PitchBook

QUANTITATIVE PERSPECTIVES

# The Waiting Game

Q4 2023

# The Waiting Game

## Introduction

Economic conditions are better than many people expected after a period of aggressive monetary tightening. Real growth is running above trend, the labor market has started to normalize without a material rise in unemployment, and inflation has cooled from very high levels. Despite this positive backdrop, a challenging dealmaking environment and a lack of exit routes have left many PE investors waiting for more clarity on where the economy, interest rates, and valuations are headed. Lower borrowing costs are likely a precondition for a material pickup in buyout activity, but despite the Federal Reserve (the Fed) now holding rates steady, significant rate cuts are unlikely to happen anytime soon. Meanwhile, sellers are not budging much on valuations and do not want to sell into a weak market as corporate buyers remain generally cautious on spending. These dynamics suggest sluggish PE conditions may grind along for the next several quarters.

The long-term outlook for the PE market has its own challenges. In particular, the recent rise in long-term bond yields has altered the risk/return trade-offs facing institutional investors. The near-zero interest rates and compressed risk premiums over the past decade helped fuel strong demand for PE as investors looked for ways to meet their return objectives. The re-emergence of attractive Treasury yields on an absolute and relative basis will have the opposite effect.

Published on November 13, 2023

## PitchBook Data, Inc.

**John Gabbert** Founder, CEO

**Nizar Tarhuni** Vice President, Institutional Research & Editorial

**Daniel Cook, CFA** Head of Quantitative Research

## Research

**Andrew Akers, CFA**
Sr. Quantitative Research Analyst
andrew.akers@pitchbook.com

## Contact

pbinstitutionalresearch@pitchbook.com

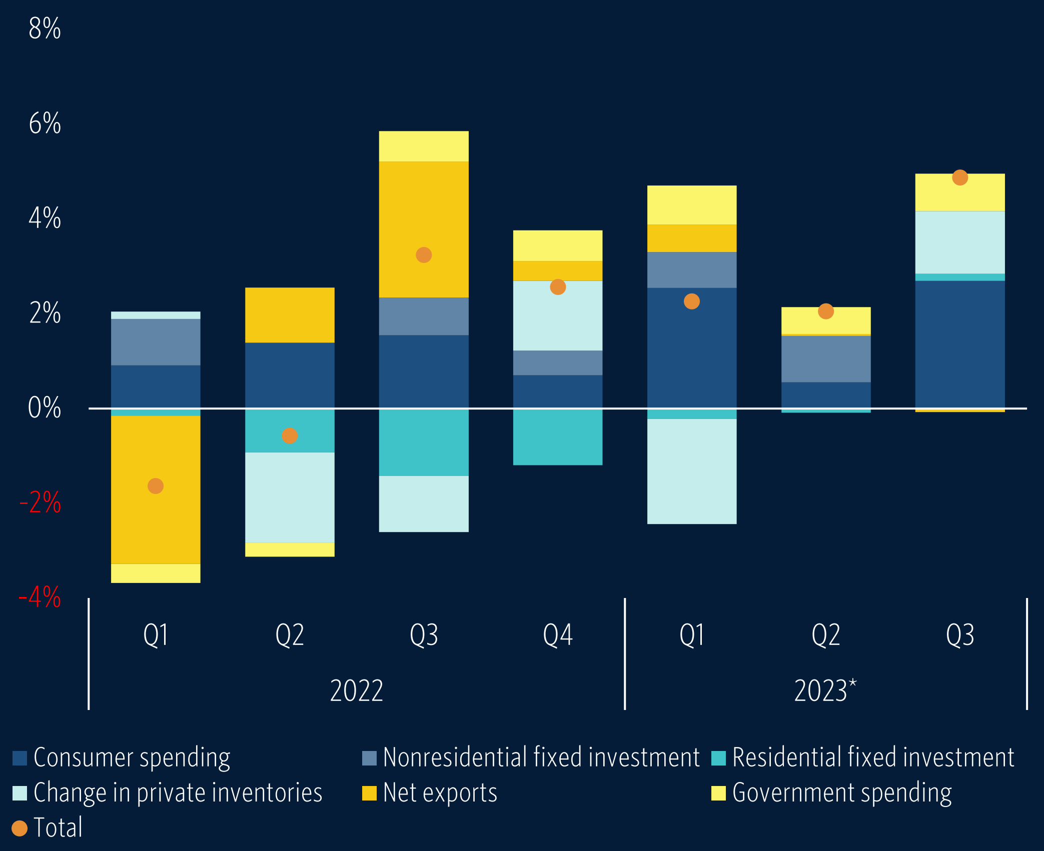
# The economic environment

## Key takeaways

- Economic growth has been much better than many expected this far into a monetary tightening cycle, with an annualized real GDP growth rate of 4.9% in the third quarter of 2023.
- Consumer spending has remained the key driver of overall economic growth even as the labor market has started to normalize in an orderly fashion, with employment growing at a moderate pace.
- Inflation has cooled in spite of strong real growth and a still-tight labor market, mainly due to increases in supply. Despite the recent positive developments, the big-picture view of inflation remains the same: With many disinflationary tailwinds dissipating, strong nominal income and spending growth point to underlying inflation remaining above the Fed's 2% target, barring a slowdown in real economic activity.
- Strong real growth and cooling inflation have been enabled in part by a much-larger-than-expected fiscal deficit, which is unlikely to persist in 2024.
- The Fed has not raised rates further at its last two meetings, leaving the target range of the federal funds rate sitting at 5.25% to 5.50%. This shifts the key question about monetary policy from how high rates will go to how long they will stay there. If the economy remains resilient, the bar will likely be high for the Fed to cut interest rates.
- Although many economists have abandoned their calls for a recession, our quantitative model still suggests an elevated recession risk over the next 18 months.

# Driven by consumer spending, growth has been much better than expected this far into a tightening cycle…

Contribution to quarterly annualized real GDP growth




Real growth in core GDP drivers (YoY)

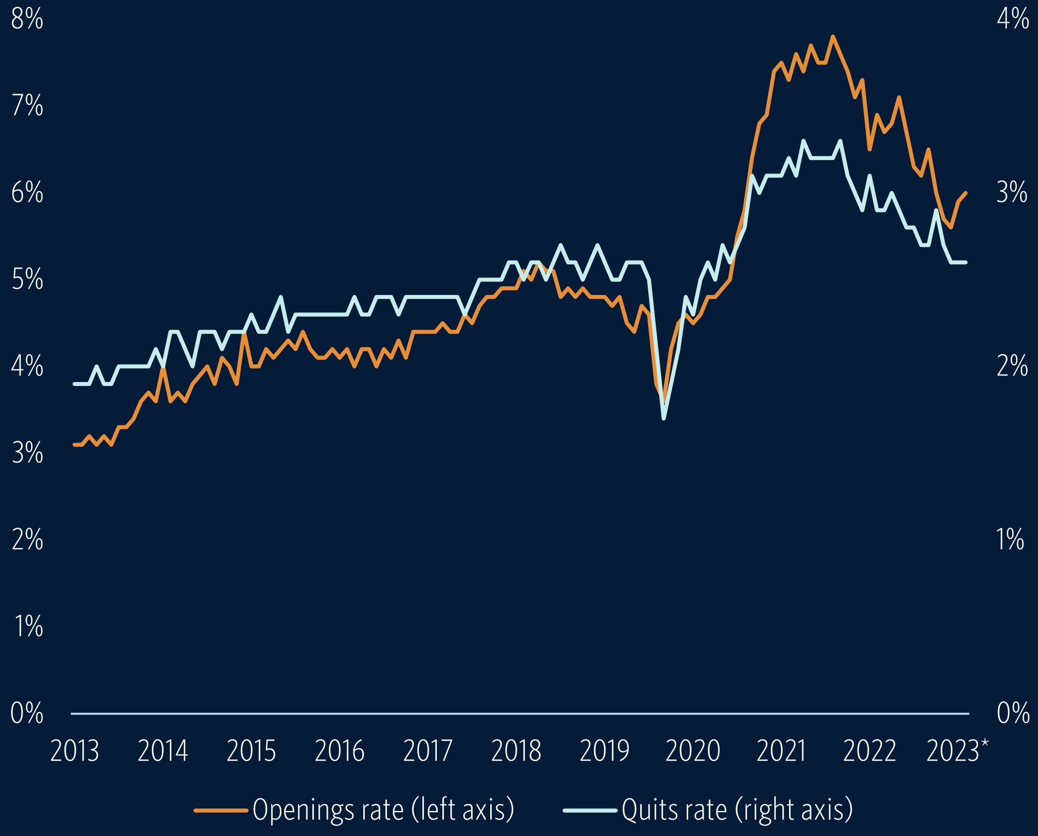

Source: Bureau of Economic Analysis • Geography: US
*As of September 30, 2023
*Note: Data for Q3 2023 is from the advanced GDP estimate.*

# …even as the labor market has slowly started to normalize…

Six-month annualized employment growth by survey


Source: Bureau of Labor Statistics • Geography: US
*As of October 31, 2023

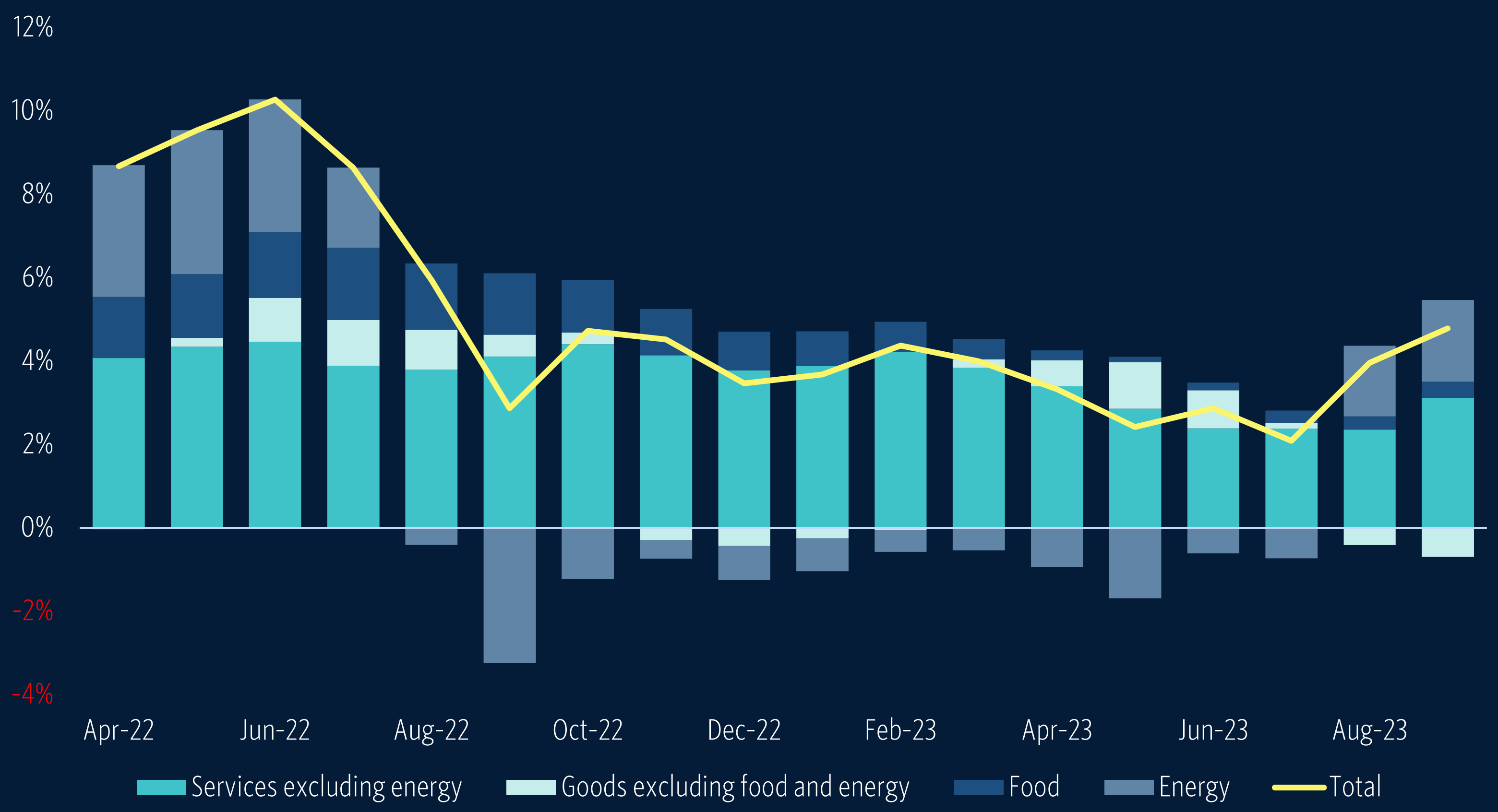
Job openings rate versus quits rate




Source: Bureau of Labor Statistics • Geography: US
*As of September 30, 2023

# ...and inflation has cooled from very high to moderately high levels, although higher energy prices are driving a short-term bounce.

Contribution to CPI inflation by major category (three-month annualized rate)*



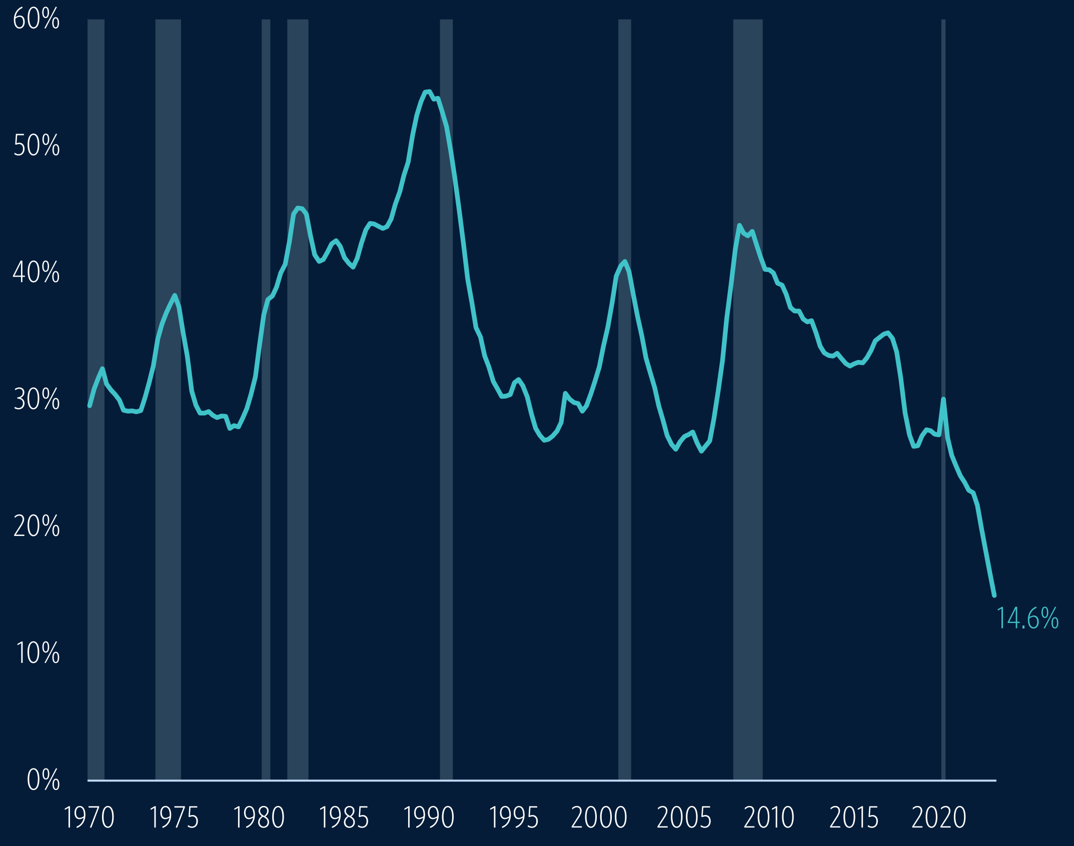

Sources: Bureau of Labor Statistics, PitchBook • Geography: US
*As of September 30, 2023

A remarkable supply-side recovery, along with cooling rent prices, has helped drive overall inflation back down to more moderate levels in 2023. However, now that supply chains have mostly recovered, the risk of a resurgence in inflation is elevated. This risk is heightened by rising energy prices, which, if persistent, will have flow-through impacts to inflation in other goods and services.

