APOLLO

2024 Economic and Capital Markets Outlook: What's Next After the "Fed Pivot"?

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KEY TAKEAWAYS

The members of the Federal Reserve Open Market Committee (FOMC) "pivoted" to a more dovish stance in their last meeting of the year on December 13, holding rates steady and signaling that the inflation outlook has improved more quickly than anticipated. They also suggested three potential rate cuts in 2024.

- The "Fed pivot" underscores the rapidly shifting outlook for both growth and inflation. Going into the new year, we still see upside risks to inflation and downside risks to growth. Because:
- Despite signaled Fed rate cuts in 2024, we expect interest rates to stay higher and for longer than the rest of the market does. We arrive at our thesis through a combination of cyclical and secular drivers, including still-tight Federal Reserve monetary policy, higher borrowing needs by the US Treasury, the loosening of yield-curve control policy in Japan, and reduced buying and diminished inventory of US debt held by China and others.
- Two major factors driving consumer spending are largely unrelated to current Fed policy: Households are running out of excess savings and student-loan payments are restarting. The combination of these two dynamics increases the odds of a meaningful slowdown in consumer expenditures, a key driver of US growth.
- We see many signs that the Fed's rate hikes are working to cool off the economy. Consumers are already feeling the pinch, with increased delinquencies in both credit-card debt and auto loans. Similarly, a corporate default cycle has started, and employment is beginning to soften. Finally, bank-loan growth has been slowing sharply in recent months.
- Despite the Fed's aggressive tightening campaign, inflation remains above the central bank's 2% annual target. We've long argued that rates will stay higher and for longer than the market expects. But, if above-target inflation persists, they may go higher yet.
- All that said, we do not entirely discount the possibility of upside economic surprise. This idiosyncratic economy has defied consensus predictions for some time now, and it may continue to do so. A soft landing is not out of the question.

The implications for capital markets?

- We believe private credit offers an attractive opportunity today given higher yields in general and on senior secured debt in particular—allowing investors to boost income generation in their portfolios with downside protection.
- Opportunities in private equity are likely to continue to emerge among potential distressed companies that come along with the combination of slowing growth and high rates. Moreover, we see opportunities in assets that can offer some level of inflation protection, such as infrastructure.
- In real assets, particularly real estate, we see more compelling risk-adjusted return opportunities in credit than in equity at this stage of the economic cycle.
- Public equities are as unappealing as they have been in 20 years due to stretched valuations. Public bonds—with risk-free yields on 10-year Treasuries hovering around 4.0% as of this writing—appear attractive to investors interested in "locking" higher rates in their fixed-income portfolios. That said, attention to duration risk remains warranted.

The US economy has defied expectations once again. Despite predictions of a sharp slowdown in 2023—even a hard landing—both consumer spending and corporate earnings stayed strong despite tight monetary conditions. Inflation has been moderating without the typical coincident reversals in the labor market—underscoring the "Fed pivot" in the last FOMC meeting of 2023 to a more dovish stance—and a growing number of prognosticators are voicing confidence that a soft landing may be in the offing.

We are not so sure. Despite resilient strength in the economy, we still see more downside risk to the outlook in 2024 than possible upside surprise. While we do not entirely discount the possibility of a soft landing—and despite the signaled Fed cuts in 2024—we continue to see interest rates staying higher and for longer than the rest of the market expects. Portfolios, in our view, should be positioned accordingly.

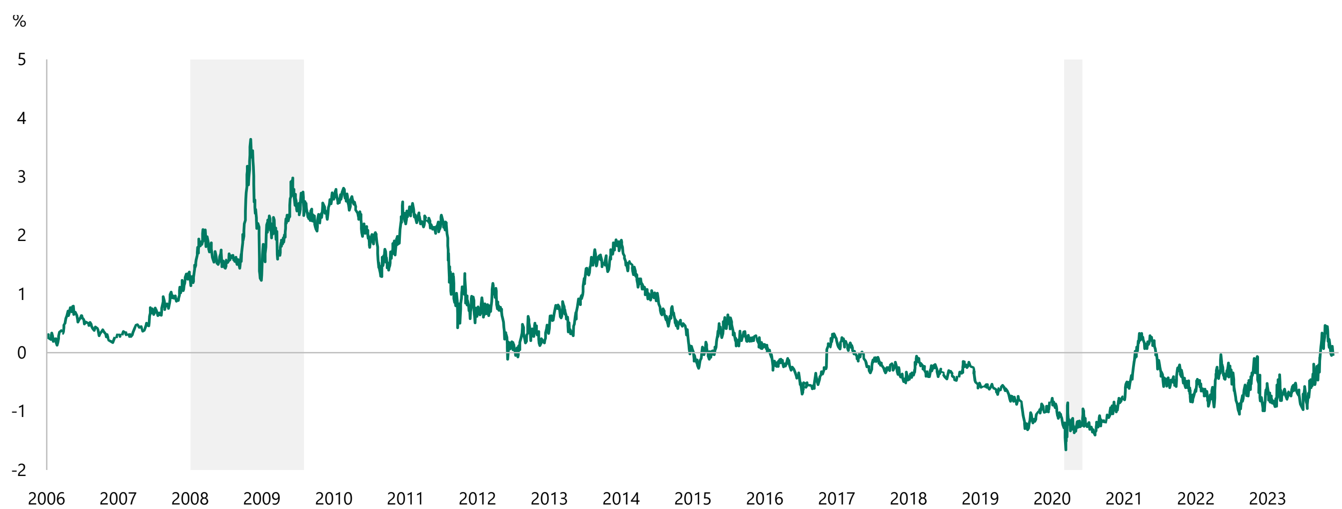
Despite signaled Fed cuts, rates will likely stay higher and for longer

We arrive at our thesis by a combination of cyclical and secular drivers. The first is still-tight Fed monetary policy. Even if the Fed does cut rates three times in 2024, as signaled on December 13, the fed funds rate would end the year between 4.5% and 4.75%, still much higher than the virtually zero level when the Fed started its tightening campaign in March 2022. We believe the Fed will keep policy restrictive until it tames inflation back to its 2% annual target, a job that it has yet to fully accomplish.

Additionally, long-term rates are high as well, and largely for reasons that aren't directly tied to the Fed's ongoing tight monetary policy. The so-called "term premium" has been rising due to a variety of factors **(Exhibit 1)**, including higher borrowing needs by the US Treasury as a function of larger budget deficits, the loosening of yield-curve control in Japan, and reduced buying and diminished inventory of US sovereign debt held by China and other foreign nations.

Exhibit 1: The 10-year Treasury "term premium" is rising

10-YEAR TREASURY TERM PREMIUM



Data as of November 29, 2023.
Sources: Bloomberg, Apollo Chief Economist

The contribution of US budget deficits to the interest rate picture is unambiguous: US government interest payments continue to skyrocket **(Exhibit 2)** and the country's borrowing needs have risen accordingly **(Exhibit 3).** The US government needs more money to fund itself, and the cost of doing so has gone up.

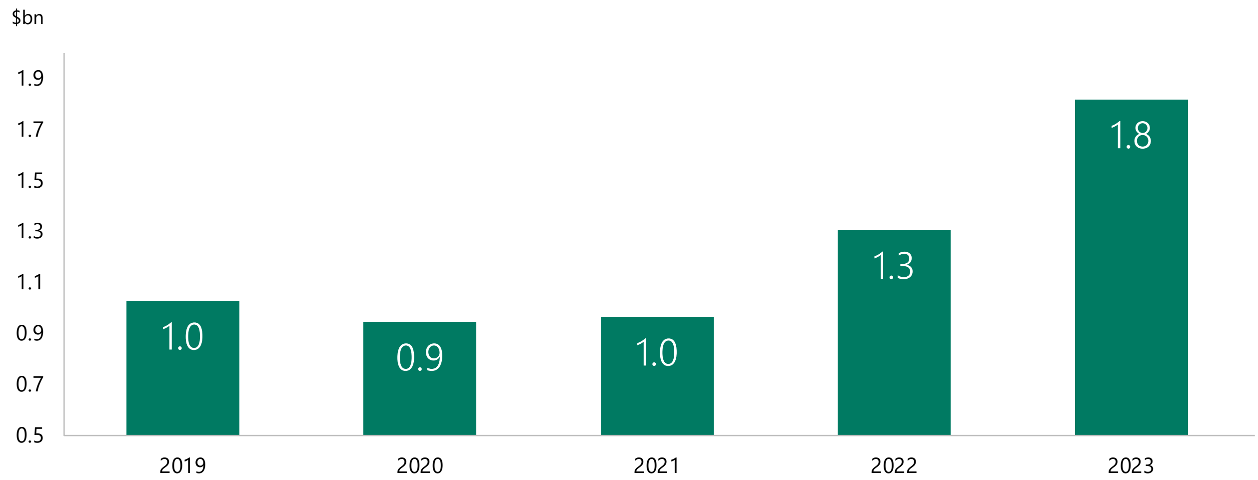
Further, developments at the Bank of Japan (BOJ) stand poised to exacerbate the supply and demand dynamics in the US Treasury bond market. The BOJ has long supported the local Japanese bond market by buying government debt to cap yields and keep domestic borrowing costs down. But with a tightening of its monetary policy—and the loosening of the BOJ yield–curve control—the implications for Treasuries and the US dollar are bearish as large Japanese investors begin to rotate out of the US and back toward Japan.

Finally, there is the ever-present X-factor known as China. With Chinese exports slowing (**Exhibit 4**), China has fewer US dollars to recycle (**Exhibit 5**). Less overall Chinese demand for Treasuries translates to higher rates.

It's not just China, either. Foreign official institutions—that is, central banks and sovereign wealth funds—have been net sellers of Treasuries since 2015 (**Exhibit 6**). While foreign private buyers stepped up purchases when the Fed raised rates in 2022, they have been slowing their purchases since early 2023 (**Exhibit 7**).

Exhibit 2: US government interest payments per day have doubled from $1 billion before the pandemic to almost $2 billion in 2023

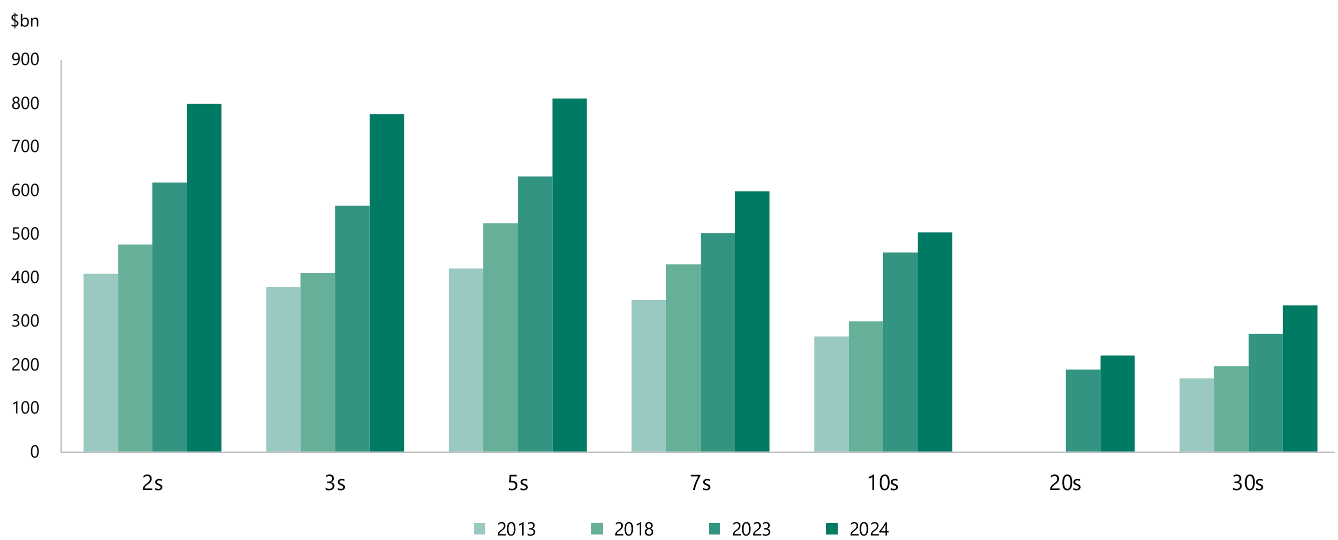
NET INTEREST EXPENSE PER DAY ON PUBLIC DEBT



Data as of November 29, 2023.
Note: Interest rate assumption by CBO: 2.1% in 2022 and 2.7% in 2023. Annual CBO data divided by 365.
Sources: CBO, Haver Analytics, Apollo Chief Economist

Exhibit 3: Treasury auction sizes in 2024 are expected to increase on average 23% across the yield curve

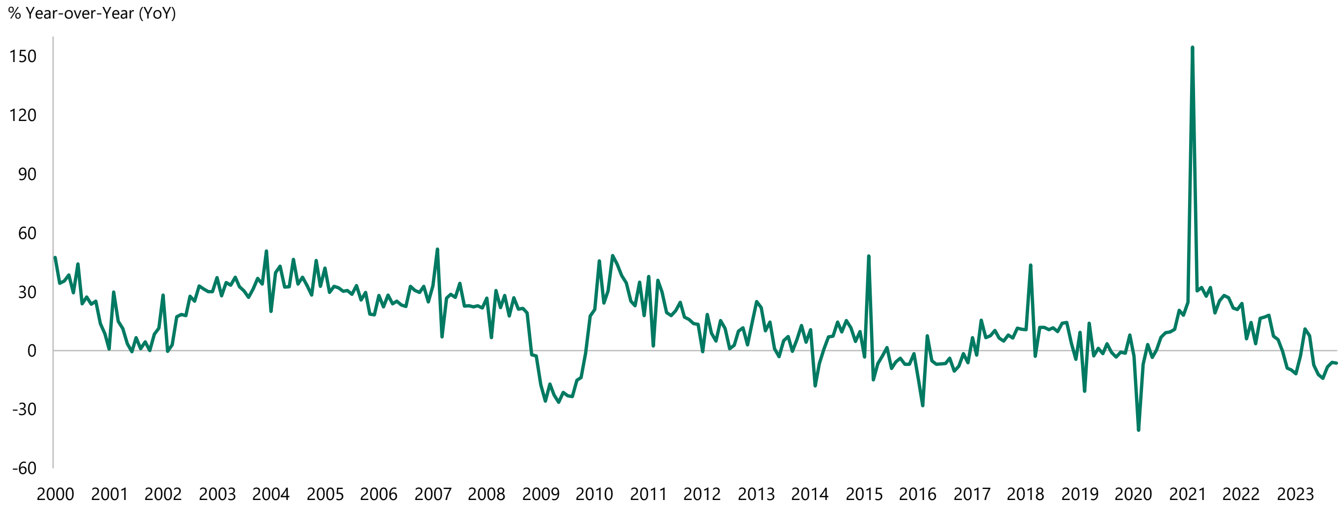
TREASURY ISSUANCE ACROSS TENORS



Data as of November 29, 2023.
Note: Estimates from November 2023 to December 2024 from the TBAC neutral issuance scenario.
Sources: SIFMA, TBAC, Haver Analytics, Apollo Chief Economist

