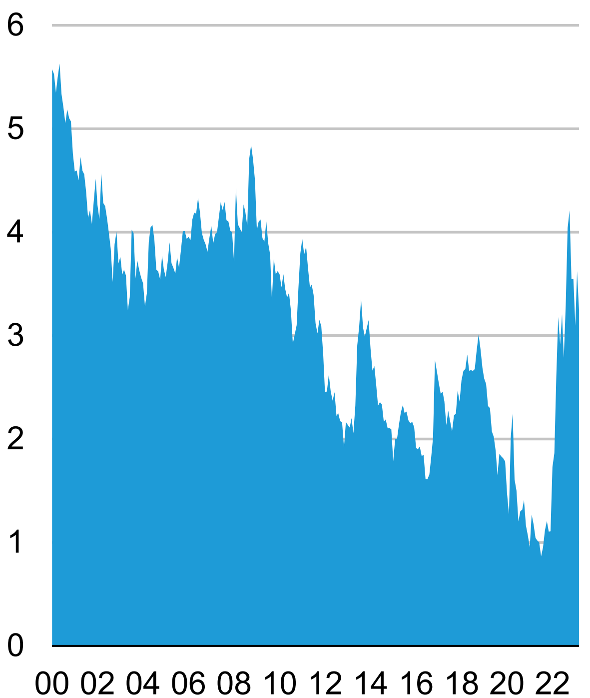
For illustrative purposes only. There is no guarantee any investment objective will be achieved.

UST: US Treasury
Tax rate used is 40.8%
As of March 31, 2023
Source: Bloomberg, Municipal Market Data and AB

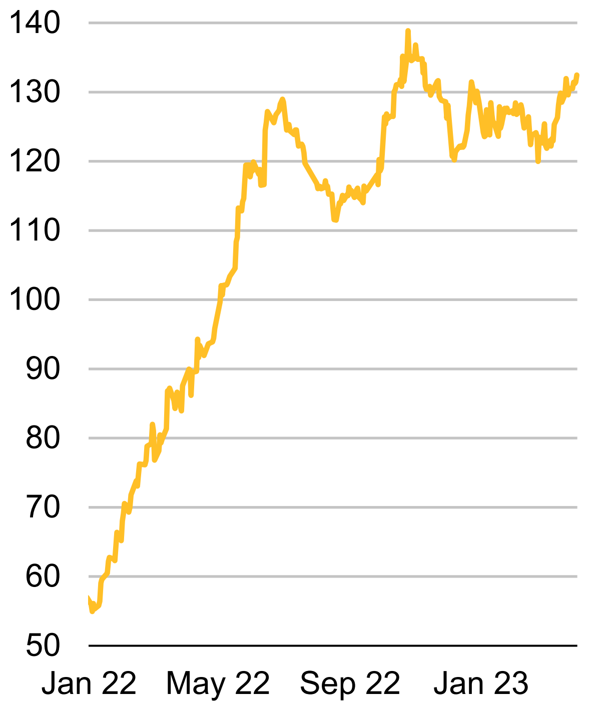
Investor Entry Point Is Attractive Today

Higher yields, wide credit spreads and supportive Fed

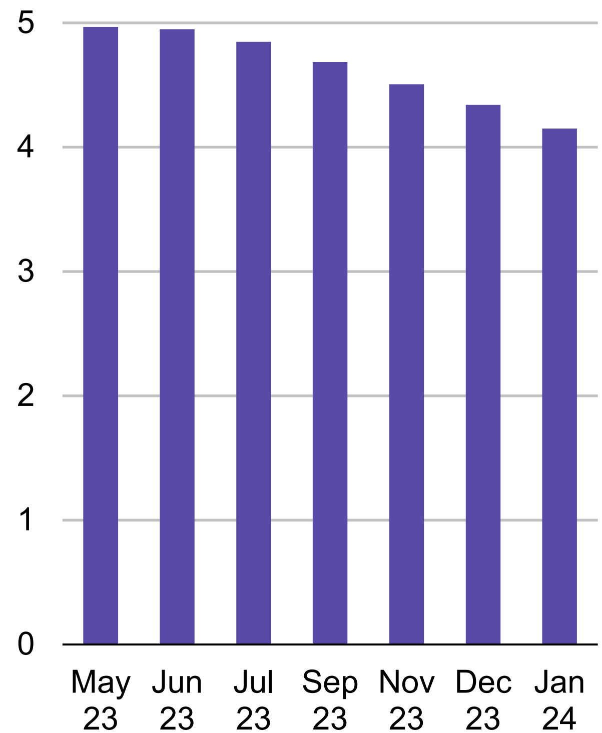
Bloomberg Municipal Index Yield to Worst (Percent)



BBB Municipal Credit Spreads
Basis points



Market-Implied Fed Funds Rate
Percent



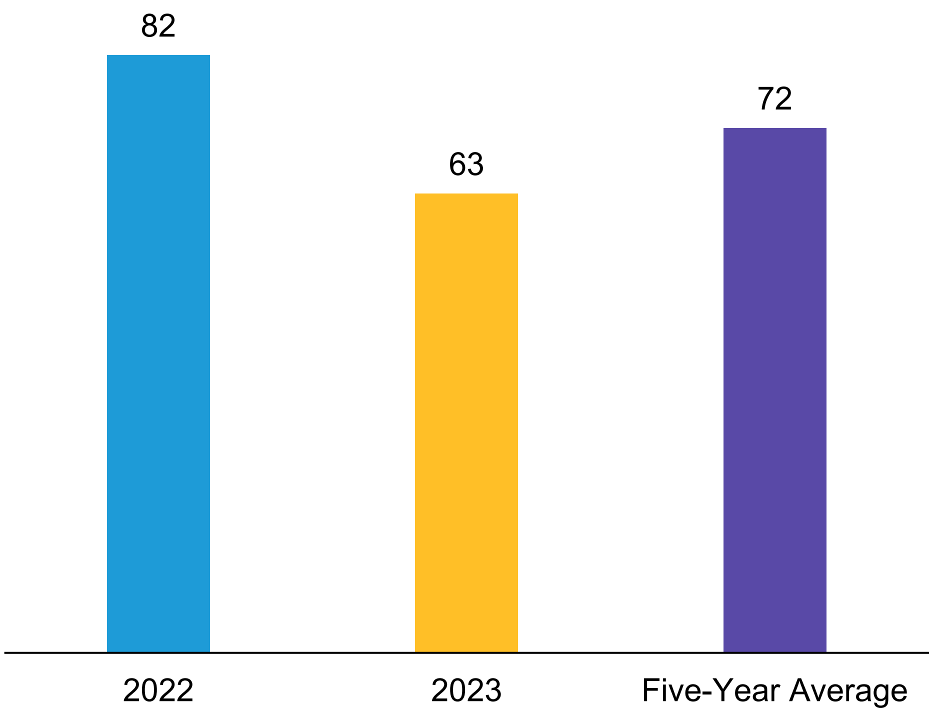
Past performance does not guarantee future results. There is no guarantee any investment objective will be achieved.
As of March 31, 2023
Source: Bloomberg, Municipal Market Data and AB