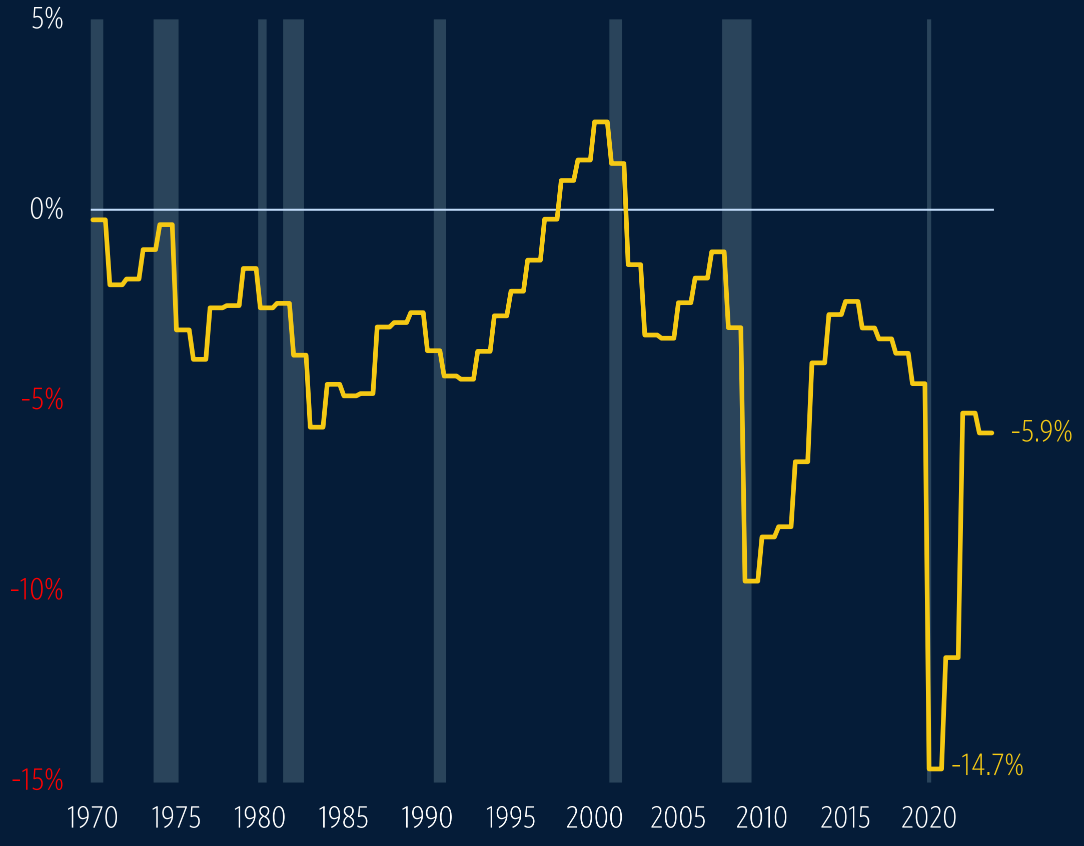
The big-picture view of inflation remains the same: With many disinflationary tailwinds dissipating, strong nominal income and spending growth points to underlying inflation remaining materially above the Fed's 2% target, barring a slowdown in real economic activity.

# These desirable economic conditions have been enabled by low corporate sensitivity to higher rates, surprisingly supportive fiscal stimulus…

Nonfinancial corporate net interest payments as a percentage of gross value added*



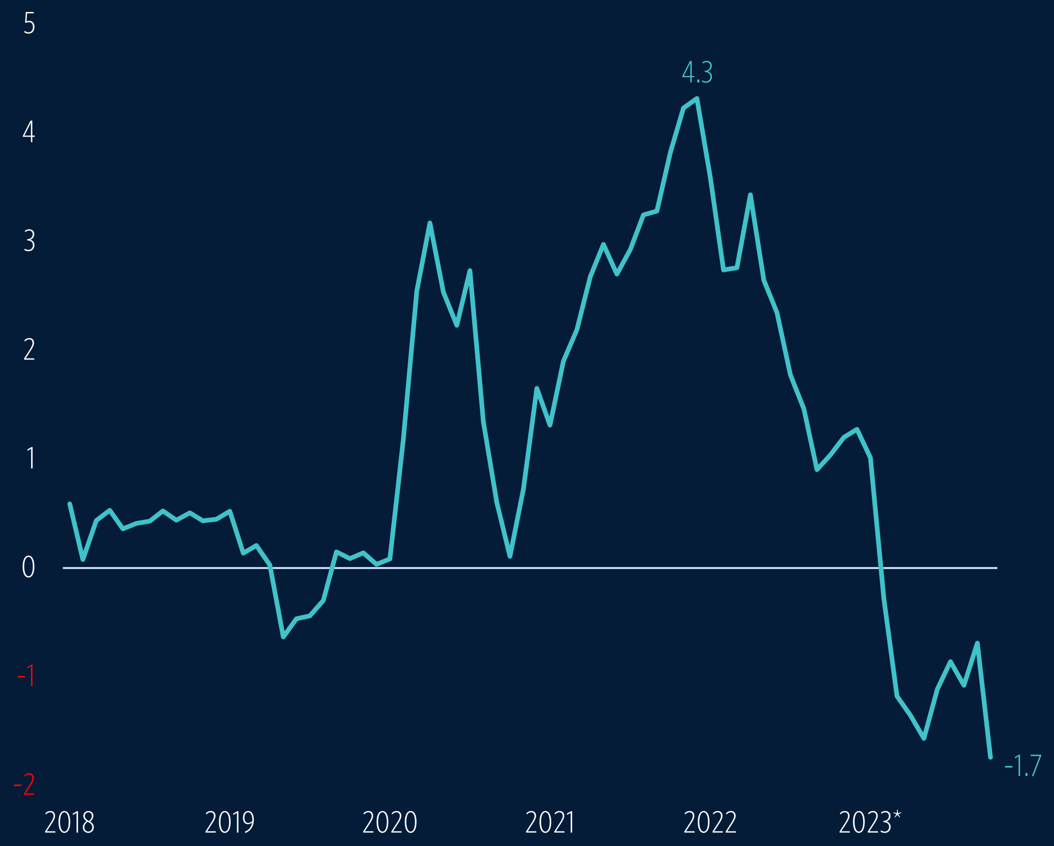

Fiscal deficit or surplus as a percentage of GDP*




Sources: Federal Reserve, Bureau of Economic Analysis, Congressional Budget Office • Geography: US
*As of June 30, 2023
*Note: The annual 2023 fiscal deficit figure of 5.9% is based off the latest CBO forecast made in June 2023. Shaded areas indicate recessions as defined by the NBER.*

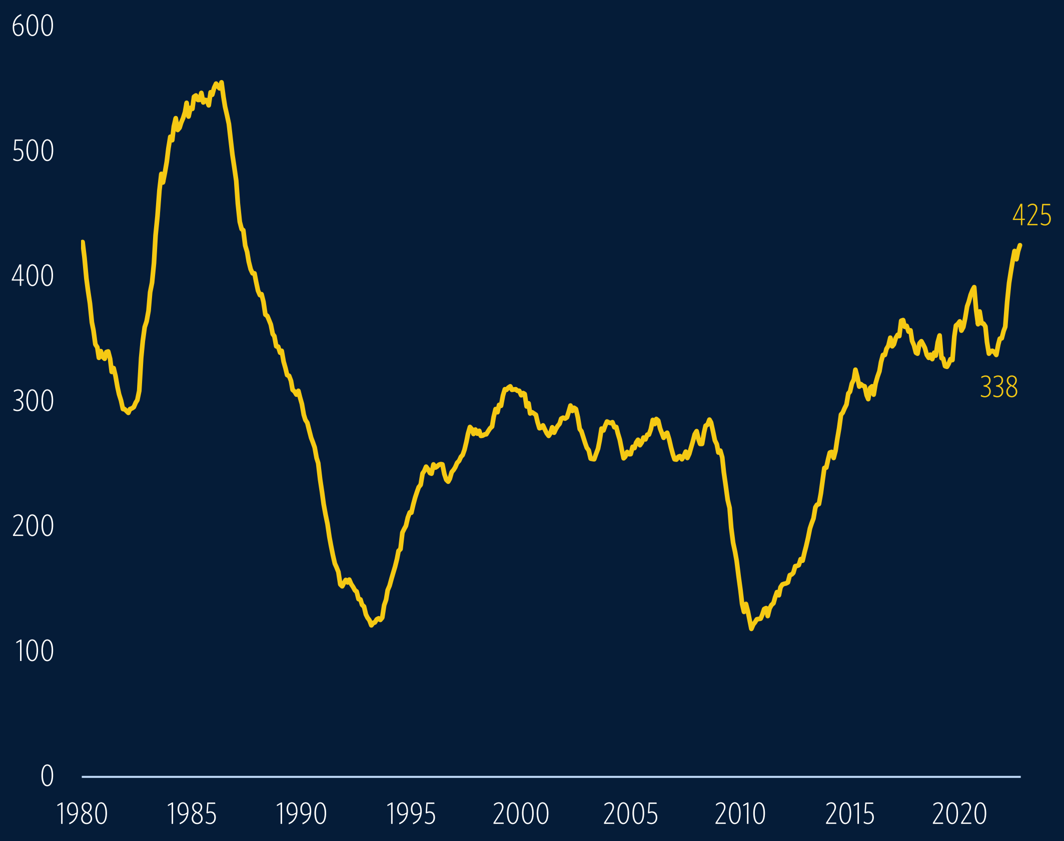
# …global supply chain recovery, and an influx of completed multifamily apartment buildings that have helped slow rent price inflation.

Global Supply Chain Pressure Index (Z-score)




Source: New York Fed • Geography: US
*As of October 31, 2023

Trailing 12-month multifamily housing units completed (thousands)*




Source: US Census Bureau • Geography: US
*As of September 30, 2023
*Note: Multifamily is defined as buildings with five or more units.*

# But inflation and wage growth indicate price levels may stabilize above the Fed's 2% target...

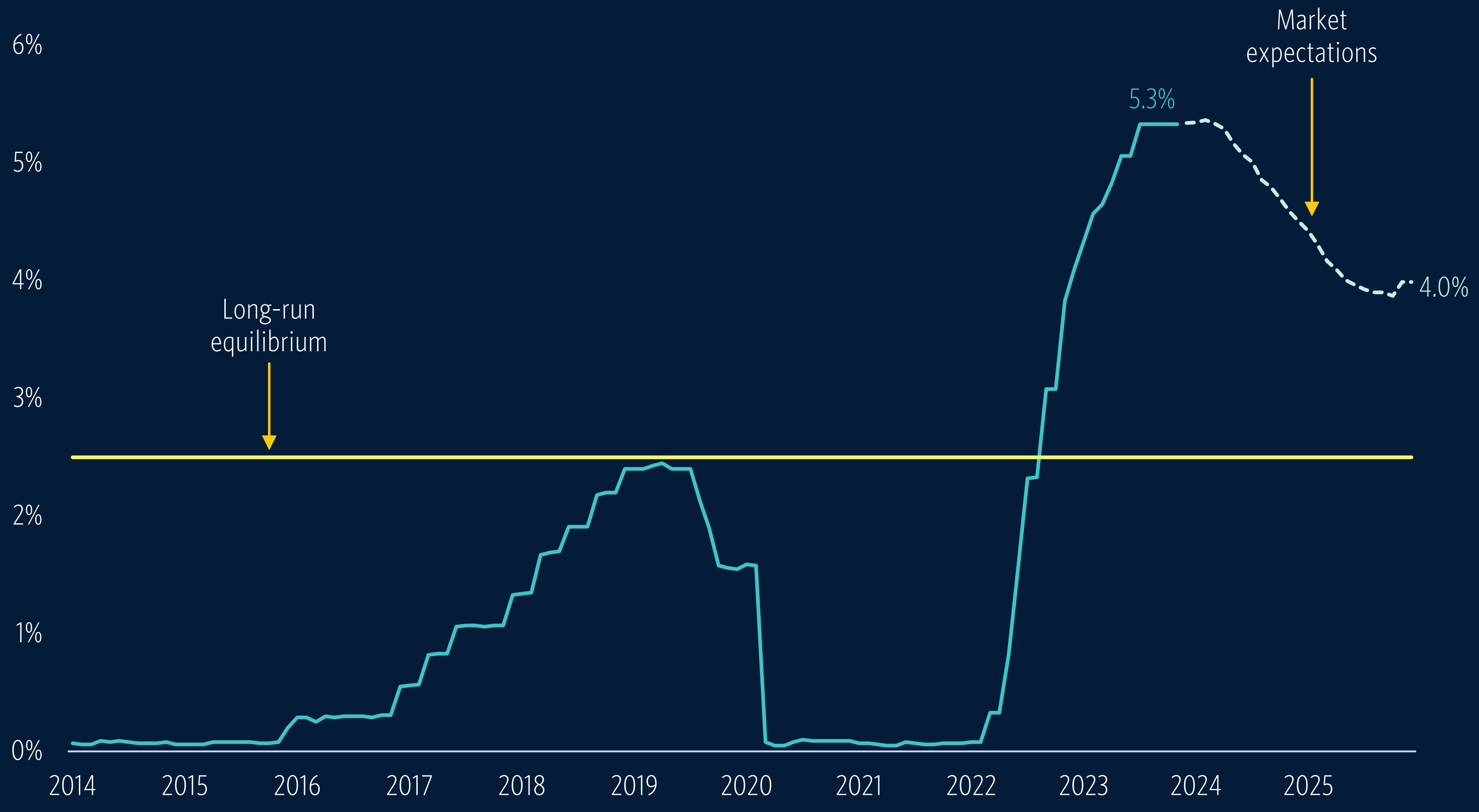
Select core inflation measures (three-month annualized)


Median wage growth (three-month annualized)


Sources: Bureau of Labor Statistics, Bureau of Economic Analysis, Atlanta Fed • Geography: US
*As of October 31, 2023

# …fueling the risk that, while the Fed may be done hiking, it will be reluctant to aggressively cut rates, contrary to market expectations.

Federal funds rate with market expectations*



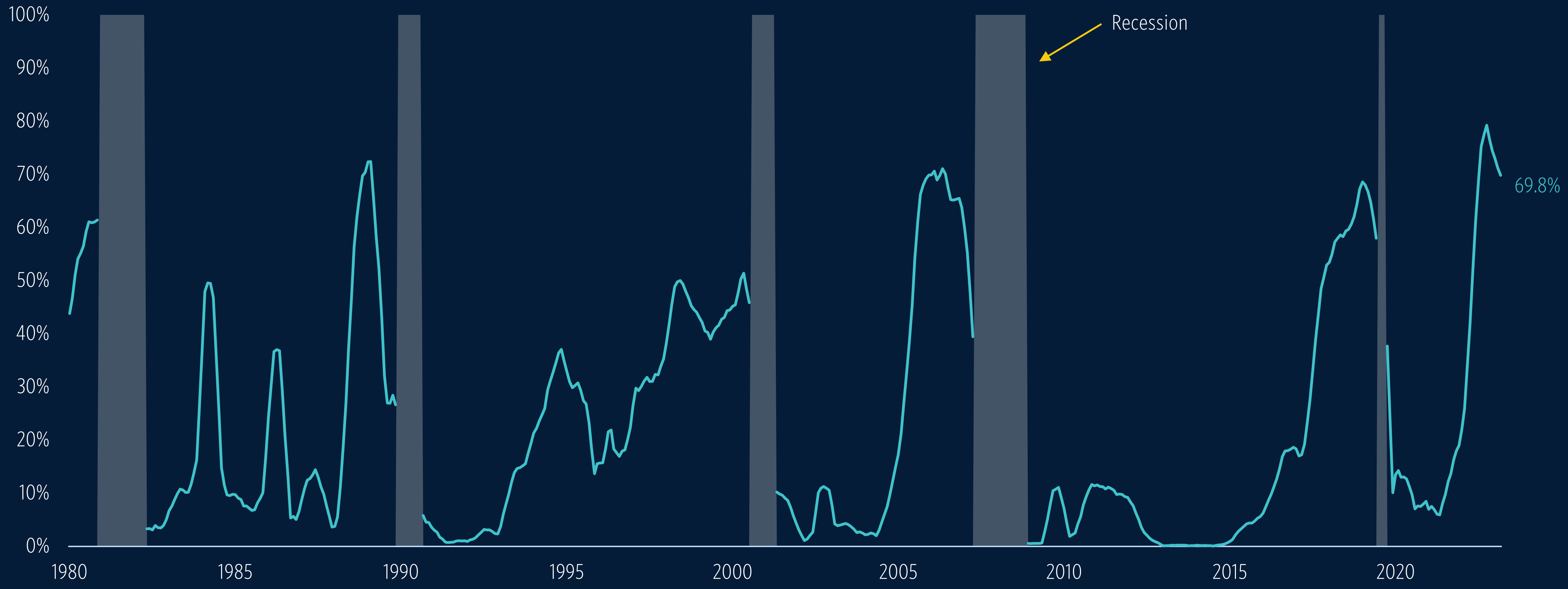

Sources: Federal Reserve, CME Group • Geography: US
*As of November 6, 2023
*Note: The long-run equilibrium is based on the Fed's latest Summary of Economic Projections.*

After pausing rate hikes in June, the Fed raised rates another 25 basis points in July before holding the target range of the federal funds rate at 5.25% to 5.50% at its next two meetings. Although the Fed has hinted at an additional hike this year, we think that it will most likely hold rates where they are.