Exhibit 4: Chinese exports are slowing

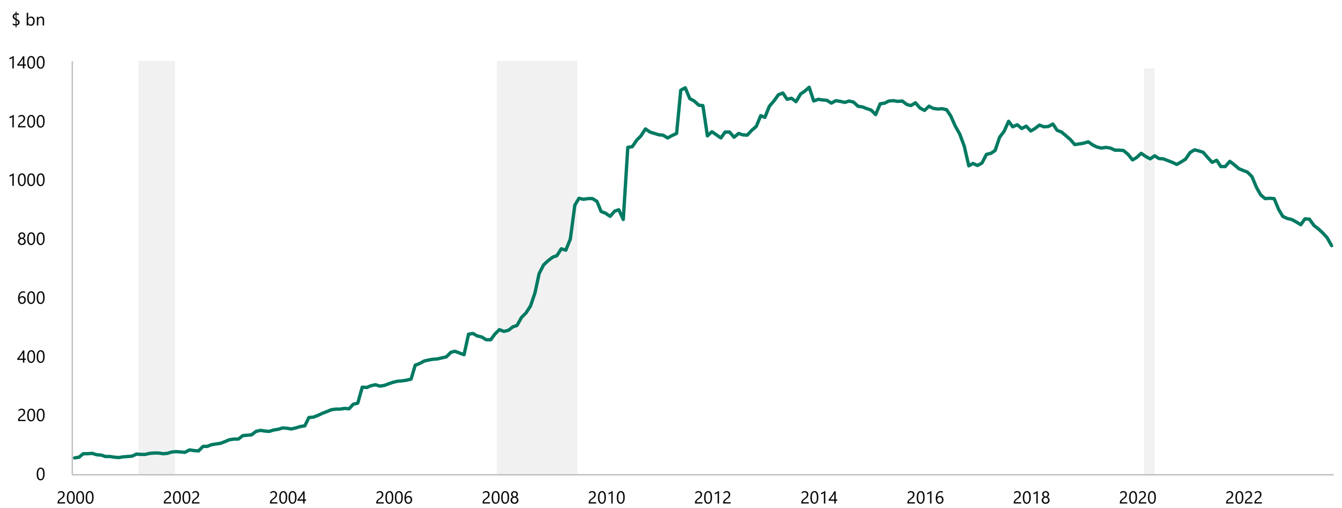
CHINA EXPORT TRADE USD



Data as of November 29, 2023.
Sources: Bloomberg, Apollo Chief Economist

Exhibit 5: China is holding $300 billion less in US Treasuries today than in 2021

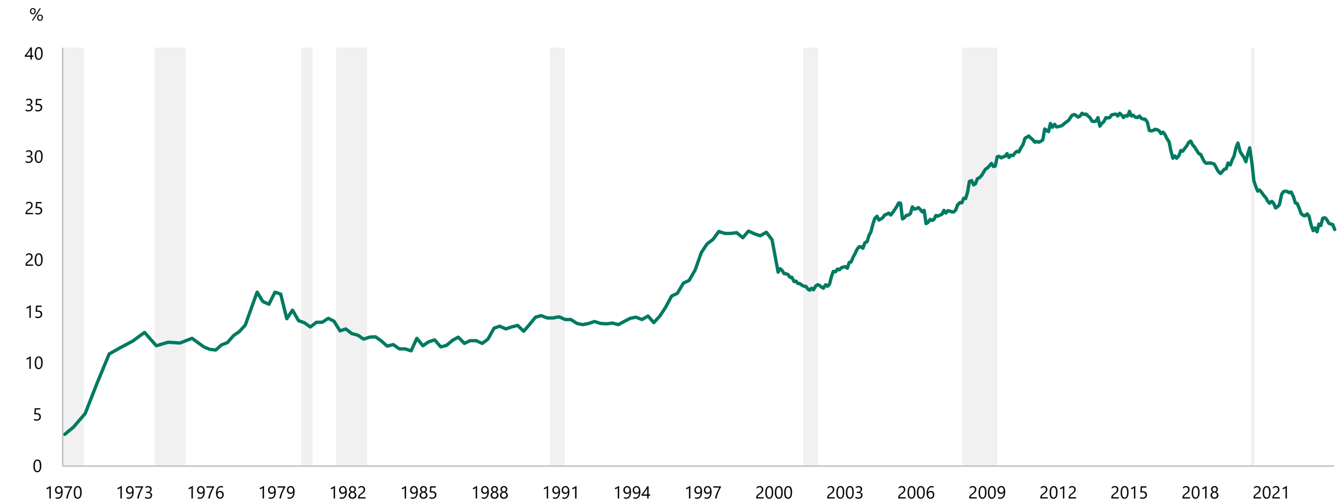
CHINESE HOLDINGS OF US TREASURIES



Data as of November 29, 2023. Shaded areas indicate recessions.
Sources: Bloomberg, Apollo Chief Economist

Exhibit 6: Trend decline in foreign ownership of US government bonds since 2015

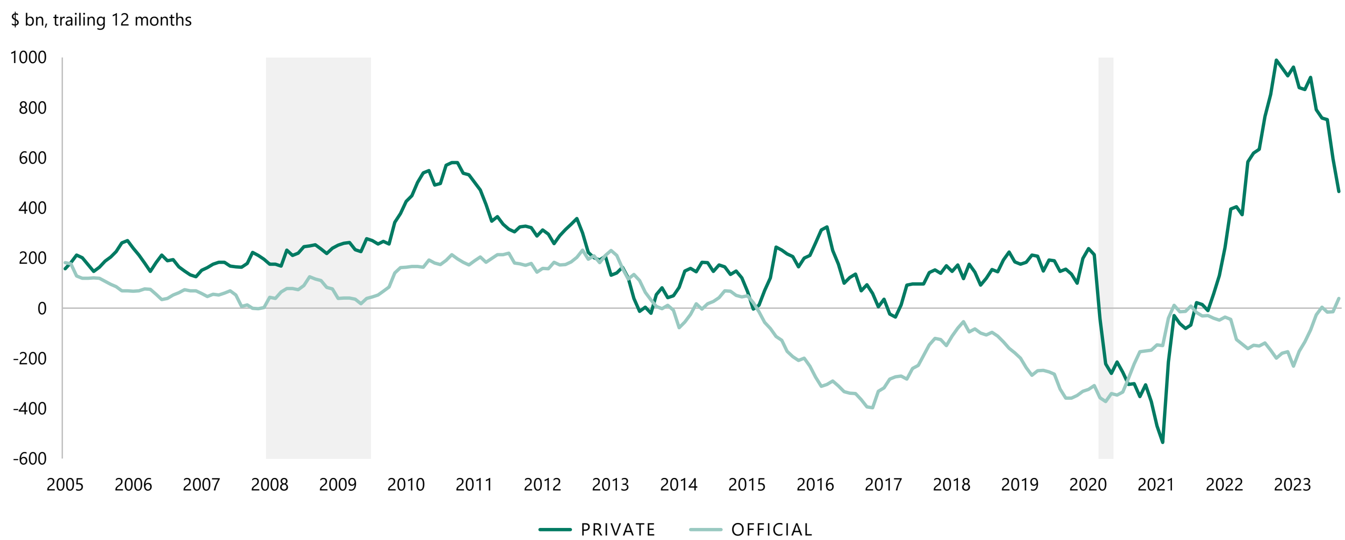
FOREIGN HOLDINGS OF US TREASURY SECURITIES AS A SHARE OF OUTSTANDING PUBLIC DEBT



Data as of November 29, 2023.
Sources: Treasury, Haver Analytics, Apollo Chief Economist

Exhibit 7: Foreign private sector investors are slowing their purchases of US Treasuries

NET FOREIGN PURCHASES: TREASURY BONDS AND NOTES



Data as of November 29, 2023.
Sources: Treasury, Haver Analytics, Apollo Chief Economist

The end of excess savings

A long(er) period of high rates could have negative implications for corporate growth, earnings, capital expenditures, and the housing market—implications that the capital markets don't seem to be incorporating into their forecasting models at present (**Exhibit 8**).

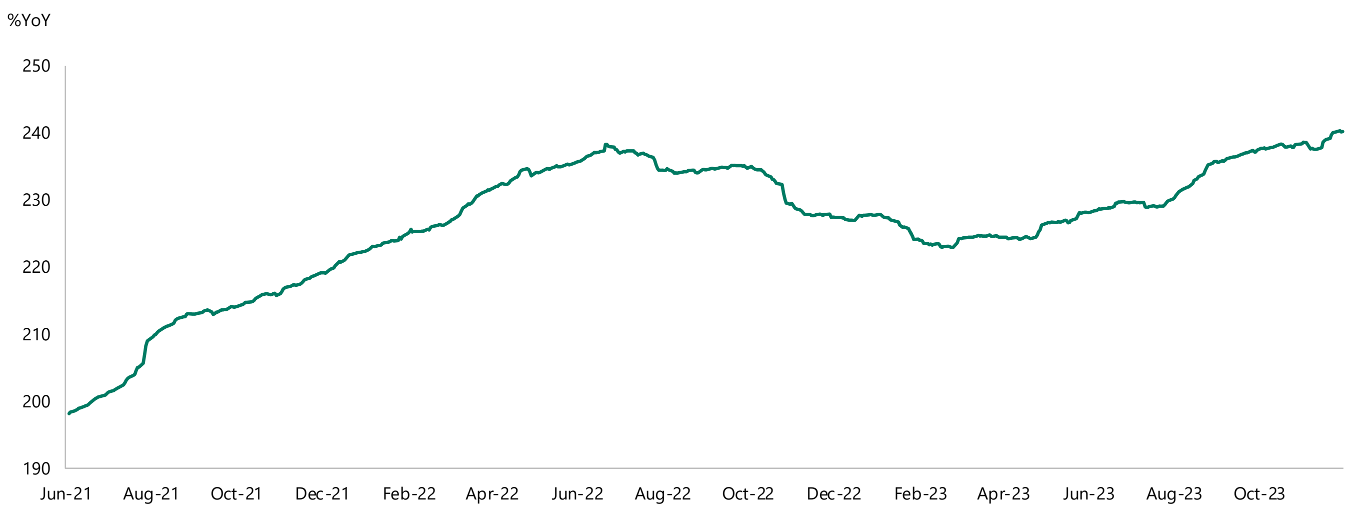
We think that expectations are too focused on the possibility of upside surprise at a time when downside risks are multiplying. To begin, we are focused on two major factors driving consumer spending that are largely unrelated to current Fed policy: Households are running out of excess savings and student-loan payments are restarting. The combination of these two dynamics increases the odds of a meaningful slowdown in consumer expenditures, a key driver of US growth.

Excess savings, in fact, might prove to be the answer to the question on everybody's mind, from CNBC to Bloomberg to the halls of the Federal Reserve: *Why hasn't the economy responded more dramatically to Fed rate hikes?* It is because we—meaning, consumers—have simply refused to stop spending, even in the face of rising rates and declining home values. While the performance of individual stocks has varied, equity markets have largely ignored the looming possibility of an economic slowdown over the course of 2023.

Why is that? Because during the pandemic, households saved so much money—spending plummeted while government transfers were very significant—that we continue to burn through those savings in a way that is keeping the economy afloat. Retail sales have proven resilient, and hiring, while on the decline, has held up rather well in the face of rising rates. But the American consumer does finally seem to be running short of cash (**Exhibit 9**). And while they are not out of money quite yet, we can expect to see them become a much less powerful economic tailwind in 2024.

Exhibit 8: Earnings expectations continue to rise in the face of high rates

S&P 500 12-MONTH FORWARD EARNINGS PER SHARE (EPS) EXPECTATIONS

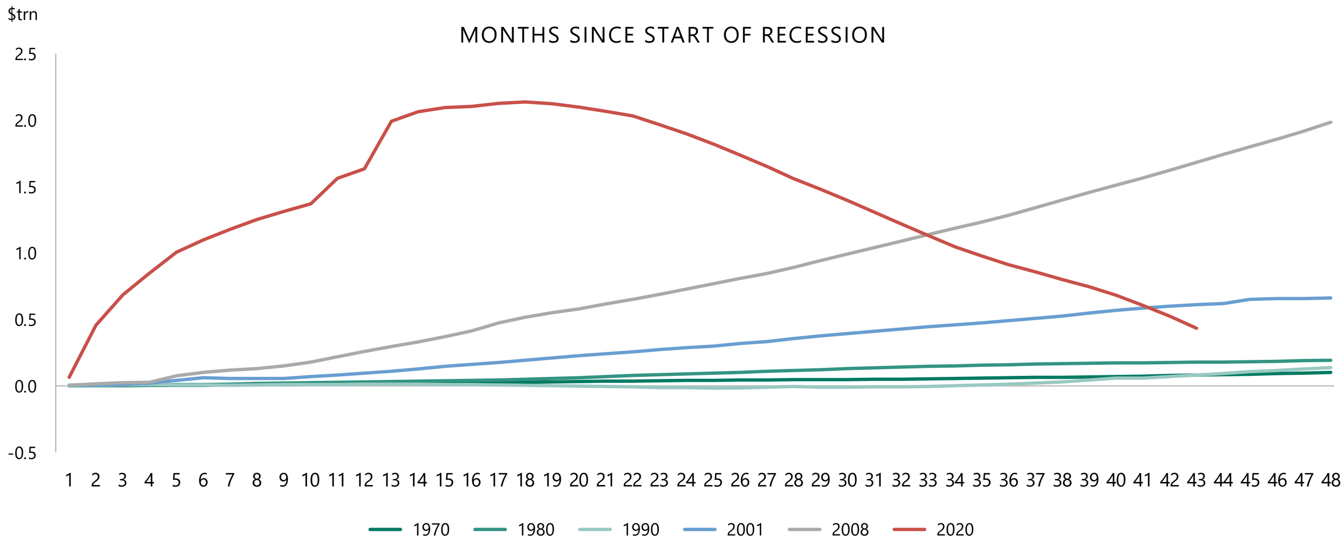


Data as of November 29, 2023.
Sources: Bloomberg, Apollo Chief Economist

> The markets don't seem to be incorporating the effect of higher rates into their forecasting models at present.

