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Contents

Key takeaways	1
Introduction	2
The economic backdrop and recent market turmoil	2
Private market impacts	4
The road ahead	5

How Inflation, Monetary Tightening, and Volatility Are Impacting PE and VC

PitchBook is a Morningstar company providing the most comprehensive, most accurate, and hard-to-find data for professionals doing business in the private markets.

Key takeaways

- The presence of inflation that is uncomfortably higher than the Fed's stated policy goal of roughly 2.0% fundamentally alters how the Fed can conduct monetary policy.

- The rise in short-term interest rates, and more importantly, the sharp increase in market expectations of further tightening, has been the primary driver of recent market turmoil.

- The corresponding increase in discount rates has led to a fundamental repricing of valuations and a sharp rotation away from stocks with relatively high implied growth rates into stocks with relatively low implied growth rates.

- Performance of VC-backed companies that have recently gone public suggest there has been a huge dislocation in valuations between private and public markets that we think will be hard to ignore any longer.

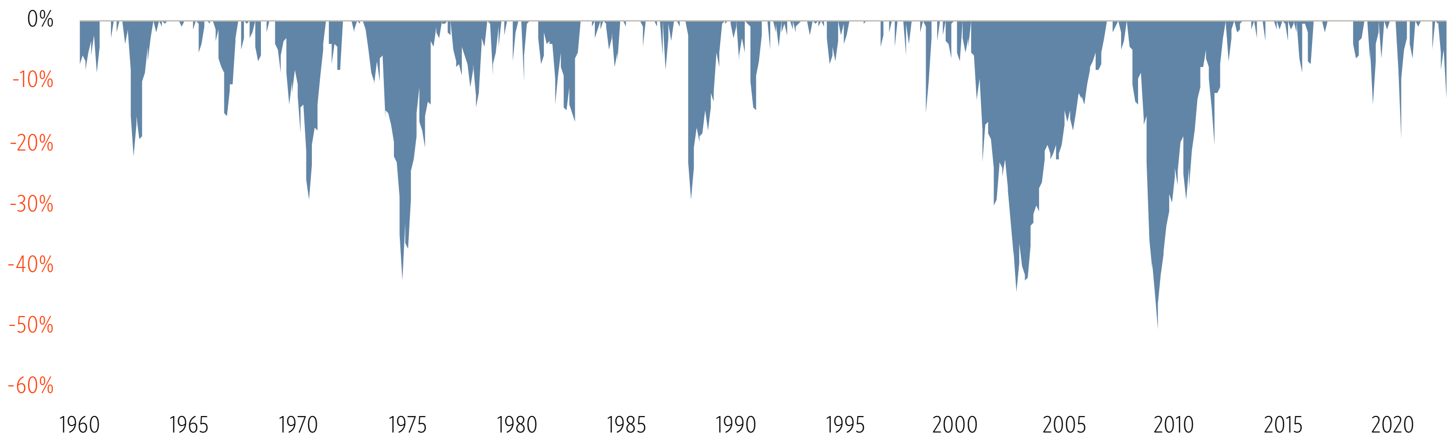
- If the market is correct, and short-term rates do indeed increase by 200 basis points by year-end, this would result in the average interest coverage ratio for recent buyout deals falling to 2.2x, assuming EBITDA is unchanged. For future deals, this means that leverage, which has magnified positive returns in recent years, or valuations will need to come down.

- According to our recession model using data available at the end of April, there is still only around a 20% chance of a recession occurring in the US over the next 18 months.

Introduction

As of May 12, the S&P 500 Index has declined 18.0% from its all-time high reached on the first trading day of 2022, which is a mild drawdown from a historical perspective. Equity markets tend to register drawdowns of 10%–20% at least once a year and more than 20% every few years.

US equity drawdowns from prior peak



Source: Ibbotson Associates, SBBI | Geography: US
*As of May 12, 2022
Note: Drawdowns are calculated using monthly data.

Why then does market sentiment feel more like the sky is falling? Our view is that sentiment is incredibly pessimistic because there are several influential paradigm shifts within financial markets, the economy, and geopolitics happening at once. Individually these shifts present significant downside risks to investment portfolios, but taken together, they could lead to some extremely bearish developments. In this note, we present our views on the dynamics currently playing out in economies and financial markets, and what it means for private markets and investors.