The key question about monetary policy has now shifted from how high rates will go to how long they will remain restrictive. That will depend primarily on economic growth. If a recession does occur, we expect the Fed will act aggressively. However, if the economy remains resilient, we think the Fed will be reluctant to cut rates until inflation is running consistently around its 2% target. Given that underlying inflation appears to be stabilizing around 3%, there is a risk that short-term rates remain above 5% for the foreseeable future.

# Despite increased optimism for a soft landing, the risk of recession remains elevated.

Smoothed probability of a US recession occurring in the next 18 months*




Source: PitchBook • Geography: US
*As of October 31, 2023
*Note: Predictions are out-of-sample and not made during a recession.*

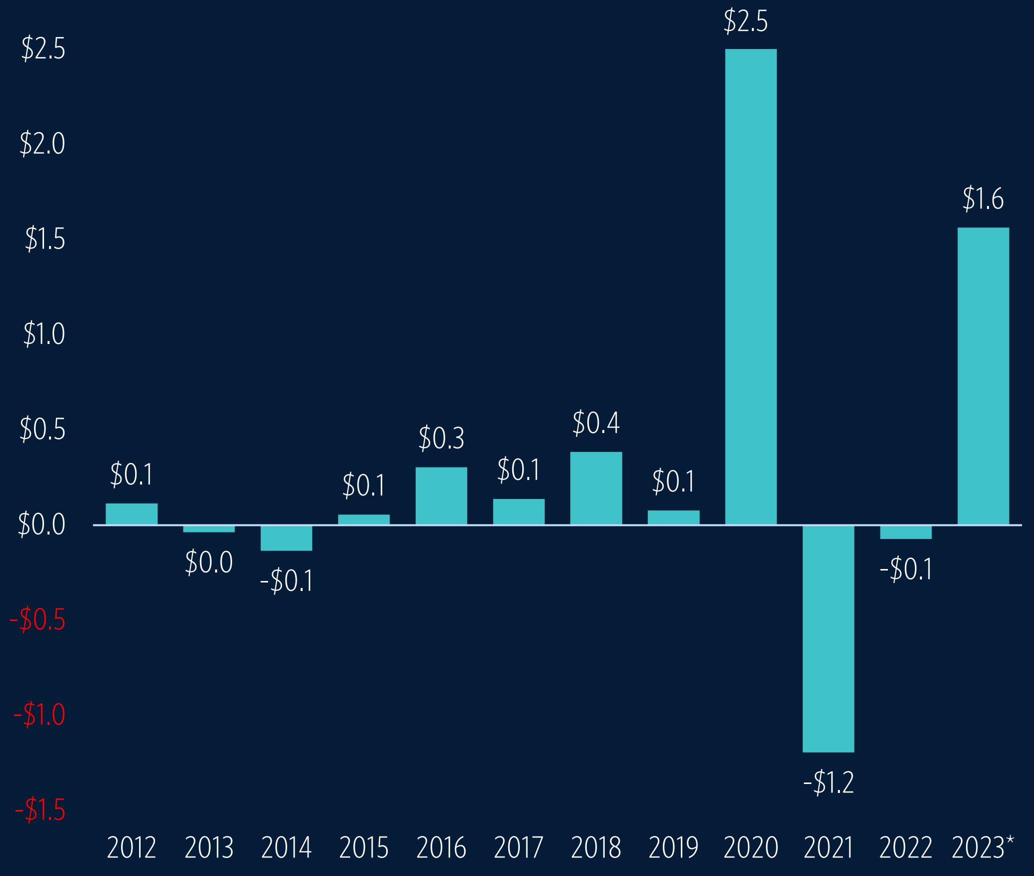
# Shifting bond market dynamics and considerations for allocators

## Key takeaways

- The Treasury has funded the unexpectedly large fiscal deficit in 2023 with short-term debt, which has come from excess liquidity in the Fed's overnight reverse repurchase (reverse repo) facility.
- While the Treasury has some flexibility in its funding strategy, it is already operating at the upper end of the recommended range of its allocation to short-term debt. Given the expectations of increasing deficits over the next decade, the Treasury will need to increase its issuance of long-term bonds.
- Expectations of more long-term debt issuance comes at a time when the two biggest buyers of Treasuries in the last decade—the Fed and commercial banks—are now net sellers.
- The shift in supply-demand dynamics for long-term Treasuries has contributed to the recent rise in yields. The 10-year Treasury yield reached 5% for the first time since 2007.
- With cash and long-term Treasuries offering an attractive absolute and relative yield compared with other assets, the risk/return trade-offs have shifted dramatically for institutional investors with multi-asset portfolios.
- Just as investors were "pushed out on the risk curve" when interest rates were around 0% and risk premiums were compressed, higher yields will pull them back in. All else being equal, this will decrease the demand for risky assets like PE as investors can take less risk to achieve their return objectives.

# Thus far, the unexpectedly large fiscal deficit has been funded mostly via bill issuance, which in turn has come from excess liquidity parked in the Fed's overnight reverse repo facility...

Net Treasury bill issuance ($T)



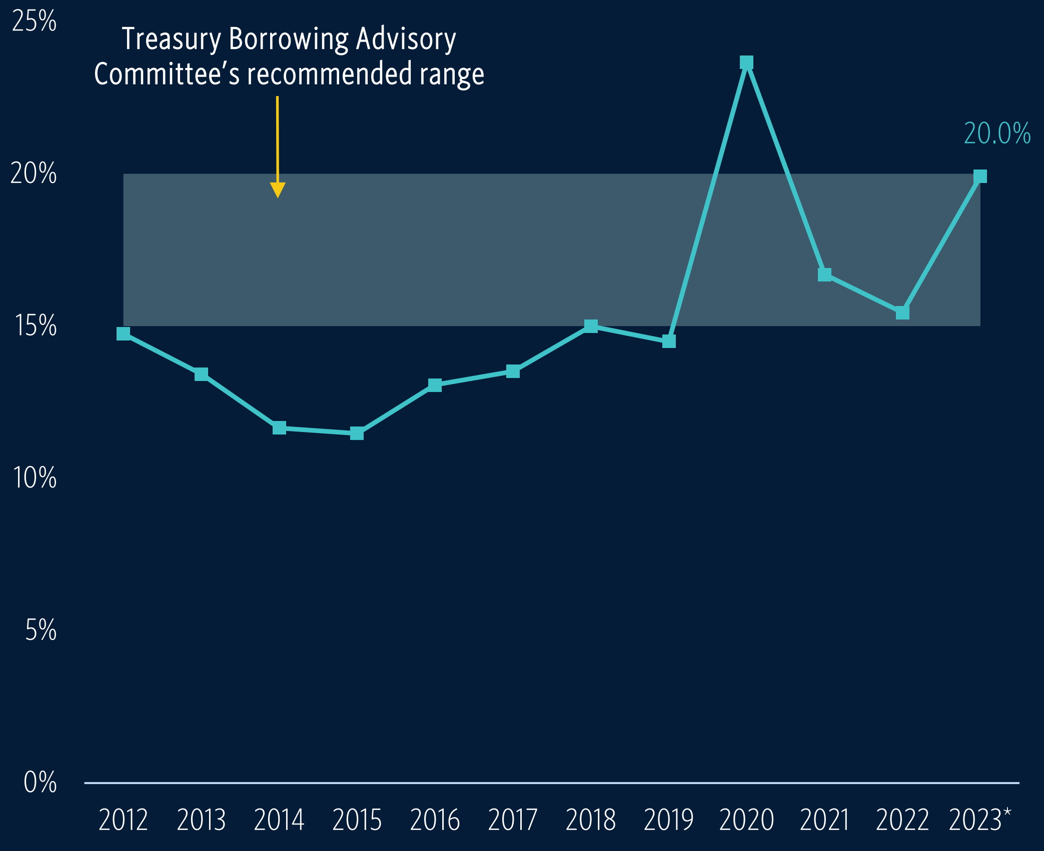

Source: US Treasury • Geography: US
*As of September 30, 2023

Overnight reverse repurchase agreements made by the Federal Reserve ($T)*


Source: Federal Reserve • Geography: US
*As of October 30, 2023

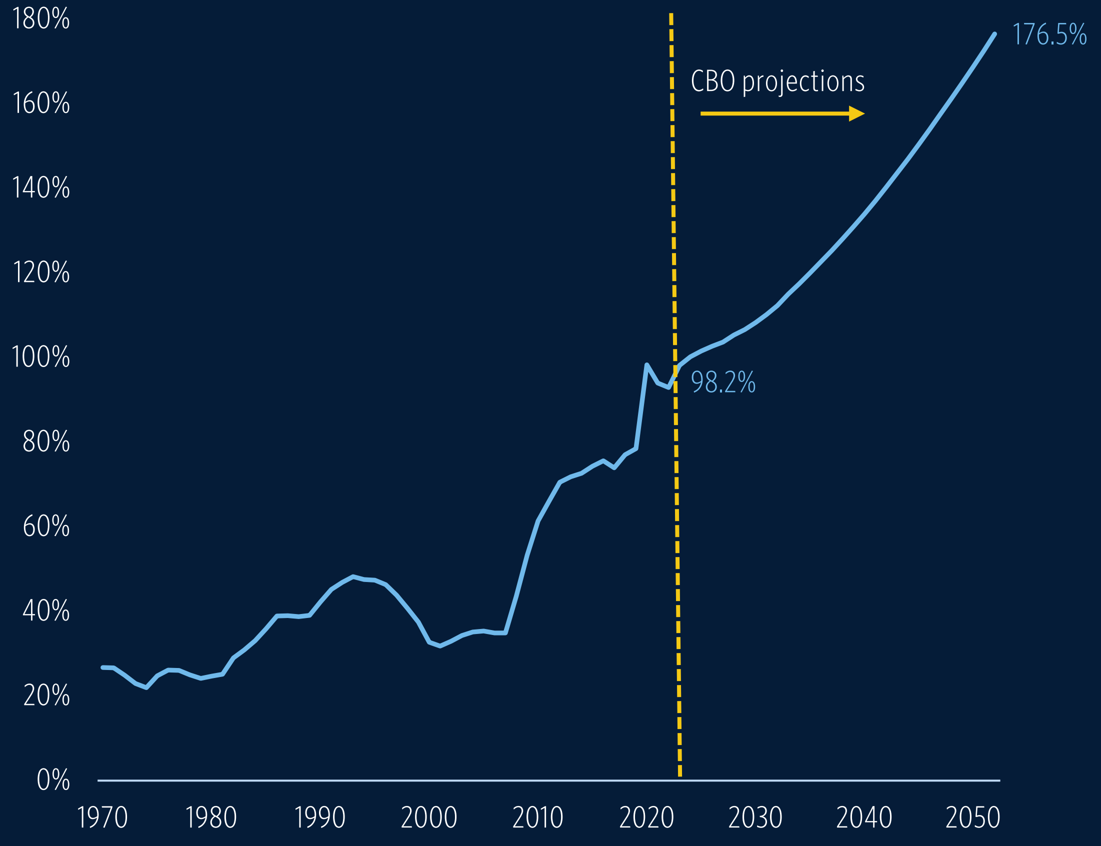
# …but this cannot continue indefinitely, as the Treasury is operating at the upper end of its target on bills outstanding and will need to issue more long-term debt to fund increasing deficits.

Treasury bills outstanding as a share of total debt




Source: US Treasury • Geography: US
*As of September 30, 2023

Federal debt held by the public as a percentage of GDP*

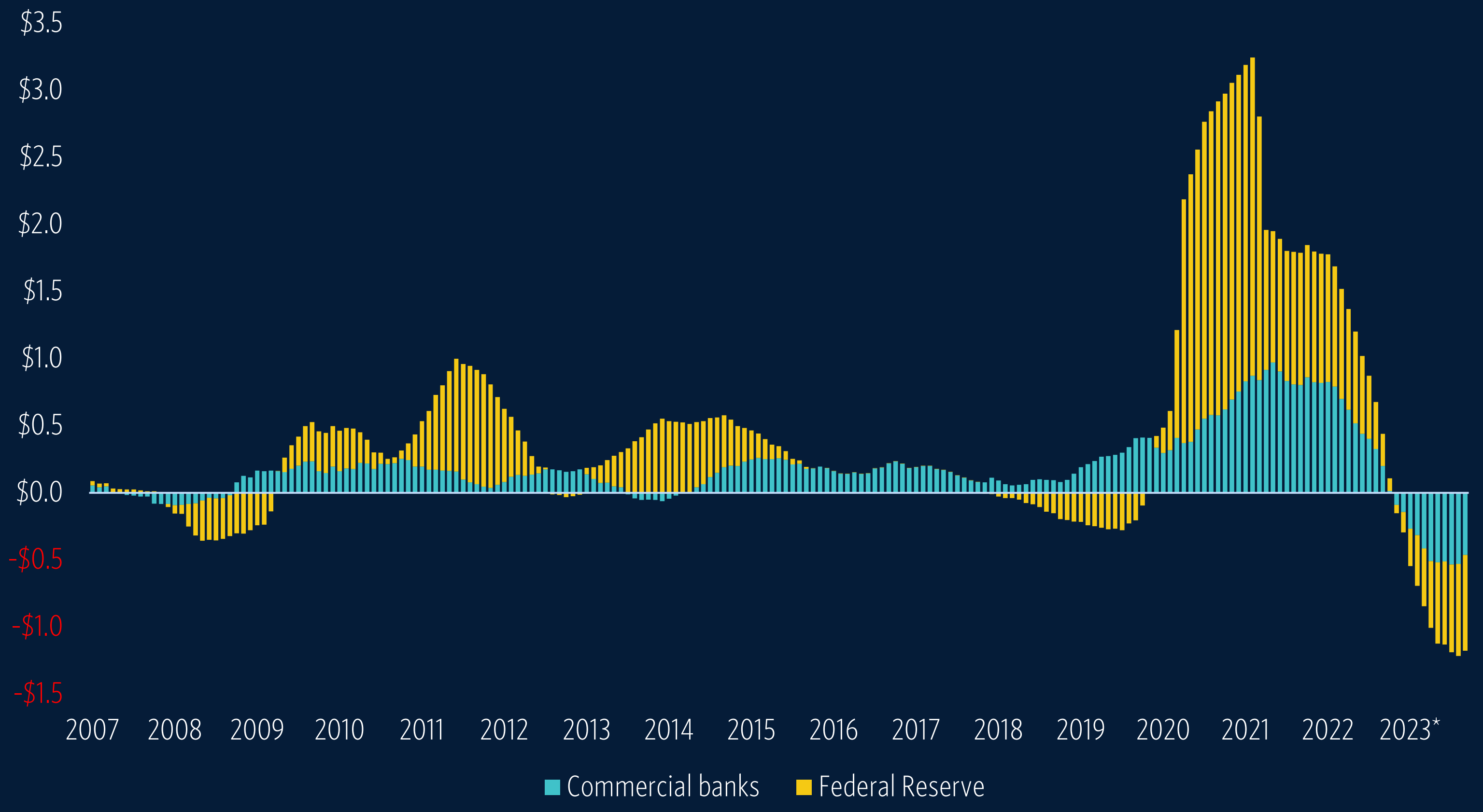



Source: Congressional Budget Office • Geography: US
*As of December 31, 2022

*Note: CBO projections are from June 2023; the TBAC's recommended range of bills outstanding is flexible.*

# The expected shift to more long-term debt issuance comes at a time when the Fed is unwinding its balance sheet and commercial banks are seeking to mitigate duration risk.