Exhibit 9: US households are running out of excess savings

ACCUMULATED EXCESS SAVINGS



Data as of November 29, 2023.

Note: Excess savings are calculated as the accumulated difference between actual personal savings and the trend implied by data for the 48 months leading up to the first month of each recession, as defined by the National Bureau of Economic Research.

Sources: BEA, Haver Analytics, Apollo Chief Economist

Typically, with the onset of recession, you can expect to see—as we did in 1970, 1980, 1990, 2001, and 2008—consumers spending money that they don't have, or at least aren't replacing. That's because in the typical recession, people start losing their jobs and they enter a period of dis-saving. With the accompanying loss of income, savings tend to go down, not up.

That's not what has happened this time around. After the onset of recession in 2020, savings actually started *going up*. The reason was obvious: During quarantine, we were all sitting at home. We were not eating at restaurants, staying at hotels, flying on airplanes, going to concerts, sporting events, or amusement parks. Because of that, excess savings spiked in unprecedented fashion.

But the increase in savings wasn't simply due to a decline in spending. Many of us also received stimulus checks, unemployment benefits, childcare tax credits, and Paycheck Protection Program (PPP) loans. The combination of decreased spending and meaningful government transfers meant that savings didn't peak until about 18 months after the pandemic began. Since that time—in late 2021—the American consumer has been running down their savings. The precise timing aside, it's quite clear that household spending will prove much less of a tailwind for the economy as we move through 2024. The American consumer—the most significant force driving the economy—is beginning to fade.

As savings continue to decline, there is notable change on the expense side of the consumer ledger: student loans. About 44 million people have a student loan in the US, with an average balance of nearly $38,000—adding up to a staggering total of more than $1.6 trillion[1]. Roughly half of all student loans saw their payments suspended by the Biden Administration during quarantine, but that moratorium expired on October 1, 2023, and payments have resumed. With the median income in the US just over $4,000 a month[2], and average student loan payments of around $300[3] a month, that means that some 20 million households will once again have to redirect nearly 10% of their income toward their student loan repayments.

The Census Household Pulse Survey for October showed a jump in the proportion of consumers saying they are having difficulties paying their household expenses (**Exhibit 10**). A more detailed analysis of the survey shows that the difficulties with paying household expenses were concentrated among households with a college degree, making between $50,000 and $150,000, suggesting that restarting student loan payments is the source of increased financial stress for consumers. This points in the direction of another downside risk to the economy.

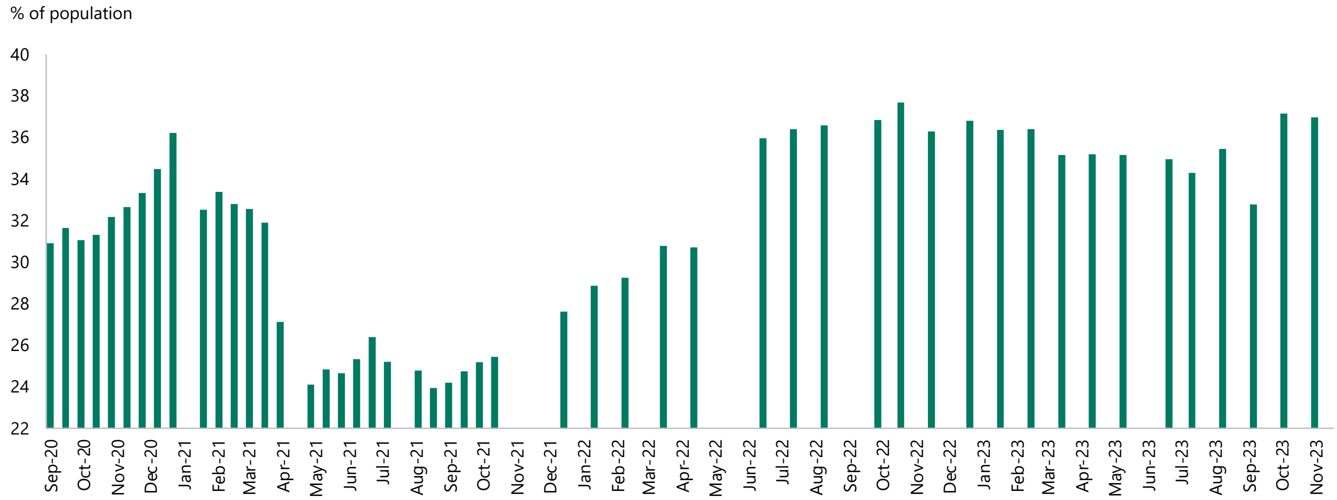
[1] https://educationdata.org/student-loan-debt-statistics. Data as of August 2023.

[2] https://fred.stlouisfed.org/series/LES1252881500Q. Data as of Q32023.

[3] https://komonews.com/news/local/student-loan-payments-restart-october-debt-pandemic-covid-repay-adult-financial-burden-consumer-financial-protection-bureau-monthly-expense-plan-ad. Data as of October 2023.

Exhibit 10: There was a jump in the share of households having difficulties paying expenses in October

RESPONDED 'SOMEWHAT' OR 'VERY DIFFICULT' TO PAY HOUSEHOLD EXPENSES IN LAST WEEK



Data as of November 29, 2023.
Note: Gaps in the above chart do not indicate a lack of difficulty paying expenses but rather a lack of survey data from that month.
Sources: Census Bureau Household Pulse Survey, Apollo Chief Economist

In addition to the two unique factors previously mentioned, we do see many signs that the Fed's rate hikes are working to cool off the economy. Consumers are already feeling the pinch, with increased delinquencies in both credit-card debt and auto loans. Similarly, a corporate default cycle has started, and employment is beginning to soften noticeably. Finally, bank-loan growth has been slowing sharply in recent months.

Outlook for consumer spending: Higher rates having an effect

Higher rates have slowly begun to affect consumer spending, which accounts for 70% of Gross Domestic Product[4], and—with savings being drawn down—a potential sudden drop in consumer spending (and, following that, business activity) is one of the main risks to the economic outlook. That's why it's important to scrutinize the data to identify the areas where higher rates have had the most impact so far.

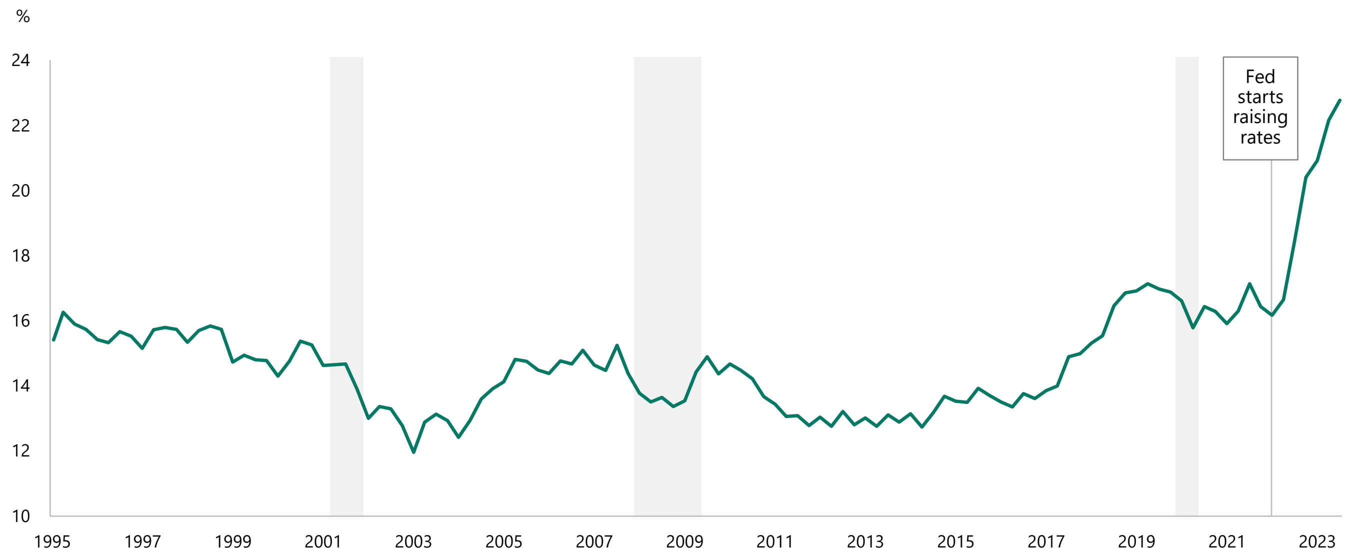
Let us consider first the effect that higher interest rates (**Exhibit 11**) are having on the ability of consumers to service their credit-card debt. While delinquency rates are rising across all age groups (**Exhibit 12**), those for consumers in their 20s, 30s, and 40s have risen more sharply than older age groups. Why? Because younger households typically have lower incomes, lower savings, and lower credit scores, making them the most vulnerable to rising rates. What's notable about **Exhibit 12** is that delinquency rates don't typically begin to rise until Fed rate hikes have resulted in job losses and an increase in the unemployment rate. But delinquency rates started rising almost immediately after the Fed began raising rates and unemployment has remained low. If unemployment were to rise (as it could if the economy slows down meaningfully), delinquencies appear poised to spike further than they have to date.

[4] https://www.whitehouse.gov/cea/written-materials/2023/07/27/the-advance-estimate-of-second-quarter-real-gdp/. Data as of July 2023.

> We see many signs that the Fed's rate hikes are working to cool off the economy.

Exhibit 11: The interest rate on credit-card debt has topped 20% and is still rising…

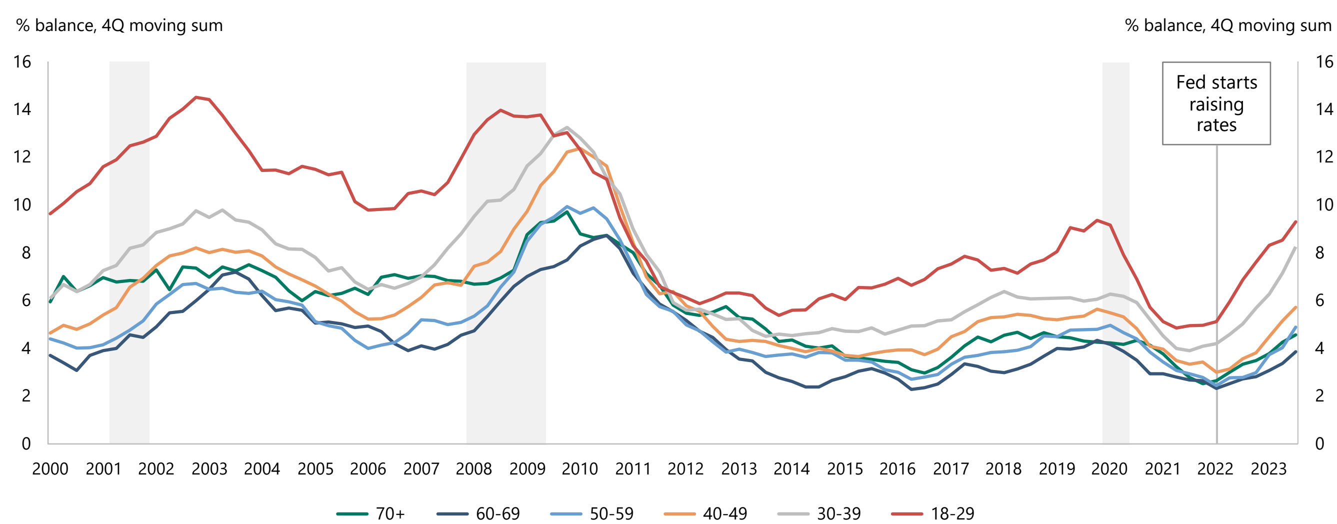
AVERAGE INTEREST RATE ON CREDIT CARDS



Data as of November 29, 2023.
Sources: Federal Reserve Board, Haver Analytics, Apollo Chief Economist

Exhibit 12: …resulting in higher credit-card delinquency, especially for younger consumers

CREDIT-CARD TRANSITIONS TO SERIOUS DELINQUENCY (90+), BY AGE



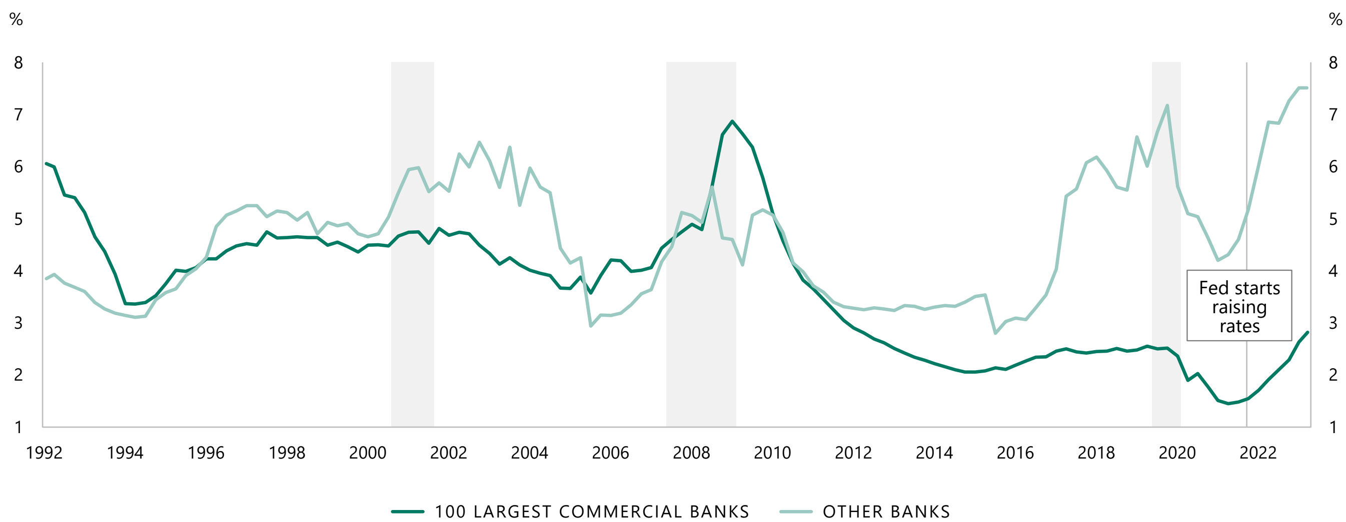
Data as of November 29, 2023.
Sources: New York Fed Consumer Credit Panel/Equifax, Apollo Chief Economist

If we look at credit-card delinquencies from the perspective of the banks, it's interesting to note that they are much higher for small institutions (**Exhibit 13**). The 100 largest banks have seen delinquency rates rising to worrisome levels—not as bad as 2008, but above 2020 and headed northward. The next-largest 4,900 banks in the country, however, paint a more worrisome picture: Delinquencies are currently at *their highest rate on record*. And, again, this is before we have seen any meaningful pick-up in the unemployment rate.