Technical Environment Provides Support

Low supply and increased demand as we move into summer months

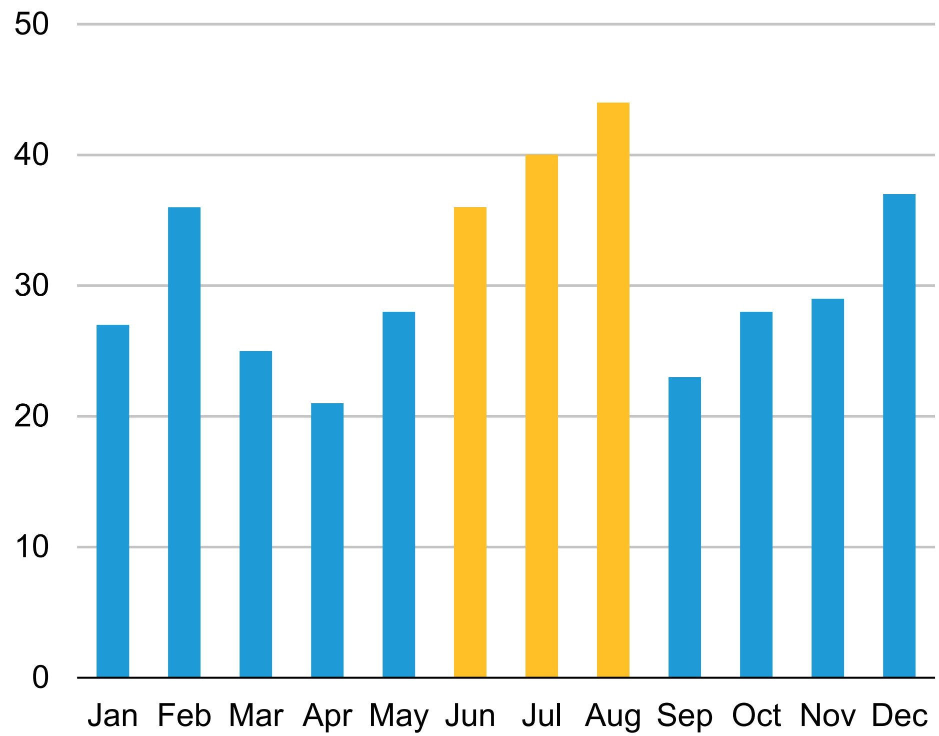
Tax-Exempt New Issue Supply Has Been Low

Billions



Summer Reinvestment Capital Is Supportive

Percent



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

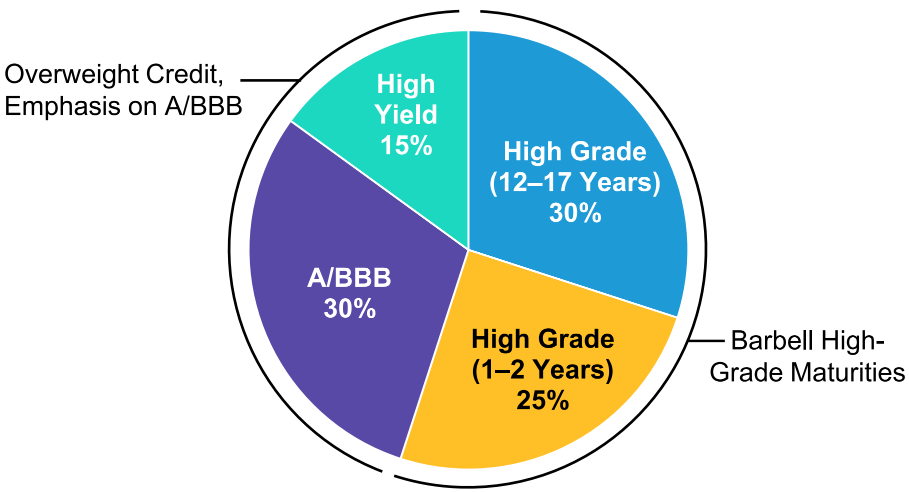
As of March 31, 2023

Source: J.P. Morgan and AB

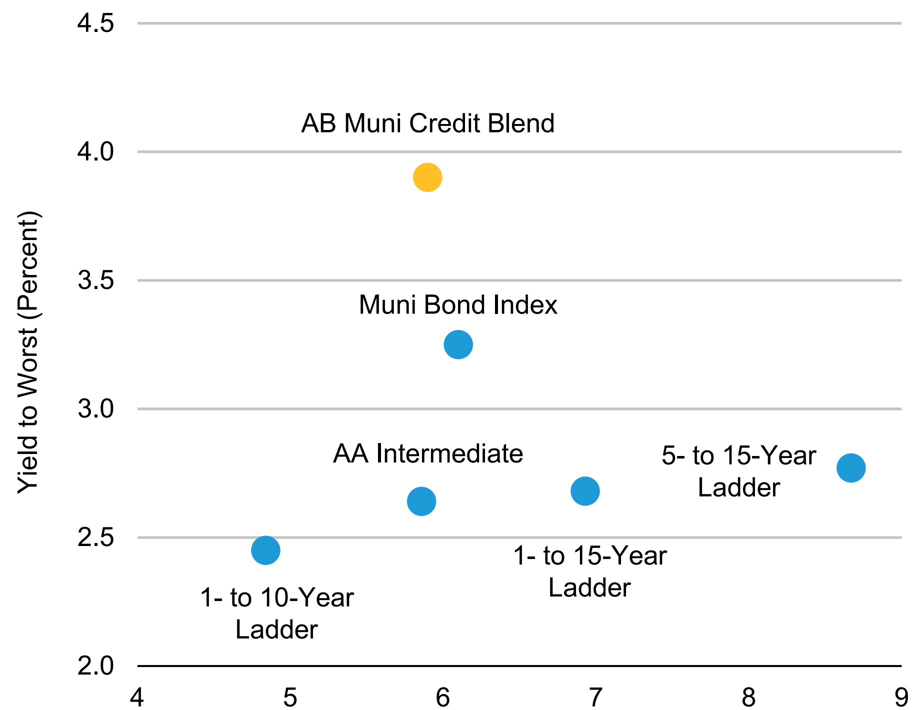
Portfolio Construction for Today's Environment

Overweight municipal credit, duration neutral and barbell maturity structure

AB Municipal Credit Blend



Active Better Positioned than Passive



Current analysis does not guarantee future results.