Trailing 12-month net Treasury security purchases ($T)

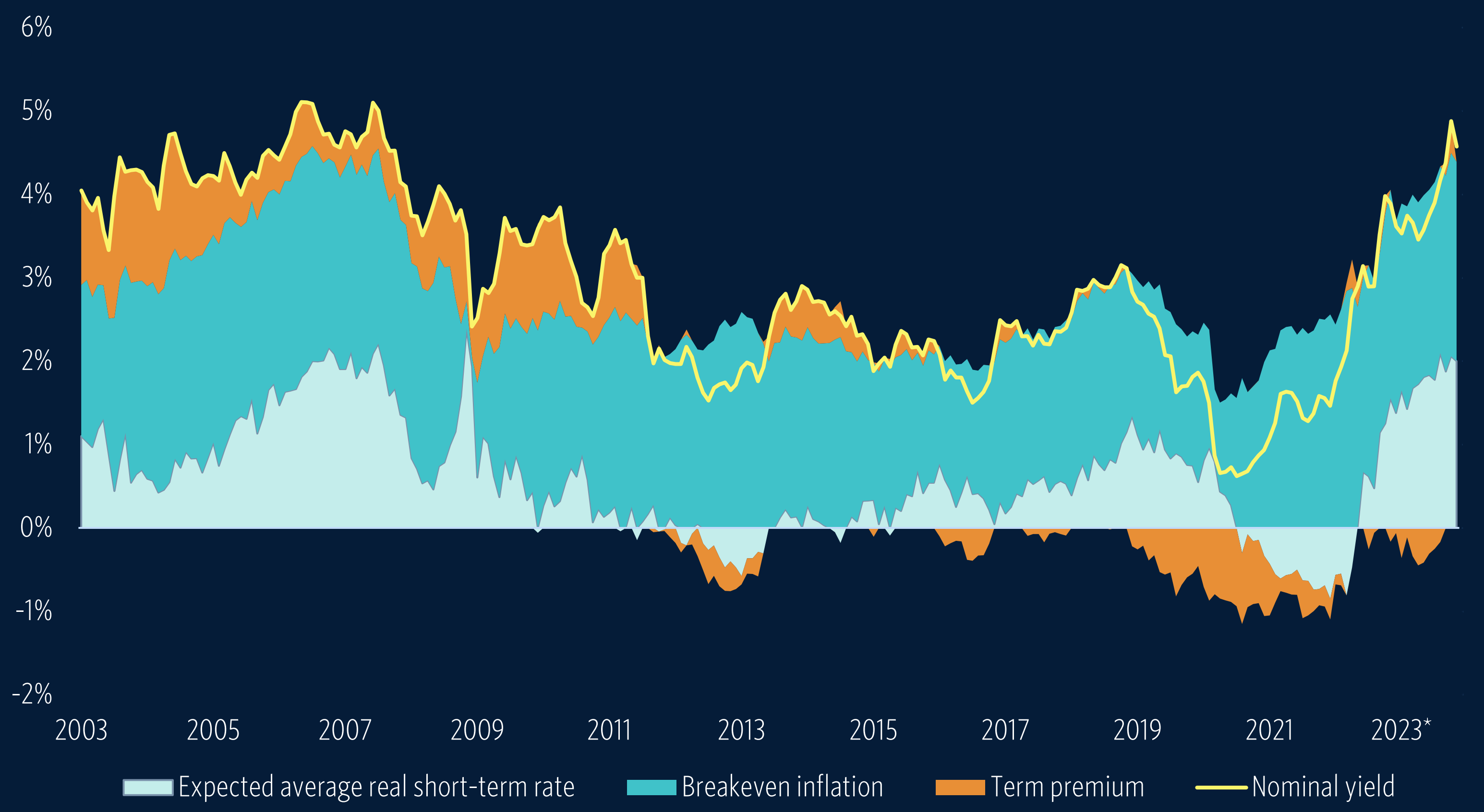



Over the past 12 months, the Fed and commercial banks have unwound $714 billion and $463 billion in Treasury securities from their balance sheets, respectively.

Source: Federal Reserve • Geography: US
*As of September 30, 2023

# The changes in liquidity and funding dynamics have played an important role in the recent rise in long-term Treasury yields...

Nominal 10-year Treasury yield decomposition



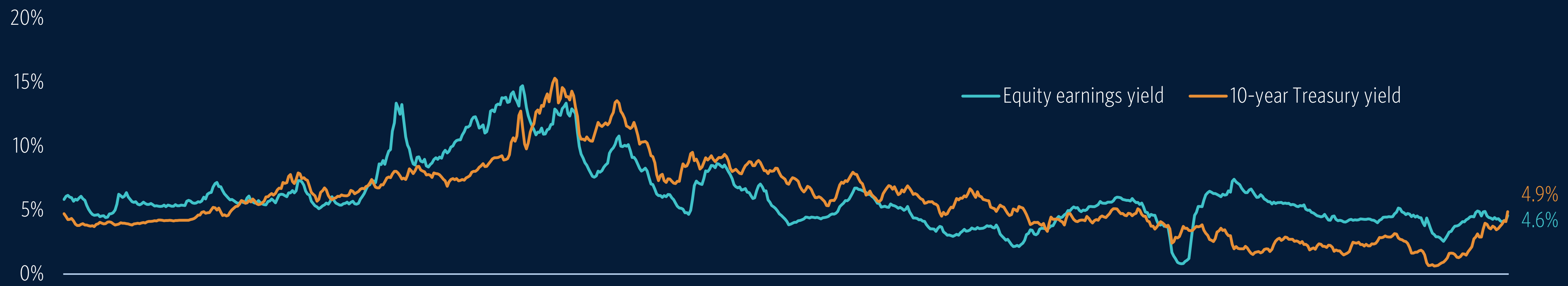

Source: Federal Reserve • Geography: US
*As of November 3, 2023
*Note: Term premium estimates are based on the Kim and Wright (2005) model.*

The rise in long-term Treasury yields that has sent the 10-year note yield to near 5%—its highest level since 2007—has been influenced by several factors. First and foremost, improving economic growth conditions have led to expectations of higher-for-longer real short-term rates, which are embedded in long-term yields.

More recently, however, higher yields have been driven by an increase in the term premium, which is the compensation that investors receive for taking on the risk associated with receiving a fixed rate over a long-term horizon. Higher term premiums have likely been influenced by the shift in supply-demand dynamics in the Treasury market. The Treasury's need to issue more long-term debt over the coming years while the Fed continues to wind down its balance sheet will provide a structural tailwind to yields.

# …which has occurred while equity risk premiums have fallen, resulting in very different relative stock-bond pricing than investors have been used to for the past 20 years.

10-year Treasury yield versus the trailing 12-month S&P 500 earnings yield*

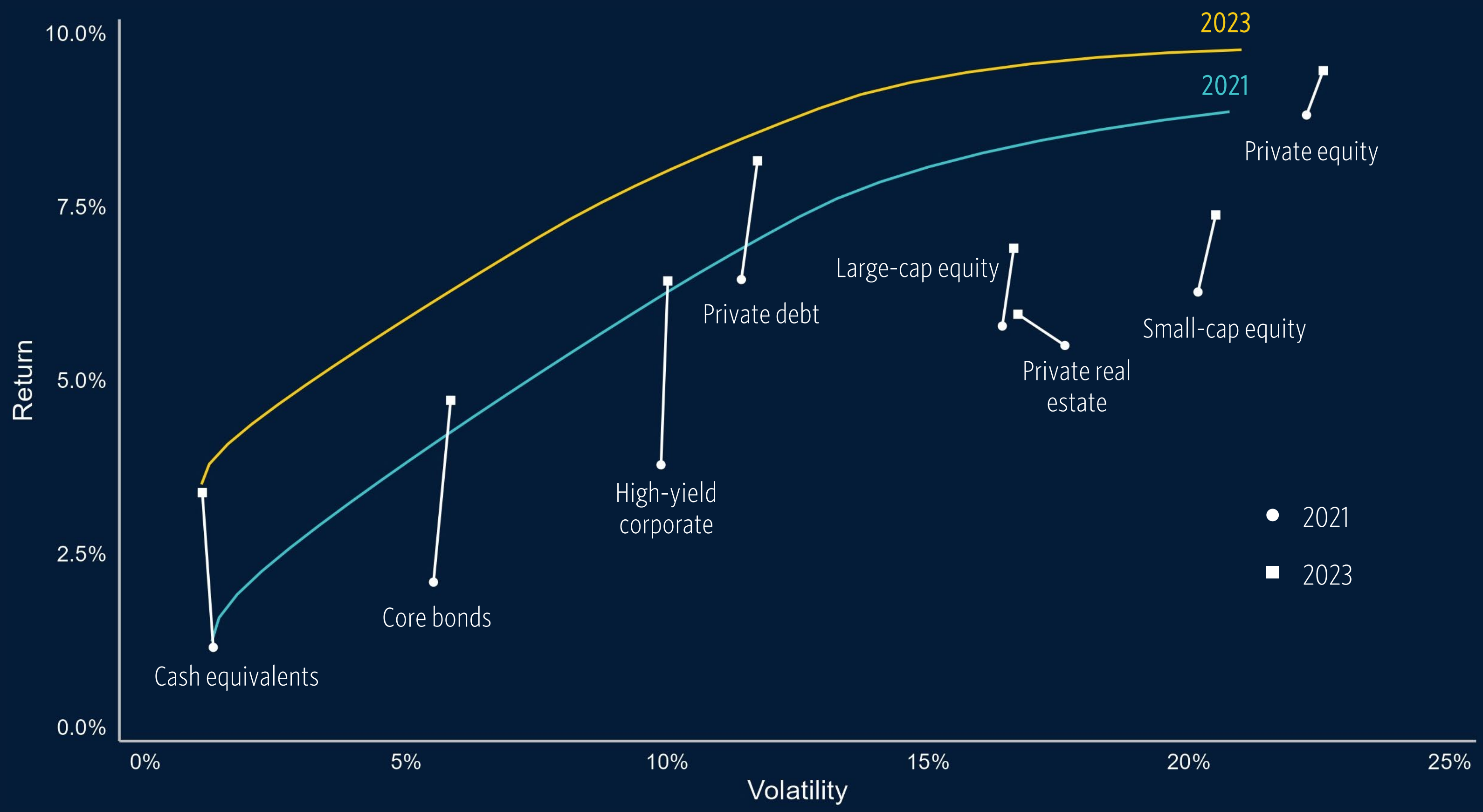



10-year Treasury yield minus the equity earnings yield*


Sources: Robert Shiller, FRED • Geography: US
*As of October 31, 2023

# Higher yields have caused the capital allocation line to shift up, significantly altering risk/return trade-offs in multi-asset portfolios…

10-year expected risk and return for select asset classes with efficient frontiers*



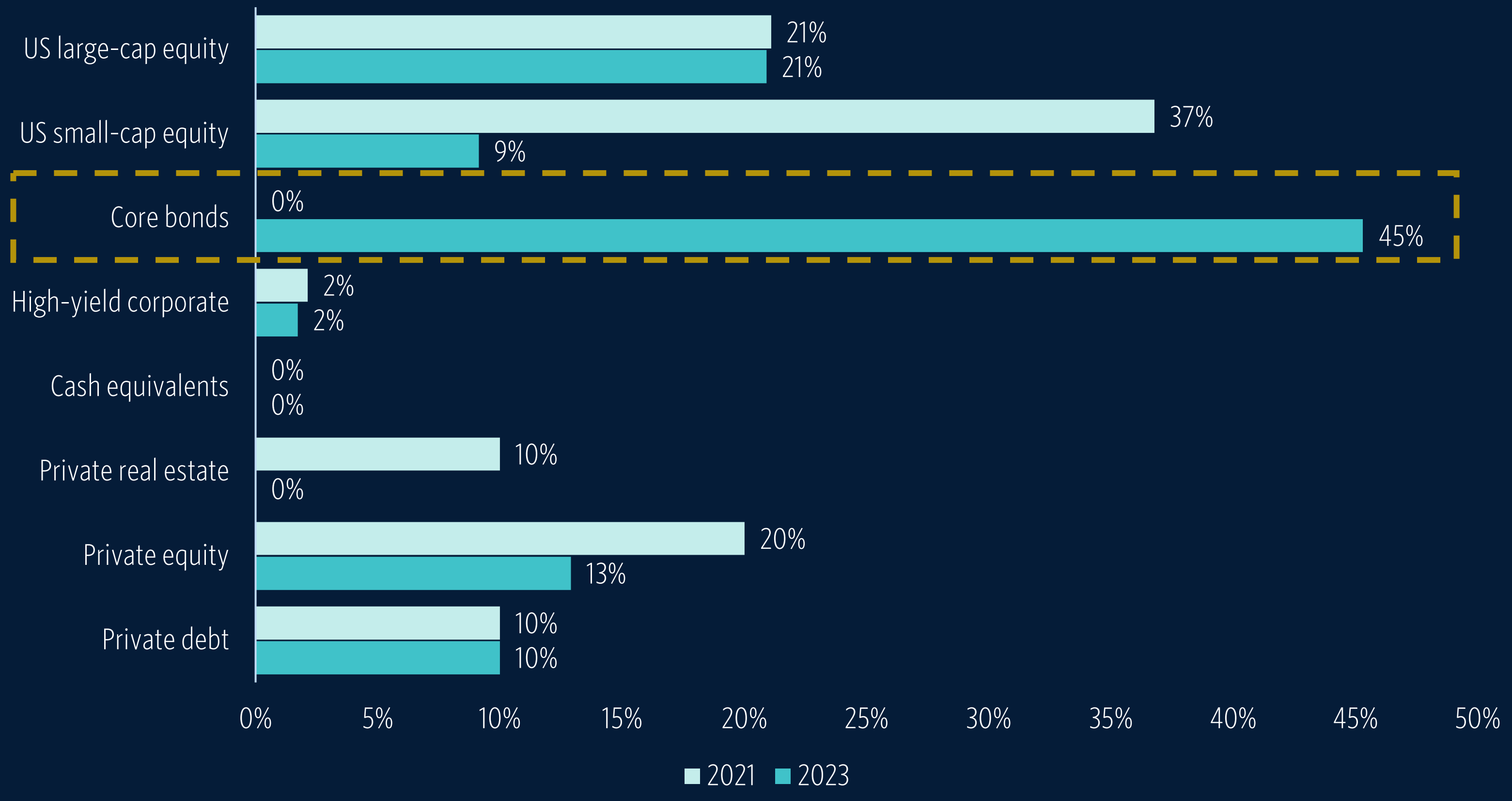

Sources: PitchBook, Horizon Actuarial • Geography: US
*As of August 2023
*Note: The 2023 expectations were generated before the recent further rise in long-term bond yields.*

For asset allocators, most of the 2010s were defined by low expected long-term returns across asset classes due to a decade of extremely loose monetary policy in the wake of the global financial crisis. Facing fixed return targets, many allocators were "pushed out on the risk curve." This dynamic hit an extreme after another massive episode of monetary stimulus in 2020 and 2021. Private market strategies were key beneficiaries of low expected returns as money flowed into riskier assets.

The long-term outlook for returns now looks quite different than it did in the last decade, and especially since risk premiums bottomed in 2021. The entire efficient frontier has shifted higher, but much more so at the front end. This will allow allocators to take less risk to meet return targets and, in turn, decrease demand for risky assets like PE.

## ...which has made allocating to Treasury and investment-grade debt an attractive option in many multi-asset portfolios once again.

Hypothetical minimum risk portfolio to achieve a 7% target (geometric) based on 10-year capital market assumptions*




Sources: PitchBook, Horizon Actuarial • Geography: US
*As of August 2023
*Note: Maximum allocations of 10%, 20%, and 10% were allowed in private real estate, private equity, and private debt, respectively. A minimum of 30% in public equity was required.*

The shift higher in the efficient frontier has dramatically changed how much risk allocators need for a given return target. To illustrate this point, we created two optimal portfolios assuming a typical 7% nominal return target using expected returns from 2021 and 2023. Private market exposure was capped at 40% to reflect a reasonable liquidity risk profile.

In 2021, the optimal allocation to core bonds was 0% and all of the portfolio was allocated to risky assets across equity, credit, and real estate. While allocators likely did not implement such an extreme portfolio, it shows just how challenging it was to achieve a 7% return at that time. With the rise in bond yields over the past two years, the optimal allocation to core bonds in 2023 increased to 45%. The re-emergence of core bonds providing a reasonable expected return, given their risk reduction and diversification benefits, will pull exposure away from riskier parts of the portfolio like PE.

