APOLLO

2023 Economic and Capital Markets Outlook

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KEY TAKEAWAYS

The central themes of 2022—namely high inflation, potential economic recession, and dislocated asset prices—are expected to continue to be with us as we head into 2023. But the story of those elements will be different, as the fast-and-furious tightening of monetary conditions by the Federal Reserve in 2022 has begun to take effect across the macroeconomic spectrum—from inflation, to spending, hiring, and capital expenditures—as well as in the capital markets.

This is how we believe 2023 will differ from 2022:

- US inflation appears to have peaked in June 2022, with the Consumer Price Index (CPI) showing us good reason to believe that we're now in the beginning of a downward trend. The decline in inflation in recent months has been driven mainly by the goods sector, while prices of services have proven stickier. The downtrend is welcome news for markets and the Fed, but it doesn't mean that we will get back to the Fed's 2% annual target anytime soon. In fact, history shows it could take up to two years for us to get there.

- The decline in inflation is taking place without a sharp increase in the unemployment rate, which points to a higher probability that the Fed might engineer a much-desired soft landing of the US economy, a scenario that many thought very unlikely just a few months ago.

- The sequencing of how the Fed reaches its dual mandate (taming inflation and maintaining full employment) is key for capital markets. Receding inflation first, moderating employment later means that the need for "demand destruction" on the part of the Fed decreases.

- A less aggressive Fed—or a potential Fed "pivot" in 2023—should be bullish for asset prices (public and private) ranging from rates, to credit, to equities. That said, capital markets will likely remain vulnerable in 2023 and volatility will likely persist because capital remains scarce and expensive, and high-yield primary credit markets will likely stay virtually shut down for the time being. Selectivity in asset selection, valuations, and entry points will be paramount.

- Also, many investors—weary and battered after a disastrous performance of 60/40 portfolios of public equities and bonds in 2022—are likely to turn to private markets as they adjust their holdings in 2023. Purchase price matters and we see a historic entry point in private credit and attractive opportunities in private equity for investors able to be providers of capital in a time of stressed and distressed markets.

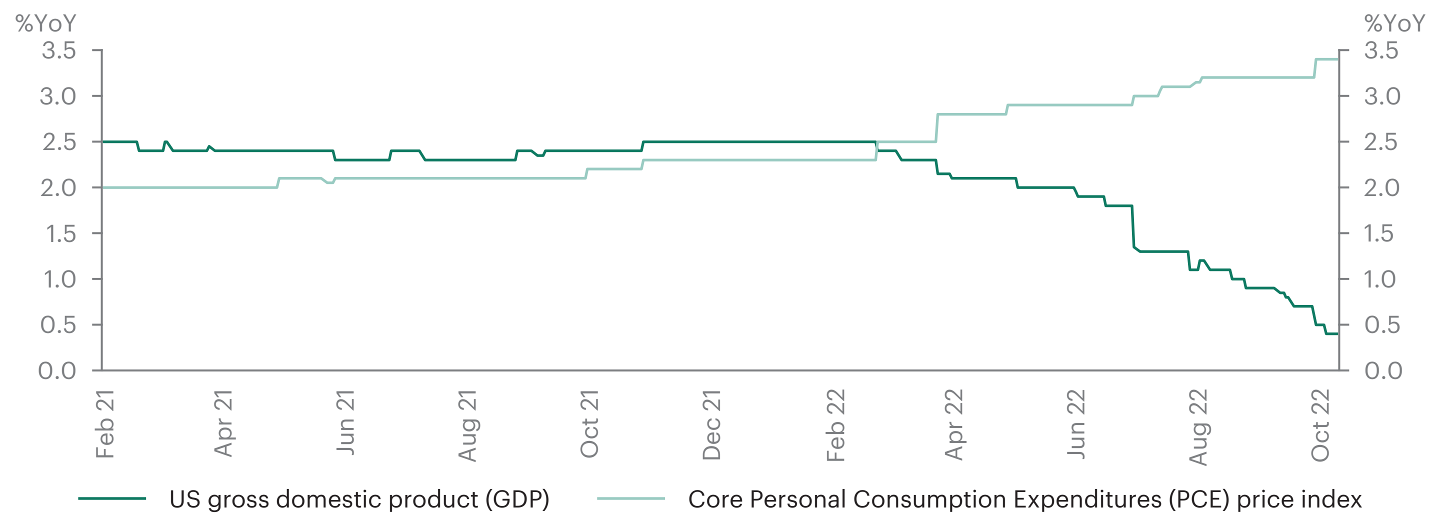
Inflation is unlikely to come back to the Fed's 2% target in 2023 but a soft landing is possible

Will inflation come back to the Fed's 2% target in 2023? No, it is highly unlikely. It will probably take two or three years for that to happen. Given that outlook, will the Fed be able to engineer a soft landing in 2023? Typically, the obvious place to start trying to answer this question would be by looking at consensus expectations for inflation and economic growth (**Exhibit 1**). Over the last year-and-a-half, inflation expectations have gone up and expectations for GDP growth have come down. As we enter 2023, the consensus seems to be saying that we are standing at the brink of possible stagflation—rising prices paired with declining economic growth.

Unfortunately, no constituency—from central banks to chief economists—has been able to forecast inflation accurately over the last 18 months (**Exhibit 2**). One of the main reasons for that disconnect seems to be that the root causes of this latest wave of price increases remain elusive. Why? Because we have been going through a series of unexpected and monumental exogenous shocks to the economy—the Covid pandemic, unprecedented monetary stimulus, the war in Ukraine. These developments have flummoxed even the most finely tuned forecasting models.

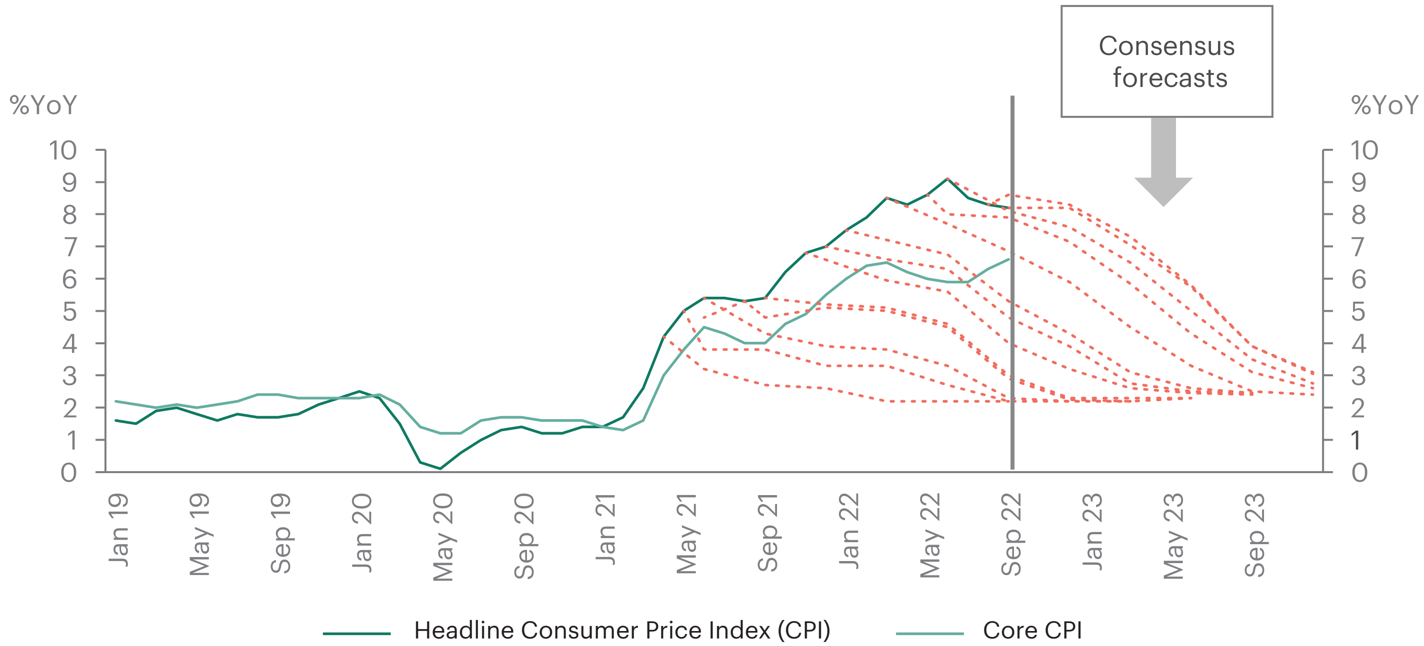
Exhibit 1: We enter 2023 with consensus expectations of higher inflation and lower growth

BLOOMBERG CONSENSUS FORECASTS FOR 2023



Source: Bloomberg, Apollo Chief Economist. Data as of November 14, 2022.

Exhibit 2: Consensus forecasts of lower US inflation have been inaccurate



Source: Cleveland Fed, Bloomberg, Haver Analytics, Apollo Chief Economist. Data as of September 30, 2022.

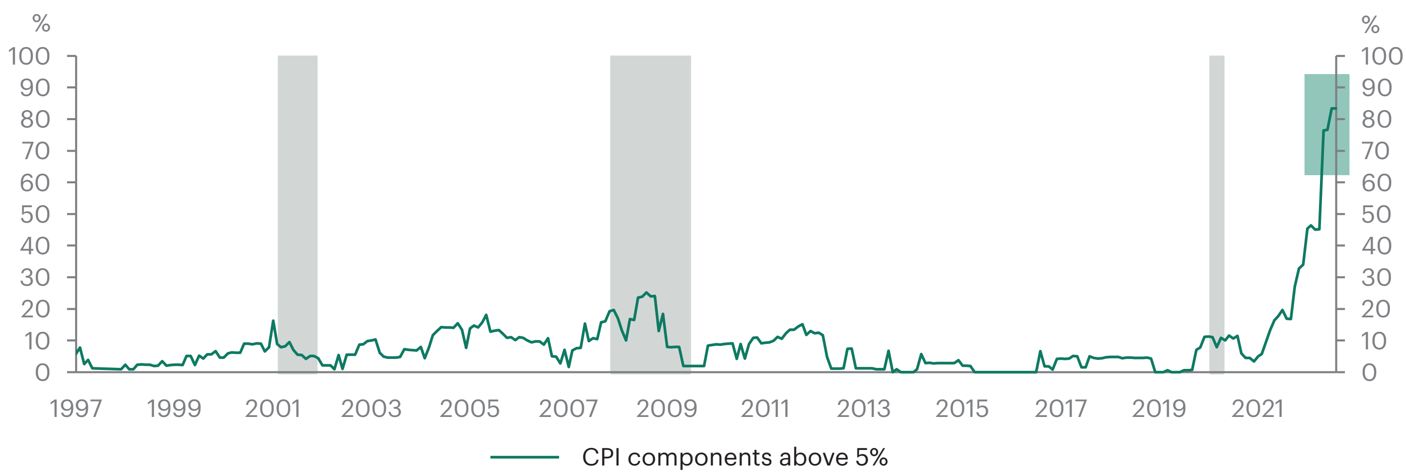
In **Exhibit 2**, the solid lines show actual inflation, while the dotted lines show the consensus forecasts at any given point of time. When inflation started rising in April of last year, most, including the Federal Reserve, thought it would be transitory. With each subsequent increase in the CPI, the consensus said the same thing—*This is the peak, it's going to come down from this point forth*—but the consensus has been wrong. This gives us good reason to be cautious about current forecasts as well.