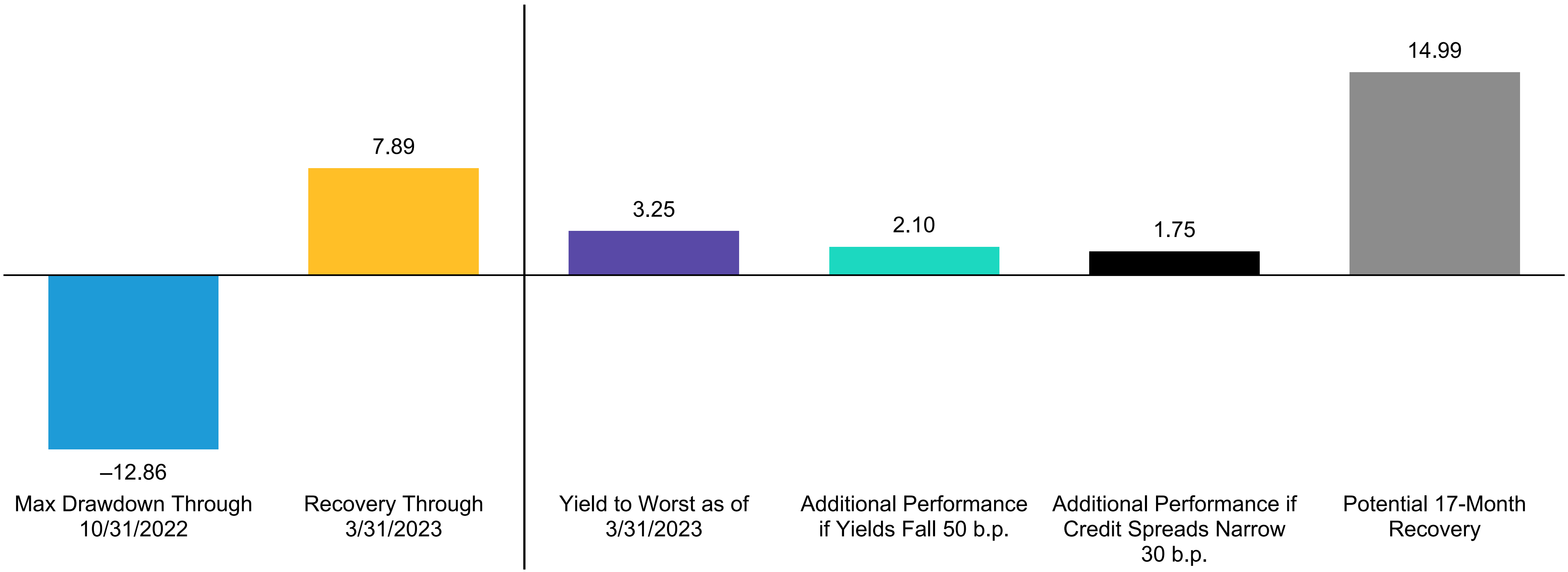
AB Muni Credit Blend is a blend of Bloomberg Muni Indices: 55% high grade, 30% A/BBB and 15% high yield.

As of March 31, 2023

Source: Bloomberg and AB

The Path to Even for Investors Is Well on Its Way

The Path Back to Even for Investors



Past performance does not guarantee future results. There is no guarantee any investment objective will be achieved.
Analysis provided for illustrative purposes only and is subject to revision. Hypothetical analysis based on total return components. There is no guarantee any investment objective will be achieved. Characteristics are subject to change. Numbers may not sum due to rounding. Yield and duration metrics are representative of the Bloomberg Municipal Index. Twelve-month scenario analysis assumes BBB spreads compress 30 basis points and US Treasury yields falling 50 basis points and an assumed duration of six years.
As of March 31, 2023
Source: Bloomberg, Moody's, Municipal Market Data and AB

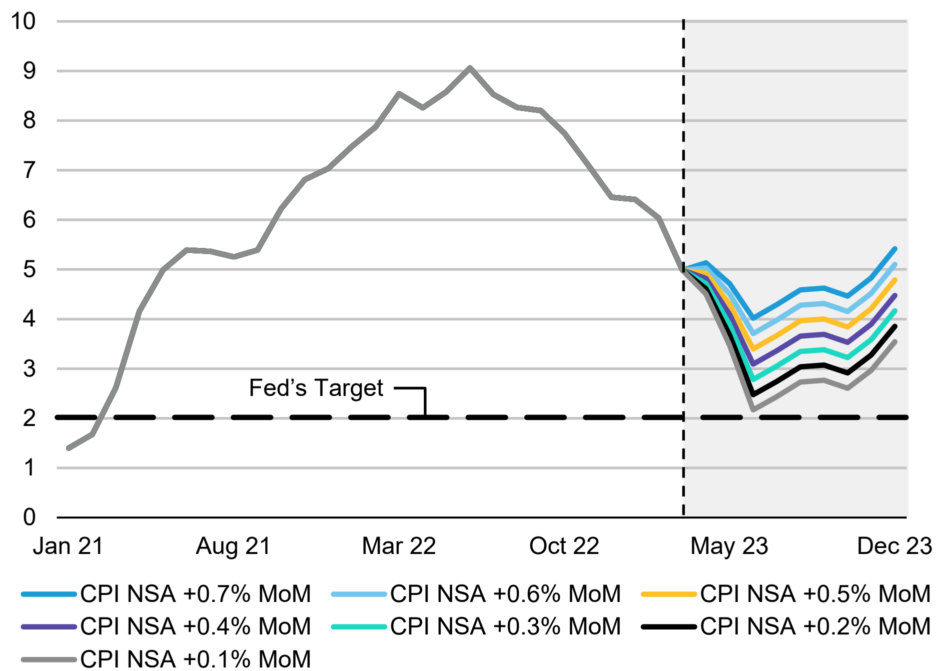
Appendix

Choose Your Own Adventure: Inflation Edition

June 2023 Likely to See Headline CPI Low for the Year
Headline CPI (percent)