# Challenges to the buyout model

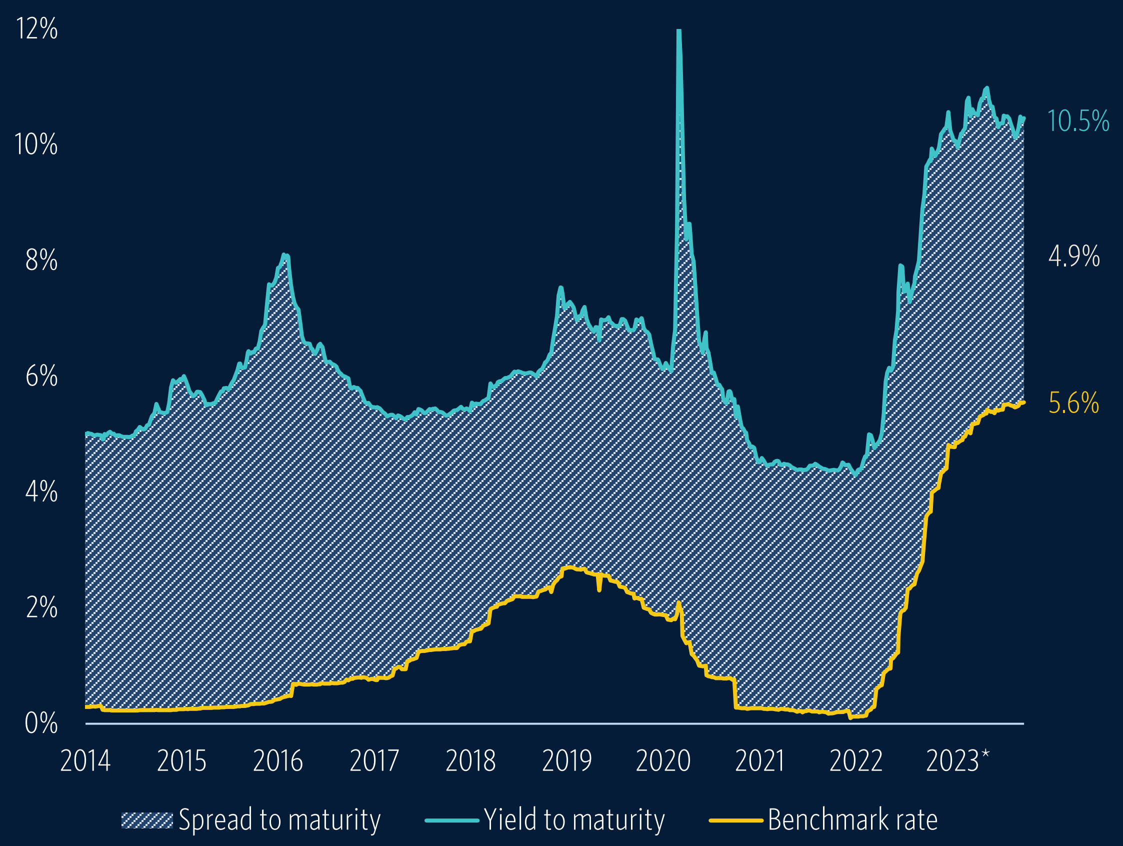
## Key takeaways

- The lack of available credit as well as the cost of credit remain key challenges to closing buyout deals. While private credit has helped fill the funding gap created by the slowdown in the leveraged loan market, momentum appears to be fading.
- Valuations have not come down enough to entice buyers to enter the market aggressively given the debt environment. Buyout purchase prices through the first three quarters of 2023 were 11.5x EBITDA, down only slightly from the peak of 11.8x in 2022.
- With valuations still elevated and debt costs in double digits, the ability of companies to make interest payments continues to be a major risk. EBITDA interest coverage ratios fell to just 2.4x for deals completed so far in 2023.
- Sponsors have responded by increasing equity contributions, which moved above 50% for the first time in at least 15 years.
- Corporate defaults and bankruptcies have largely been subdued in both the leveraged loan market and across US businesses more broadly, mainly because top-line growth has been strong. However, revenue and EBITDA growth of small-cap public companies has started to slow, suggesting an increased risk of failures.

# Traditional sources of credit remain scarce and expensive...

Trailing six-month leveraged loan issuance for buyouts ($B)*

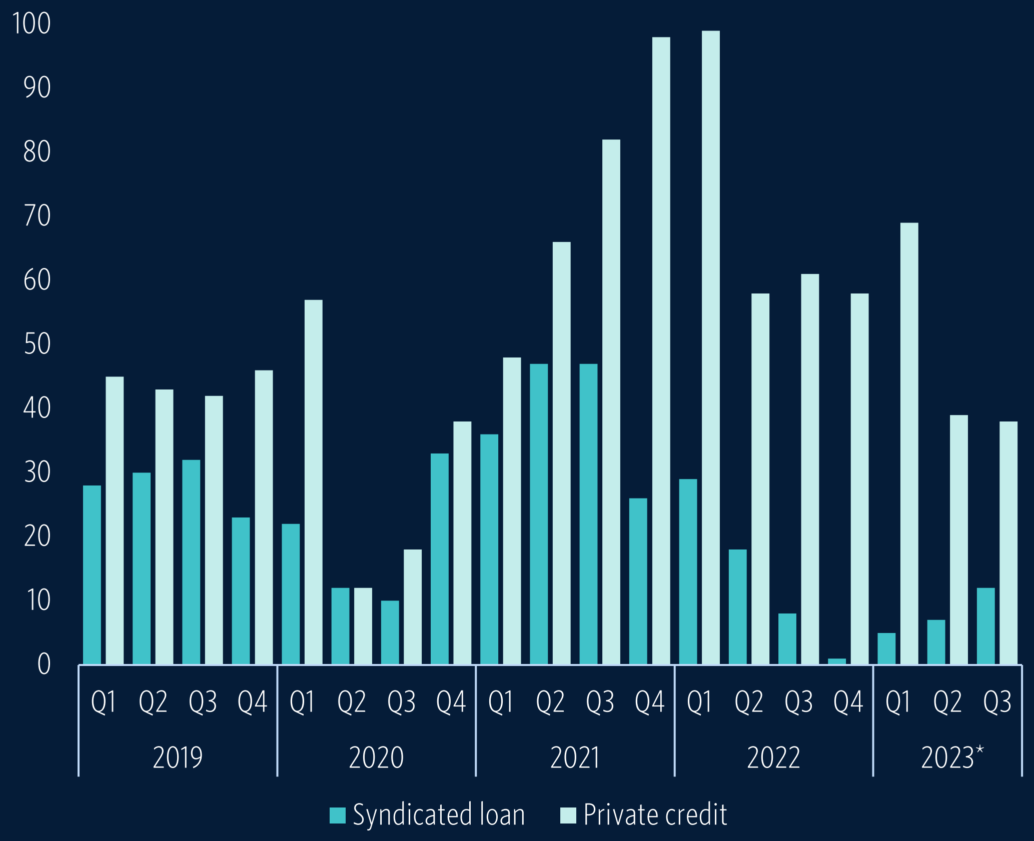

Yield to maturity attribution for B-rated leveraged loans




Source: PitchBook | LCD • Geography: US
*As of October 31, 2023

# …and although private credit has helped fill the funding gap, the pace of activity has started to slow.

Count of buyouts by debt funding source

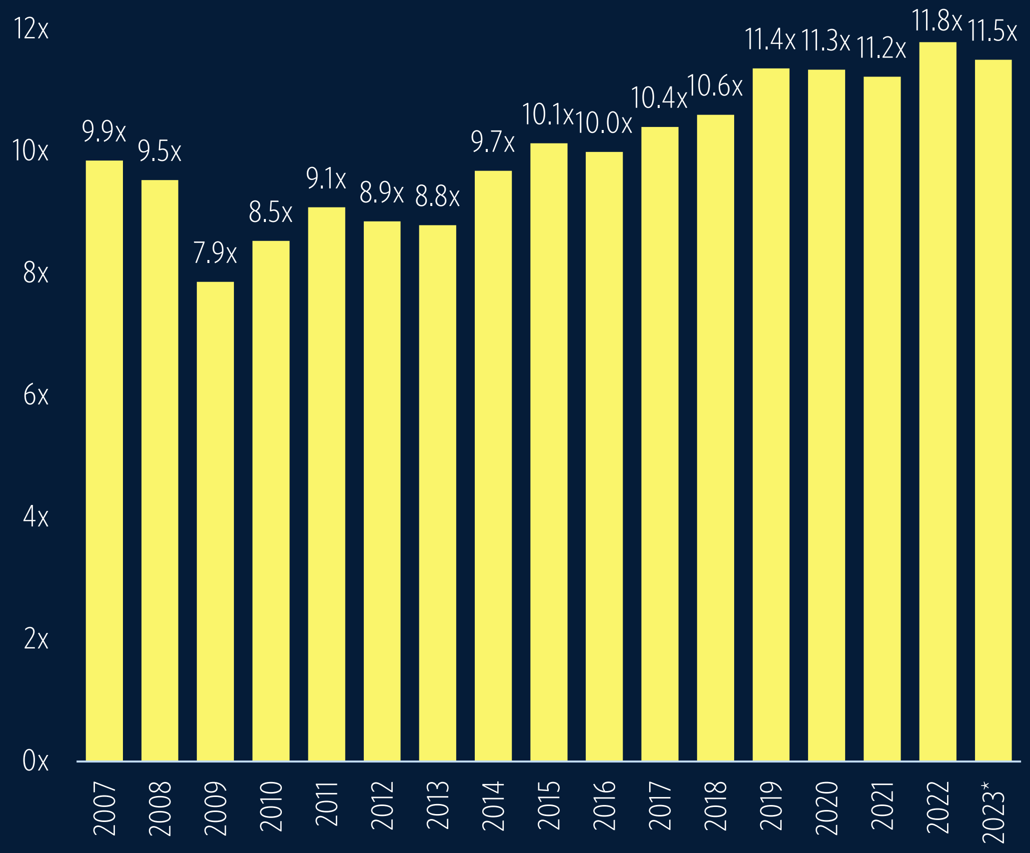



Business-development company (BDC) trailing 12-month net-new loan issuance ($B)

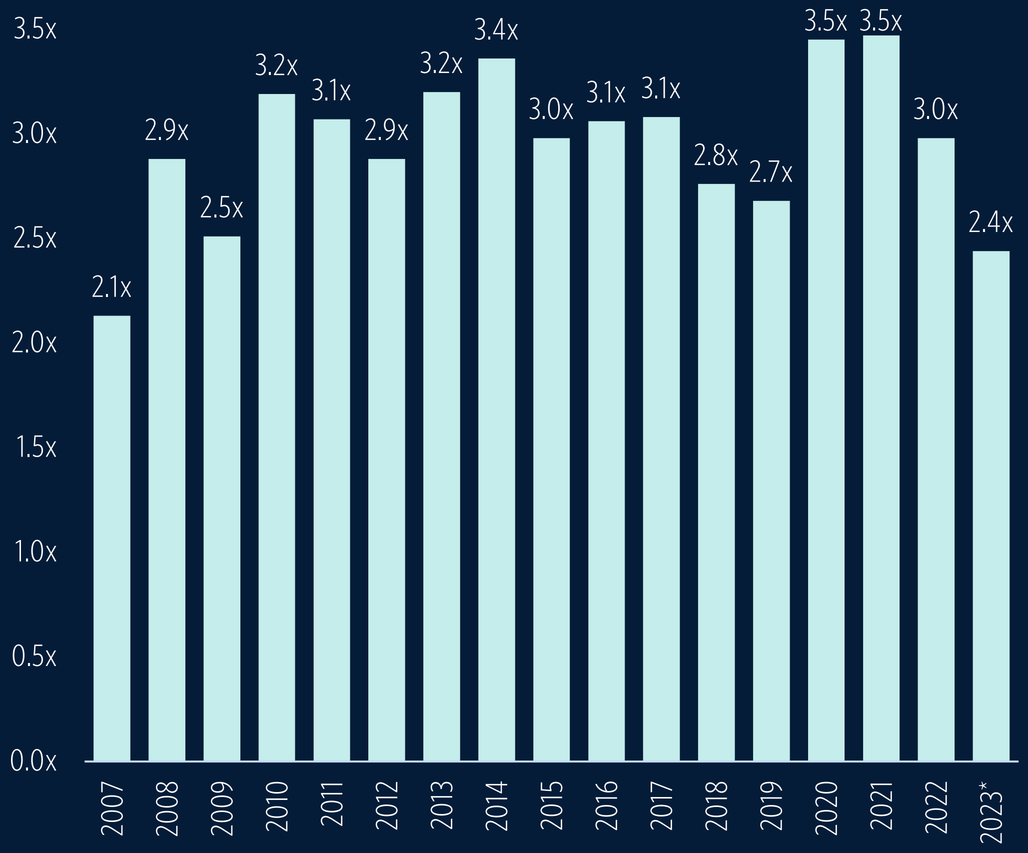

Sources: PitchBook | LCD, Morningstar • Geography: US
*As of September 30, 2023
*Note: Private credit deal count is based on transactions covered by LCD News. The BDCs included in the data are based on the holdings of the VanEck BDC Income ETF.*

# Valuations have remained elevated, resulting in lower risk premiums and, along with the rise in rates, lower coverage ratios…

Buyout purchase price multiples (EV/EBITDA)



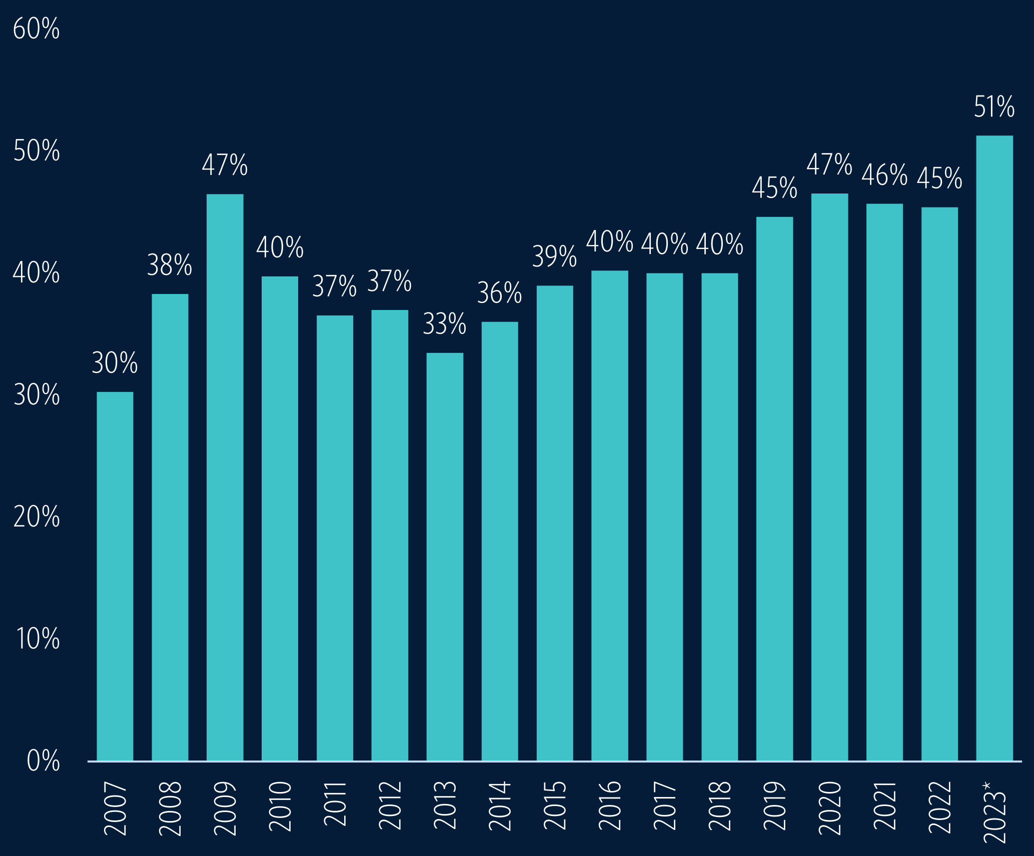

Buyout interest coverage ratios (EBITDA/cash interest)