The bottom line is that it will likely take two to three years—and more Fed hikes—to bring inflation under control. That being said, the Fed's 2022 rate hikes are already showing signs of working, with various inflation measures moderating near year-end. The fact that inflation is coming down before we see any deterioration in the labor market is very important for markets and for the economic outlook. With less pressure on the Fed to forcefully fight inflation going forward, we think the likelihood of a soft landing in 2023 is real.

Inflation Outlook: Higher prices remain a real concern for the Fed

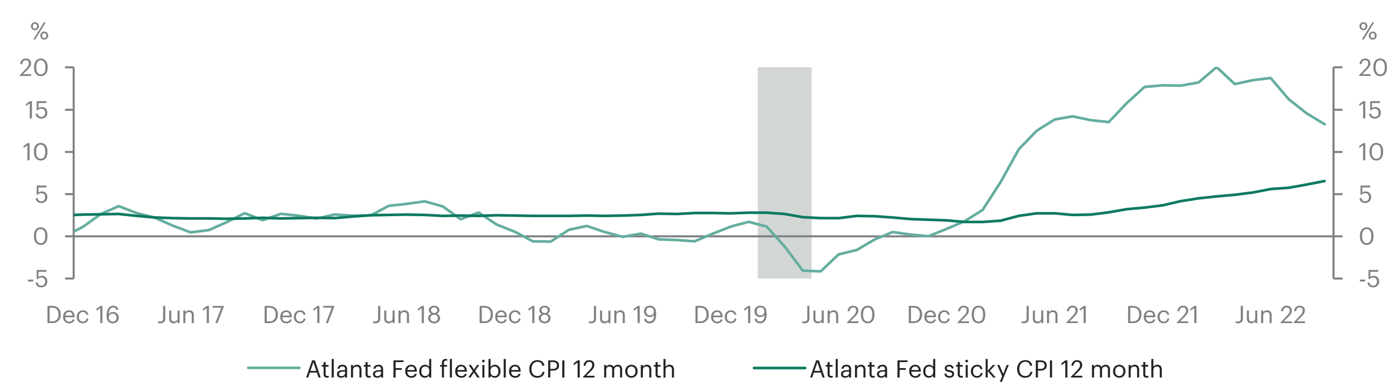
Although upward pressure on US inflation was moderating at year-end 2022, it remained broad-based, with four-out-of-every-five components of the inflation basket showing price growth of 5% or more (**Exhibit 3**) and "sticky" components of the CPI continuing to rise (**Exhibit 4**). That explains why the Federal Reserve continues to step on the brakes. Through November, the Federal Open Market Committee (FOMC) had raised rates six times in 2022, taking the federal funds rate target from 0.25% to 4.0%.[1] Will they continue with such an aggressive pace throughout 2023? We think not, but the exact timing of when we might see a less aggressive Fed—or, better yet, a Fed "pivot"—remains uncertain. That said, as of this writing, we see the Fed reaching "peak rates" in mid-2023 around 5.5%.

Exhibit 3: US inflation has become broad-based...



Note: Year-over-year growth used. Source: Bureau of Labor Statistics (BLS), Haver Analytics, Apollo Chief Economist. Data as of October 31, 2022.

Exhibit 4: ...while "sticky" components continue to rise



Source: Federal Reserve Bank (FRB) of Atlanta, Bloomberg, Apollo Chief Economist (Note: sticky-price consumer price index (CPI)—a weighted basket of items that change price relatively slowly; The flexible cut of the CPI – a weighted basket of items that change price relatively frequently). Data as of October 31, 2022.

1. https://www.federalreserve.gov/monetarypolicy/openmarket.htm

The root causes of inflation have been extremely difficult to discern

Why has inflation risen around the world? The short answer to that question is obvious: Because there has been upward pressure on the price of most things, from raw materials to shipping to labor. The long answer isn't so clear: That upward pressure is the result of a combination of demand- and supply-driven factors.

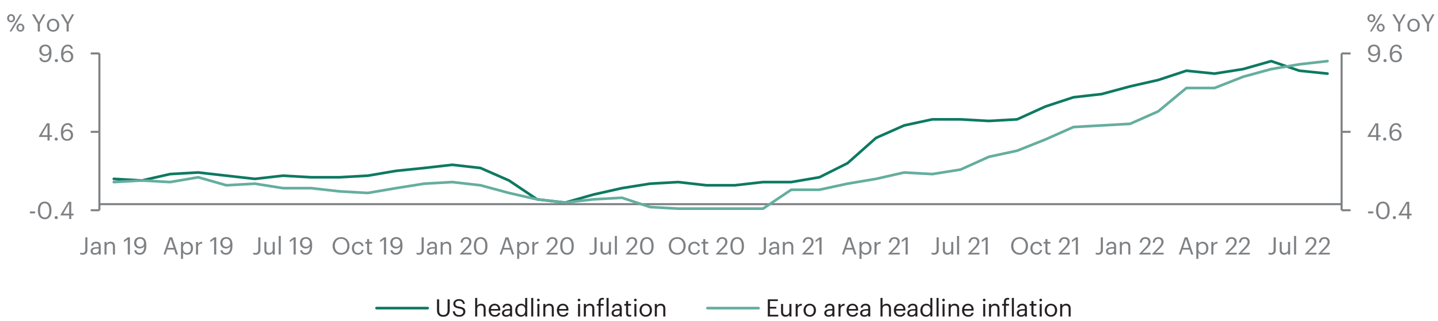
Those who think inflation is mostly demand-driven point to the fiscal response to Covid in the US: stimulus checks, higher unemployment benefits, childcare tax credits, and Paycheck Protection Program (PPP) loans. If those were the primary reasons behind inflation—fiscal stimulus led to higher disposable income led to excess demand—then the solution to inflation would be "demand destruction," something the Federal Reserve and other central banks have been trying to engineer through rate increases.

But it's not entirely clear whether that was the case. US and European inflation (**Exhibit 5**) over the past two years, for example, have been almost identical despite the fiscal response to Covid (**Exhibit 6**) being double the size in the US relative to Europe. If this were primarily a monetary problem, a much more aggressive fiscal response in the US should have led to higher headline and core inflation in the US than in Europe. But that hasn't happened. In fact, US inflation has begun to moderate, while EU inflation continues to surge.

The similar path of inflation in the US and Europe strongly suggests that price rises have not been entirely driven by demand but at least partly by supply-chain problems associated with Covid as well.

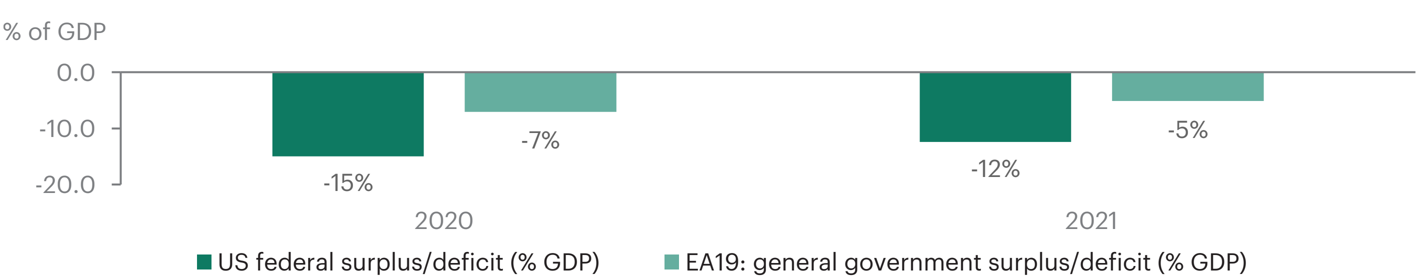
If supply-chain problems were the *primary* culprit—increased cost of imported goods, especially from China; increased costs of shipping from ports to trucking and otherwise—then the rational course would have been for policymakers to just wait for those issues to sort themselves out.

Exhibit 5: Root causes of inflation are hard to pinpoint: US and EU prices rising at comparable paces...



Source: Bloomberg, Apollo Chief Economist. Data as of October 31, 2022.

Exhibit 6: ...despite the fiscal response to Covid being twice as large in the US vs the EU



Source: Office of Management and Budget (OMB), European Central Bank (ECB), Haver Analytics, Apollo Chief Economist. Euro Area (EA) 19 countries include Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia, and Spain. Data as of April 26, 2022.

Whatever its cause, the trajectory of inflation has proven difficult to forecast

While it would seem a very important distinction which argument one believes—*Was it demand or supply that has driven prices up?*—it's crucial to realize that both explanations are seeking to explain the past, or *that which has already happened*. But there's a related, and arguably more crucial, issue: Has either side of the argument been able to use their understanding to accurately predict the future, *that which hasn't happened yet?* As shown in **Exhibit 2**, forecasting has proven remarkably difficult for economists amid unprecedented economic and market disruptions over the past few years. The latest data, however, have begun to provide some clarity about the overall picture of inflation as well as the prognosis going forward.

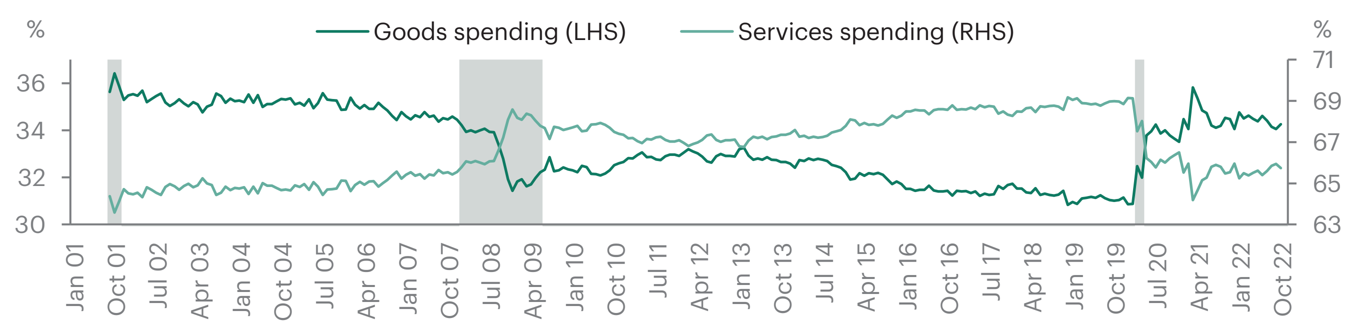
After spiking during Covid, inflation of goods has fallen sharply in recent months, while inflation in the service sector remains on the rise (**Exhibit 7**). After briefly—and violently—swapping trajectories during the pandemic (**Exhibit 8**), spending on goods is slowing because growth in both goods production and sales were very high during Covid, and the sector consists of the more interest rate-sensitive components of GDP, such as housing, autos, and capital expenditures.

Exhibit 7: Inflation in the services sector, which accounts for roughly 80% of GDP, has been especially stubborn

Source: Bureau of Labor Statistics (BLS), Haver Analytics, Apollo Chief Economist (Note: Goods = Commodities Less Food & Energy Commodities; Service = Services Less Energy Services). Data as of October 31, 2022.