The economic backdrop and recent market turmoil

Let's start with what is happening in the US economy from a thousand-foot view—beginning with the onset of the COVID-19 pandemic in early 2020. In an unprecedented move, the Federal Reserve (the Fed) and Congress worked in a coordinated fashion to inject a massive amount of stimulus into the economy to avert a complete economic collapse. Since the start of the pandemic in March 2020, the Fed's already bloated balance sheet has more than doubled to nearly $9 trillion, and direct transfer payments from the government to households have averaged almost $900 billion per quarter, a roughly 60% increase from previous quarters. In addition, the Fed cut interest rates from 1.5% back to zero. Despite the sharpest recession on record, asset prices and personal incomes soared, and economic activity picked up as people started going back to work, establishing the "new" normal. The stimulus, in conjunction with (and partly resulting from) the quicker-than-expected recovery in economic activity, induced a massive positive demand shock—more specifically, a positive demand shock for goods (which require raw

inputs), as the recovery in services lagged given it primarily consists of in-person businesses. Meanwhile, the global supply chain did not recover as quickly, and remains in some disarray. This is partly due to lingering effects of COVID-19, such as sporadic lockdowns in China, as well as geopolitical conflict. Russia's invasion of Ukraine, and the resulting sanctions by western governments, threw an additional wrench into the supply chain and several key commodity markets including oil, natural gas, and wheat, sending prices to near-record levels. These issues with the global supply chain created a strong negative supply shock.

There is only one thing that can happen when you combine a positive demand shock with a negative supply shock: higher prices. Over the past six months ending in April, the US Consumer Price Index (CPI) rose at an annualized pace of 8.9%, the highest it has been since the early 1980s. **Even when excluding energy and food, the six-month annualized inflation rate was 6.3%.** The presence of inflation that is uncomfortably higher than the Fed's stated policy goal of roughly 2.0% fundamentally alters how the central bank can conduct monetary policy. For the last 10 or more years, the Fed has had the luxury of deprioritizing the inflation aspect of its mandate (that is, stable prices), instead focusing on broader economic growth through its employment mandate (that is, maximizing employment). This has also allowed the Fed to aggressively support financial markets when necessary—its unofficial third goal—without being overly worried about stoking inflation. The primary tool central banks have to combat inflation is the ability to increase short-term interest rates. For the first time in years, the Fed has done just that, and it is expected to continue to do so for the foreseeable future. At its March and April meetings, the Federal Open Market Committee hiked rates by a total of 75 basis points (bps). Looking ahead, the market expects an additional 200 bps of tightening by year end, based on fed fund futures prices, which would bring the overnight borrowing rate to nearly 3.0%—its highest level since before the global financial crisis.

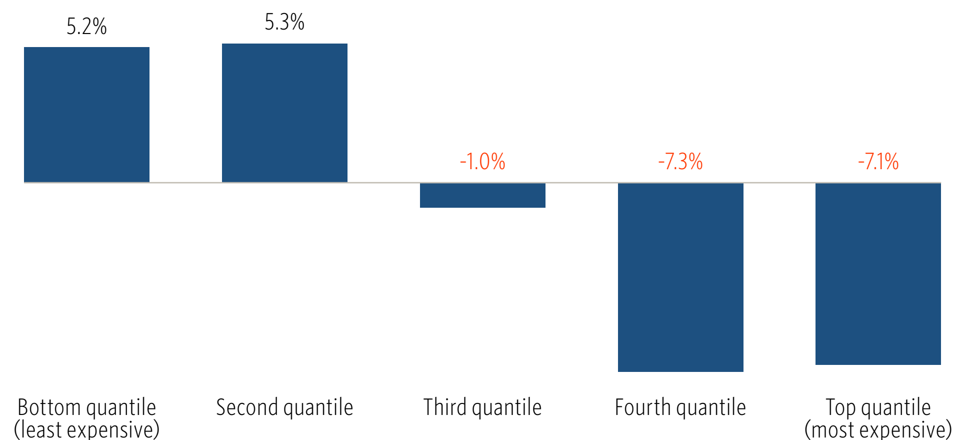
The rise in short-term interest rates, and more importantly the sharp increase in market expectations of further tightening, has been the primary driver of recent turmoil.