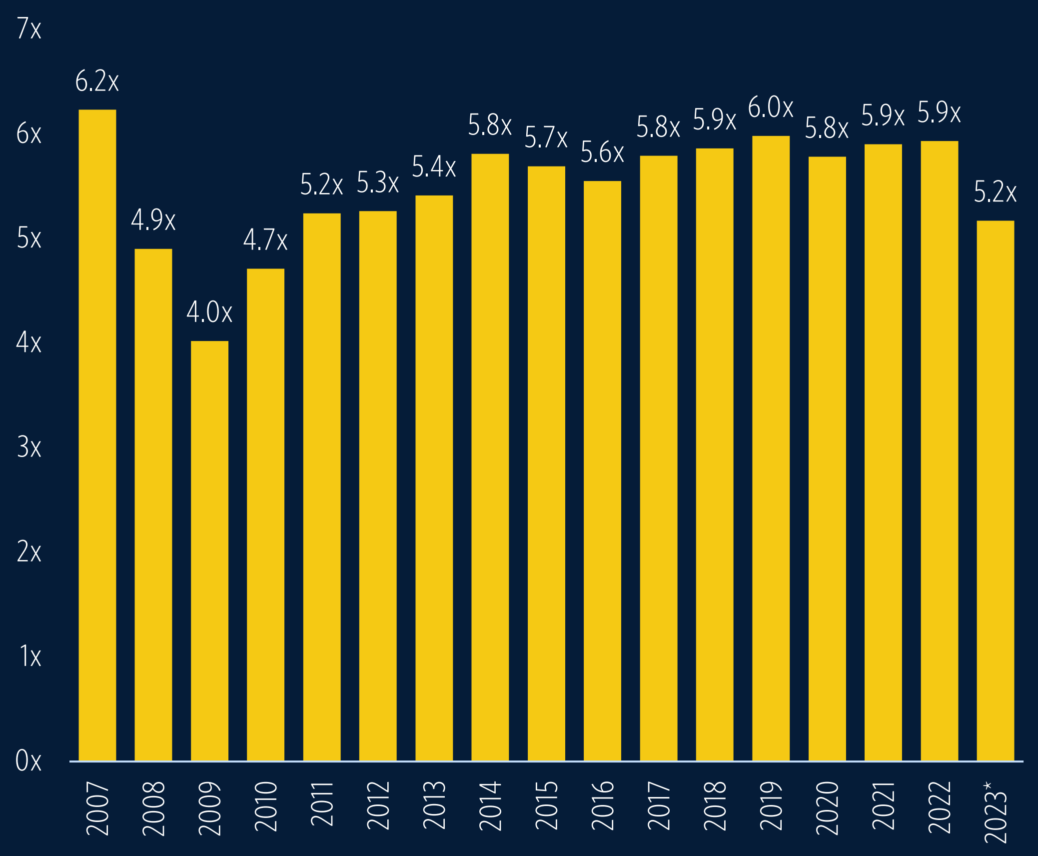

Source: PitchBook | LCD • Geography: US
*As of September 30, 2023
*Note: The data in both charts is from issuers with EBITDA of more than $50 million.*

# …which have been somewhat offset by a lower usage of debt and leverage.

Equity contribution to buyout purchase price



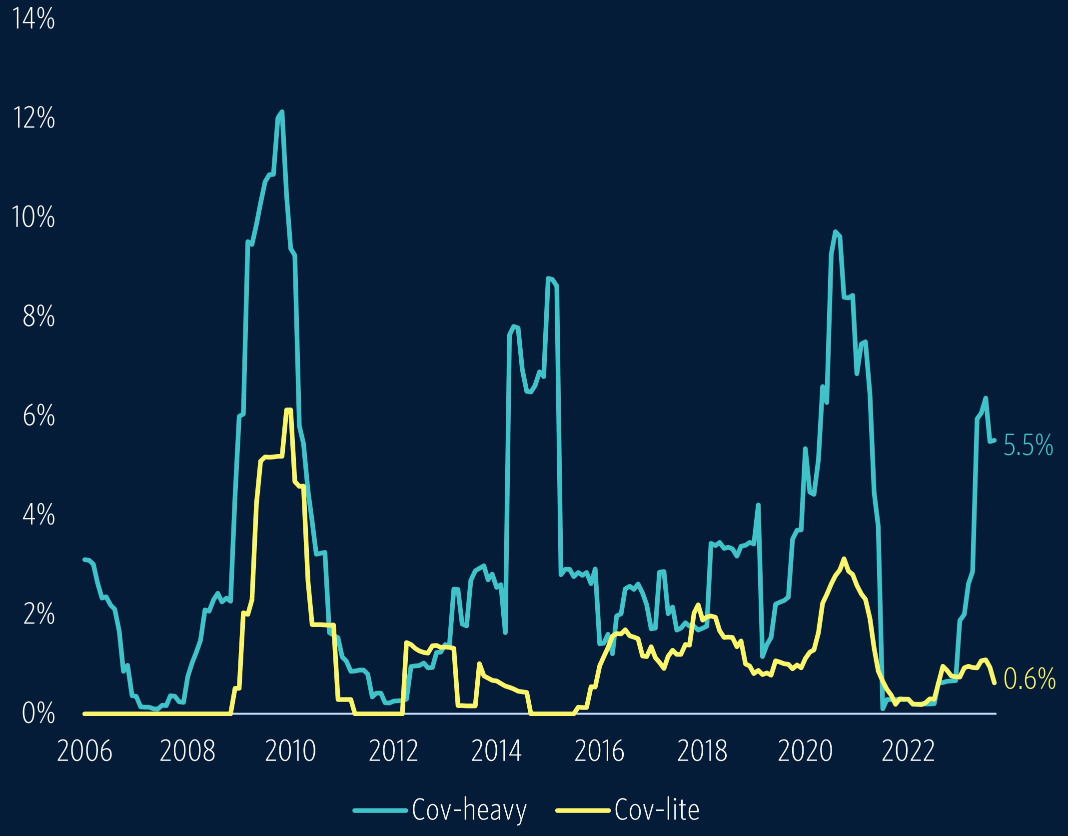

Buyout deal leverage (debt/EBITDA)




Source: PitchBook | LCD • Geography: US
*As of September 30, 2023
*Note: The data in both charts is from issuers with EBITDA of more than $50 million.*

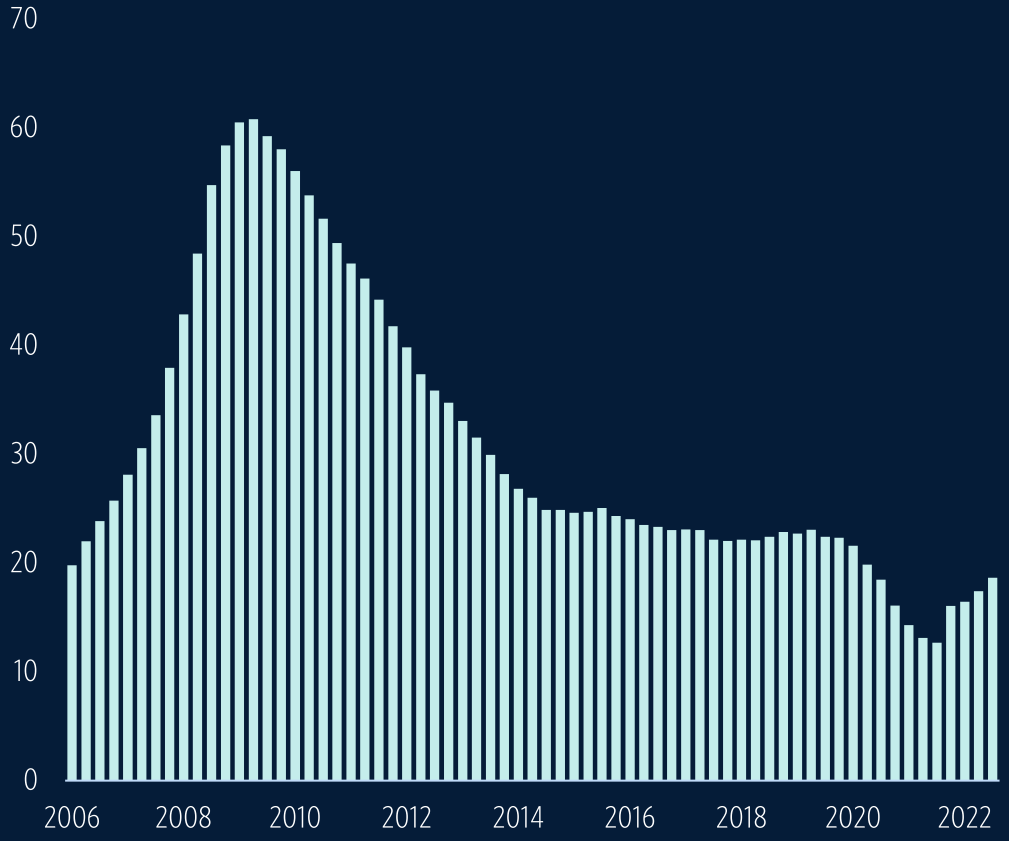
# Although coverage ratios have declined, there has been only a moderate pickup of credit events in both the leveraged loan space and in US businesses more broadly…

Morningstar LSTA Leveraged Loan Index trailing 12-month default rates by par amount*




Source: Morningstar • Geography: US
*As of September 30, 2023

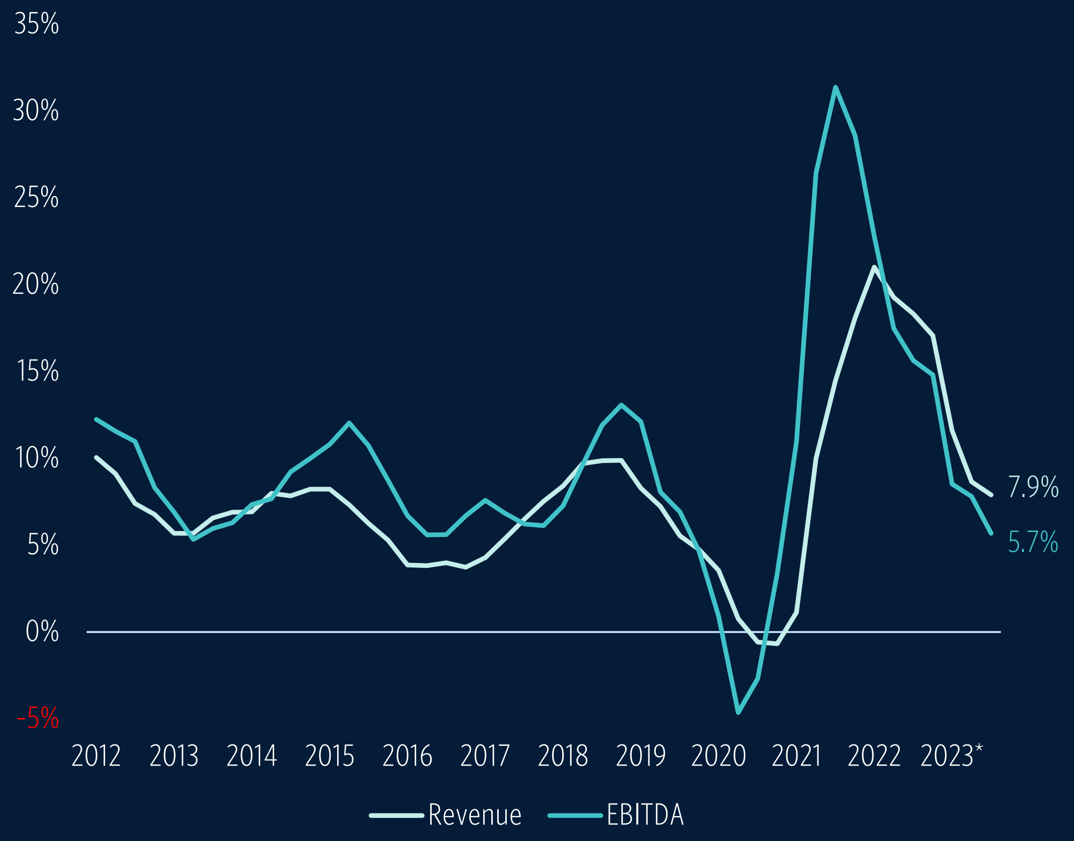
Quarterly corporate bankruptcy filings (thousands)*




Source: Administrative Office of the US Courts • Geography: US
*As of June 30, 2023

# ...as corporate revenue and earnings growth has been strong. But momentum has started to slow.

Median trailing 12-month growth of nonfinancial companies in the Russell 2000 Index

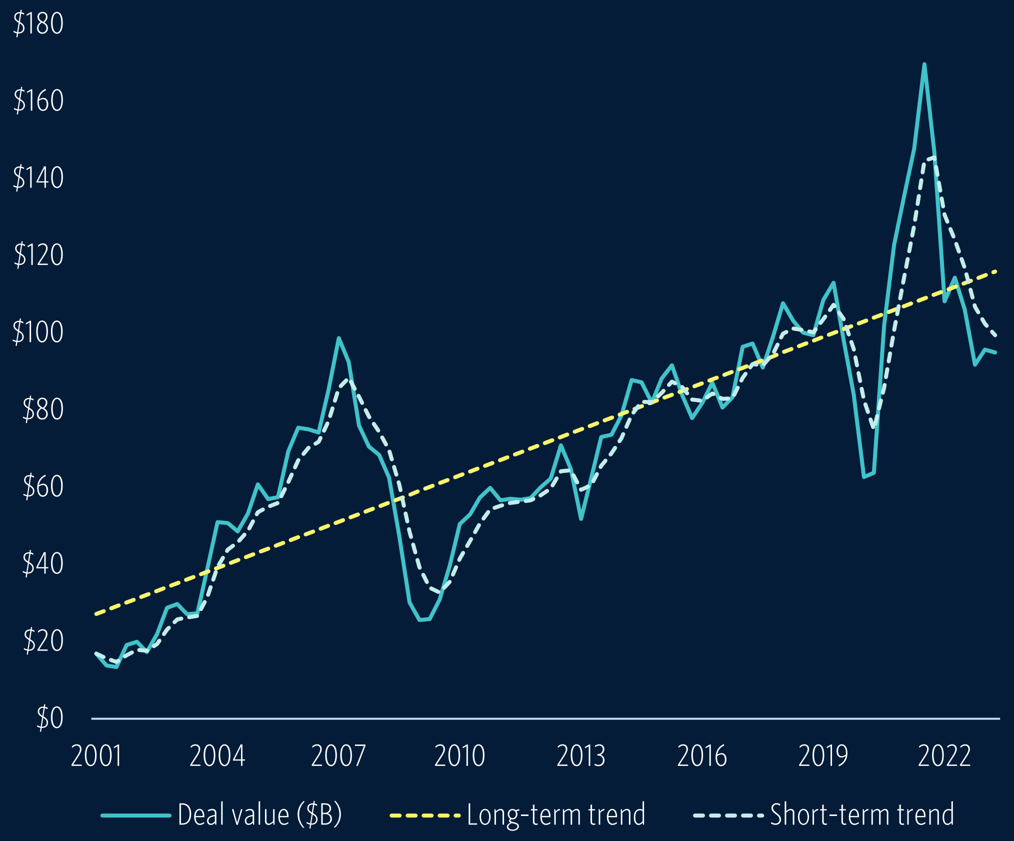



Median trailing 12-month EBITDA margin of nonfinancial companies in the Russell 2000 Index