Date	YoY CPI: +0.7% MoM	YoY CPI: +0.6% MoM	YoY CPI: +0.5% MoM	YoY CPI: +0.4% MoM	YoY CPI: +0.3% MoM	YoY CPI: +0.2% MoM	YoY CPI: +0.1% MoM
Jun 2023	4.0	3.7	3.4	3.1	2.8	2.5	2.2
May 2023	4.7	4.5	4.3	4.1	3.9	3.7	3.5
Apr 2023	5.1	5.0	4.9	4.8	4.7	4.6	4.5
Mar 2023	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Feb 2023	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Jan 2023	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Dec 2022	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Nov 2022	7.1	7.1	7.1	7.1	7.1	7.1	7.1
Oct 2022	7.7	7.7	7.7	7.7	7.7	7.7	7.7
Sep 2022	8.2	8.2	8.2	8.2	8.2	8.2	8.2
Aug 2022	8.3	8.3	8.3	8.3	8.3	8.3	8.3
Jul 2022	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Jun 2022	9.1	9.1	9.1	9.1	9.1	9.1	9.1

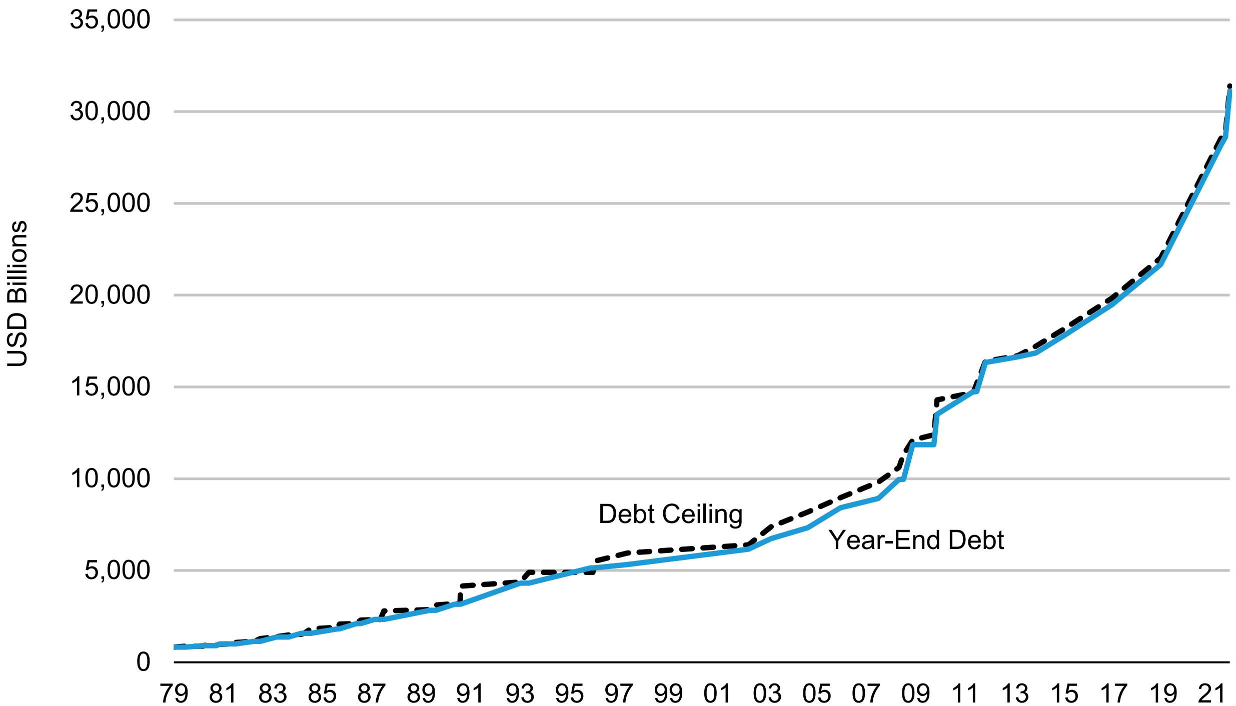
But the Final Path Remains Uncertain and the Second Half of 2023 Likely Includes an Inflation Bounce (Percent)



Historical analysis and current forecasts do not guarantee future results.
YoY: year over year; MoM: month over month
Left display: blue shaded rows coincide with path as defined in the column header; additional rows are actual YoY numbers. Right display: April 2023–June 2023 follows month-over-month growth as defined by the legend. July 2023–December 2023 assumes +0.3% month-over-month growth universally
As of April 13, 2023
Source: Bloomberg and AB

Debt Ceiling 101

What Is the Debt Ceiling?



Prior to 1917, US government borrowing was approved on a use-specific basis. In 1917, borrowing was changed to approval at an aggregate level more similar to today. Between World War I and World War II, the form of statutory restrictions on federal debt evolved into the modern debt ceiling. The government could borrow as needed up to a total debt limit (aka, the debt ceiling).

The debt ceiling, or debt limit, is the maximum amount of money that the federal government can borrow to meet its existing legal obligations.

Existing legal obligations consist of the accumulated sum of **past** deficit spending by the US government.

The debt ceiling is not directly tied to future government spending but has become a tool of leverage for future budget negotiations.

Historical analysis and current forecasts do not guarantee future results.

As of March 20, 2023

Source: Bloomberg, Congressional Research Service, Federal Reserve Bank of St. Louis, US Department of the Treasury, The White House and AB

From Here to There? Possible Steps in Gaming the Precipice

First, Extraordinary Measures…

What are extraordinary measures?
At a high level, they are accounting maneuvers that the US Treasury can utilize to reduce expenditures

In a January release, the US Treasury highlighted these four areas as primary ones for consideration:

(1) Redeeming existing, and suspending new, investments of the Civil Service Retirement and Disability Fund and the Postal Service Retiree Health Benefits Fund; (2) Suspending reinvestment of the Government Securities Investment Fund; (3) Suspending reinvestment of the Exchange Stabilization Fund; and (4) Suspending sales of State and Local Government Series Treasury securities. These measures will continue to be evaluated on an ongoing basis.

Would it work?
Fortunately/unfortunately, this is not the first time extraordinary measures have been used, and they do extend the x-date. In addition, once the debt ceiling passes, these accounts would be "made whole." However, historically these steps come with increased costs and higher volatility

…Then, Prioritizing Payments??

"House Republicans Want Government Credit to Take Priority If Debt Limit Is Breached"

—*Bloomberg*, March 9, 2023

What does it mean to prioritize payments?
As per the US Treasury, the debt limit is the total amount of money that the United States government is authorized to borrow to meet its existing legal obligations, including Social Security and Medicare benefits, military salaries, interest on the national debt, tax refunds, and other payments.