The same dynamics hold true in auto loans, which have seen sharp increases in interest rates since the Fed began its tightening campaign (**Exhibit 14**). Most notably, consumers in their 30s—the majority of whom presumably still have jobs and even decent wage growth—are falling behind on payments at levels we haven't seen since the Global Financial Crisis (GFC) (**Exhibit 15**).

Exhibit 13: Small banks are feeling the delinquency pinch much more than large banks

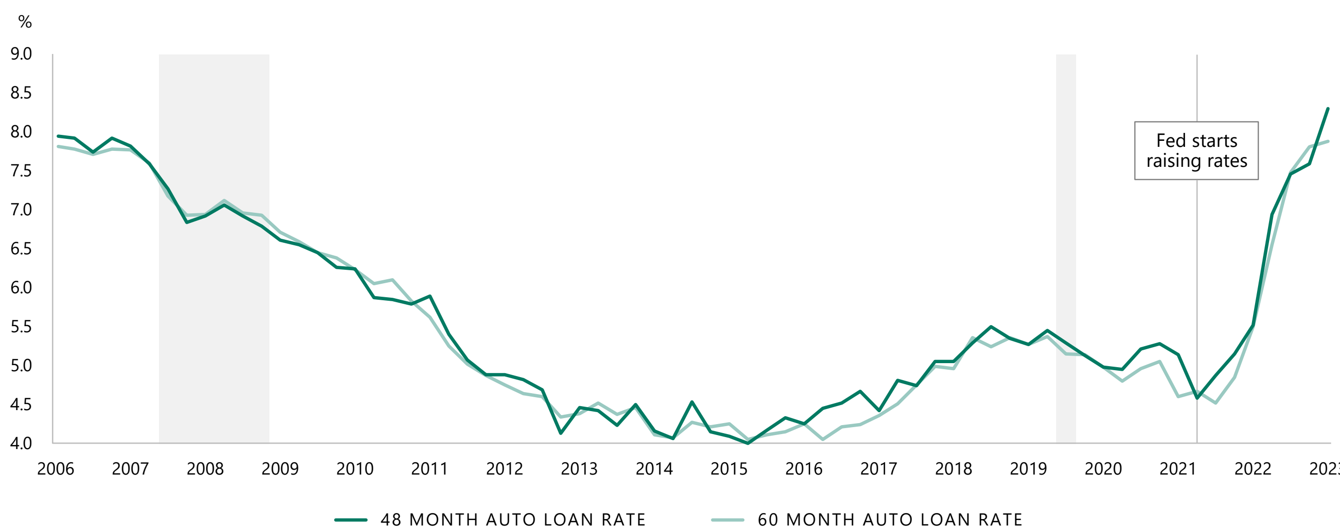
DELINQUENCY RATES ON CONSUMER CREDIT CARDS



Data as of November 29, 2023.
Sources: Federal Reserve Board, Bloomberg, Apollo Chief Economist

Exhibit 14: Interest rates on auto loans are also spiking...

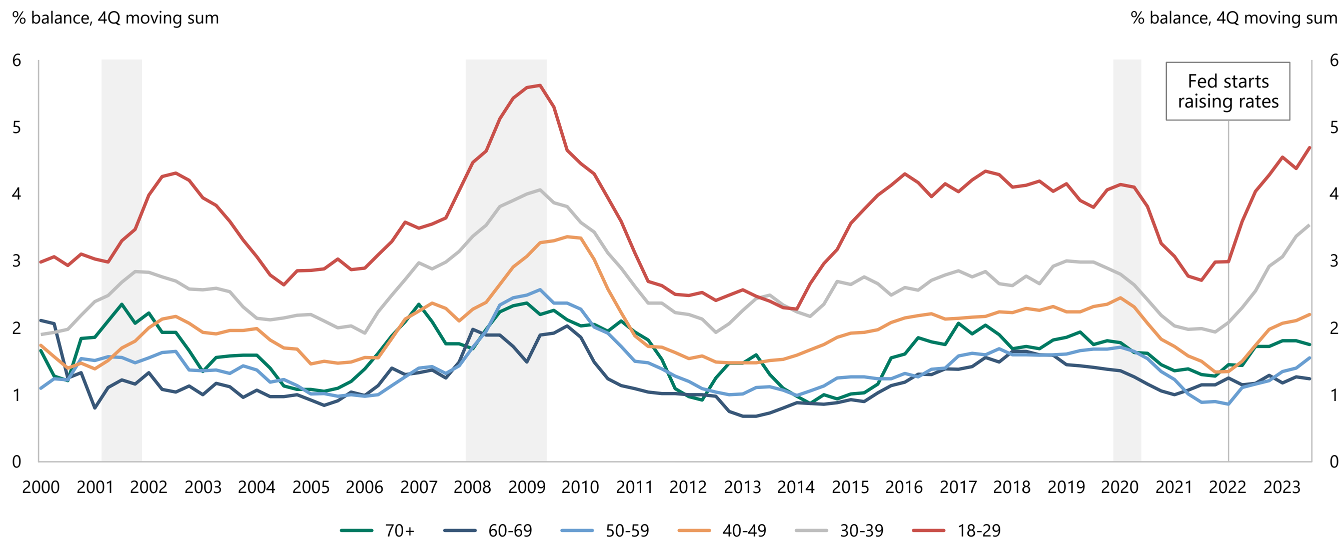
COMMERCIAL BANK AUTO-LOAN RATES



Data as of November 29, 2023.
Sources: Federal Reserve Board, Bloomberg, Apollo Chief Economist

Exhibit 15: ...with the result that auto-loan delinquencies are approaching 2008 levels

AUTO-LOAN TRANSITIONS TO SERIOUS DELINQUENCY (90+) BY AGE



Data as of November 29, 2023.
Sources: Federal Reserve Board of New York Consumer Credit Panel, Equifax, Haver Analytics, Apollo Chief Economist

These developments match what economics textbooks predict. Fed policy is having an impact. But here's the rub: If delinquencies are rising even *before* a meaningful rise in unemployment, what does the future hold even with a gradual loosening of monetary conditions?

As of this writing, the CME FedWatch Tool[5]—which calculates the market's estimation of the probability of Fed rate cuts based on the price of fed funds futures—suggests that the central bank will start cutting rates in March 2024 (**Exhibit 16**). Even if the Fed starts gradually cutting in 2024, higher levels of interest rates will continue to bite harder and harder on the consumer pocketbook.

Outlook for corporate performance: A slowdown has begun

Corporate borrowers are experiencing similar financial dynamics as consumers. An increasing number of them are finding it more difficult to service their loans. To watch that dynamic play out, one need only track companies' interest coverage ratios (**Exhibits 17** and **18**).

Exhibit 16: Futures markets are predicting that the Fed will begin cutting rates in March 2024

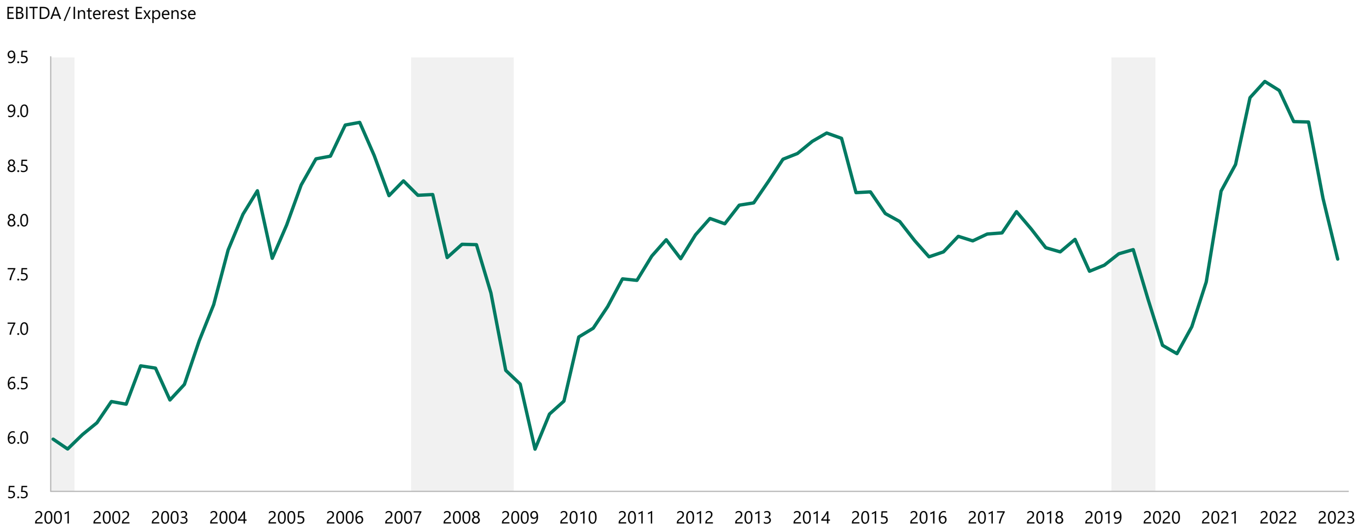
MEETING DATE	DAYS TO MEETING	EASE	NO CHANGE	HIKE
1/31/2024	47	18.60%	81.40%	0.00%
3/20/2024	96	**77.21%**	22.79%	0.00%
5/1/2024	138	96.99%	3.01%	0.00%
6/12/2024	180	100.00%	0.00%	0.00%
7/31/2024	229	100.00%	0.00%	0.00%
9/18/2024	278	100.00%	0.00%	0.00%
11/7/2024	328	100.00%	0.00%	0.00%
12/18/2024	369	100.00%	0.00%	0.00%

Data as of December 14, 2023.
Source: CME FedWatch Tool

[5] https://www.cmegroup.com/markets/interest-rates/cme-fedwatch-tool.html

Exhibit 17: The median coverage ratio for investment grade corporates is declining...

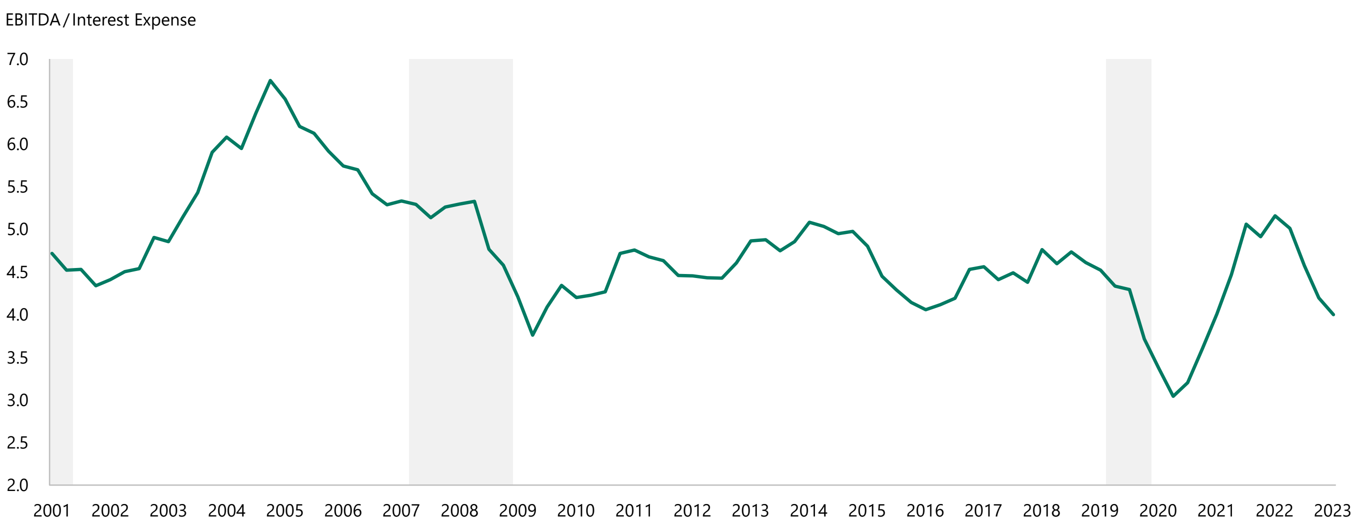
INTEREST COVERAGE RATIO FOR US IG INDEX



Data as of November 29, 2023.
Note: US IG Index is ICE BofAML US Corporate Index, which consists of investment-grade corporate bonds that have a remaining maturity of greater than or equal to one year and have $250 million or more of outstanding face value.
Sources: Bloomberg, Apollo Chief Economist

Exhibit 18: ...as is that of high-yield borrowers

INTEREST COVERAGE RATIO FOR HIGH YIELD



Data as of November 29, 2023.
Note: High Yield Index is ICE BofAML US High Yield Index, which tracks the performance of US dollar-denominated below investment grade debt publicly issued in the US domestic market.
Sources: Bloomberg, Apollo Chief Economist