Exhibit 8: After taking the lead from services spending during quarantine, spending on goods is poised to relinquish it once again

PERSONAL CONSUMPTION EXPENDITURES PRICE INDEX



Source: Bureau of Labor Statistics (BLS), Haver Analytics, Apollo Chief Economist (Note: Goods = Commodities Less Food & Energy Commodities; Service = Services Less Energy Services). Data as of October 31, 2022.

The services sector, on the other hand, is headed in the other direction. That presents a challenge for policymakers, as services sector inflation is notoriously difficult to cool down, and would seem especially hard to do so at this particular moment in history. After spending much of the past two years cooped up inside our houses, we all want to go out and see our friends and families, so it's going to be hard to bring down spending on travel, hotels, airlines, restaurants, concerts, and sporting events. That suggests that there is, and will remain, a big tailwind to consumption (and therefore inflationary pressure) in the services sector. The Fed will likely wait for inflation in the services sector to slow down before taking its foot off the brakes, and that is not happening yet.

Commodity prices, of course, have also been a significant driver behind key non-core inflation components (**Exhibit 9**). While the upward trajectory of gasoline prices has moderated in recent months, overall commodity prices remain at their highest levels in a generation.

Clarity is also emerging on the supply side of the inflation equation: Some of the sourcing issues for goods are *already* resolving themselves as supply chains ease. Indeed, recent data suggest that transportation costs are normalizing, as the costs of transport by ship (**Exhibit 10**), truck (**Exhibit 11**), and even air freight (**Exhibit 12**) are coming down, although air freight rates are still more than double pre-pandemic levels. (Tightness in the labor market—a topic we will address in the next section—may take more time to resolve.)

Housing, for its part, makes up roughly 40% of the CPI basket,[2] so the Fed needs housing inflation to come down as well. While rents rose sharply in 2021, October data from Redfin showed year-over-year changes in rents growing at the slowest pace in over a year, with median US asking rents dropping below $2,000 for the first time in six months.[3] While there are some issues about how long it takes before this shows up in the CPI, this news supports the narrative that we have the peak in inflation behind us.

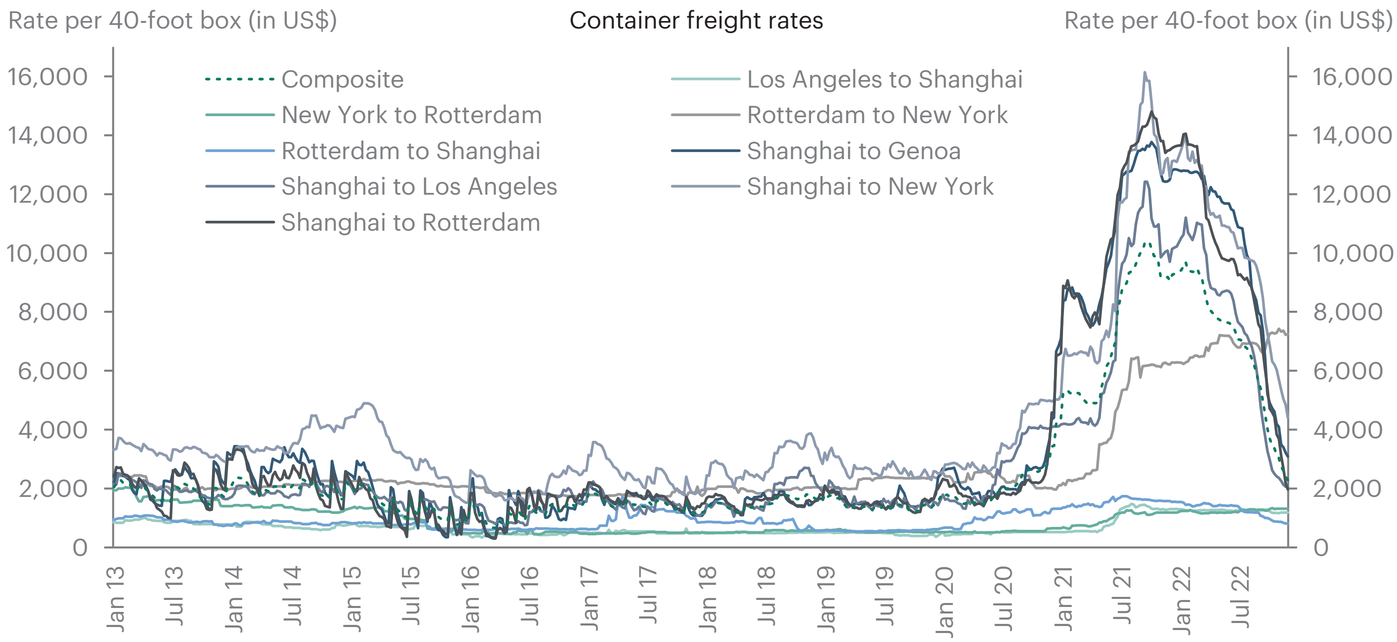
Exhibit 9: Higher commodity prices are still putting upward pressure on key non-core inflation components

CRB US SPOT COMMODITY INDEX

Source: Bloomberg, Apollo Chief Economist. Data as of November 11, 2022.

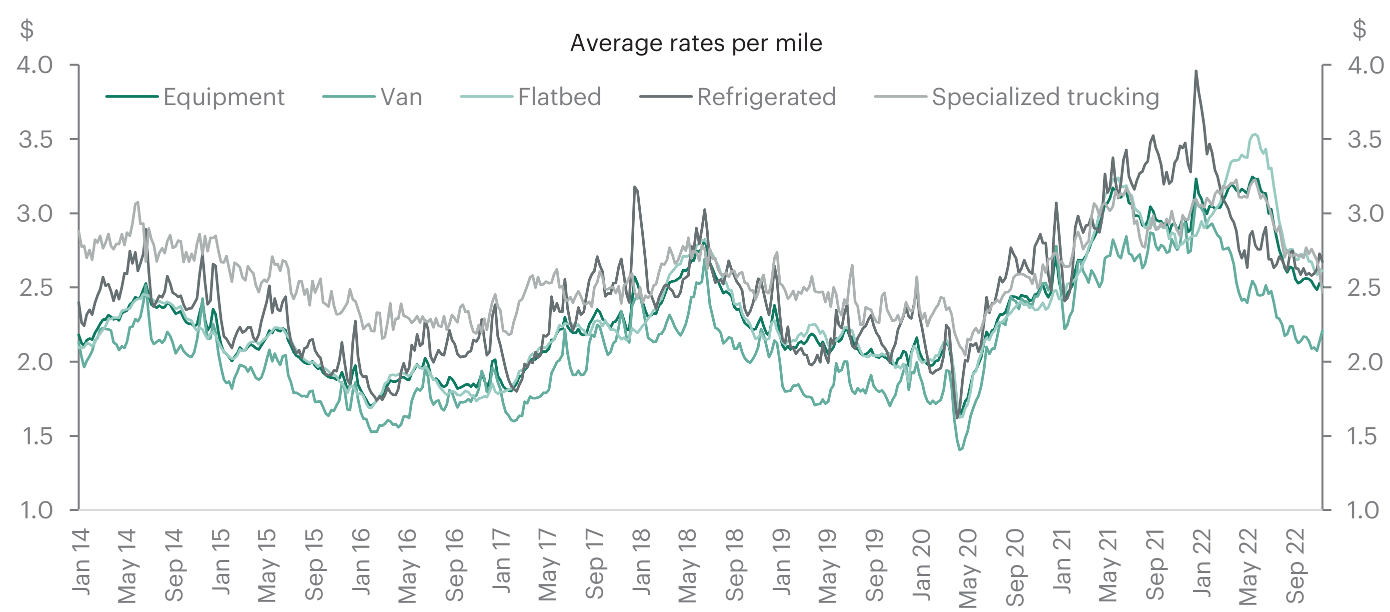
2. https://www.bls.gov/cpi/tables/relative-importance/2021.htm
3. https://www.redfin.com/news/redfin-rental-report-october-2022/

Exhibit 10: Container freight rates are falling...



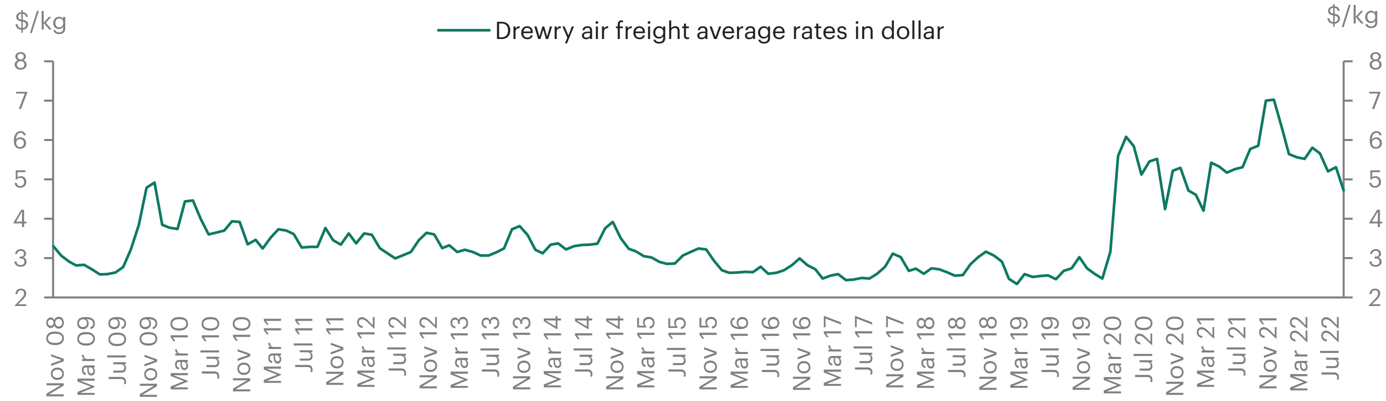
Source: WCI, Bloomberg, Apollo Chief Economist. Data as of December 1, 2022.

Exhibit 11: ...Truck transportation costs are declining as well...



Source: Bloomberg, Apollo Chief Economist. Data as of November 25, 2022.

Exhibit 12: ...Air freight rates, while still high, are down from their recent peak



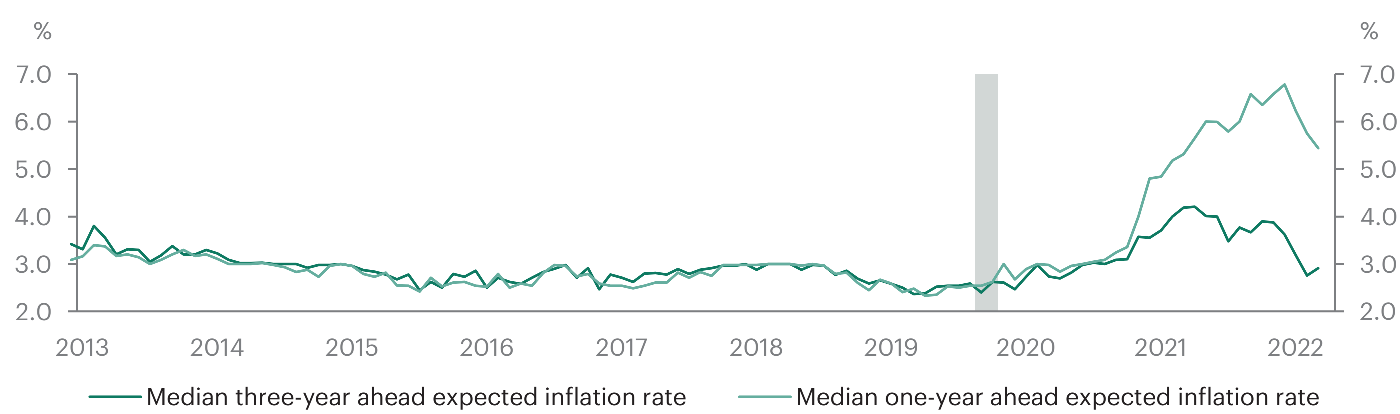
Source: Bloomberg, Apollo Chief Economist. Data as of September 30, 2022.