At a high level, it would mean making payments related to US Treasury debt in lieu of other obligations in order to avoid default.

Would it work?
This a highly uncertain proposition. Aside from the legal questions as it currently stands, and the technology questions (the viability of isolating specific payouts to pay versus others), there is simply the question of how the market—and those entities not getting paid—would react to such an unprecedented step.

When Is a Default Not a Default?

Kicking the can day by day

If Treasury does miss a payment, is the security still transferable?
Treasury can, in principle, delay coupon or principal payment dates. If Treasury announces its intention to postpone a payment date in advance (the day before the payment is due), the security will remain in Fedwire, and would therefore still be transferable. The Uniform Offering Circular does not address delayed/missed payments.

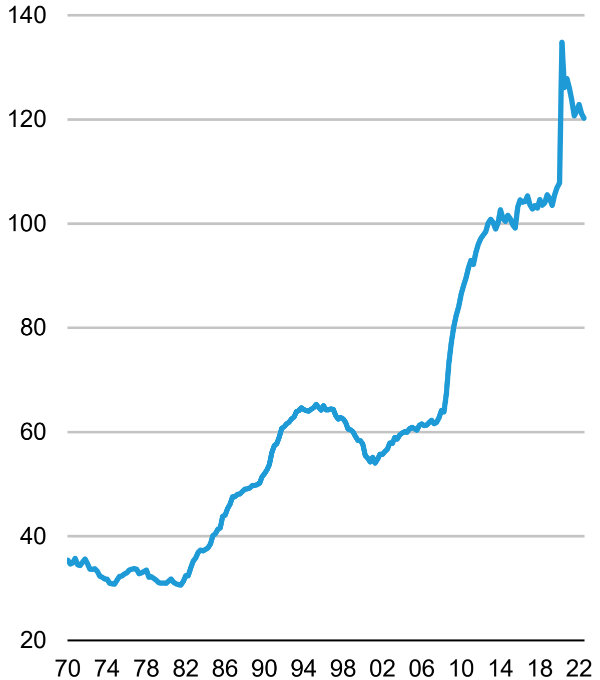
If payments are delayed, how are the delay times likely to be decided?
If Treasury were to delay its payment obligations, J.P. Morgan expects it would extend the payment date by one day at a time. For example, if Treasury anticipates it would not be able to make a payment that is due on a Tuesday, it can send a notice on Monday stating that it would extend the payment due date by one day to the following Wednesday. This process can be continued until Treasury has enough cash to make the payment.

When does a Treasury security drop out of the system? What will happen to the defaulted security?
According to the Securities Industry and Financial Markets Association, if Treasury fails to notify investors of its intent to delay a principal payment due the following day by 11:59:59 PM EST, the security in question will drop out of Fedwire, and such defaulted security will not be transferable. If (only) a coupon payment is missed, however, the underlying security is still in the system and remains transferable. In both cases, the holder on record as of the date of the original failure to pay will hold a receivable from Treasury associated with the missed payment (and the receivable cannot be transferred).

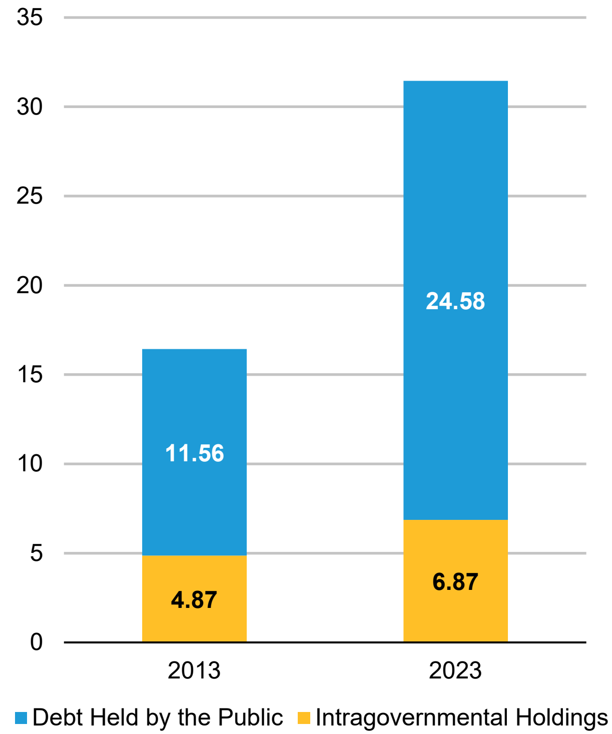
Historical analysis and current forecasts do not guarantee future results.
As of March 20, 2023
Source: J.P. Morgan, US Department of the Treasury and AB

Contextualizing US Debt Levels: Debt Relative to Output

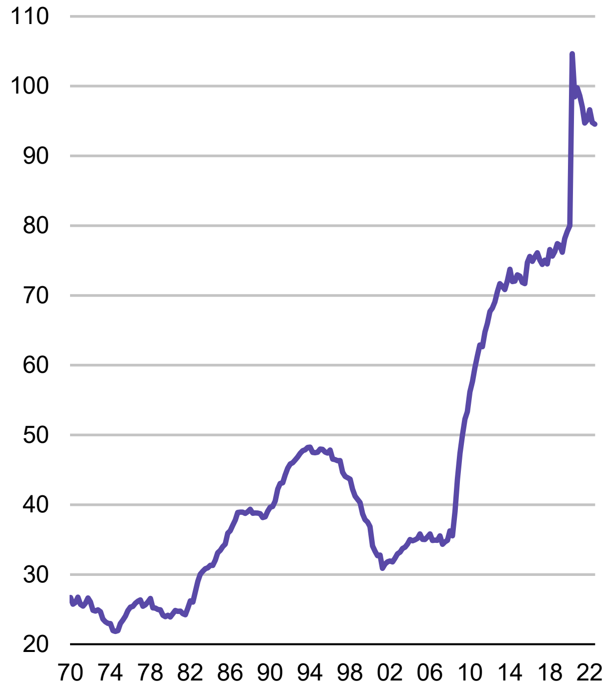
Debt to GDP (Percent)



Who Owns the Debt? (Trillions)



Public Debt to GDP (Percent)