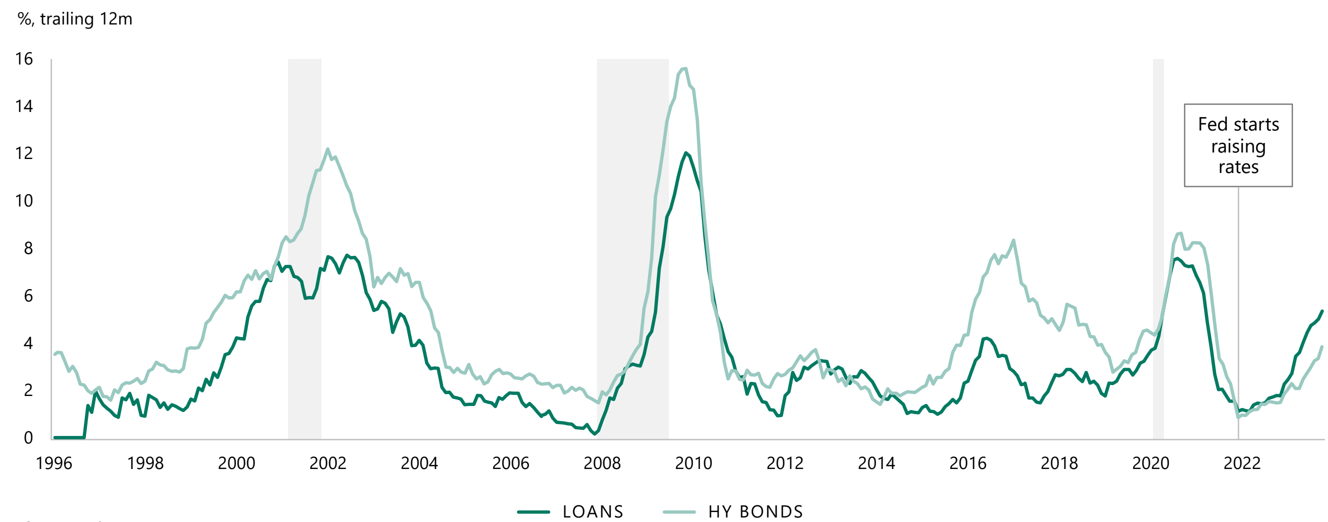
Almost immediately after the Fed started raising rates in March of 2022, we began to see more defaults (**Exhibit 19**). That makes sense: Companies' financial health lies along a spectrum, and when borrowing costs rise, there will always be those who get pushed too far over the leverage line first. If the Fed holds rates steady until the middle of 2024, we can expect to see the number of defaults continue to rise.

Again: This is happening because this is what the Fed wants to happen. They are trying to bring about a soft landing, and this is how a soft landing starts. It is also how a hard landing starts, of course, but the point is that these defaults have not arrived unexpectedly. The Fed is *engineering* them. That's the whole point of central-bank tightening. The Fed is doing this with the ultimate goal of getting inflation back to their 2% target.

Where will we see the most dramatic effects of the Fed's tightening campaign in the months ahead? With firms that have a lot of leverage and little cash flow. Technology and growth companies, for example, especially venture-backed companies, with cash flows far out in the future, are going to find it increasingly difficult to raise capital as investors become more risk averse when the risk-free rate is hovering around 4.0% a year. This is why venture capital valuations have taken a beating as of late (**Exhibit 20**).

Exhibit 19: A default cycle has started among the most leveraged corporate borrowers

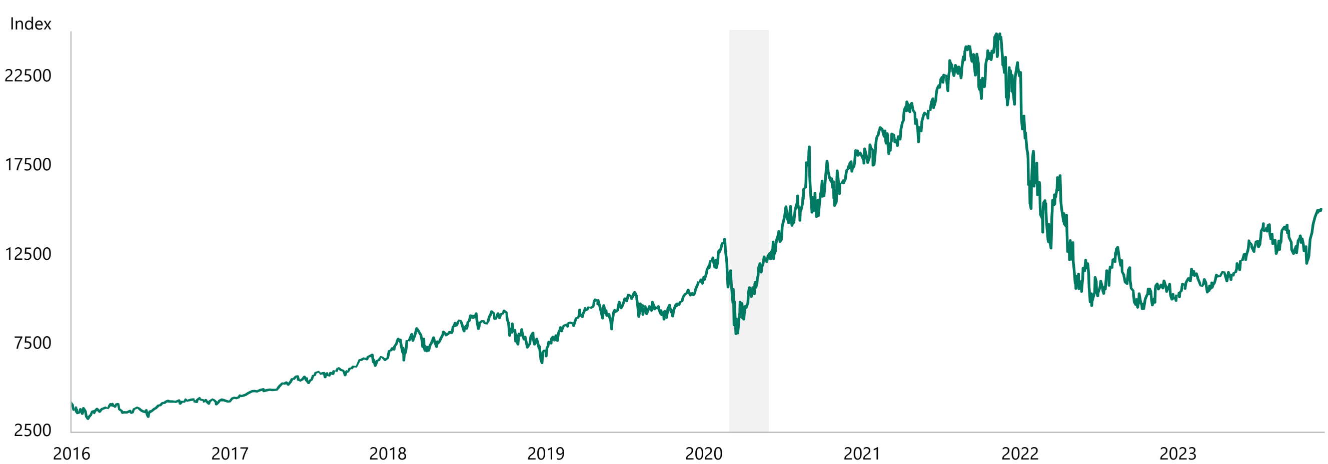
US SPECULATIVE GRADE DEFAULT RATES



Data as of November 29, 2023.
Sources: Moody's Analytics, Apollo Chief Economist

Exhibit 20: US venture capital valuations are down 50% from their peak

REFINITIV VENTURE CAPITAL INDEX



Data as of November 29, 2023.
Note: The Refinitiv Venture Capital Index is designed to measure the value of the US-based venture capital private company universe in which venture capital funds invest.
Sources: Bloomberg, Apollo Chief Economist

During recessions, the share of unprofitable firms rises. This is not surprising. But even before the economy has entered a recession, the share of companies in the Russell 2000 with no earnings is at 40% (**Exhibit 21**). If the economy does enter a recession, a lot more middle-market companies will be vulnerable to the combination of high rates and slowing growth.

Outlook for job growth: The pace of job creation is moderating

One of the more surprising parts of the economic outperformance of the past few years has been the ongoing strength of the labor market (**Exhibit 22**). Almost a year into the Fed's tightening campaign, job growth remained robust, with nonfarm payrolls rising by 284,000 in the fourth quarter of 2022 and then by 312,000 in the first quarter of 2023.

As 2023 continued, job growth slowed to 201,000 new jobs in the second quarter, 165,000 in the third quarter, and an expected 125,000 in the fourth quarter. The consensus expects job growth to continue slowing through the second quarter of next year—50,000 new jobs in the first quarter, followed by 27,000 in the second—before starting to rebound in the second half.

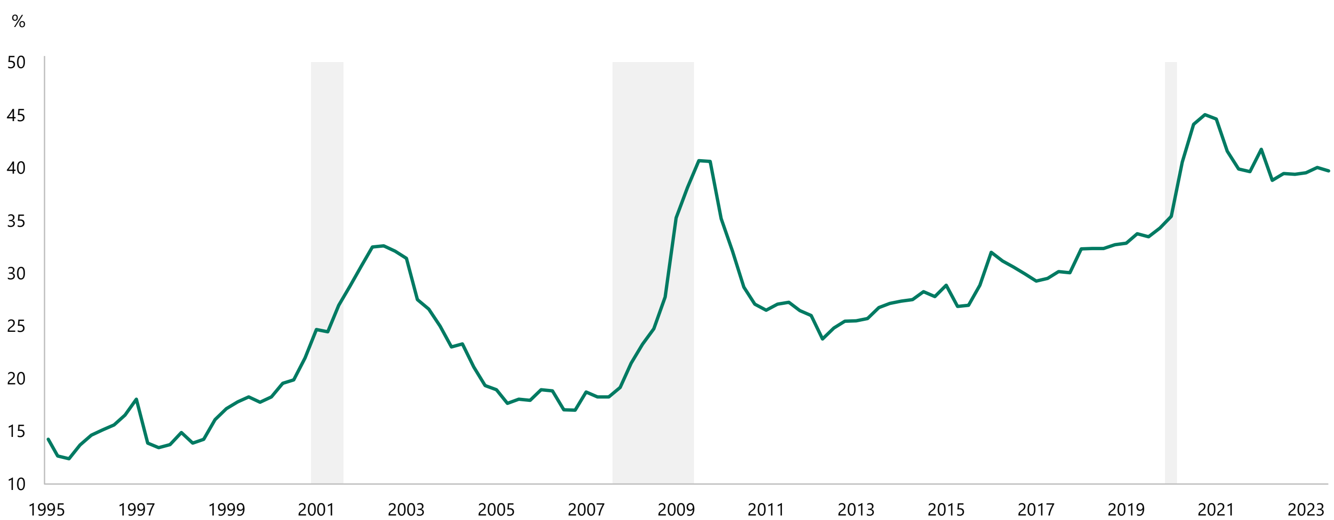
Whether or not the forecasts are correct, what we can see in the current data is that we are experiencing a slowdown in job creation. The pace of job growth is falling, and the consensus expects job growth to slow significantly over the coming six months. The key question for markets is whether the Fed can engineer a soft landing in both inflation and in the labor market (i.e., in both parts of its dual mandate).

Another key question for investors to consider: How important are highly leveraged companies to the economy? Do they really matter from a macro perspective? If we return to the subject of **Exhibit 19**—that a default cycle has begun among the most highly leveraged companies—and corroborate that with **Exhibit 22**, we discover that they are very important, indeed. High-yield and leveraged-loan companies employ nearly 20 million people (**Exhibit 23**). The longer rates stay high, the more jobs will be at risk.

Of course, it shouldn't come as a surprise to anyone that the weaker the balance sheet, the more vulnerable a company is to rising rates (**Exhibit 24**). The implication for investors is that, at a moment such as this, one might want to be moving upward in quality, closer to the top of the capital structure (e.g., first-lien senior secured debt) than to the bottom (e.g., equities).

Exhibit 21: Nearly half of Russell 2000 companies have negative earnings

PERCENTAGE OF COMPANIES IN RUSSELL 2000 WITH NEGATIVE EARNING (12-MONTH TRAILING EPS)



Data as of November 29, 2023.
Sources: Bloomberg, Apollo Chief Economist

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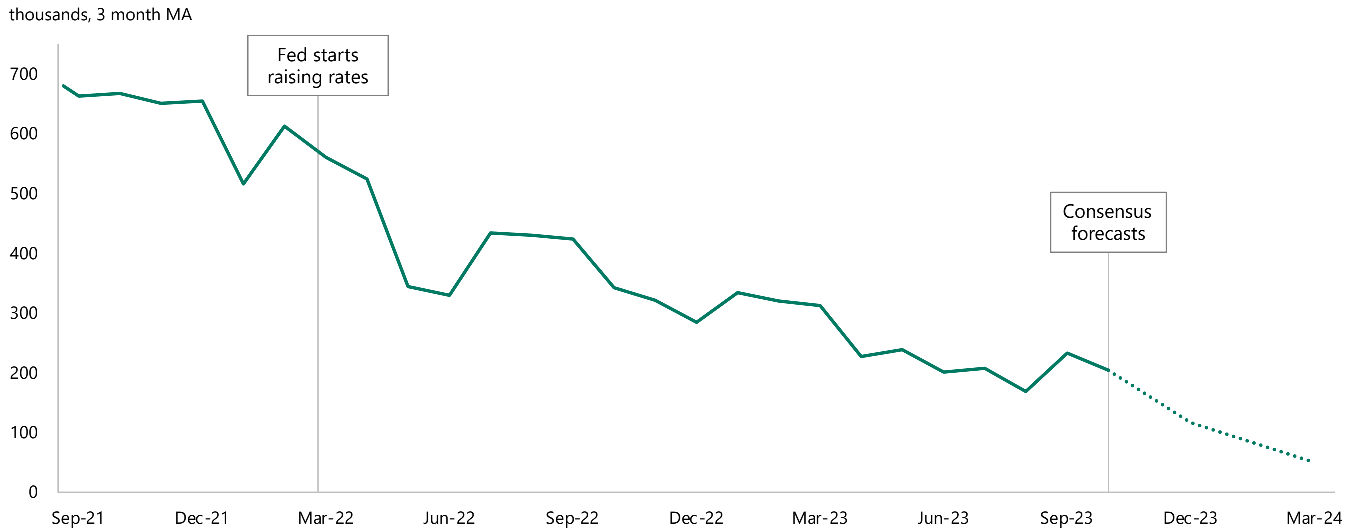
Exhibit 22: Since the Fed started raising rates, employment growth has slowed

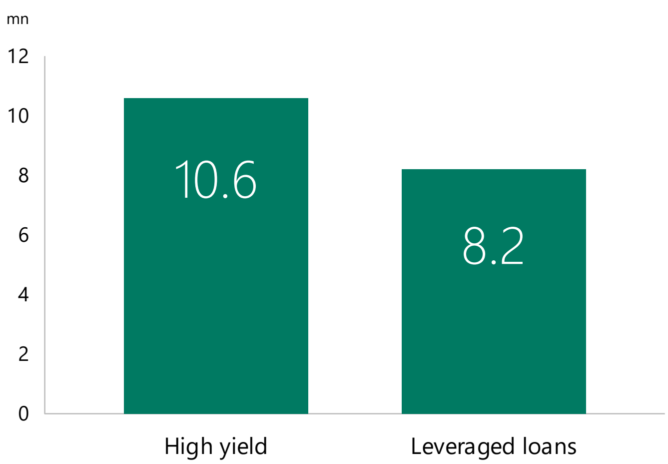
CHANGE IN NONFARM PAYROLL EMPLOYMENT



Data as of November 29, 2023.
Sources: BLS, Haver Analytics, Apollo Chief Economist

Exhibit 23: Big borrowers have big payrolls

EMPLOYMENT IN THE COMPANIES IN THE HIGH YIELD INDEX AND THE LEVERAGED LOANS INDEX

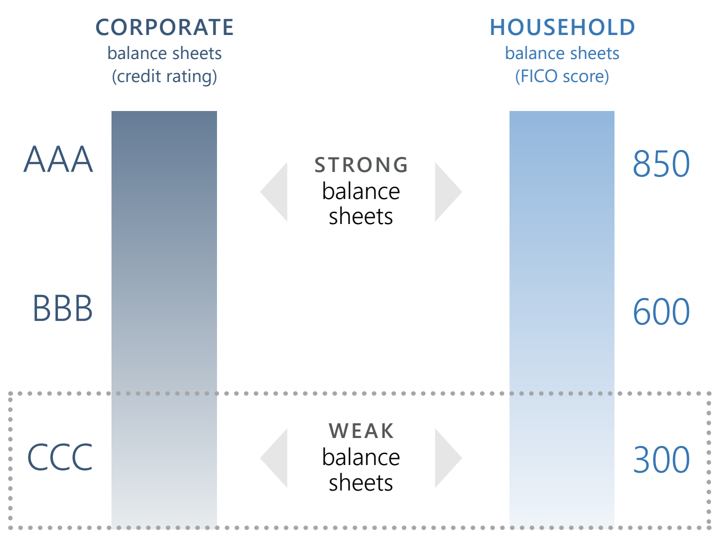


Data as of November 29, 2023.