The implication for markets is that the Fed and the European Central Bank (ECB) may not need to do much additional "demand destruction" to get inflation down. In that scenario, central banks will not be under so much pressure to keep rates high for an extended period. That is a key reason why the FOMC could start downshifting their rate hikes and ultimately pause, most likely in the first quarter of 2023. But that should not be construed as a wavering on the part of the Fed to its 2% inflation target.

The bottom line: US inflation has begun to slow (**Exhibit 13**), but it is likely to remain above the Fed's 2% target for some time. The pattern seen in the early 1970s suggests that it can take another two years (**Exhibit 14**) for inflation to get there, and the Fed won't consider its mission accomplished until it does.

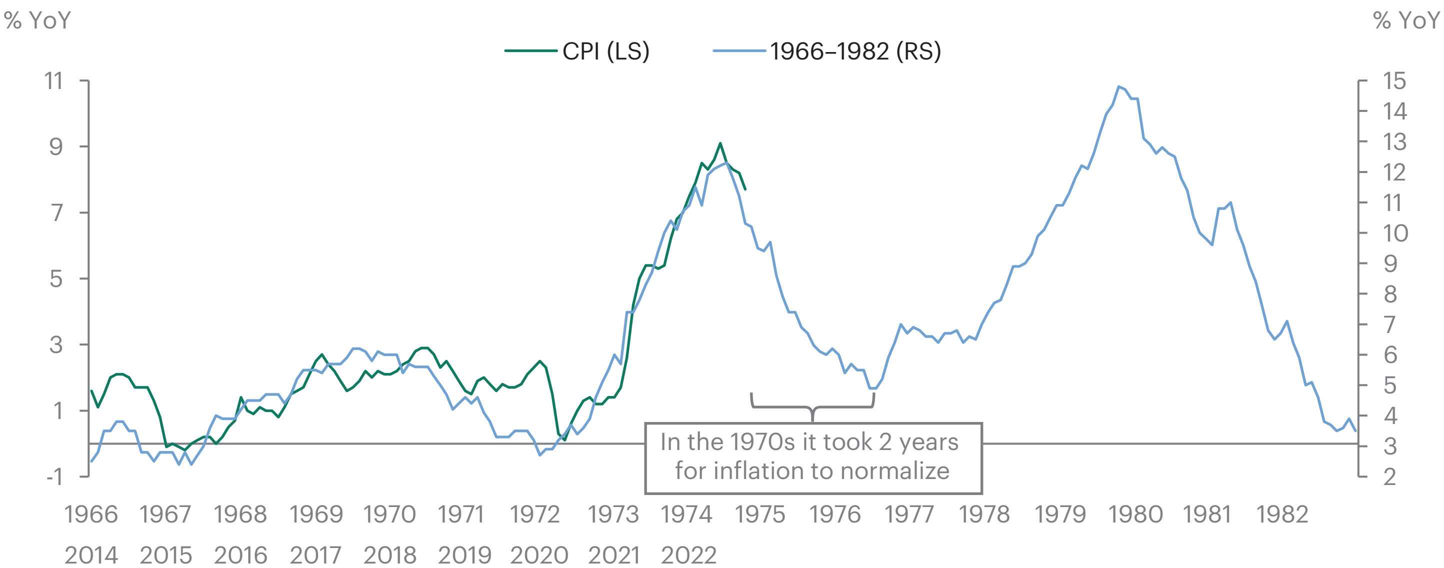
Exhibit 13: It's a long way back down to 2%

FRB NY SURVEY OF CONSUMER EXPECTATIONS



Source: Federal Reserve Board (FRB), Haver Analytics, Apollo Chief Economist. Data as of October 31, 2022.

Exhibit 14: If history is any guide, it could take two years for inflation to return to 2%



Source: BLS, Bloomberg, Apollo Chief Economist. Data as of October 31, 2022.

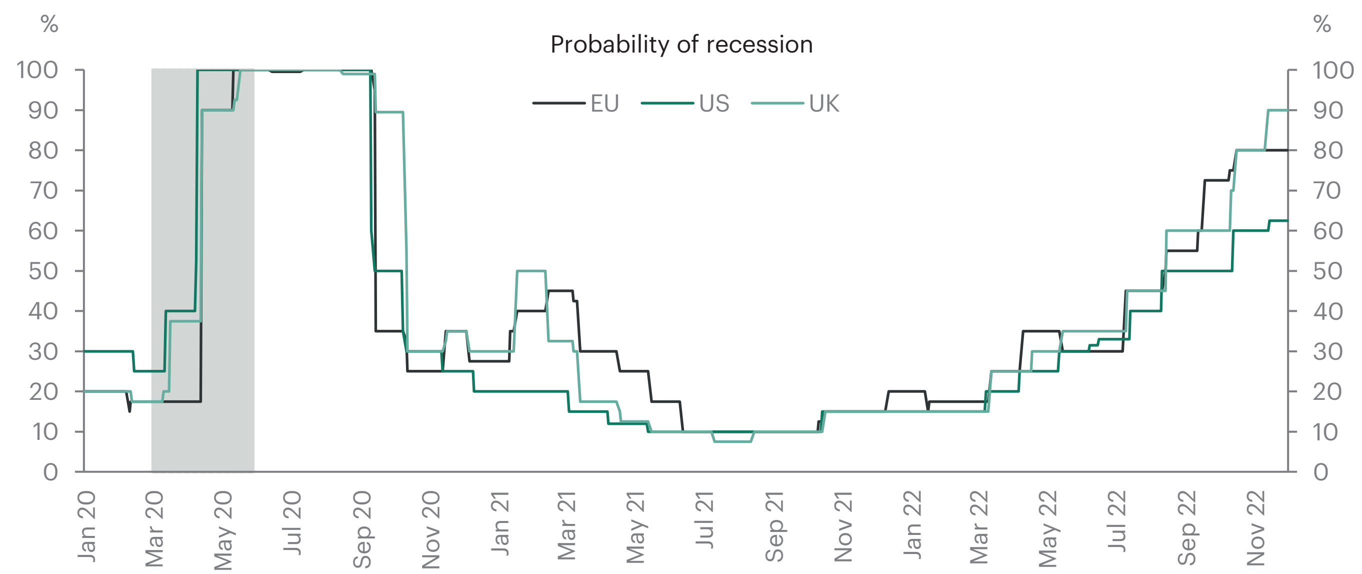
Economic Outlook: Can the Fed engineer a soft landing of the US economy in 2023?

Against the inflation backdrop described in the previous section, let's turn to its corollary: economic growth. As previously discussed, the Fed has been laser-focused on cooling down the economy in a bid to slow the pace of price increases. Still, as monetary conditions remain tight (and still tightening), a question arises: *Is the Fed cooling the economy down too much?*

Setting aside the inability of forecasters to accurately predict the path of inflation, there is still much to glean from considering the consensus forecast regarding the probability of recession over the next 12 months. According to Bloomberg's consensus (a measure of 81 chief economists on Wall Street), the probability of recession in the US, UK, and the EU over the next year is already above 50% (**Exhibit 15**)—they think it more likely than not that those economies will start shrinking in 2023.

Exhibit 15: Consensus probability of economic recession rising in US, Western Europe

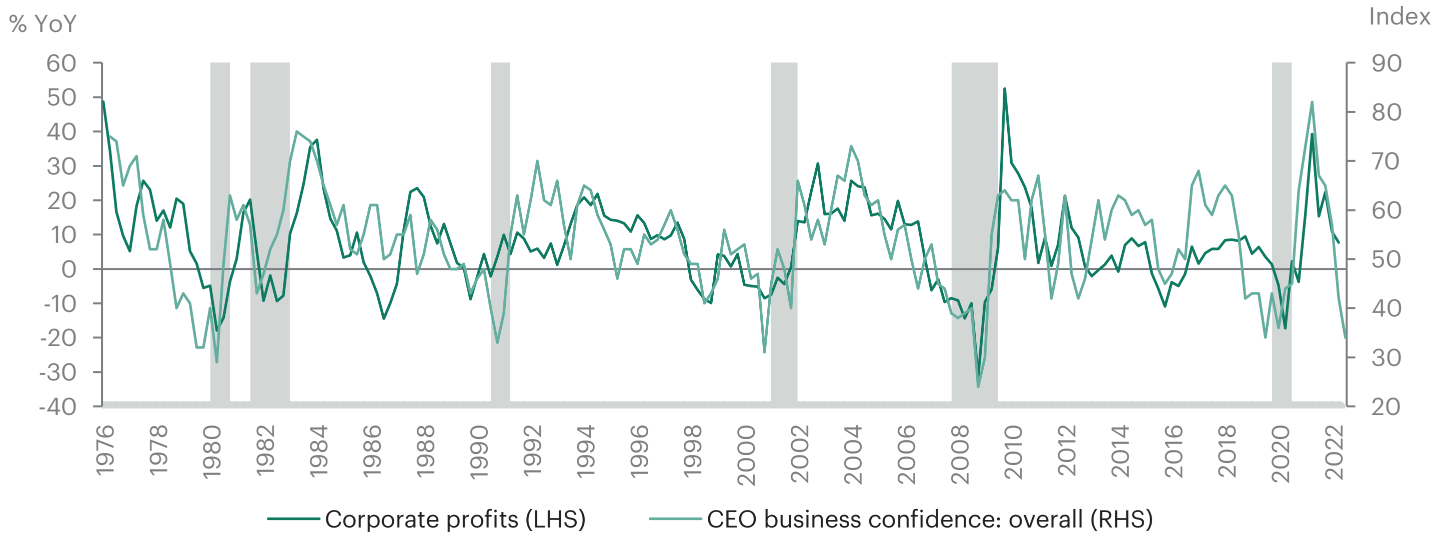
CONSENSUS PROBABILITY OF A RECESSION WITHIN 12 MONTHS



Source: Bloomberg, Apollo Chief Economist. Data as of November 11, 2022.

The economists are not alone in their pessimism. CEO business confidence has also fallen sharply, in tandem with corporate profits (**Exhibit 16**). The next shoe to drop would seem to be earnings expectations, which remain stubbornly high.

Exhibit 16: Corporate profits and CEO confidence are on the decline



Source: The Conference Board, Haver Analytics, Apollo Chief Economist. Data as of October 27, 2022.

Investors looking for signs that the economy is truly slowing don't have that many examples to choose from at the moment. An analysis of auto loans, credit cards, and mortgages does show that an increasing percentage of subprime borrowers are delinquent (**Exhibit 17**). But that's only subprime borrowers, who don't account for much of the total of consumer spending. We are not seeing signs of things slowing down in near-prime or above.