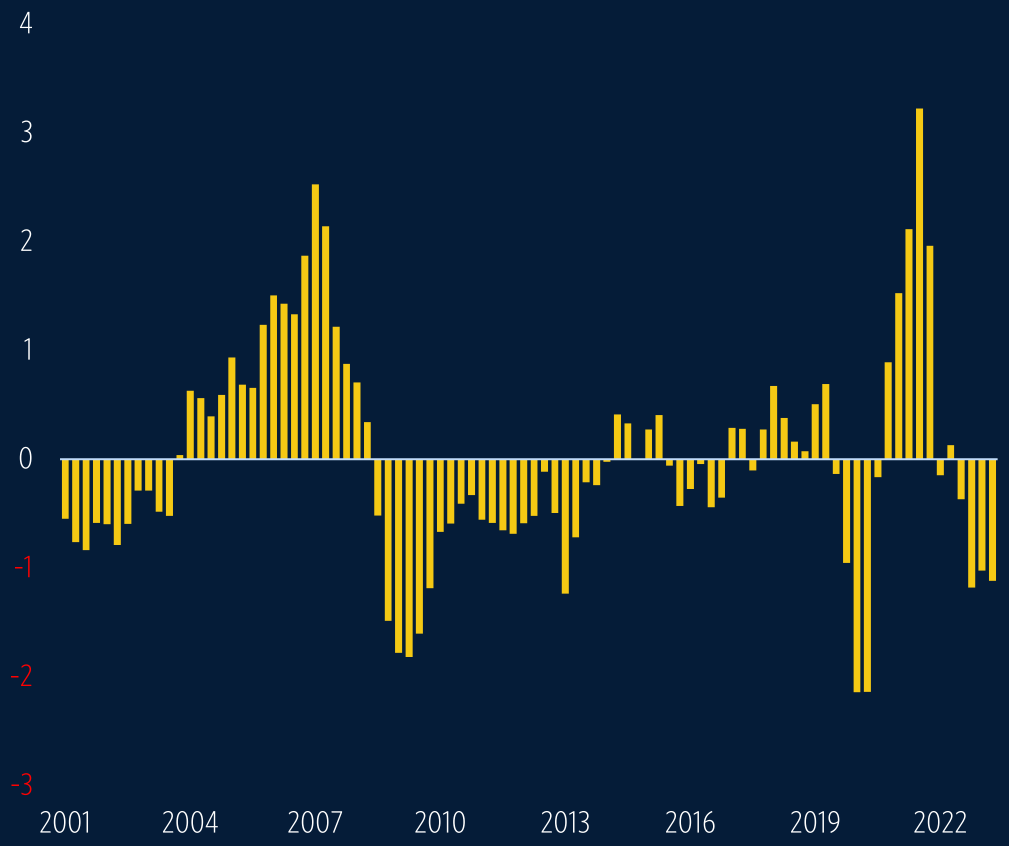

Sources: PitchBook, Morningstar • Geography: US
*As of September 30, 2023

# These challenges have resulted in a significant slowdown in buyout dealmaking...

Trailing six-month buyout deal value trends*




Trailing six-month buyout deal value relative to long-term trend (Z-score)*




Source: PitchBook • Geography: US
*As of September 30, 2023
*Note: Data is seasonally adjusted and includes estimates for the most recent four quarters.*

# ...but investments that are less reliant on leverage continue to close at a brisk pace, especially PE growth.

Trailing six-month PE deal trends dashboard*

| | Segment | Deal count: Current | Deal count: % of total | Deal count: Long-term score | Deal count: Short-term score | Deal value: Current ($B) | Deal value: % of total | Deal value: Long-term score | Deal value: Short-term score |
|---|---|---|---|---|---|---|---|---|---|
| | Total | 4,421 | 100.0% | | | $380.5 | 100.0% | | |
| Sector | B2B | 1,690 | 39.5% | | | $143.7 | 38.6% | | |
| Sector | B2C | 619 | 14.5% | | | $49.5 | 13.3% | | |
| Sector | Energy | 115 | 2.7% | | | $13.3 | 3.6% | | |
| Sector | Financial services | 434 | 10.1% | | | $57.3 | 15.4% | | |
| Sector | Healthcare | 578 | 13.5% | | | $41.6 | 11.2% | | |
| Sector | Information technology | 737 | 17.2% | | | $55.9 | 15.0% | | |
| Sector | Materials & resources | 108 | 2.5% | | | $11.0 | 3.0% | | |
| Type | Buyout | 788 | 17.8% | | | $94.9 | 24.9% | | |
| Type | Add-on | 2,584 | 58.4% | | | $234.0 | 61.5% | | |
| Type | PE growth | 908 | 20.5% | | | $43.3 | 11.4% | | |

Trend (Z-score)

-2.0 +2.0

Source: PitchBook • Geography: US

*As of September 30, 2023

*Note: Data is seasonally adjusted and includes estimates for the most recent four quarters.*

The PE deal trends dashboard provides a quantitative assessment of overall deal activity in the past six months, as well as within each sector and deal type after adjusting for seasonality and reporting lags. The long- and short-term Z-scores represent Z-score normalized deviations from a full-period linear trendline and a 12-month exponential moving average, respectively.

# The exit drought worsens

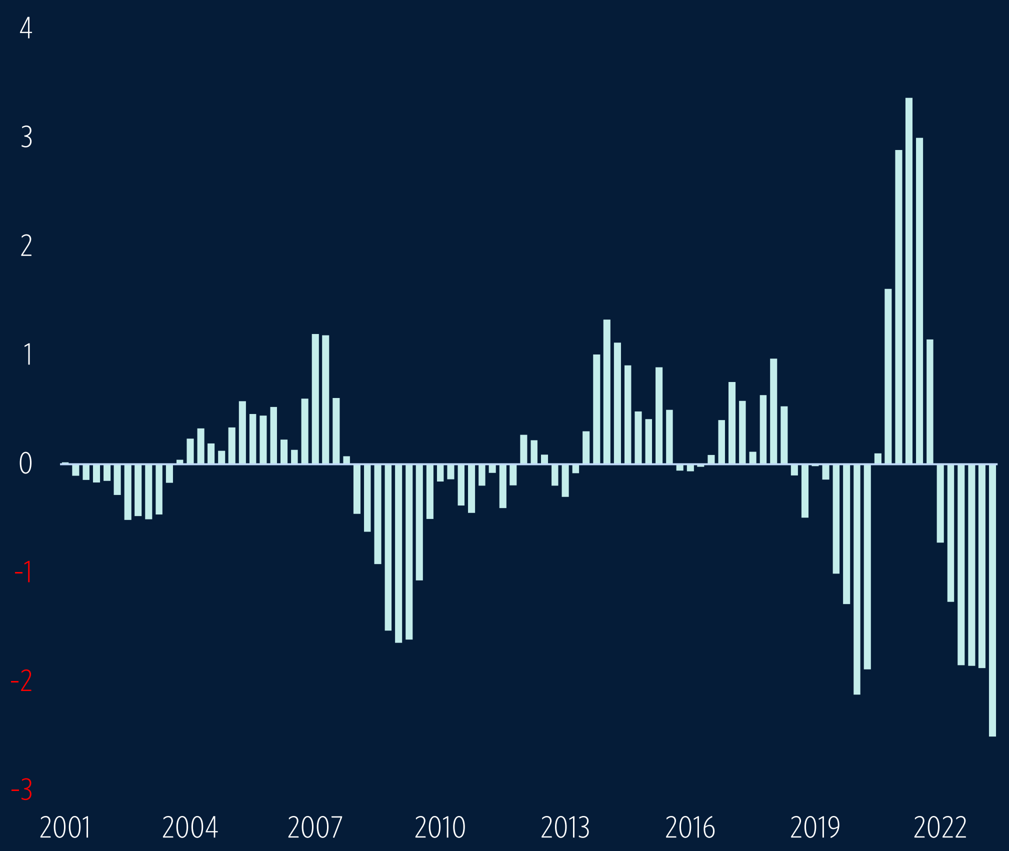
## Key takeaways

- The slump in exit activity has worsened. Relative to its long-term trend, the value of PE-backed exits reached its lowest level in at least 30 years.
- Companies that were acquired via a leveraged buyout (LBO) from 2016 to 2020 have exited at a much slower pace than expected based on pre-2016 exit rates. For example, only 24.3% of companies that were acquired via an LBO in 2019 have exited, compared with the baseline expectation of 39.8%.
- The dearth of exits has caused a significant increase in the buyout holding period. The median age of current buyout-backed companies has reached 3.3 years, and almost 35% of those companies have been held for more than five years.
- The poor exit environment has also caused fund distribution rates to fall to their lowest levels since 2009, which is contributing to a negative outlook for fundraising over the next four quarters.

# The slump in exit activity has worsened, making this the worst exit environment in at least the past 30 years based on detrended value.

Rolling six-month exit value trends*


Rolling six-month exit value relative to long-term trend (Z-score)*




Source: PitchBook • Geography: US
*As of September 30, 2023

# Exit activity trends are deeply negative across all sector and exit types.

Trailing six-month PE exit trends dashboard*

| | | Exit count | | | | Exit value | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Segment | Current | % of total | Long-term score | Short-term score | Current ($B) | % of total | Long-term score | Short-term score |
| | Total | 600 | 100.0% | | | $98.4 | 100.0% | | |
| Sector | B2B | 257 | 43.7% | | | $41.3 | 41.8% | | |
| Sector | B2C | 86 | 14.6% | | | $12.6 | 12.7% | | |
| Sector | Energy | 31 | 5.3% | | | $8.8 | 8.9% | | |
| Sector | Financial services | 28 | 4.8% | | | $5.9 | 6.0% | | |
| Sector | Healthcare | 55 | 9.4% | | | $6.2 | 6.3% | | |
| Sector | Information technology | 98 | 16.7% | | | $18.7 | 18.9% | | |
| Sector | Materials & resources | 33 | 5.6% | | | $5.3 | 5.4% | | |
| Type | Acquisition | 276 | 46.9% | | | $44.4 | 44.9% | | |
| Type | Buyout | 308 | 52.4% | | | $52.0 | 52.7% | | |
| Type | Public listing | 4 | 0.7% | | | $2.4 | 2.4% | | |

Trend (Z-score)

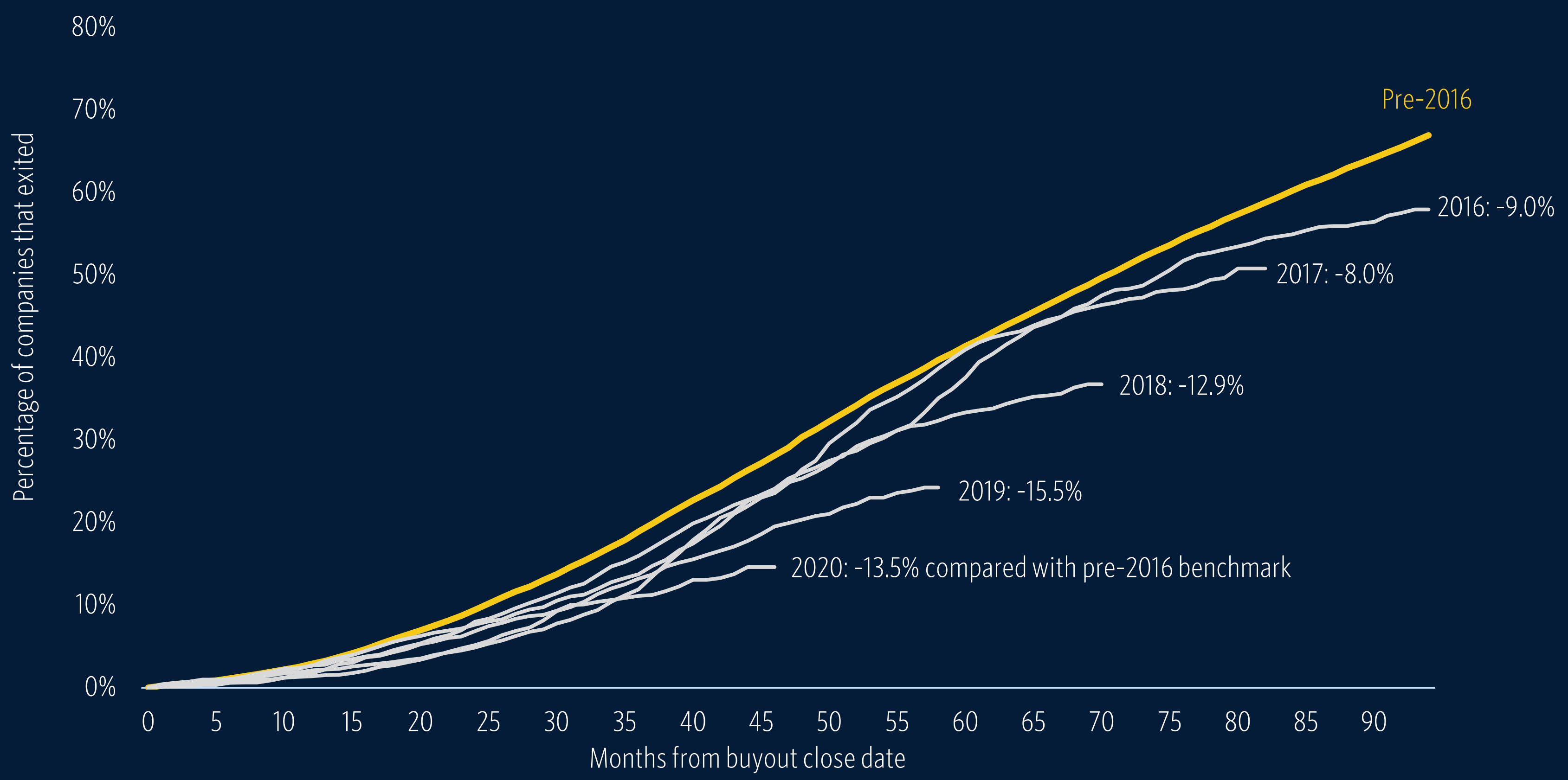
-2.0 +2.0

Source: PitchBook • Geography: US
*As of September 30, 2023

The PE exit trends dashboard provides a quantitative assessment of overall exit activity in the past six months, as well as within each sector and deal type after adjusting for seasonality and reporting lags. The long- and short-term Z-scores represent Z-score normalized deviations from a full-period linear trendline and a 12-month exponential moving average, respectively.

# Portfolio company exit rates have fallen dramatically and are much slower than expected...

Buyout-backed company exit rates by deal year versus pre-2016*



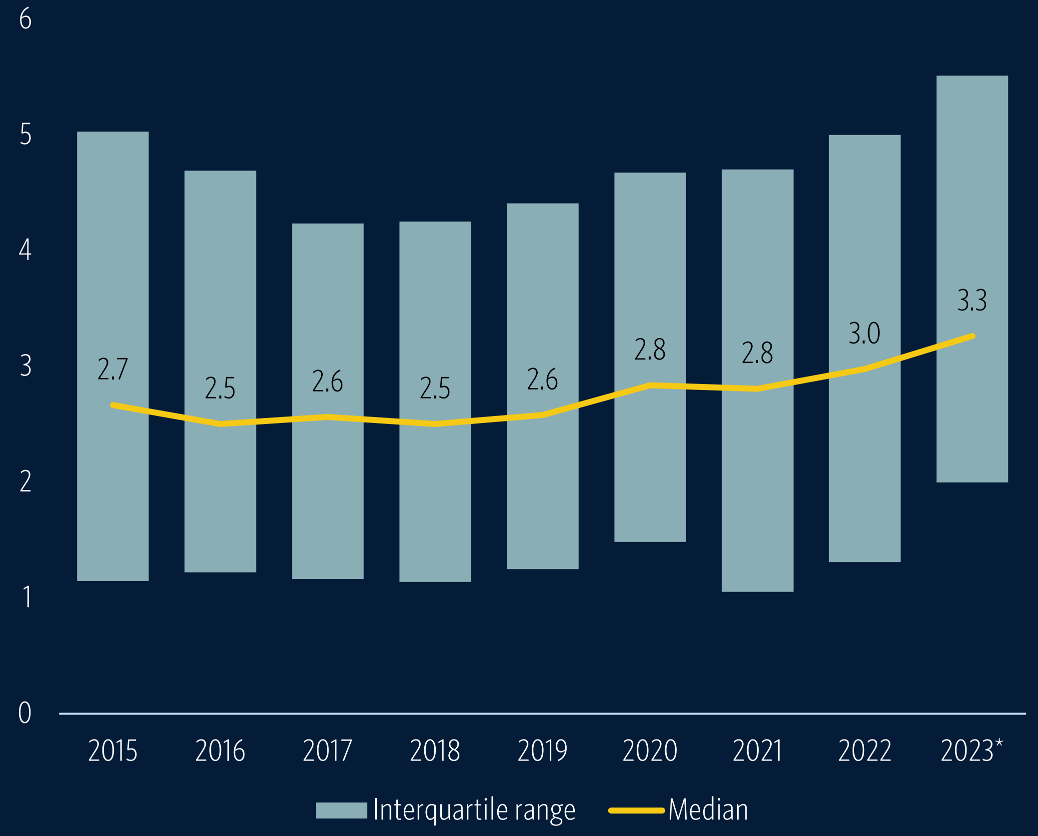

Source: PitchBook • Geography: US
*As of October 23, 2023

We analyzed the empirical distribution of exit times for all buyout deals prior to 2016 in order to compare it with more recent deals that are being impacted by the current exit slowdown. We formed buyout-backed company cohorts by age based on their deal year.