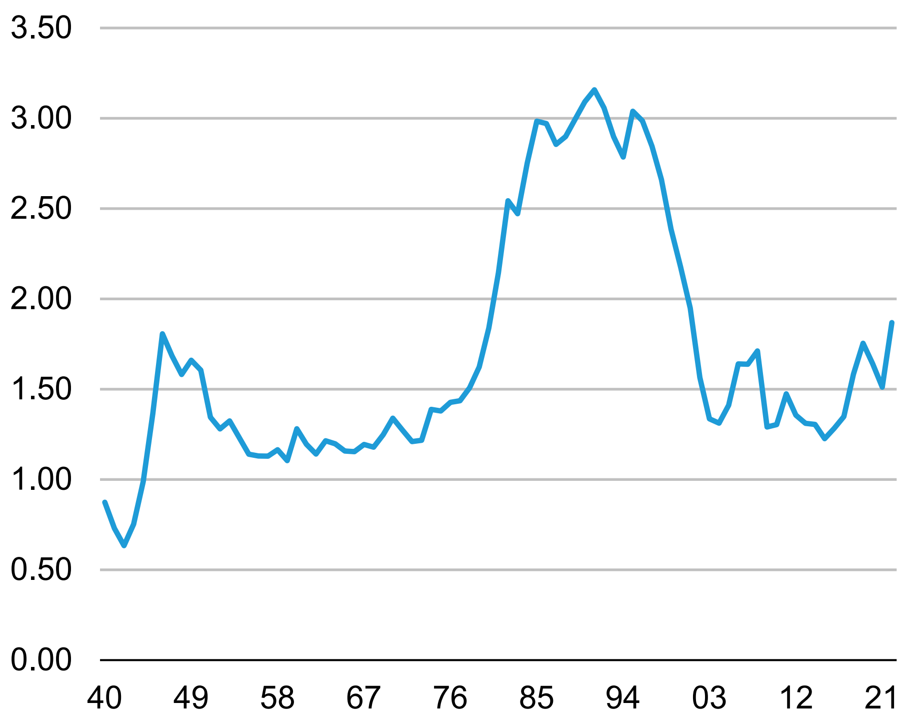
Historical analysis and current forecasts do not guarantee future results.

As of March 20, 2023

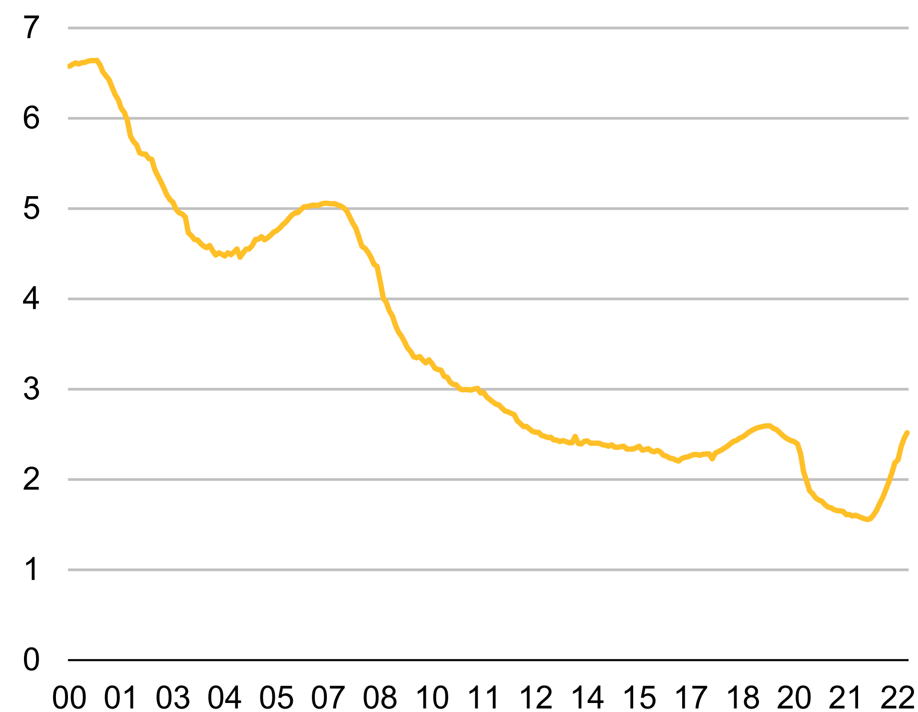
Source: Bloomberg, Federal Reserve Bank of St. Louis, US Department of the Treasury and AB

Low Rates Have Allowed for Low Debt Service Costs

US Yearly Interest as a Percent of GDP



Despite Recent Rise, the Average Interest Rate on US Treasury Securities Remains Low



Historical analysis and current forecasts do not guarantee future results.
As of March 20, 2023
Source: Bloomberg, Pew Research Center and AB

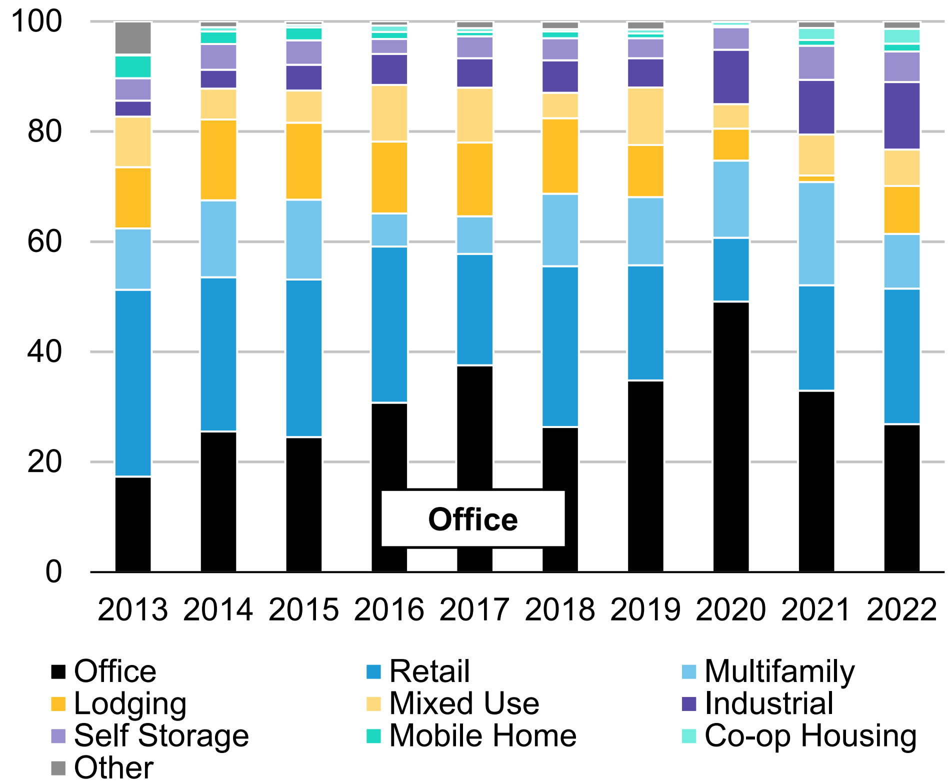
Commercial Mortgage Market Is Challenged; Picking Your Spots Is Critical