Note: Data includes 842 companies in the HY index with employment data available for 584 companies and median employment assumed for the rest. Similarly, there are 1073 companies in the leveraged loans index with employment data available for 450 companies and median employment assumed for the rest.

Sources: Bloomberg, ICE BofAML US High Yield Index, Morningstar LSTA Index, Apollo Chief Economist

Exhibit 24: Fed hikes have a bigger impact on weaker balance sheets



Firms and households with low credit ratings and low FICO scores are more vulnerable to Fed hikes because of:

- More debt
- Lower earnings
- Lower savings

Over time, more and more balance sheets can be negatively impacted by Fed hikes.

The ultimate result is a weakening of the macro data such as capex spending, employment, and consumer spending.

Source: Apollo Chief Economist

Outlook for bank lending: Continued slowdown ahead

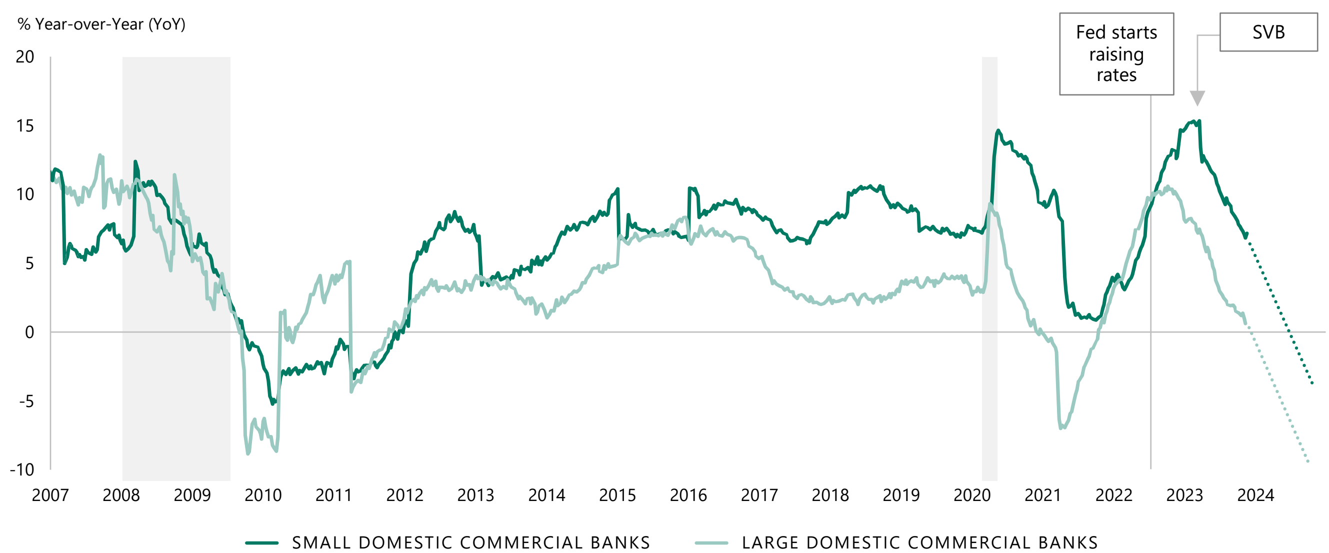
The third and final element to a discussion of the effect of Fed policy is the impact higher interest rates are having on bank lending (**Exhibit 25**).

When the Fed started raising interest rates, large banks immediately began to slow down their lending in anticipation of a decline in credit quality. Small banks, on the other hand, kept on growing their loan books until Silicon Valley Bank collapsed in March.

Since then, they have been slowing their loan growth. If current trends continue (see dotted lines in **Exhibit 25**; also **Exhibit 26**), we will have negative loan growth within a few months. Given the importance of the banking sector as a provider of credit in the economy, we are at risk of an additional negative drag on economic output in the months ahead.

Exhibit 25: Small and large bank lending growth is slowing rapidly

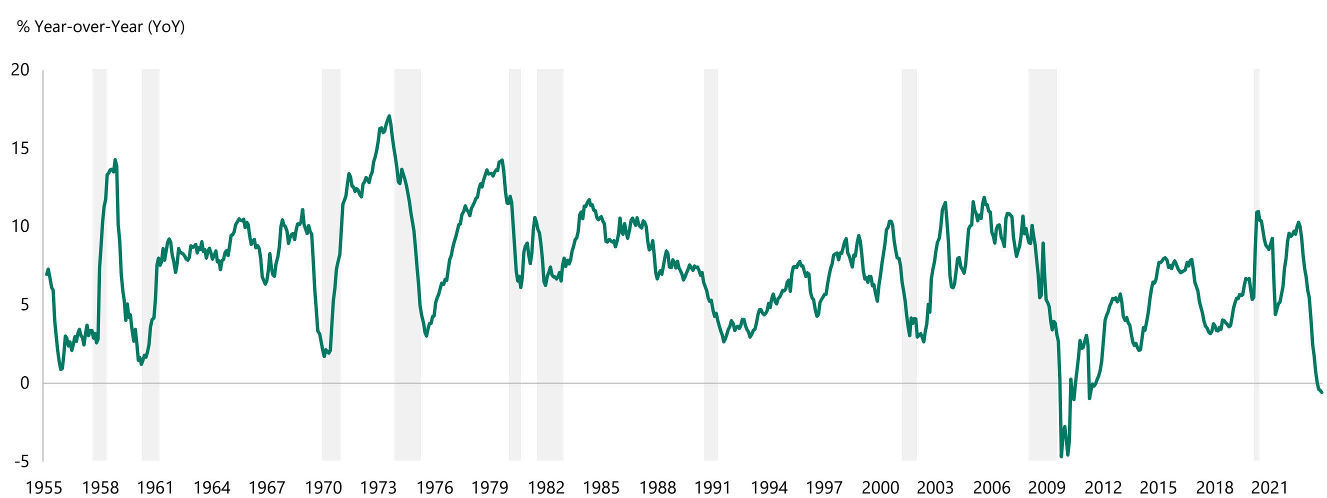
LOANS AND LEASES: BANK CREDIT



Data as of November 29, 2023.
Sources: Federal Reserve Board, Haver Analytics, Apollo Chief Economist

Exhibit 26: Bank lending is flirting with negative territory

US BANK LENDING



Data as of November 29, 2023.
Sources: FRB, Haver Analytics, Apollo Chief Economist

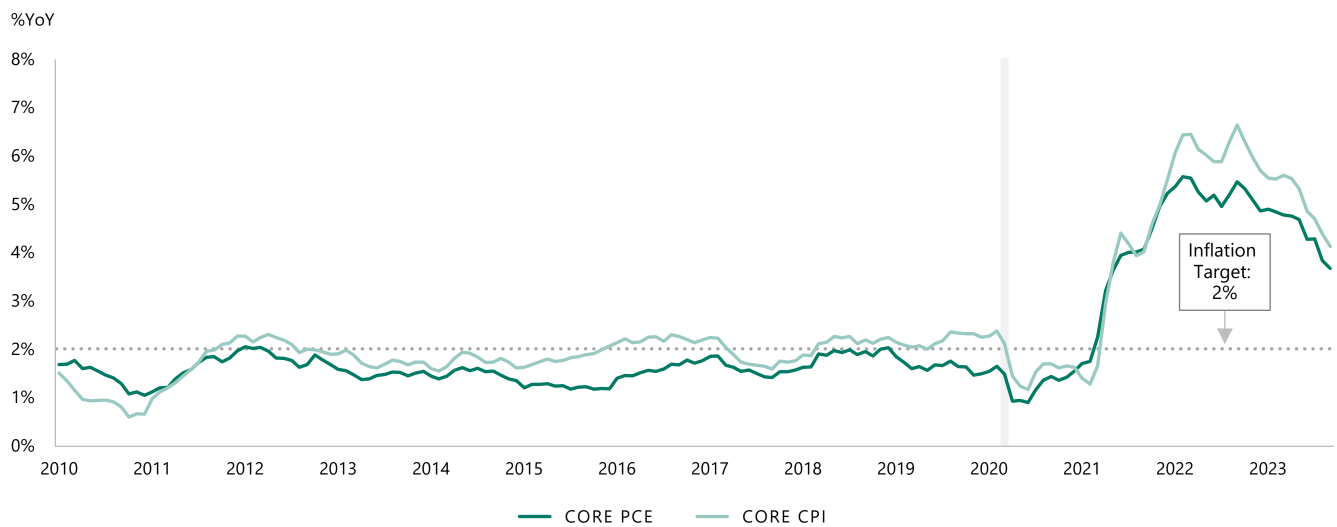
Outlook for inflation: It's still too early to declare victory

The Federal Reserve has a two-part mandate: full employment and price stability. The Fed's main tool in pursuing price stability is the fed funds rate, which it has increased 11 times since March 2022, from 0.25% to 5.50% (as of this writing)[6].

The only problem? Because of the aforementioned resilience in consumer spending, those rate hikes have yet to result in a sustained decline in inflation, and, more importantly, core inflation (which excludes food and energy) still sits markedly above the Fed's target of 2% (**Exhibit 27**).

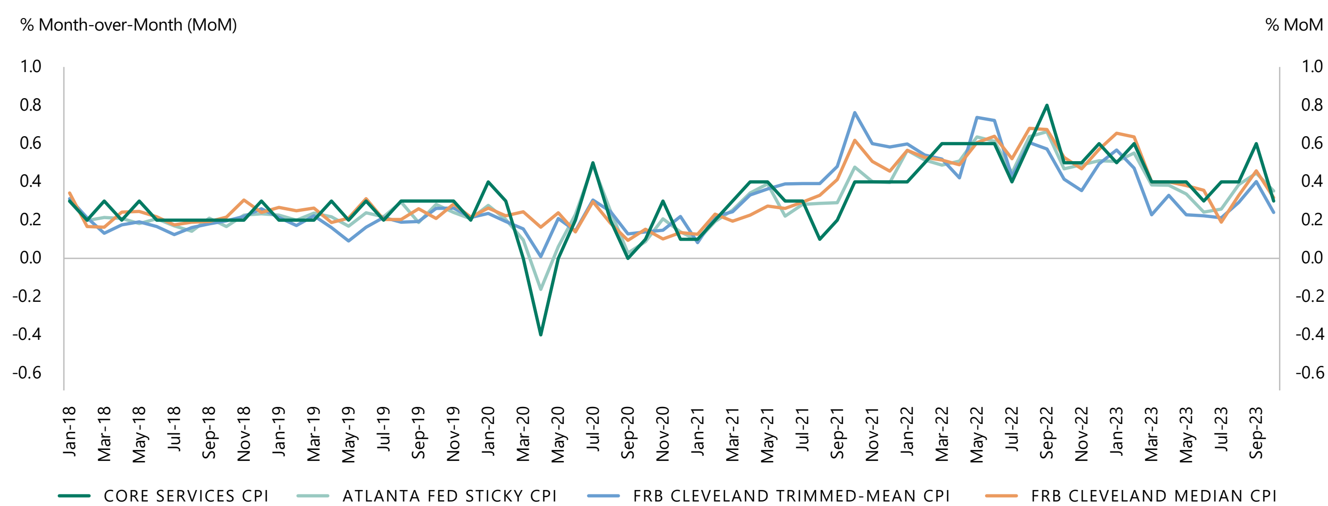
Indeed, if year-over-year comparisons suggest that there is still work to do on the inflation front, there are also some indications that some of the work already done may have begun to lose its purchase. While everything was moving more or less in the right direction in the early part of 2023, in the past several months, month-to-month inflation has been bumpy (**Exhibit 28**).

Exhibit 27: Inflation is proving remarkably stubborn in the face of Fed rate hikes



Data as of November 29, 2023.
Note: Core CPI includes prices for a basket of consumer goods, except food and energy, and is released by BLS. Its weightings are updated annually. Core PCE, the Fed's preferred measure of inflation, is updated more frequently, and is released by BEA.
Sources: BLS, BEA, Haver Analytics, Apollo Chief Economist

Exhibit 28: Month-over-month inflation has been bumpy in recent months



Data as of November 29, 2023.
Sources: Bureau of Labor Statistics, Haver Analytics, Apollo Chief Economist

[6] https://www.federalreserve.gov/monetarypolicy/openmarket.htm

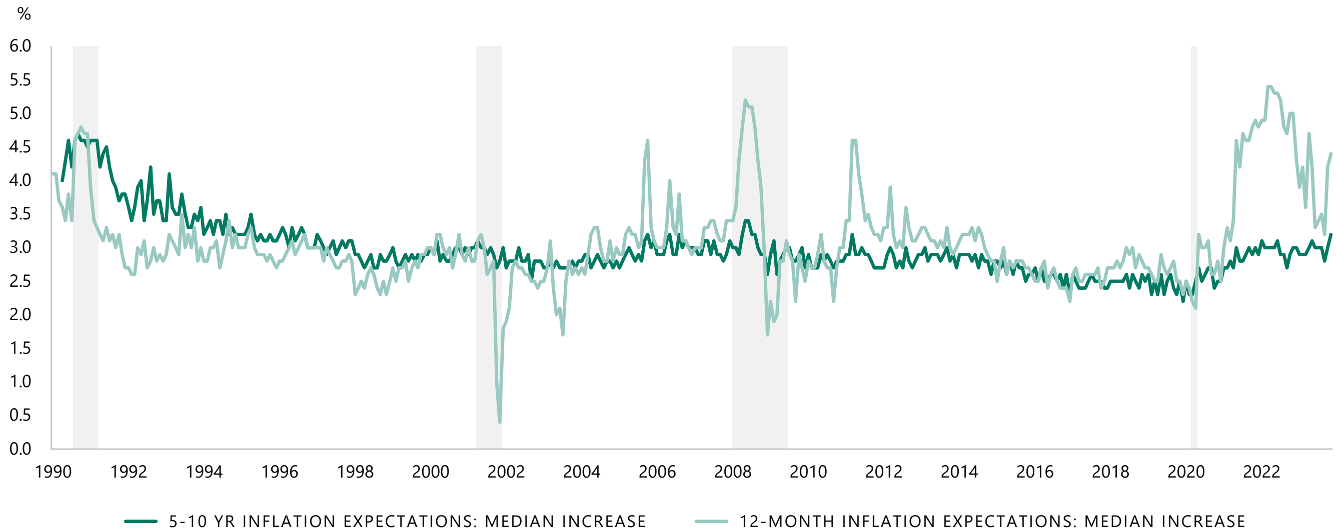
Adding nuance to the inflation discussion is the fact that inflation *expectations* are once again on the rise (**Exhibit 29**). In November, a University of Michigan poll showed a significant jump in consumer expectations over the next 12 months to 4.2%. In other words, households are becoming more concerned about rising prices.

