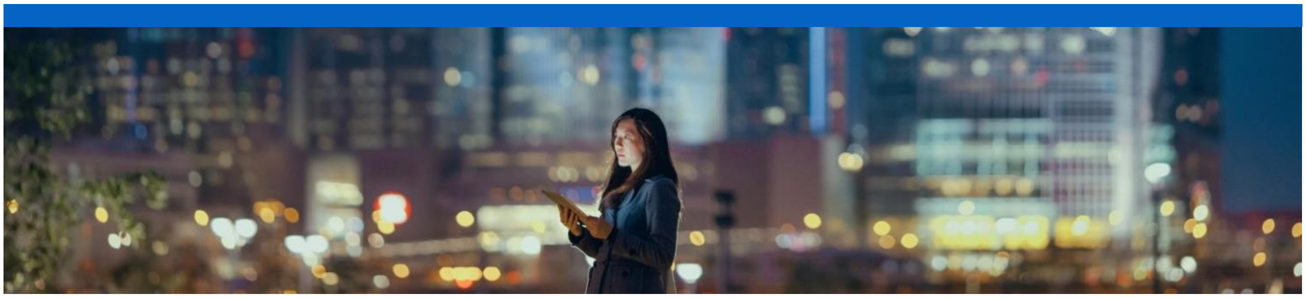
Citi Global Wealth Investments



October 9, 2022

CIO Strategy Bulletin

The Squeeze Is On

David Bailin, Chief Investment Officer and Head of Citi Global Wealth Investments
Steven Wieting, Chief Investment Strategist and Chief Economist
Joseph Fiorica, Head, Global Equities Strategy
Bruce Harris, Head, Global Fixed Income Strategy
Malcolm Spittler, Senior Economist
Joseph Kaplan, Global Fixed Income Strategy
Lorraine Schmitt, NAM Investment Strategy

SUMMARY

- The three consecutive 75-basis-point rate hikes are the Fed's fastest hikes ever and the largest increases since 1980. The forward curve suggests a further 125bps to come. Comparable to highway accident data, higher speeds and larger rate hikes combine to increase the probability and magnitude of negative consequences.
- The Fed is likely to sustain its hawkish measures to crush inflation with limited regard for the time it takes for its medicine to work, likely damaging some markets along the way.
- By openly encouraging lower asset prices, whether in housing, equities or foreign currencies, the Fed is leading market participants to become extremely defensive. That defensiveness can not only reduce liquidity and increase volatility, it can change investor behaviors and create negative feedback loops.
- The Fed's determined actions and the continued resiliency of both inflation and US employment growth do not bode well for equity markets in the near term. Remember, historically US equity markets have never bottomed before a recession has even begun – and one hasn't.
- Ultimately, a fall in employment sometime in 2023 is likely to see the Fed suspend its fight against inflation. As we've pointed out before, in seven Fed tightening cycles since 1980, the Fed has sustained its maximum policy rate for only seven months on average before cutting rates.
- There are many reasons why market timing is the wrong strategy in a period of high event risk. We believe it's prudent to "mind the gap" by seeking to maintain an up-in-quality bias in both equities and fixed income.

Little Fires Everywhere

This week, Mohamed El-Erian said it best. "We are living in a world with little fires everywhere. If we don't pay attention, these little fires could become much bigger."[1] So it is in markets. The Fed continued an "easy money" strategy through 2021, well after the major financial dislocations of the pandemic had abated. Now, with its rapid tightening in 2022, market stability is beginning to fray again (see Figures 1-2, end).

The list of "little fires" is quite impressive in its breadth and scale:

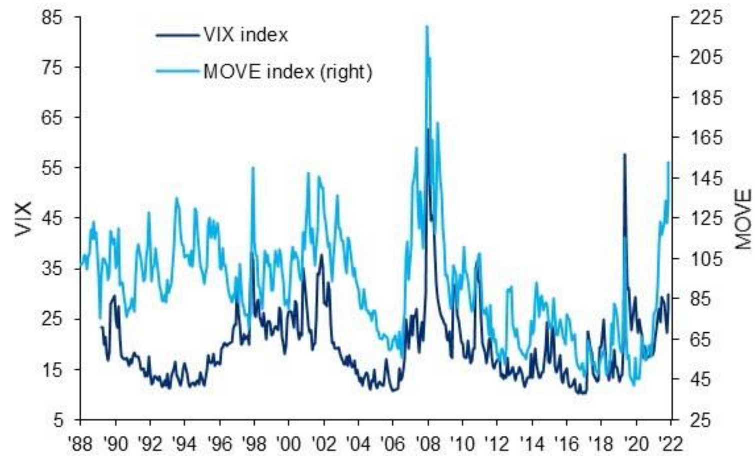
- The UK pension fund industry received a structural bailout from the Bank of England last week. Pension funds were facing margin calls on their long-dated interest rate swap exposure, and the BoE intervention stemmed the rise in gilt yields which was forcing the margin calls. The sharp selloff in gilts likely contributed to higher US Treasury yields.
- The US yield curve is inverted by the most since the summer of 2000, a very strong recession warning.
- The yield on two-year US Treasuries rocketed higher, ending the 3rd quarter at 4.22%. Two-year yields have not been this high since October 2007.
- Bonds are having their worst year in modern history. Morningstar's US Core Bond Index fell 14.6% in 2022 through Sept. 30. In September, high-grade bonds fell 5.3% on a total return basis, the most since April, while US junk debt dropped 4%, its third consecutive quarterly loss and the longest losing streak since March 1990.
- Sales of corporate bonds fell significantly in September with high-grade bond supply plummeting 47% from its four-year average. Bond funds suffered their third-largest cash outflows underscoring waning demand.
- US 30y mortgage rates are approaching 7% -- the highest level since 2001. The latest surge in rates has resulted in a stunning drop in the value of mortgage-backed securities, down nearly 9% since the start of August alone.
- Major lenders are unable to sell recently issued buyout loans to investors even with deep discounts. These will cause large mark-to-market losses for banks.
- The US dollar is on its strongest run in two decades. The 25% slide in the Japanese yen this year has shifted the exchange rate back to where it was in 1998. In China, the yuan broke through and remains slightly above 7, a level that the People's Bank of China has repeatedly indicated it would like to see held.