Exhibit 17: Subprime credit quality is deteriorating, but not so much to be the harbinger of a broad-based slowdown, at least not yet

Auto Loans: +60 day deliquency rate	Oct. 2022	Sep. 2022	Oct. 2021	Oct. 2019
Super Prime	0.00%	0.00%	0.00%	0.00%
Prime Plus	0.01%	0.01%	0.01%	0.01%
Prime	0.13%	0.13%	0.10%	0.14%
Near Prime	0.50%	0.50%	0.46%	0.44%
Subprime	11.80%	12.10%	10.16%	8.21%
Total	1.86%	1.86%	1.44%	1.40%

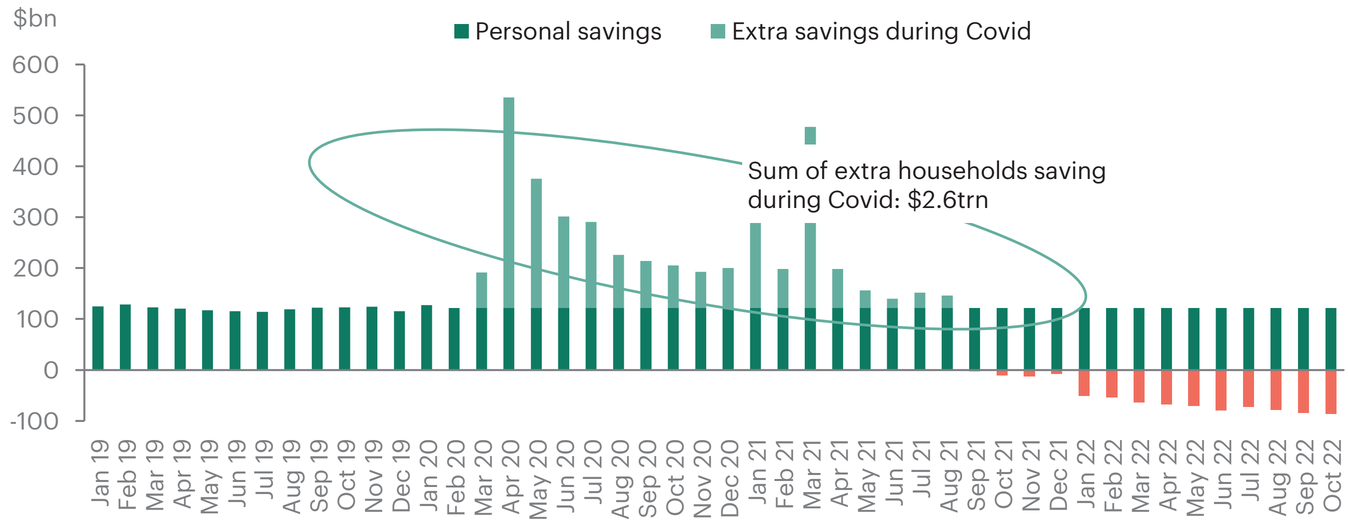
Credit Cards: +90 day deliquency rate	Oct. 2022	Sep. 2022	Oct. 2021	Oct. 2019
Super Prime	0.00%	0.00%	0.00%	0.00%
Prime Plus	0.01%	0.01%	0.01%	0.01%
Prime	0.18%	0.18%	0.15%	0.19%
Near Prime	1.08%	1.02%	0.87%	1.20%
Subprime	18.60%	17.90%	13.30%	18.92%
Total	2.02%	1.91%	1.22%	2.02%

Mortgages: Distribution of deliquency	Oct. 2022	Sep. 2022	Oct. 2021	Oct. 2019
Current	95.30%	95.40%	96.30%	93.40%
30-59 DPD	2.60%	2.60%	1.90%	3.50%
60-89 DPD	1.30%	1.20%	1.00%	1.90%
90+	0.70%	0.70%	0.70%	1.00%
Foreclosure	0.10%	0.10%	0.10%	0.20%

Source: Transunion Monthly Industry Snapshot, October 2022.

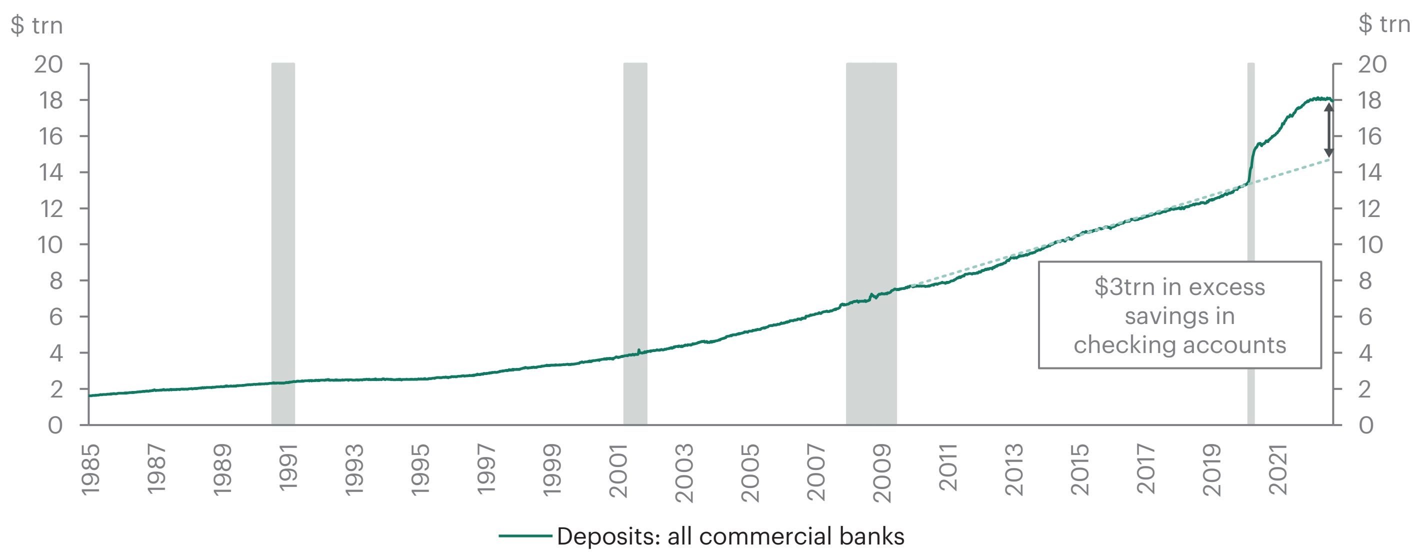
In keeping with the demand-side argument for inflation, strong consumer spending in the US has clearly been supported by the fact that households still have significant savings post-Covid (**Exhibits 18, 19**). Combined with solid job and wage growth, we expect it will take many quarters before household savings are back at pre-pandemic levels.

Exhibit 18: Still-high personal savings suggest US consumer resilience...



Source: Bloomberg, Apollo Chief Economist. Data as of October 2022.

Exhibit 19: ...with record-high $3 trillion in excess savings



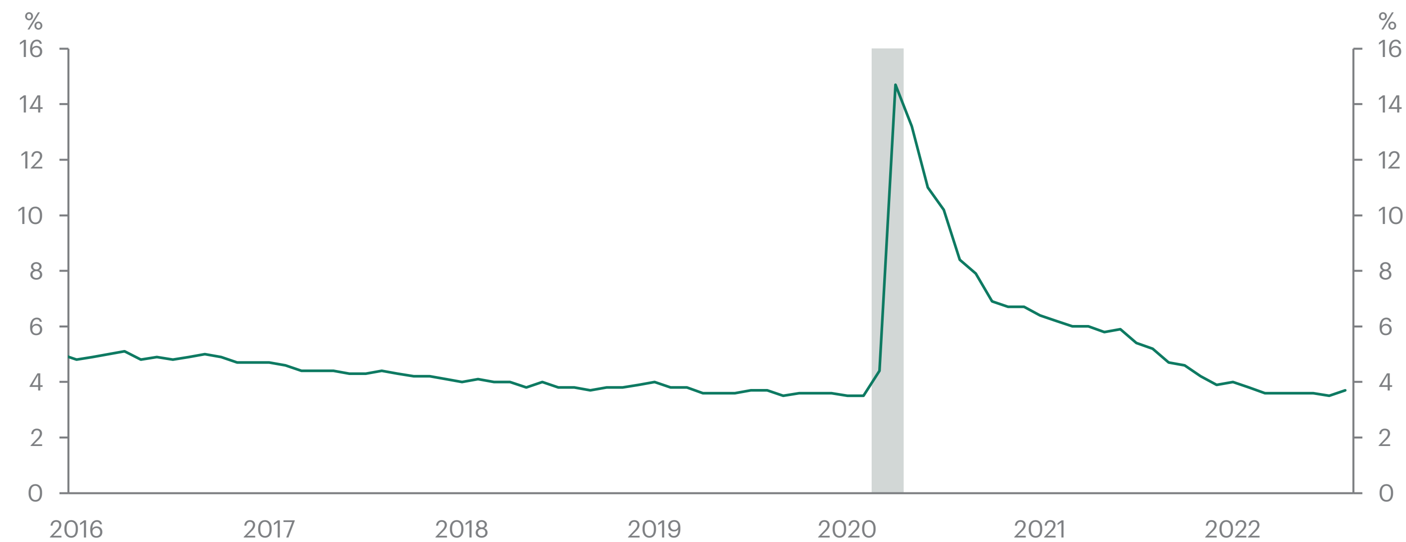
Source: Federal Reserve Board (FRB), Haver Analytics, Apollo Chief Economist. Data as of November 2, 2022.

Further complicating the Fed's efforts to slow the economy, outside of some high-profile technology sector layoffs, the labor market remains strong (**Exhibit 20**). The Fed is trying to slow down hiring to curb inflation. But rate hikes are not having a notable negative impact on the labor market. The employment report for October showed job growth in the housing sector, despite rising rates, as well as in manufacturing, despite the rising dollar.

In mid-November, the civilian labor force was currently four million workers below the pre-pandemic trend (**Exhibit 21**). That's a high number considering that the total number of unemployed sat at six million. It is clearly difficult for employers to find workers and the labor market remains tight, meaning that upward pressure on wages will likely continue. That said, one discerning aspect of this cycle is worth pointing out: Labor market overheating has been characterized more by excessive job openings than excessive actual employment. In other words, the excess comes from companies seeking to hire workers rather than companies actually hiring them. The former is much easier to unwind than the latter, and it corroborates the current scenario of easing inflationary pressures with a still-low unemployment rate.