In short, with year-over-year inflation hovering around 4%—double the Fed's target—and consumer expectations rising, it is clear that inflation is not yet under control. It is not time to put out the "Mission Accomplished" banner yet.

Outlook for interest rates: Higher for longer

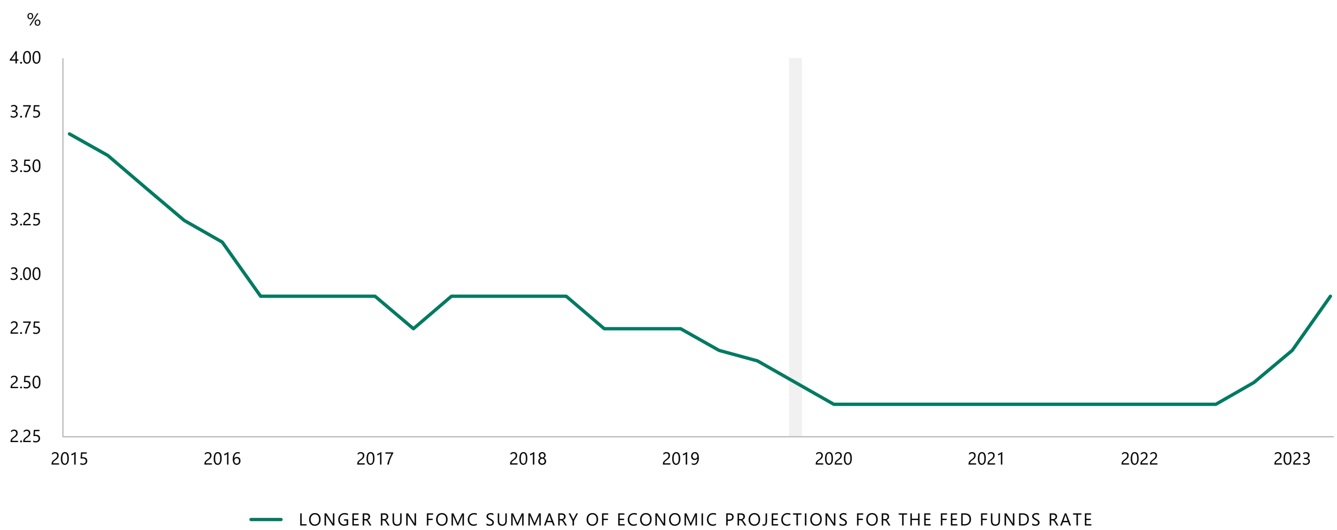
Since the beginning of 2023, the members of the FOMC have steadily increased their estimate of the long-run fed funds rate (**Exhibit 30**). The implication for investors is that the central bank is beginning to see the cost of capital as permanently higher (**Exhibit 31**).

Exhibit 29: Consumers' next-year inflation expectations have rebounded sharply



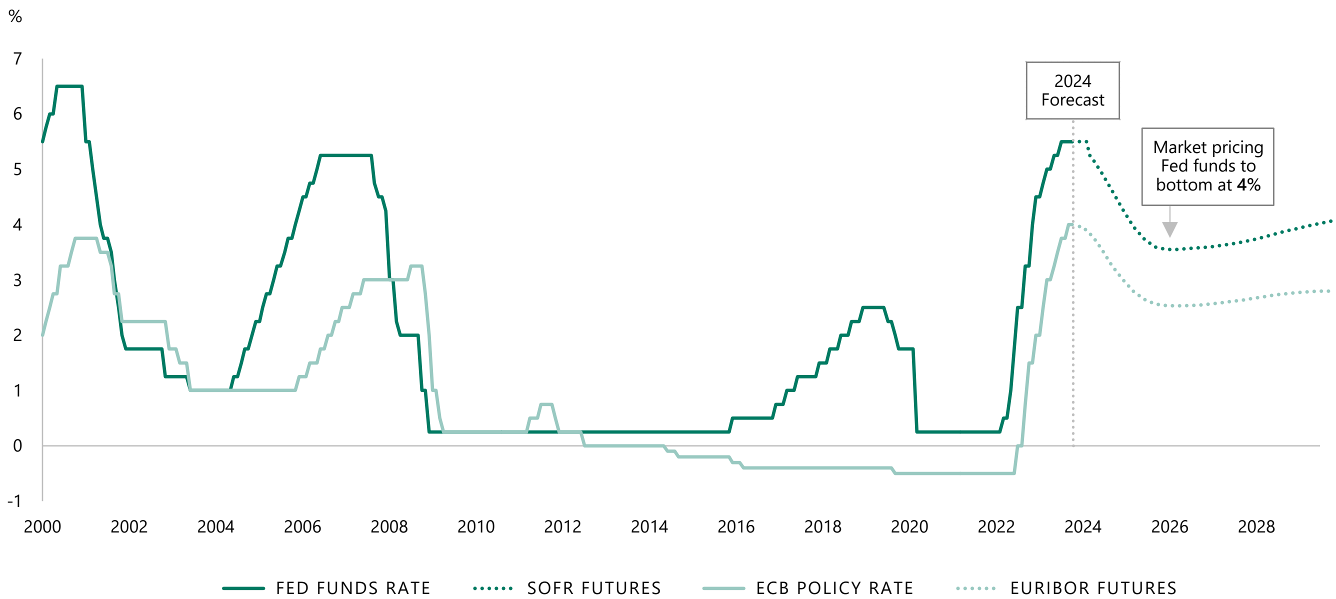
Data as of November 29, 2023.
Sources: University of Michigan, Haver Analytics, Apollo Chief Economist

Exhibit 30: FOMC members continue to increase their estimate of the long-run fed funds rate



Data as of November 29, 2023.
Note: This series represents the midpoint of the central tendency of estimates; central tendency excludes the three highest and three lowest board member projections for each year.
Sources: Federal Reserve Board, Apollo Chief Economist

Exhibit 31: Rates are seen as remaining permanently higher



Data as of November 29, 2023.
Sources: Bloomberg, Apollo Chief Economist

IN SUM

- A variety of both economic and non-economic forces are combining to keep interest rates high, and will likely continue to do so, even if the Fed's tightening campaign is near or at its end.
- Households are running out of excess savings and student loan payments are restarting. Neither of these is explicitly tied to the Fed's tightening campaign, but they will nonetheless likely prove to be a drag on economic growth in the months ahead.
- Delinquency rates for consumers are going up, corporate coverage ratios are going down, default rates are going up, and banking sector loan growth is slowing.
- Despite recent moderation, it is still too early to declare victory over inflation.
- A permanent increase in the risk-free rate has important implications for firms, households, and asset allocation across equities and fixed income.
- Going into 2024, we still see upside risks to inflation and downside risks to growth.

A CAVEAT

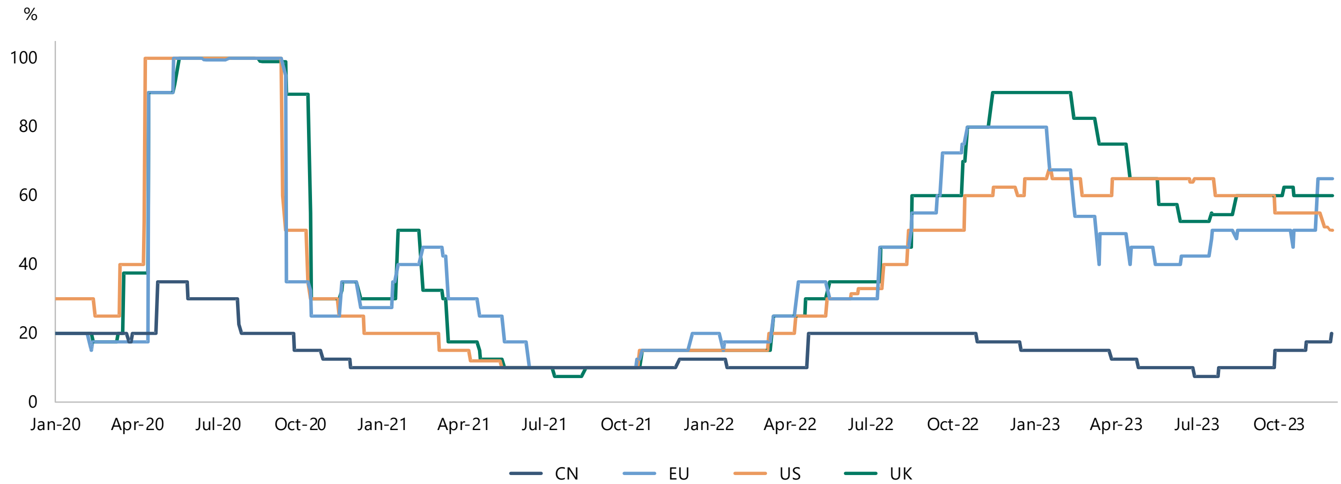
While we have conviction regarding our outlook that rates will remain higher and for longer than the market expects, we also have humility. Along with our peers in the analyst and economist community, we have been humbled by the difficulty in forecasting the direction of the economy, inflation, corporate performance, and the markets over the past several years.

It's quite possible that the Fed's battle against inflation is already over, even if it hasn't shown up in the data yet. It is also quite possible that GDP growth might hold up further yet even in the face of the obvious effects that Fed policy is already having on consumption, corporate profits, bank lending, and debt servicing.

The bottom line? The possibility of a soft landing still exists. But such an outcome would fall outside the consensus forecast, which currently sees a meaningful chance of a recession in the US and better-than 50-50 odds in Europe (**Exhibit 32**).

Exhibit 32: The consensus sees a meaningful chance of a recession in the US

PROBABILITY OF RECESSION



Data as of November 29, 2023.
Sources: Bloomberg, Apollo Chief Economist

Investment Implications

High interest rates have already begun to have negative implications for corporate growth and earnings, and therefore the economy. This, of course, will have effects on capital markets and investors' portfolios. In the remainder of this paper, we outline where we see opportunities in both private and public markets, and how investors may consider allocating capital in this ever-evolving environment.

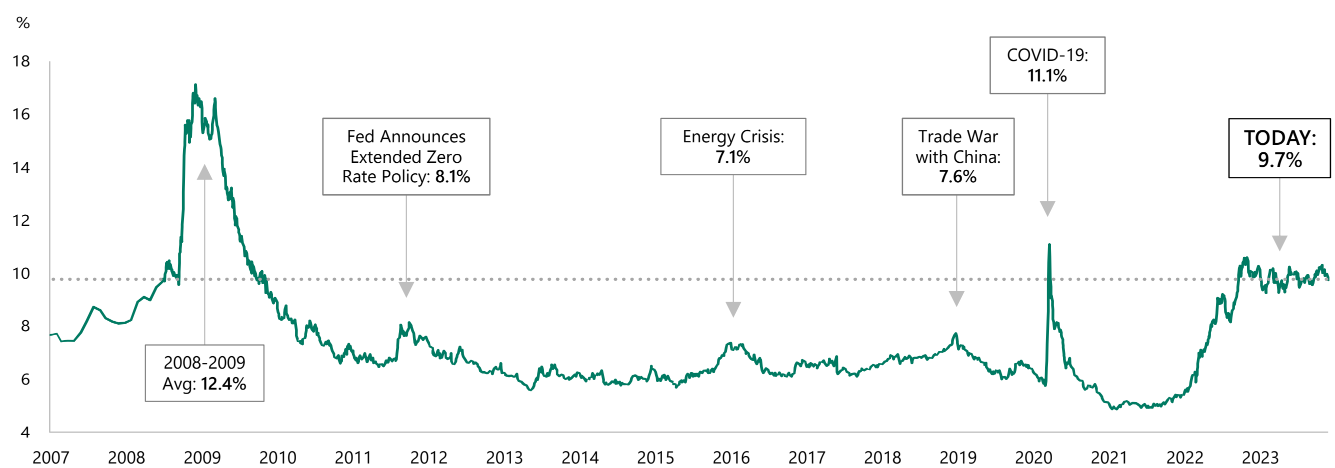
Private Credit

As we've transitioned to a significantly higher interest-rate environment with a likely sizable need for corporate capital in the next few years, we believe private-credit investors can benefit from historically higher yields on senior secured exposure. But selectivity is paramount.

As yields are sitting at their highest levels of the past decade-and-a-half (**Exhibit 33**), lenders must remain cognizant of the potential of higher rates for longer, and the potential stresses that can put on borrowers with inadequate capital structures. In other words, selectivity, along with purchase price, continues to matter. In such an environment, we believe it's critical for lenders to seek structural protections, focus on seniority in the capital structure, and to stay mindful of loan-to-value and interest coverage ratios.