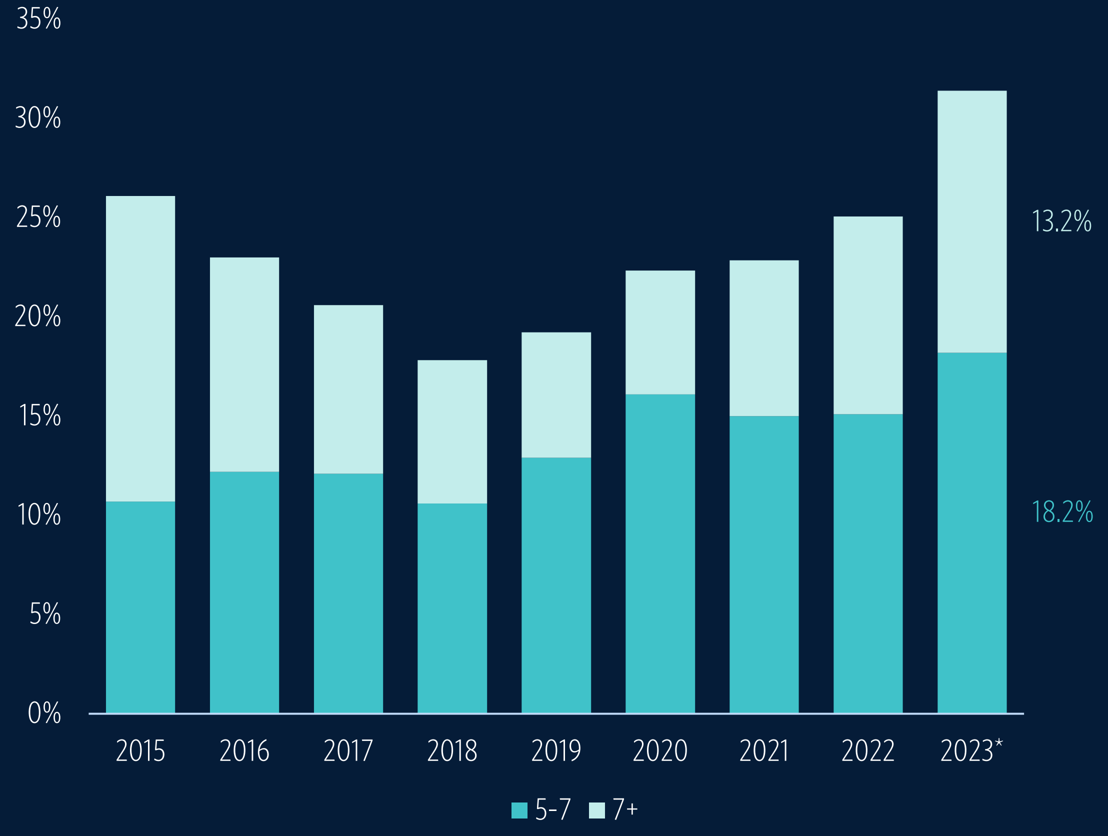
The exit rates of all cohorts have fallen behind the pre-2016 curve, especially for companies that have been buyout-backed for three to five years. For example, only 24.3% of companies that were acquired via an LBO in 2019 have exited, compared with the baseline expectation of 39.8%.

# …leading to longer holding periods and a greater share of companies that have been held for more than five years.

Holding period (years) of buyout-backed company inventory




Share of current buyout-backed companies by holding period (years)




Source: PitchBook • Geography: US
*As of October 18, 2023

# The lack of exit activity has pushed fund distribution rates to very low levels...

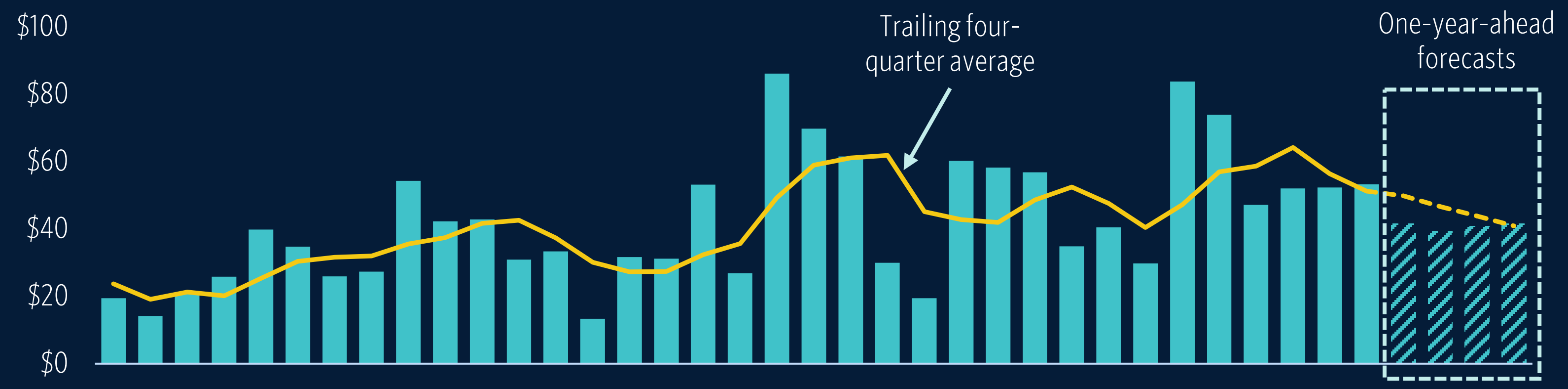
Trailing 12-month buyout fund distributions as a percentage of beginning net asset value (NAV)*


Even as GPs have scrambled to find alternative methods to return capital to LPs, such as secondaries and continuation sales, the trailing 12-month distribution rate has fallen to its lowest level since 2009. Since peaking at 37.6% in Q4 2021, the distribution rate for buyout funds has dropped to an estimated 11.1% of beginning-period NAV.

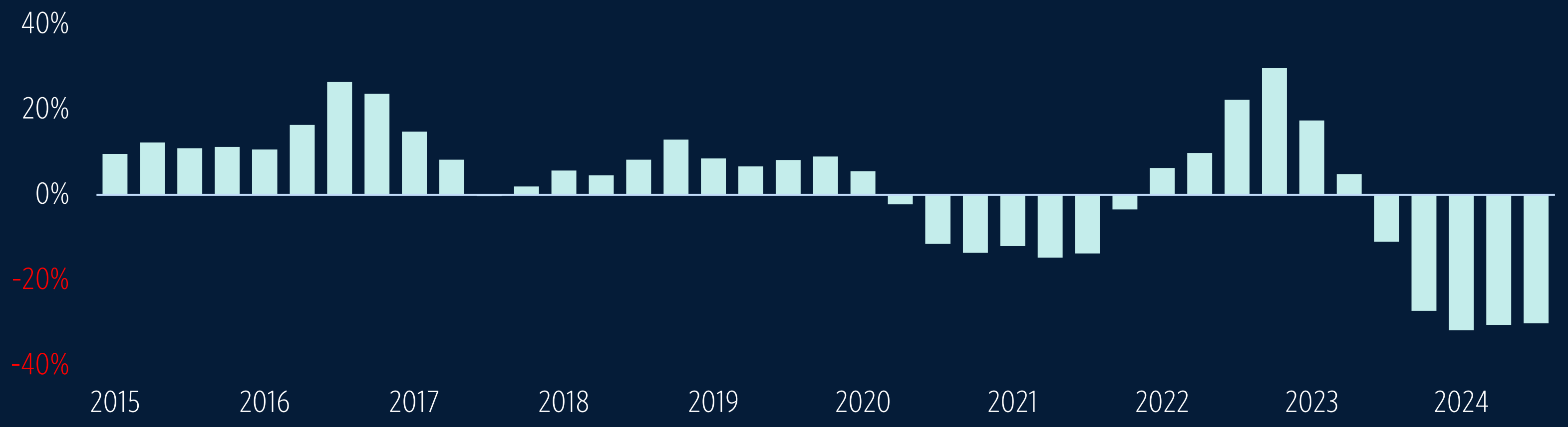
Source: PitchBook • Geography: US
*As of September 30, 2023
*Note: The data for the most recent two quarters was estimated based on exit deal value.*

# ...which will be an additional headwind to fundraising efforts...

Quarterly buyout fundraising ($B) with one-year-ahead forecasts*




Estimated impact of trailing 12-month fund distributions on trend fundraising*



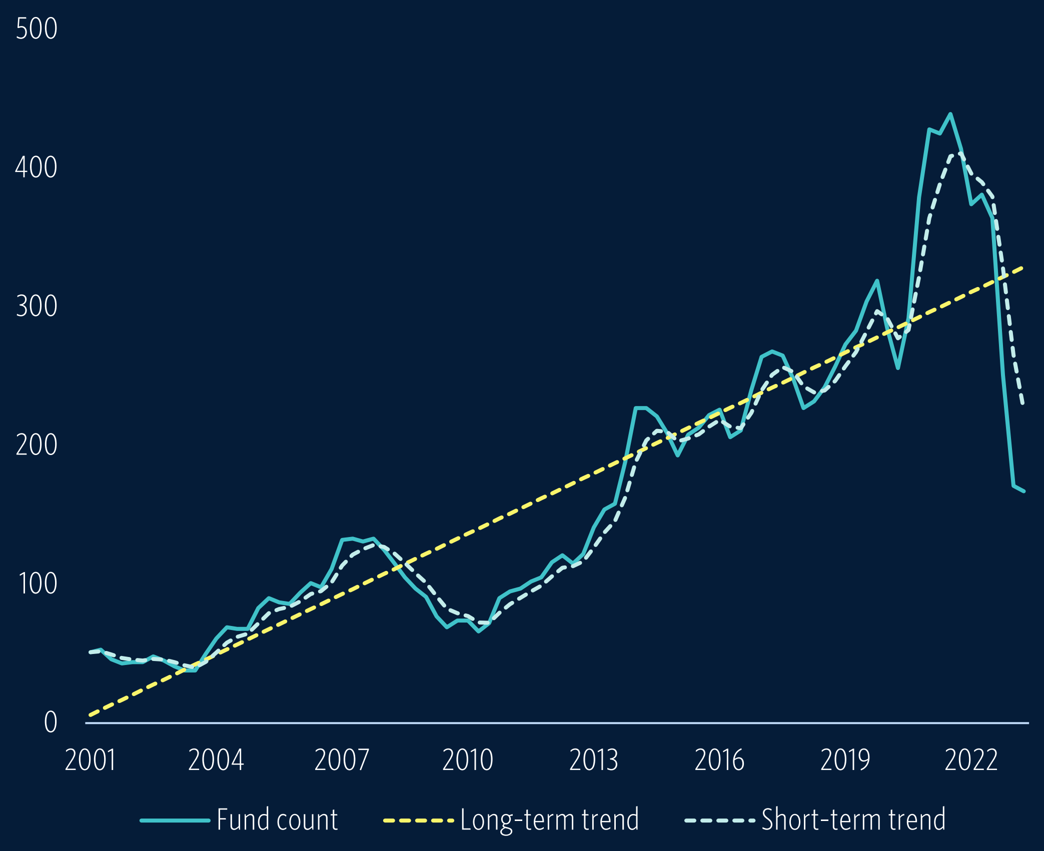

Source: PitchBook • Geography: US
*As of September 30, 2023
*Note: Quarterly fundraising data is seasonally adjusted.*

In previous research focused on long-term private market AUM forecasting, we found that capital recycling plays an important role in fundraising, and we built a forecasting model to capture this dynamic. The amount of private market fundraising is influenced by how much capital has been distributed back to investors, as some of those distributions are recycled into new funds.

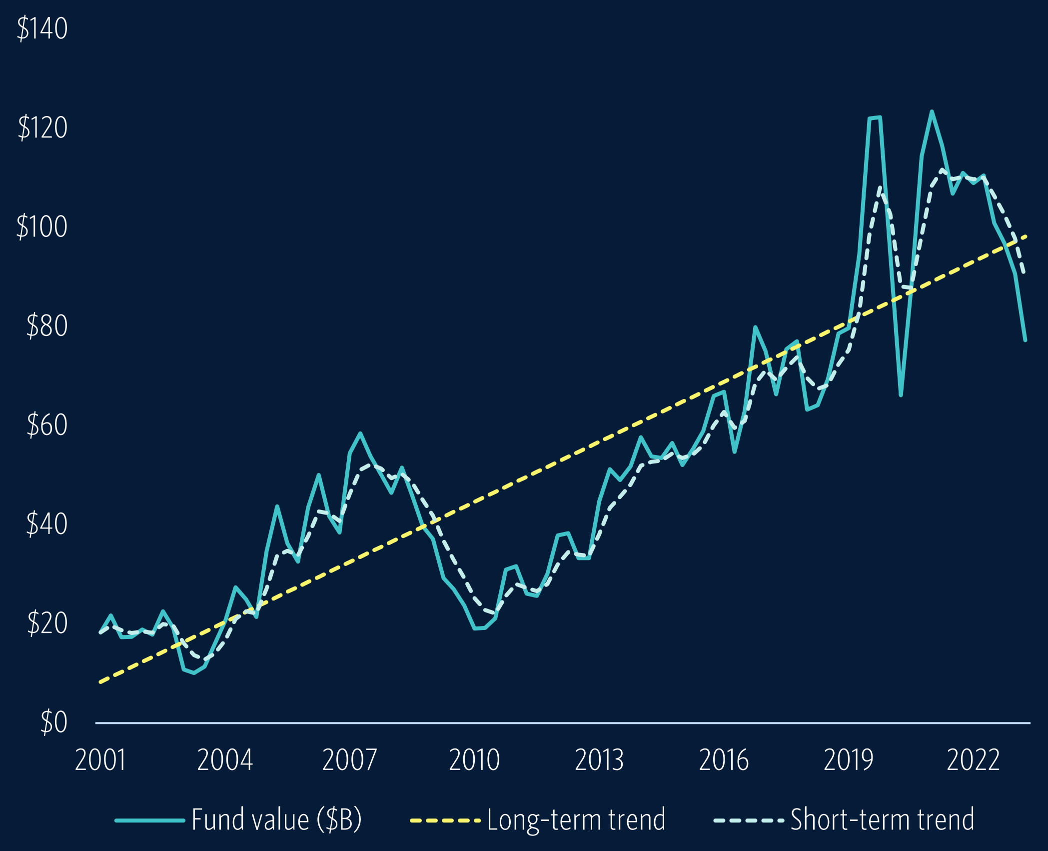
Given this relationship, the decline in PE exit activity and the corresponding decline in fund distributions have important implications for the fundraising outlook. In the next four quarters ending Q3 2024, our model expects that buyout fundraising will be roughly 30% below trend as a result of lower distribution rates, for a total of $163 billion.

# ...that are already being challenged.

Trailing six-month buyout fund count trends*



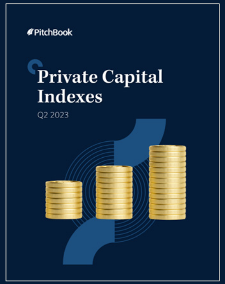

Trailing six-month buyout fund value trends*




Source: PitchBook • Geography: US
*As of September 30, 2023
*Note: Fundraising data is seasonally adjusted.*

# Additional research

## Market updates

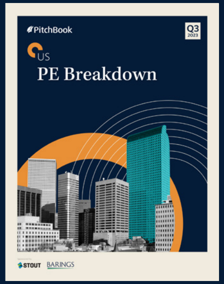



**Q2 2023 PitchBook Private Capital Indexes**

*Download the report here*

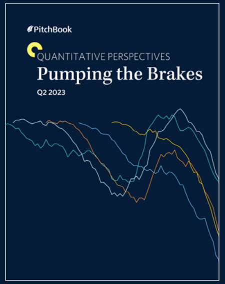

**Q3 2023 Global M&A Report**

*Download the report here*



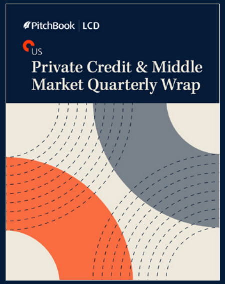

**Q3 2023 US PE Breakdown**

*Download the report here*



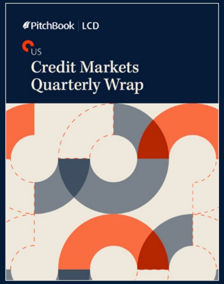

**Q2 2023 Quantitative Perspectives: Pumping the Brakes**

*Download the report here*




**Q3 2023 US Private Credit & Middle Market Quarterly Wrap**

*Download the report here*




**Q3 2023 US Credit Markets Quarterly Wrap**

*Download the report here*

More research available at *pitchbook.com/news/reports*