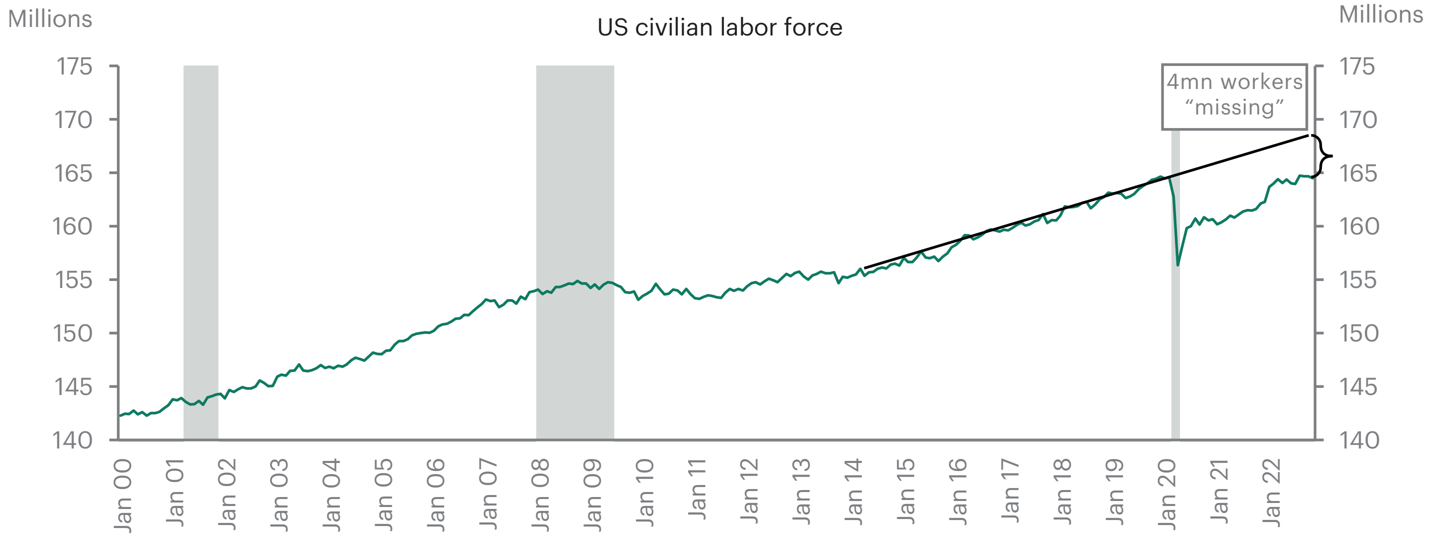
Exhibit 20: US unemployment rate remains fairly steady despite tightening monetary conditions...

UNEMPLOYMENT RATE



Source: Bureau of Labor Statistics (BLS), Haver Analytics, Apollo Chief Economist. Data as of October 1, 2022.

Exhibit 21: ...while the civilian labor force remains below pre-pandemic levels



Source: Bureau of Labor Statistics (BLS), Haver, Apollo Chief Economist. Data as of November 30, 2022.

Ultimately, the Fed's primary mandate is to fight inflation. Its second mandate is to maintain full employment and try to avoid recessions. The sequencing of that dual mandate is extremely important from a market perspective. If we were facing rising unemployment with inflation still going up, that would increase the probability of a hard landing because then we would need more "demand destruction" from the Fed. But the fact that inflation is coming down before we see any deterioration in the labor market is very important for markets. If the Fed can get inflation down without a sharp increase in the unemployment rate—a very distinct possibility given recent inflation declines in the face of a strong US labor market—that points to a higher probability that we will get a soft landing, which would be bullish for both credit and equities.

The bottom line: The probability of a recession is rising, particularly in Western Europe because of the added pressure from higher commodity prices. But the US consumer remains resilient, with ample savings to draw on, and the overall US labor market remains strong. While the global economy is slowing, areas of resilience could support a soft landing, especially in the US.

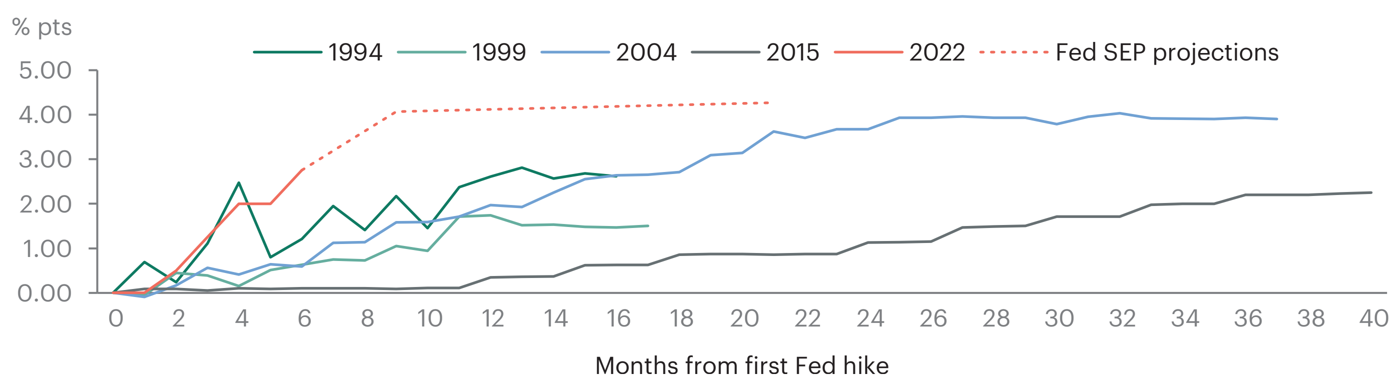
Capital Markets Outlook: What are the implications for public and private markets?

Let's start by taking stock of current monetary conditions. The Fed hiked rates much faster in 2022 than they have ever done, going all the way back to World War II (**Exhibit 22**). This trajectory is likely to continue into at least part of 2023.

At the same time, we can expect Quantitative Tightening (QT) to be a central theme in 2023 (**Exhibit 23**). The goal of Quantitative Easing, or QE, is to lower rates and incentivize investors to buy risky assets. The goal of QT is the opposite: To push long rates higher, widen credit spreads, and, as a result, reduce the attractiveness of riskier assets.

Exhibit 22: As it continues to grapple with stubbornly high inflation, the Fed is raising rates at a historic pace...

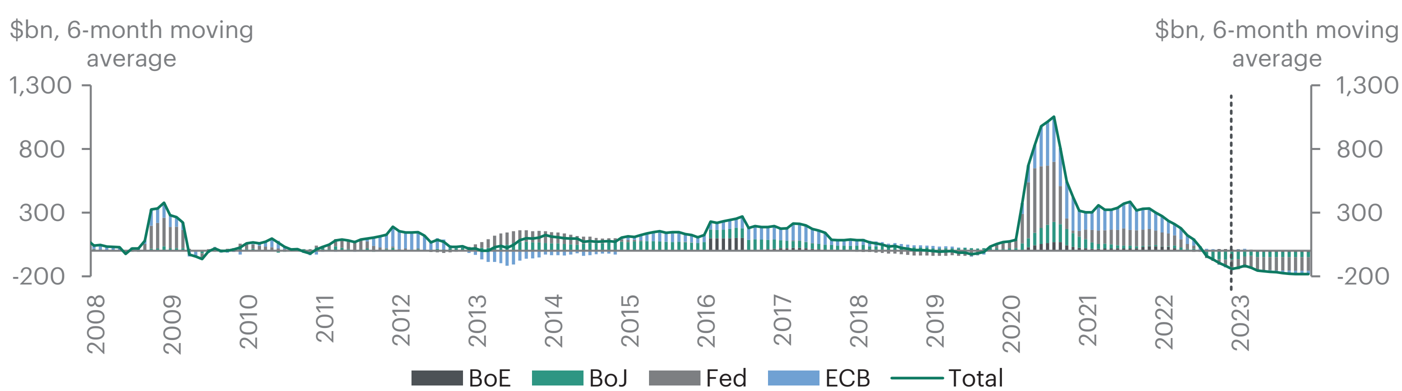
CHANGE IN EFFECTIVE FED FUNDS RATE DURING FED TIGHTENING CYCLES



Source: Federal Reserve Bank (FRB), Haver Analytics, Apollo Chief Economist. Data as of October 31, 2022.

Exhibit 23: ...while QT is further exacerbating tightening conditions

CENTRAL BANK ASSET PURCHASES

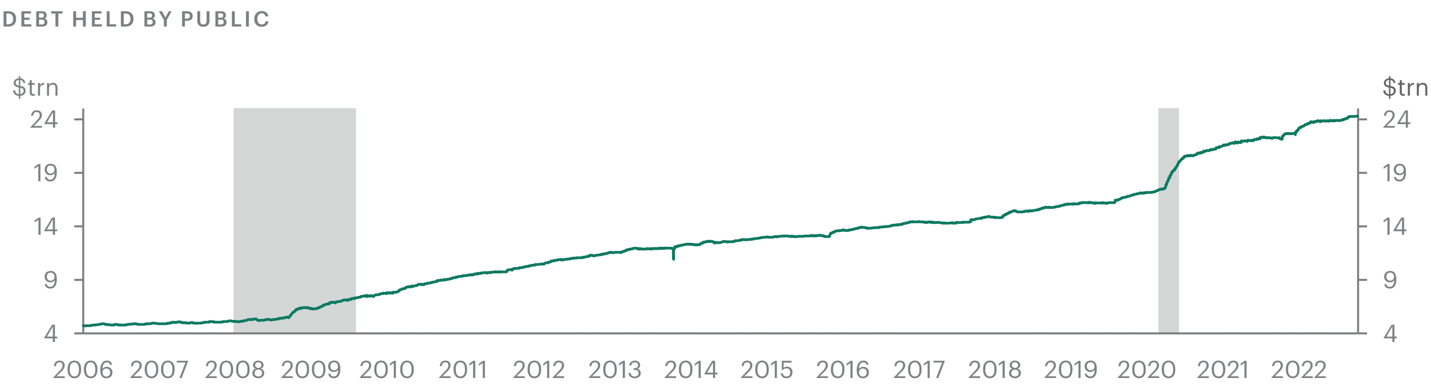


Source: Bloomberg, Apollo Chief Economist. Pace of purchases for 2021: BOE: £3.4bn per week until mid-December 2021, FED: USD120 bn per month with wind down from December 2021 with purchases ended in March 2022, ECB: Euro 90bn per month (20 bn asset purchase programme + 60 bn pandemic emergency purchase programme (PEPP)), PEPP until March 2022, Euro 40bn in April, Euro 30bn in May and Euro 20bn in June, and only redemptions reinvested from August. BOJ: USD 70bn per month. For 2022: All programs are expected to wind down linearly from January 2022 to December 2022. Fed QT USD 95bn per month from May 2022. BoE starts to sell £80 bn in the next 12 months and ECB starts QT in 2Q23. Data as of October 31, 2022.

The upshot of this dramatic switch? The annual net supply of Treasuries before the pandemic was $500 billion. In 2023, it is expected to be $1.5 trillion, with $1 trillion coming from the budget deficit and $500 billion coming from QT.[4] That is a lot of supply that needs to be absorbed by market participants.

The implication is that there is some upside risk to long-term interest rates not only from inflation but also from the growing supply of Treasuries. What's more, this increasing supply of bonds—the amount of US government debt held by the public is already at record highs (**Exhibit 24**)—is at risk of crowding out demand for other types of fixed income, including investment grade, high yield, loans, and mortgages.