Exhibit 33: Corporate borrowing costs have increased meaningfully

TODAY'S YIELDS ARE HIGHEST IN THE LAST 15 YEARS EXCEPT FOR THE GREAT FINANCIAL CRISIS AND 16 TRADING DAYS IN MARCH-APRIL 2020



Data as of November 29, 2023.
Note: Credit Suisse Leveraged Loan Index
Source: Bloomberg

Additionally, while we continue to see opportunity in the middle market, we believe that large corporations can offer an attractive proposition in the current environment for several reasons: a) they can display a more attractive return profile along with added safety buffers, which are crucial in times of uncertainty; b) larger enterprises tend to have more established and diversified products and services that consumers use in good times or bad; and c) they can have more pricing power to negotiate with suppliers, and a higher ability to pass on price increases to customers. Overall, large firms generally have resilient revenue streams, higher margins, more cash on hand, and use lower leverage. And large companies are increasingly turning to private lenders for funding due to factors such as speed, certainty of execution, and the ability for bespoke financing solutions.

There are several industries where we find compelling credit characteristics around recurring revenue and robust cash-flow profiles. For example, enterprise-software providers offer business-critical solutions that companies need to operate smoothly every day, which can create highly recurring revenue streams and cash flow. Similarly, providers of healthcare technology services tend to have highly recurring revenues. In addition, they can benefit from demographic drivers, such as an aging population, which can further protect cash flows despite a more challenging economic environment. Business services is another area with highly recurring revenue models that can improve a company's ability to service its debt.

As volatility across various asset classes and in the rates market has negatively impacted traditional funding processes and sources of demand for credit, we see an increased likelihood of new credit market solutions to address a rapidly increasing level of shorter-dated debt. We believe private-credit solutions will be increasingly valuable and sought after by businesses and their management teams looking for more efficient and customized capital structures as they refinance existing debt.

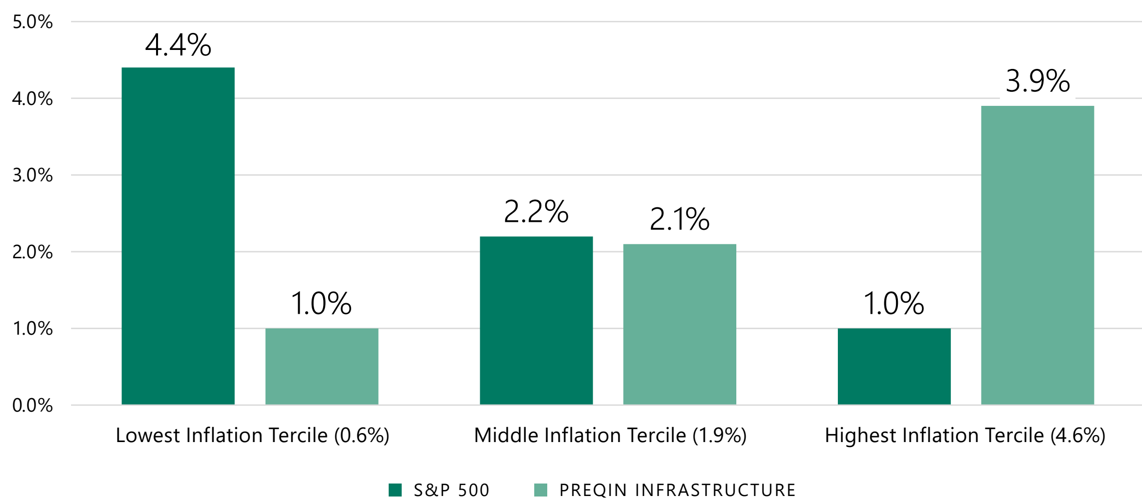
Private Equity

Continued uncertainty and volatility in the broader market call for a more flexible, value-oriented strategy in private equity. With an evolving economic outlook, we believe strategies with the ability to invest opportunistically across the capital stack are well-positioned to capitalize on the shifting fortunes of companies seeking financing in these turbulent times.

Further, we also see opportunity in asset classes that offer a natural hedge to inflation. Private infrastructure, for example, has displayed remarkable resilience in an environment characterized by stubbornly rising prices. We see many reasons behind such strength: Infrastructure is widely perceived as a less cyclical asset class, it has historically outperformed in periods of high inflation (**Exhibit 34**), and its long-term prospects we believe remain bullish, bolstered, in no small part, by recently enacted government policy in the US. But this optimistic scenario is not void of risks, particularly for investments in the large-capitalization end of the infrastructure spectrum, which is currently awash in capital.

Exhibit 34: Infrastructure has shown resilience in times of rising and high inflation

QUARTERLY RETURNS OF S&P 500 VS INFRASTRUCTURE BY INFLATION TERCILE, 2008–2022



Sources: Bloomberg, US Bureau of Labor Statistics for US Consumer Price Index (CPI), Preqin Infrastructure

Eventually, when the Fed finally succeeds with slowing the economy down, private equity investors should also be ready to consider acquiring those distressed companies that come along with the combination of slowing growth and high interest rates. We also continue to see the potential for opportunistic buyouts and corporate carve-outs as sponsors seek solutions and corporates review their non-core assets.

Overall, there is limited availability of financing, and sponsors are looking for creative solutions. This is a market that will reward differentiated deal flow, operational excellence, and maintained discipline. Those investors who can lean into volatility and play offense, as well as show an ability to tackle complexity, will find creative financing opportunities in the months and quarters ahead. This is an "alpha" market, not a "beta" market.

Finally, as funds begin to mature and, eventually, the Fed begins to ease financial conditions, we see the opportunity to capitalize on the desire for exits and intra-LP transactions via secondary funds.

Real Assets

When it comes to real assets, we have noticed a dramatic divergence emerging between real estate equity and real estate credit. Even as public real estate companies have traded off significantly, the risk-adjusted returns on private credit have moved in the opposite direction, with loan-to-value levels declining and the quality of counterparties rising. Investors can find inflation protection to the extent that they employ floating rate, shorter duration loans, with the result that unleveraged rates of returns on real estate credit look attractive when compared to equity.

We remain wary of office real estate for a variety of reasons, including work-from-home. We do see some compelling opportunities in more niche real estate assets including hospitality in certain locations, manufactured housing in the US sunbelt, and cold storage.

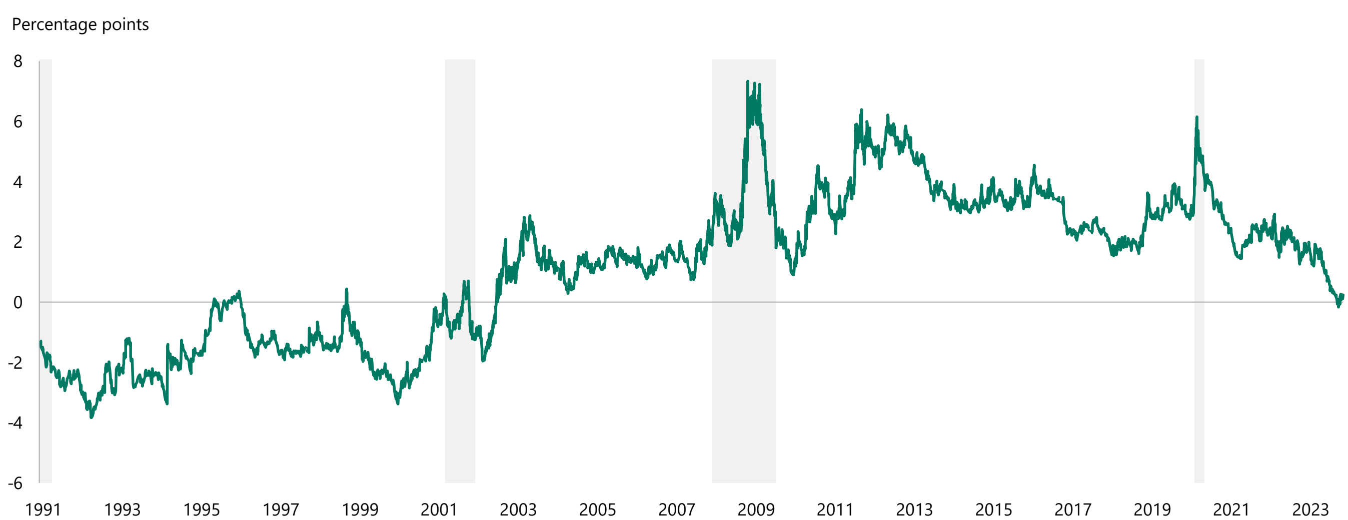
Public Markets

Anyone who is bullish on equities and lower-rated credit should ask themselves where they think the labor market will be in the first half of 2024. In this environment, public market equities—still exhibiting lofty valuations—do not look attractive versus most other asset classes, including cash. We agree with those investors who are telling us that they prefer to keep their "powder dry" for now than to try their hand at stock picking.

One way to measure whether the stock market is expensive or cheap is to look at the equity risk premium. The equity risk premium measures the return in the stock market minus the return of the risk-free rate, and it tells investors something about equity returns relative to fixed-income returns. In the equity risk premium formula, equity returns are normally calculated by looking at the S&P 500 earnings yield (i.e., the inverse of the P/E ratio). Using forward earnings expectations can be misleading when the consensus sees a meaningful chance of a recession, so in **Exhibit 35**, we calculate the S&P 500 earnings yield using trailing earnings. With 10-year interest rates trading around 4.0% as of this writing, the stock market today is more unappealing than it has been in 20 years.

Exhibit 35: According to the equity risk premium, the stock market is the least attractive it has been in the past twenty years

DIFFERENCE BETWEEN S&P 500 EARNINGS YIELD AND 10-YEAR TREASURY YIELD



Data as of November 29, 2023.
Sources: Bloomberg, Apollo Chief Economist

A closer analysis of the stock market shows that while the S&P 500 index is up some 19% through late November, the majority of that increase has been driven by just *seven* stocks — Apple, Microsoft, Alphabet, Amazon, NVIDIA, Meta, and Tesla. The so-called "Magnificent 7" were up 80% through late November, while the "S&P 493" was basically flat (**Exhibit 36**).

When looking at the multiples that the "S&P 7" are trading at—an average P/E ratio above 50—it becomes difficult to discern how investors will generate compelling risk-adjusted returns in equities from this point forth. Indeed, "S&P 7" valuations are beginning to look similar to the Nifty Fifty from the early 1970s and the tech bubble in March 2000. Neither scenario ended well for buyers late to the equity party.

Of course, stocks are driven by stories. Stories such as artificial intelligence, weight-loss medication, or commercial real estate (CRE) being a headwind for regional banks.

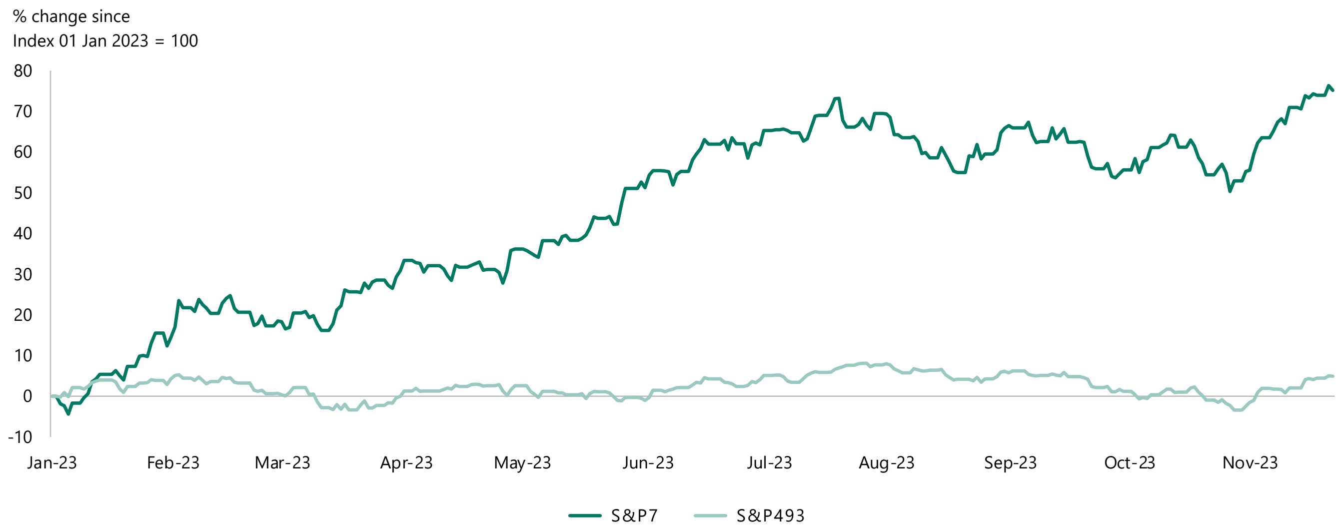
The bond market, on the other hand, is different. Bonds and credit are contracts. Contracts are formal and legally binding agreements about delivering future cash flows to investors.

The most remarkable difference between stocks and bonds is how unquantifiable stories are, how stories come and go, and how stories involve selecting certain facts and ignoring other facts.

As of this writing, stocks are focusing on a possible permanent decline in inflation. But stocks could also have chosen to focus on some combination of the variety of factors we have mentioned above, including rising delinquency rates on credit cards and auto loans, the rise in high-yield default rates, or the rapid decline in bank lending. But these facts are complicated, and the stock market seems to be holding on to the simple story that inflation appears to be easing (even if still above the Fed's target)—without the nuance that a decline in inflation might ultimately be driven by a decline in the economy.

Exhibit 36: This is a very divergent public stock market

S&P 500 INDEX PERFORMANCE



Data as of November 29, 2023.
Note: The "S&P 7" are Apple, Microsoft, Alphabet, Amazon, NVIDIA, Meta, and Tesla.
Sources: Bloomberg, Apollo Chief Economist

ABOUT THE AUTHOR

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Partner, Apollo Chief Economist

Torsten Sløk joined Apollo in August 2020 as Chief Economist, and he leads Apollo's macroeconomic and market analysis across the platform. He is also an Apollo Partner.

Prior to joining, Mr. Sløk worked for 15 years as Chief Economist at Deutsche Bank where his team was top ranked in the annual Institutional Investor survey for a decade. Prior to joining Deutsche Bank, Mr. Sløk worked at the IMF in Washington, DC and at the OECD in Paris.

Mr. Sløk has a PhD in Economics and has studied at the University of Copenhagen and Princeton University.

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