Fundamentals Vary by Property Types

- **Office space** is highest concern due to much lower demand
  - More recent vintages have higher exposure to offices; longer-term leases give them runway to re-tenant the space
  - Older vintages have less exposure to offices and have benefited from increases in property prices
- **Non-mall retails** have been resilient as consumers continue to shop; **regional malls** remain a concern due to refinancing
- **Limited-service hotels** benefit from more domestic travel for leisure; **full-service hotels** continue to show recovery in cash flows and occupancies
- **Multifamily** collections/vacancies are in check thanks to strong household balance sheets; reduced affordability is pushing many potential homeowners to continue to rent
- **Industrial properties/data centers** are the biggest winners due to the shift in online retailing/increased use of cloud computing

Older Vintages Have Lower Exposure to Offices

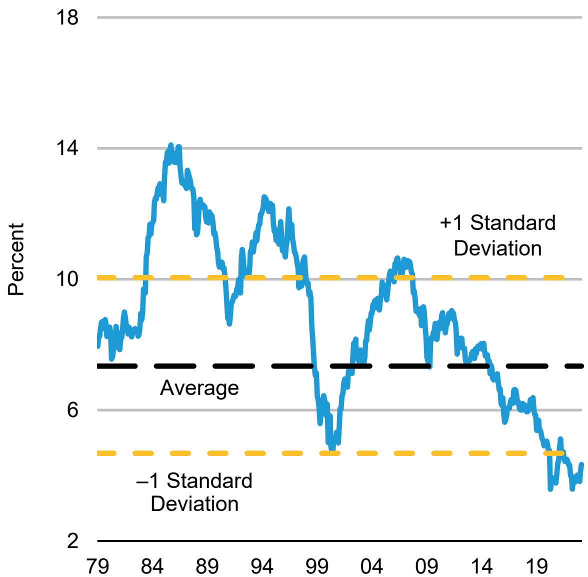
Conduit office exposure by vintage (percent)



Historical analysis does not guarantee future results.
As of March 31, 2023
Source: Bloomberg, Real Capital Analytics and AB

A Strategic Case for Small-Cap Stocks

Small-Caps Are Still at 4.3% of the Equity Market and Present a Rebalancing Opportunity



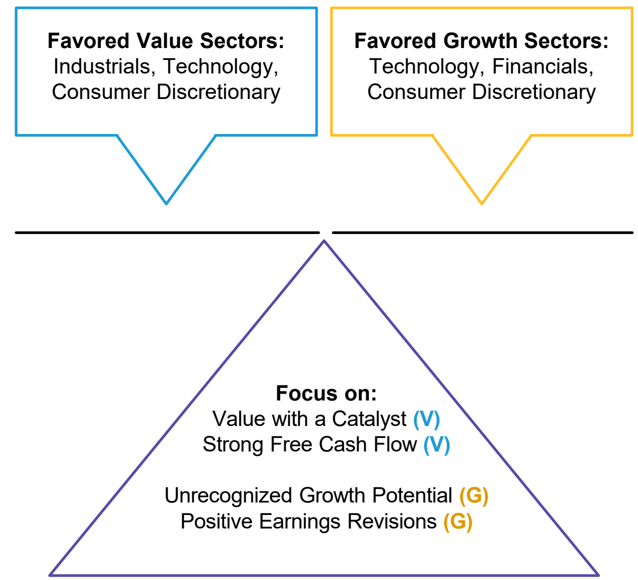
- Such a scant portion of the overall market remains at historic lows

Small-Cap Performance Typically Rebounds After a Negative Year

Performance Following Negative Year			
Year	**Russell 2000**	**Next 12 Months**	**Next Three Years***
2008	–33.8	27.2	–6.1
2002	–20.5	47.3	6.3
2022	**–20.4**	**?**	**?**
1990	–19.5	46.1	11.0
2018	–11.0	25.5	8.6
1987	–8.8	24.9	6.4
1984	–7.3	31.1	16.2
2015	–4.4	21.3	6.7
2011	–4.2	16.3	12.2
2000	–3.0	2.5	6.4
1998	–2.5	21.3	13.1
1994	–1.8	28.4	14.5
2007	–1.6	–33.8	–8.3
	Average	**21.5**	**7.3**
	% Positive	**92%**	**83%**

- Historically, small-cap performance has been positive following years of underperformance

Maintain an Even Measure Between Small/SMID Value and Growth Styles



- Stay selective: a focus on profitability in value and positive earnings revisions in growth

Past performance does not guarantee future results.

*Next-three-year returns are annualized

Left display as of February 28, 2023; middle and right displays as of March 31, 2023

Source: Center for Research in Security Prices, FTSE Russell, Jefferies, University of Chicago Booth School of Business and AB

Dollar-Cost Averaging During Uncertainty Is Often Better than Waiting for the All-Clear Signal

Peak Month	Trough Month	12-Month Return Following Trough	12-Month Return Following Trough: Excluding Best Five Days	12-Month Return Following Trough: Three-Month DCA Strategy
5/29/1946	5/19/1947	26%	6%	16%
12/12/1961	6/26/1962	37%	21%	16%
2/9/1966	10/7/1966	37%	25%	28%
11/29/1968	5/26/1970	49%	28%	40%
1/11/1973	10/3/1974	44%	20%	33%
11/28/1980	8/12/1982	66%	37%	44%
8/25/1987	10/19/1987	28%	–1%	21%
9/1/2000	10/9/2002	36%	13%	24%
10/9/2007	3/9/2009	72%	35%	44%
2/19/2020	3/23/2020	78%	34%	51%

Past performance does not guarantee future results. Diversification does not eliminate the risk of loss.