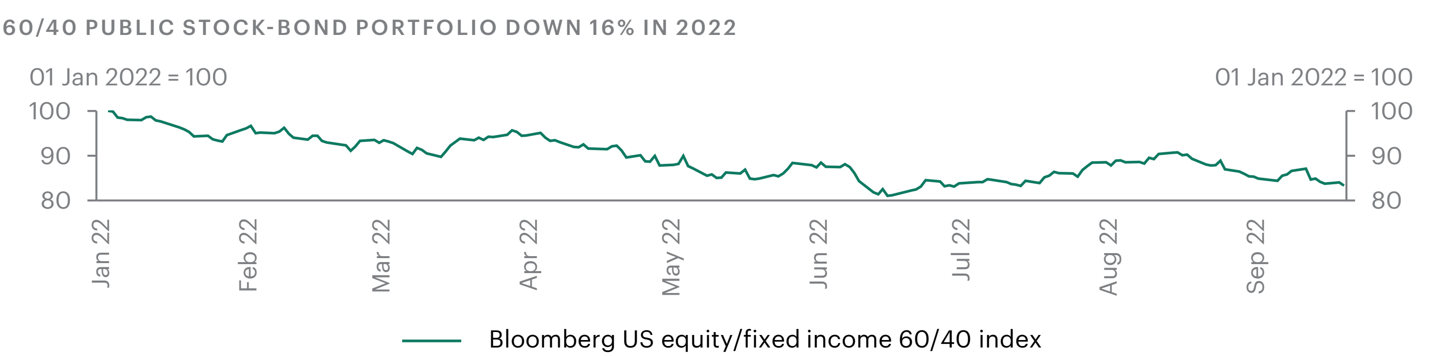
Exhibit 24: The amount of US government debt held by the public is at record-highs



Source: US Treasury, Bloomberg, Apollo Chief Economist. Data as of September 11, 2022.

This combination of higher rates and QT has been a primary cause of the increasing correlation among asset classes that has wreaked havoc on traditional portfolios in 2022. As an example, through mid-November, the typical 60/40 public stock-bond portfolio was down 16% (**Exhibit 25**).

Exhibit 25: Tighter monetary conditions have prompted massive value destruction in public markets

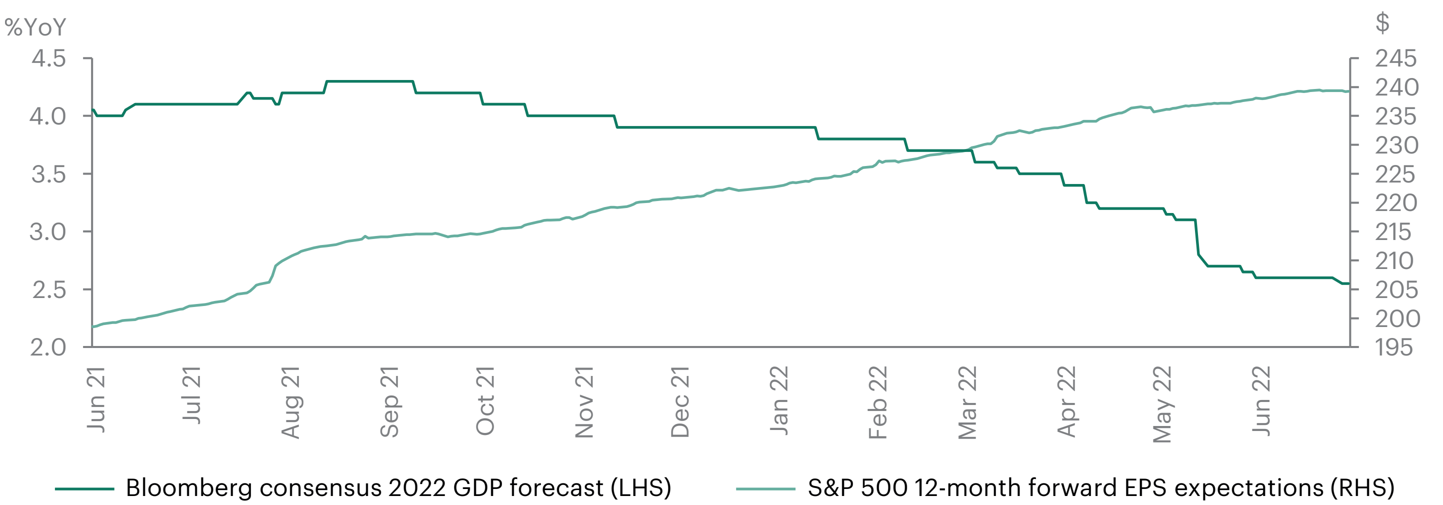


Source: Bloomberg, Apollo Chief Economist. The Bloomberg US BMA6040 Index rebalances monthly to 60% equities and 40% fixed income. Data as of October 11, 2022.

4. Source: CBO, FRB, Haver Analytics, Apollo Chief Economist. Note: Estimate of QT includes redemptions from the Fed's System Open Market Account, which serves to manage assets, with cap assumed $60 billion per month in 2023. CBO data as of May 26, 2022 and FRB data as of December 2, 2022.

Here's another situation that will surely need to unwind: A growing disconnect between earnings expectations for S&P 500 companies and overall GDP growth (**Exhibit 26**). It's more likely that earnings expectations, which have been stubbornly high, will need to come down than it is for GDP growth forecasts to rise. While we are increasingly confident that the Fed might engineer a soft landing, we are still facing an economic slowdown.

Exhibit 26: Consensus points to a divergence between S&P 500 earnings and GDP growth expectations



Source: Bloomberg, Apollo Chief Economist. Data as of November 11, 2022.

How can investors position themselves for 2023?

History shows that when inflation declines, the stock market rallies. Unfortunately, the toughest part—calling the turn and the speed of the decline in inflation—is extra-complicated in today's environment, given the unique combination of disruptions to the global economy (the pandemic, conflict in Europe) and monetary interventions of unprecedented scale.

In the face of such atypical market forces, as well as the higher-than-average degree of uncertainty in the outlooks for inflation and economic growth, many investors will likely be reconsidering their asset allocation decisions as we enter 2023. We see a number of opportunities to turn uncertainty into opportunity.

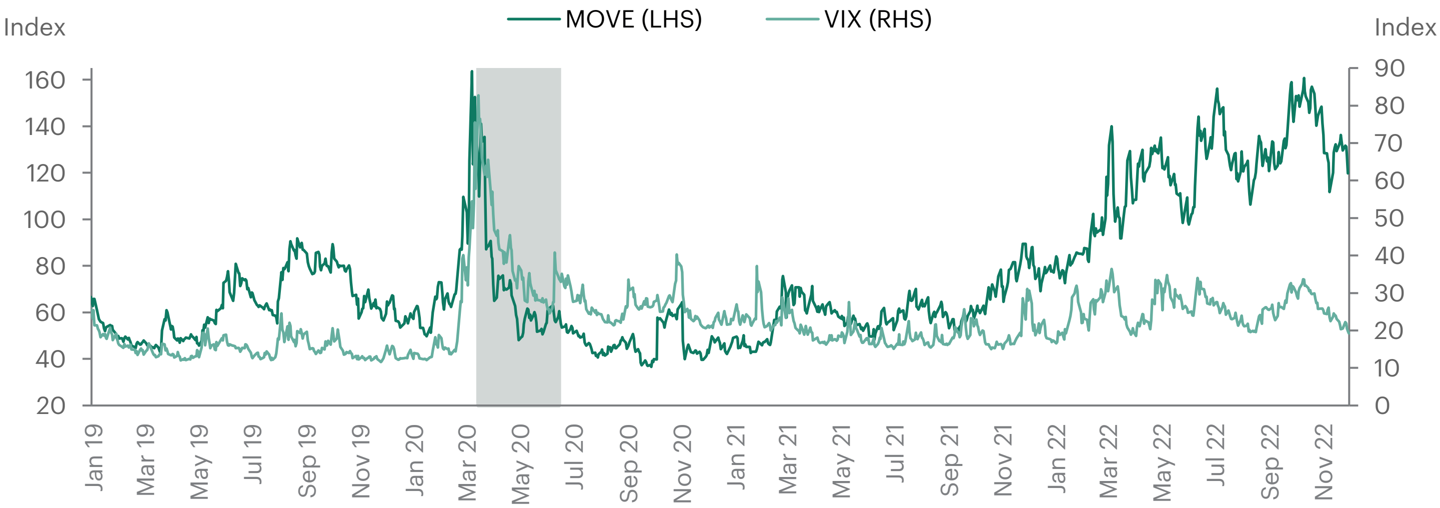
To recap: The sequencing of how the Fed reaches its dual mandate (taming inflation and maintaining full employment) is key for capital markets. Receding inflation first, moderating employment later would mean that the need for "demand destruction" on the part of the Fed will decrease. We think that is already happening in the US.

We believe a less aggressive Fed—or a potential Fed "pivot" later in 2023—should be bullish for asset prices (public and private) ranging from rates, to credit, to equities. That said, capital markets will remain vulnerable in 2023 and volatility will likely persist because with inflation at high levels and the Fed keeping rates elevated, capital will remain scarce and expensive, and high-yield primary credit markets will stay virtually shut down for the time being. Selectivity in asset selection, valuations, and entry points will be paramount.

Many investors—weary and battered after a disastrous performance of 60/40 portfolios of public equities and bonds in 2022—are likely to turn to private markets as they adjust their holdings in 2023. Purchase price matters and we see a historic entry point in private credit and attractive opportunities in private equity for investors able to be providers of capital in time of stressed and distressed markets.

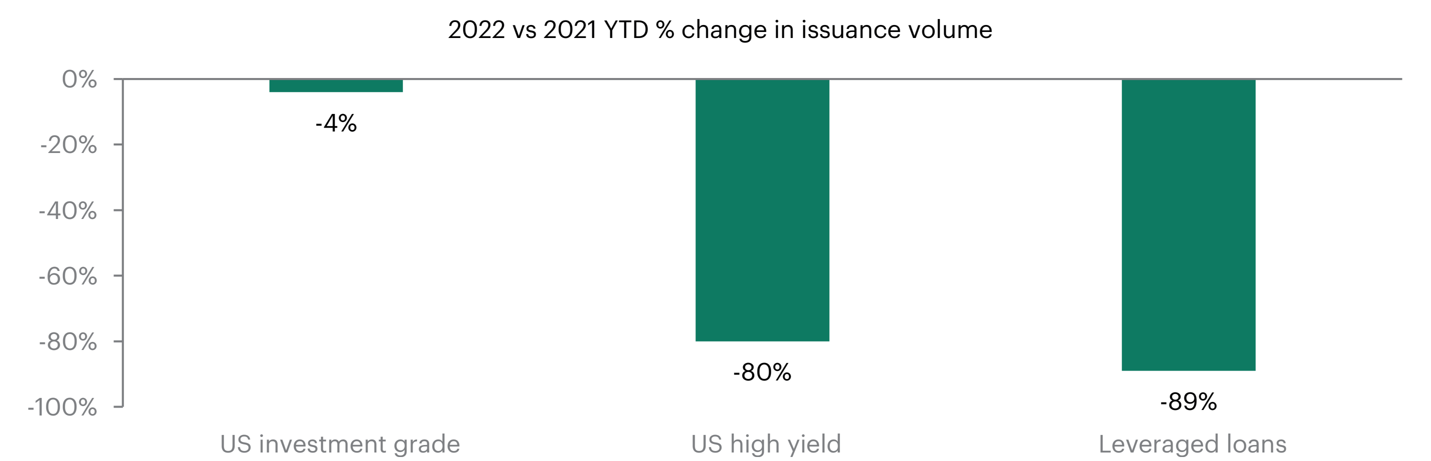
The rout in equity markets has been widely discussed. At the same time, though, credit markets have become increasingly volatile (**Exhibit 27**), creating opportunities in stressed and distressed investments. In 2022, the public debt markets have been closed to all but the highest-rated companies (**Exhibit 28**). Indeed, high-yield issuance has fallen off a cliff (**Exhibit 29**), leaving companies with less-than-investment-grade balance sheets in need of alternative sources of funding. This is why the private credit markets are so active at the moment, presenting numerous opportunities for providers of capital to step in where the public credit markets will not.