Market-implied fed fund futures rate at year-end 2022

Source: The CME Group | Geography: US
*As of May 12, 2022

The corresponding rise in discount rates has led to a fundamental repricing of valuations and a sharp rotation away from stocks with relatively high implied growth rates into stocks with relatively low implied growth rates. This underlying rotation is one of the main reasons the mild drawdown in the S&P 500 has not captured the full extent of the pain, as many of the high-flying tech stocks that have driven market gains for years (and receive a tremendous amount of media attention) are down more than 30%. According to data from Kenneth French, a basket of US stocks in the top valuation quantile was down 7.1% YTD through March, while the bottom valuation quantile basket was actually up 5.2%. This is not evidence of a broad-based, panic-and-sell-everything type of market. In addition, real-time market risk indicators, such as credit spreads and implied volatility, are higher but not flashing red at this point.

Year-to-date equity performance by valuation quantile

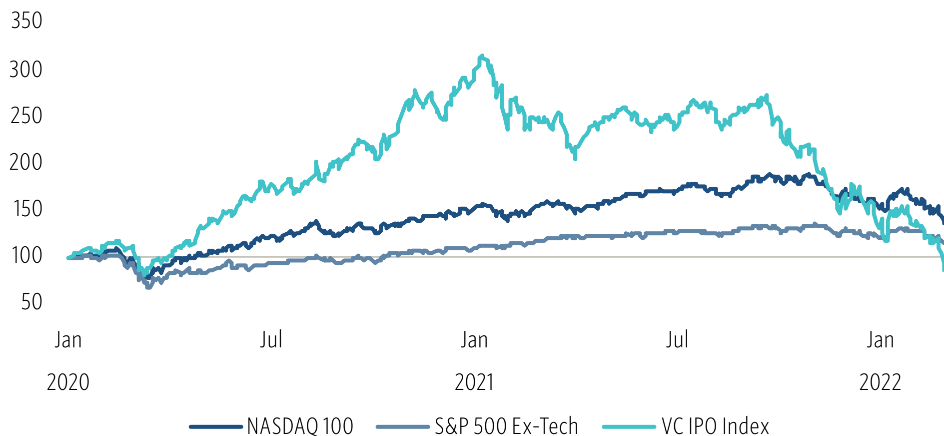


Source: Kenneth French Data Library | Geography: US
*As of March 31, 2022

Private market impacts

We believe that the pricing dynamics playing out in public markets are also happening in private markets to varying degrees across asset classes and industries, although it may take several quarters for this to show up in the data. Assets that gain most of their value from **expected** revenue and earnings growth are more sensitive to increases in discount rates and changes in implied growth rates, given that cash flows will be realized well into the future. Venture capital (VC) is particularly susceptible to repricing given its high degree of exposure to young companies that will require significant growth to reach profitability as well as the surge in valuations over the past few years. Along with the hit from rising discount rates, more established late-stage companies are likely to have growth rates reevaluated. Performance of VC-backed companies that have recently gone public suggests there has been a huge dislocation in valuations between private and public markets that we think will be hard to ignore any longer. On average, companies in PitchBook's VC IPO Index are 75% below their 52-week high.

Select US equity indexes (indexed to 100)



Source: PitchBook, Morningstar | Geography: US
*As of May 12, 2022

Historically, traditional private equity (PE)—that is, leveraged buyouts—consists of more mature companies with relatively strong and stable earnings and thus lower valuations. This makes their valuations less sensitive to rising discount rates and in turn more resilient to what is happening in public markets. However, as we have noted previously, PE firms have increased allocations to the tech sector and growth equity investments, which will increase their rate sensitivity on the margin. **The biggest worry related to PE and rising interest rates is not valuations, however, but rather the impact on borrowing costs.** Leveraged buyouts are typically financed using floating-rate debt via the syndicated loan market. This means that as the Fed continues to push short-term rates higher, PE-backed companies will have to cover increasing interest payments. According to the most recent LCD (Leveraged Commentary & Data) data, the average large US buyout deal had a leverage ratio of about 6.0x EBITDA, which at current market yields translates to a 3.0x interest coverage ratio. If the market is correct, and short-term rates do indeed increase by 200 bps by year-end, this would result in interest coverage ratios falling to 2.2x, assuming EBITDA is unchanged. A coverage ratio of around 2.0x leaves little room for a corresponding drop in revenue and earnings if the economy stumbles. For future deals, this means that leverage, which has magnified positive returns in recent years, or valuations will need to come down.