DCA: dollar-cost averaging

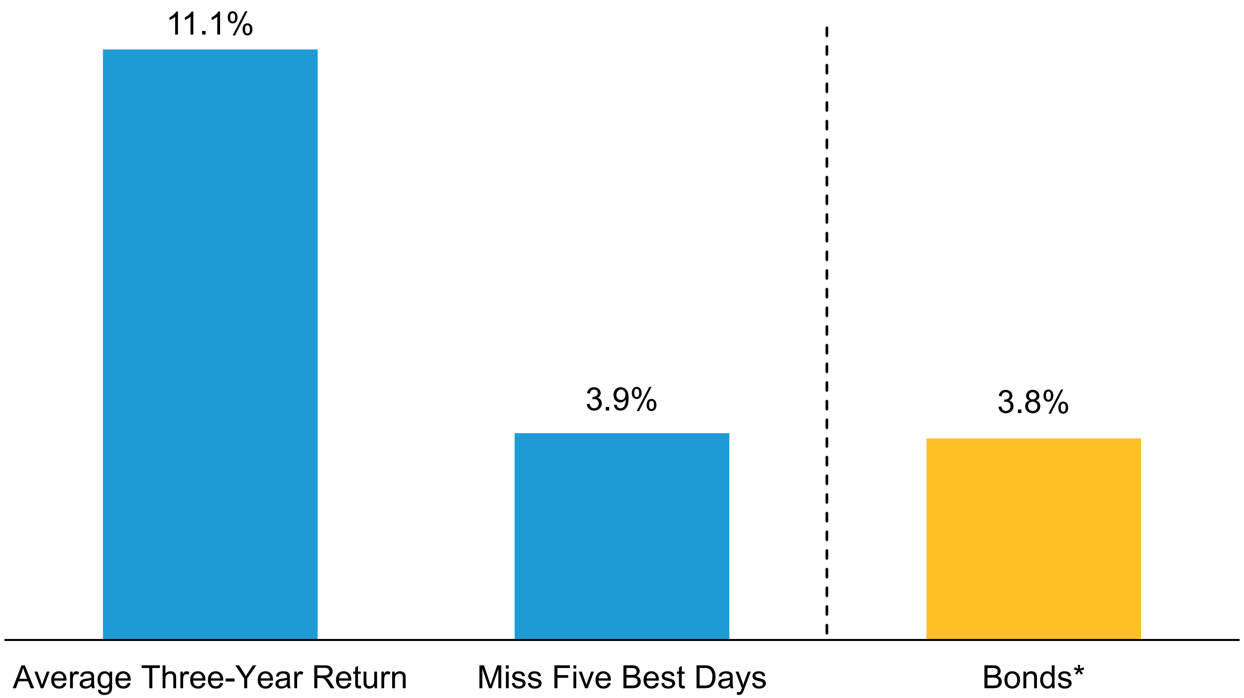
Sell-offs are defined as a market decline of 20% from its previous high through the lowest close after the 20% decline. All returns in this analysis are based on the S&P 500 Total Return Index, which includes gains from price returns and dividend returns. Recoveries are defined as the day after the trough that the Total Return Index reaches a level higher than the prior peak. Dollar-cost averaging does not eliminate the risk of loss.

As of December 31, 2022

Source: Bloomberg, S&P and AB

Timing the Market Means Getting Out and Getting Back In

S&P 500 Rolling Three-Year Returns, Annualized, 1988–2022



The Cost of Missing Out

- Getting out in advance of a major sell-off is difficult to time. Getting back in is equally difficult
- Further, the after-tax impact makes the hurdle for success even higher
- More often than not, investors miss out on further upside rather than downside
- Missing just the five best days over a three-year period can be detrimental

Past performance is not necessarily indicative of future results. There is no guarantee that any estimates or forecasts will be realized.
*Bonds represented by the average of the monthly rolling one-year return of the Lipper Short/Intermediate Municipal Bond Fund Average from January 1988–September 2022.
As of December 31, 2022.
Source: Bloomberg, Lipper, S&P and AB

Cross-Market Trades Have Benefits

Munis went from expensive to cheap then back to expensive at the end of the quarter

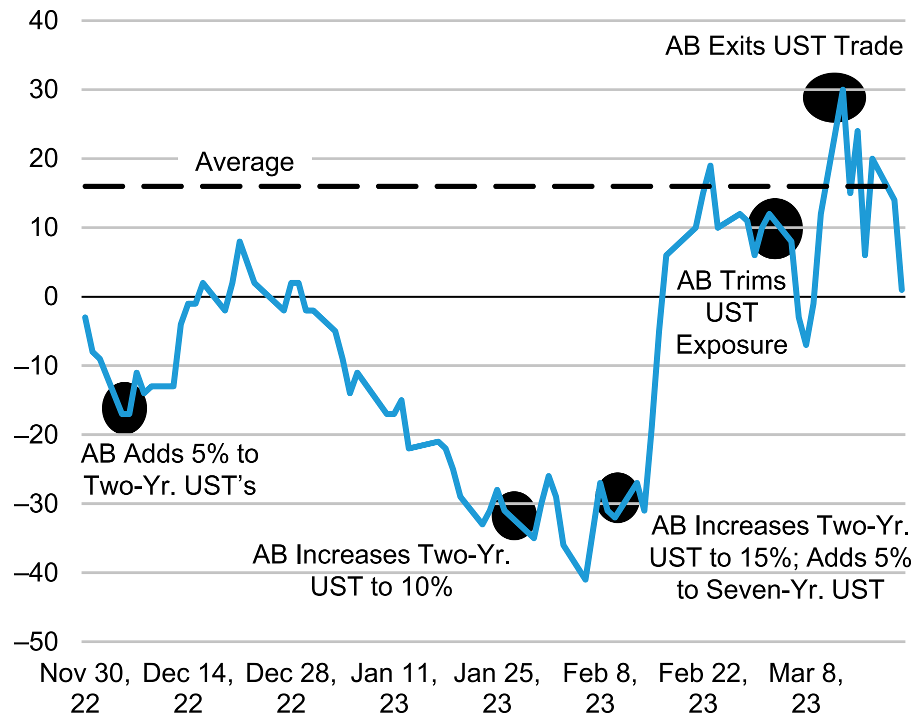
AAA Muni vs. UST After-Tax Spreads

Basis points

Maturity	Dec 31, 2022	Feb 6, 2023	Mar 20, 2023	Mar 31, 2023	Five-Yr. Average
2Y	–4	–42	14	–4	17
5Y	13	-20	18	6	23
10Y	38	11	33	23	52
15Y	84	69	90	76	74
20Y	91	72	94	83	82
30Y	124	102	125	113	91

Two-Year AAA Muni/UST After-Tax Spread

Basis points



For illustrative purposes only. There is no guarantee any investment objective will be achieved.

UST: US Treasury

Tax rate used is 40.8%

As of March 31, 2023

Source: Bloomberg, Municipal Market Data 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: I**ncludes 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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