Exhibit 27: Higher rates and QT have created a strong disconnect between rates and equity markets



The Merrill Lynch Option Volatility Estimate (MOVE) Index is an interest-rate volatility barometer. The Cboe VIX Index is a gauge of equity volatility.
Source: Bloomberg, Apollo Chief Economist. Data as of December 1, 2022.

Exhibit 28: Only highest-rated companies have been able to access the public debt markets



Source: JPMorgan, "US Corporate Credit Issuance Monthly, October 2022".

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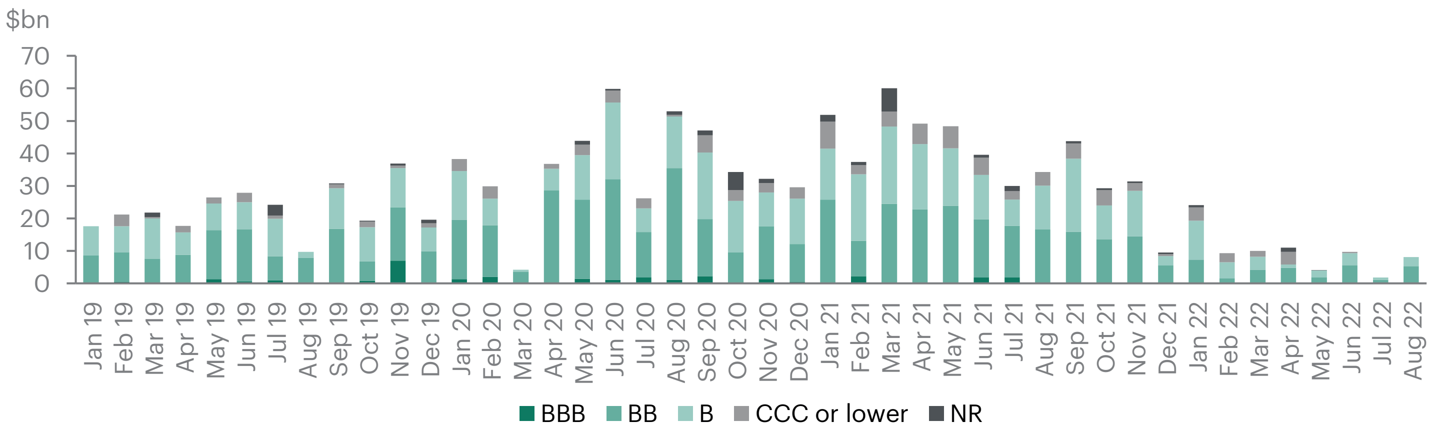
Exhibit 29: High-yield bond market mostly shut down for new issuers

HY ISSUANCE BY RATING

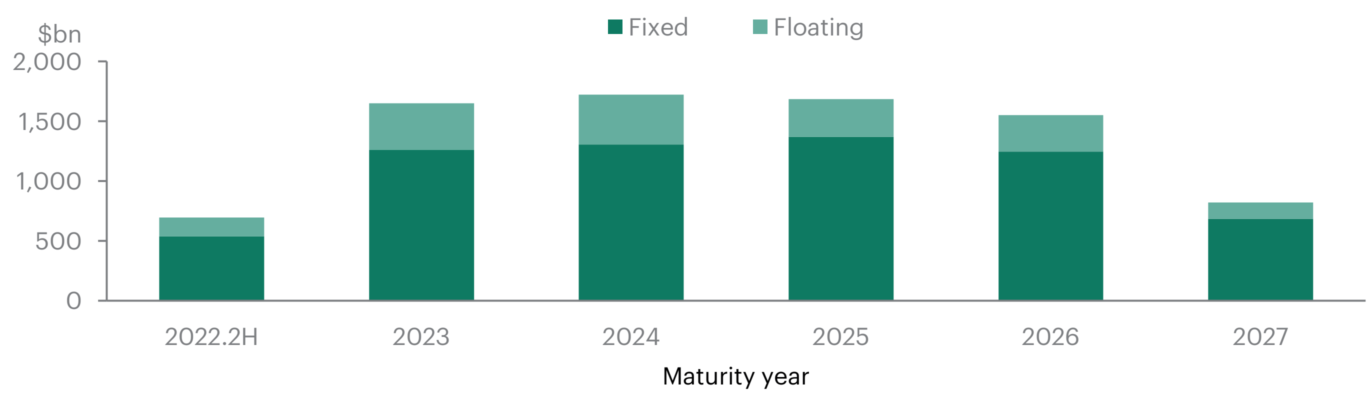


Source: Standard & Poor's Leveraged Commentary & Data (S&P LCD), Apollo Chief Economist. Data as of August 31, 2022.

One piece of good news? While it's clear that the era of low rates seems over for the foreseeable future, most corporate borrowers managed to shore up their balance sheets before the window for public borrowing slammed shut. The majority of investment-grade and high-yield issuers have enough capital on hand to weather the coming volatility in credit markets (**Exhibits 30, 31**).

Exhibit 30: The maturity wall is manageable for investment grade...

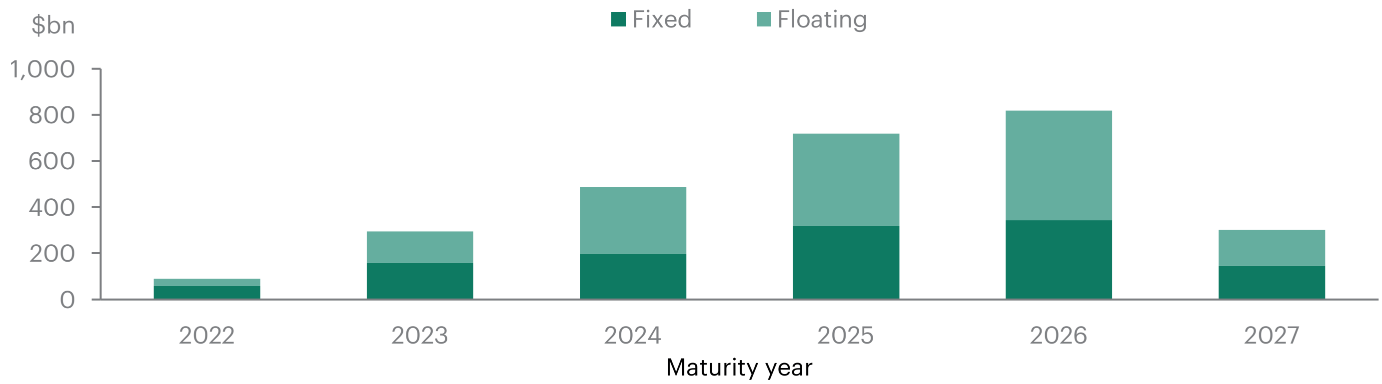
INVESTMENT-GRADE MATURING DEBT



Source: S&P Global Ratings Research, Apollo Chief Economist. Data as of July 1, 2022. Includes issuers' investment-grade bonds, loans, and revolving credit facilities that are rated by S&P Global Ratings.

Exhibit 31: ...and high-yield issuers

SPECULATIVE-GRADE MATURING DEBT



Source: S&P Global Ratings Research, Apollo Chief Economist. Data as of July 1, 2022. Includes issuers' speculative-grade bonds, loans, and revolving credit facilities that are rated by S&P Global Ratings.

What's the bottom line for asset prices going forward?

Against the macro and capital-markets backdrop outlined in this paper, we believe the following trends are heading into 2023:

- Sharp dislocations in public stocks and investment-grade bonds have generated opportunities in those asset classes. In historical recessions, market bottoms typically occur only after earnings estimates have been cut, which leads us to believe that markets will continue to be choppy. Investors with a short-term credit allocation could consider buying floating short rates high-quality large-cap credit.
- Credit selection and stock picking are key in turbulent markets. Purchase price matters and in 2022, many things have become a lot cheaper, particularly in the equity markets.
- Companies with cash flow and the ability to service debt are generally not borrowing in public markets right now—it's too expensive. They are waiting for interest rates to stabilize but that will only happen once inflation comes down further. The deals happening in the large capitalization space right now are mergers & acquisitions (M&A), leveraged buyouts (LBO), corporate carve-outs, and public-to-private transactions, with spreads the widest they have been in a long time.
- Higher energy prices will continue to accelerate the energy transition as well as investments in green energy and renewables.
- The private market opportunity is strong for investors able to deploy capital as high-yield and syndicated-loan issuance remains challenged. Until 2022, public market financing was plentiful and cheap, but now it's scarce and expensive, with 2022 third-quarter high-yield volume collapsing to the lowest level since 2008. Private, directly originated finance solutions offer a strong value proposition for borrowers—including large corporations—and for businesses in distress.
- Creative structuring offers lenders and other providers of capital the opportunity to buy businesses at, and sometimes even cheaper than, intrinsic value. Indeed, the risk-return dynamics in large corporate private credit have never been better, with double-digit unlevered yields on offer for senior secured risk.
- We believe large corporate origination acts as a complementary component in a credit portfolio and lending to large corporate borrowers offers a level of stability as we move into an increasingly volatile and uncertain environment.
- The conditions that have fueled momentum-based private equity strategies—low inflation, rising valuations, plentiful

financing, and low financing costs—are reversing. Market growth and multiple expansion-based investing strategies won't work as well in coming years. What will? We believe strategies with a "purchase price matters" discipline that focus on operational improvement and free cash-flow generation in order to generate value.

- Volatility in the public markets has driven significant demand for public-to-private (P2P) transactions. As valuations fall, demand for P2P market should pick up. Capital providers with a relationship-based sourcing approach will be able to pounce when market opportunities present themselves.

- The pipeline of corporate carve-outs should grow as CEO confidence continues to wane and corporates look to put cash on their balance sheets and simplify their businesses during market volatility.

- Prices of real estate and infrastructure should retain support as investors continue seeking inflation hedges.

Conclusion

As we head into 2023, it is increasingly clear that the Fed's rate hikes are starting to cool the economy via three transmission channels: interest rate-sensitive components of GDP are slowing down (housing, autos, capex); the tech sector is in turmoil because of higher risk-free rates, and layoff announcements are rising; and high-yield primary markets are essentially closed, which is having a negative impact on issuing firms in both the goods and service sectors.

The bottom line is that monetary policy is working as intended. The Fed started raising rates in March 2022, and these three transmission channels confirm the conventional wisdom that it takes 12 to 18 months before Fed hikes have their biggest effect on the economy.

From an inflation perspective, higher rates are cooling housing and car prices, which can push down overall inflation over the coming months. As a result, the Fed might soon be done with raising rates.

All that said, we expect it will still take some time for the capital markets to normalize. In the meantime, we believe the window of opportunity in the private markets should remain open for well-positioned capital providers.

About the author

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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.

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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