The road ahead

While we have shed some light on where markets and economies are today and how they got there, the more significant question is always what happens going forward. While providing a precise answer to that question is a fool's errand, we can identify several key factors that will help shape the possible outcomes. The most important variable right now is inflation, given the direct influence it has on monetary policy. **As long as inflation remains uncomfortably high, the Fed will be forced to tighten monetary policy and unable to support markets.** This is a stark departure from the recent environment where the Fed typically tightened much less than the market anticipated in response to any sign of weakness in economic growth and financial markets, and likely means the "buy-the-dip" strategy that has worked so well may

be a thing of the past. Perhaps the biggest issue for the Fed right now, among many, is that tighter monetary policy and financial conditions only affect the demand pressures on inflation. **Therefore, the supply-side of the equation becomes crucial, which will be heavily influenced by what happens with the global supply chain and, relatedly, the war in Ukraine.**

We think there are three plausible high-level scenarios moving forward—each with distinct paths for inflation, interest rates, and economic growth—that will create a wide range of outcomes for financial markets. **In the first scenario, aggregate supply constraints would not get worse and would even moderately improve over time.** The Fed could slow aggregate demand and inflation by raising rates to a neutral level in line with what is priced into markets (roughly, 2.5-3.0%) without causing a recession (that is, a "soft landing"). **It is important to note that what matters for asset prices is how interest rates change relative to what is priced in, and not the actual change itself.** Therefore, in this scenario, there would not be an additional shock to asset valuations due to higher discount rates. This is likely the best-case scenario for private markets as valuations would find a new (lower) equilibrium, and inflation and increased borrowing costs would remain manageable from an operational standpoint.

The remaining scenarios are bear cases involving two very different types of economic recessions. **The first bear case is the one that is most familiar in recent history—a deflationary recession.** In this scenario, inflation would remain stubbornly elevated for a time, but would not get too much worse, and the Fed would hike rates to outright restrictive levels. Eventually, the restrictive monetary policy would stymie demand to such an extent that both real growth and prices would fall. Risk assets would be hit with another sharp downturn as revenue and earnings fell and risk premiums rose. The silver lining in this scenario is that because of deflation, the Fed would once again be better able to provide support and would have more room to do so, paving the way for a market rebound. Limited partners and other asset allocators would also benefit from the diversification of high-quality fixed income investments as both real interest rates and breakeven inflation rates would decline and bond values would appreciate. Given the substantial amount of dry power in private markets, we think they are well positioned to weather this environment. At the end of 2021, total US PE and VC dry powder was near a record high at $960.0 billion and has grown at a 9.6% annualized rate over the past five years.

The final scenario is by far the worst-case scenario for economies and financial markets and one that the US has not experienced since the 1970s—an inflationary recession (that is, stagflation). In this scenario, the health of the global supply chain would worsen, globalization trends would reverse, commodity prices would continue to soar amid supply shortages, and inflation would remain at or above current levels. The Fed would increase rates too slowly at first, but eventually would set them much higher than they would like, moving well into restrictive territory. Like the previous case, aggregate demand and real growth would plummet, but the key difference is that supply and production constraints would result in a continued supply-demand imbalance. **Stagflation creates a devastating one-two punch to asset prices where nominal discount rates and risk premiums increase sharply while real growth rates fall.** In addition, instead of coming to the rescue

as in the traditional deflationary recession, the Fed would need to continue to tighten monetary policy to fight inflation. **This would be a particularly challenging environment for LBO-backed companies as both input and borrowing costs would rise at the same time. Revenue would need to increase at a higher rate than input costs in order to maintain EBITDA coverage ratios and avoid liquidity problems, which would be difficult given the corresponding deterioration in demand.**

In our view, some version of the first scenario is the most likely over the short-term. According to our recession model and using data available at the end of April, there is still only around a 20% chance of a recession occurring in the US over the next 18 months.[1] However, the probability of recession has been increasing over the past few months and will likely continue to do so in the near term as credit spreads and interest rates rise. The good news is that, if this is the case, markets may be nearing a bottom. **The bad news is that given the rise in discount rates and growth repricing previously discussed, we do not see a quick reversal in asset valuations. Private market investors should prepare for valuations to be marked down in the coming quarters, especially in VC.** Over the past few weeks, the market narrative and pricing (pricing of monetary tightening and inflation have both fallen by around 50 bps) has shifted their focus from rising discount rates to a deflationary recession, which we think is the second-most-likely outcome. Finally, while we see stagflation as the least likely scenario, we believe it is a significant tail risk that deserves attention—and one for which most investors are unprepared.

1: Our recession model uses 14 different market and economic data series dating back to the 1950s to predict the probability a recession will occur at any time during the following 18 months. We will be publishing detailed analysis on its construction and performance in the near future.

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