Illiquidity in the US Treasury market is evident. The MOVE Index for Treasuries is analogous to the VIX Index for equities (Figure 3). Treasury volatility is at its highest levels since the 2008 financial crisis, save for 2020. Normally, high volatility comes with poor liquidity. At this moment, liquidity is unusually poor, indicative of markets that are unclear on how to price and trade forward interest rate expectations (Figure 4).

The Office of Financial Research (part of the US Treasury) maintains a Financial Stress Index, which is now at a two-year high at 3.1 (zero represents normal market operating conditions). Volatility is rising and liquidity is falling in US government debt, corporate bonds and money markets (Figure 5).

[1] The New York Times, "A Strong Dollar Is Wreaking Havoc on Emerging Markets. A Debt Crisis Could Be Next," Oct. 5, 2022.

Figure 3: MOVE Index and VIX Index: Volatility for Treasuries is at its highest levels since 2008 financial crisis (except pandemic period)



Source: Bloomberg as of Oct. 5, 2022. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

Figure 4: US Treasury market liquidity index (higher number indicates less liquidity)

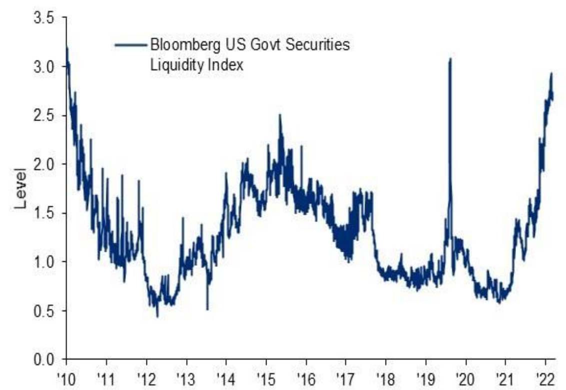
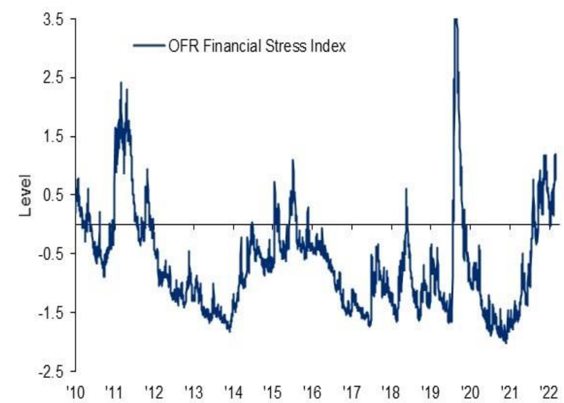


Figure 5: Office of Financial Research's Financial Stress Index: Zero represents normal market conditions



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Meanwhile, investors have built large short positions in equities, bonds and non-US currencies, fueled by negative economic data, sentiment and the positioning of systematic traders, according to CFTC data. Troublesome macroeconomic news and strident policy statements drive sentiment down, yet large counter-trend rallies can occur. We believe these bear market rallies are "head fakes" that can mislead investors into believing a lasting new economic expansion is at hand. That is not the case. All of this is evidenced by wide, volatile price ranges for many asset prices (Figures 6-7).

Over the past six months, we have been struck by what appears to be a panicked response from a central bank that long argued for patience. Global supply shocks and pandemics are not "business as usual" events, as Fed Chairman Powell has often acknowledged. With this in mind, a Wharton Finance professor's entreaty for the Fed to "apologize" for its erratic performance has earned approximately

143,000 YouTube hits. But in our view, there will be nothing entertaining about the economic impact to come for workers, businesses and families affected by excessive "pro-cyclical" monetary policy.

Figure 6: S&P 500 futures net shorts as % of open interest

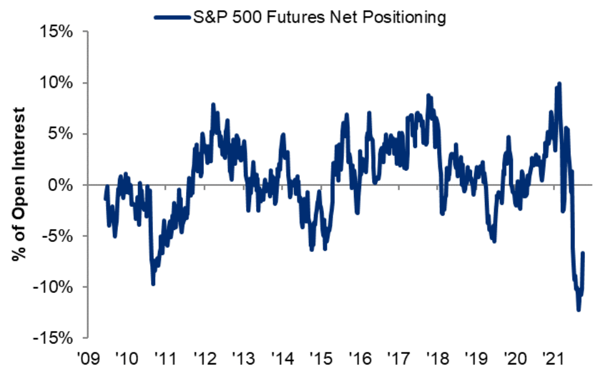
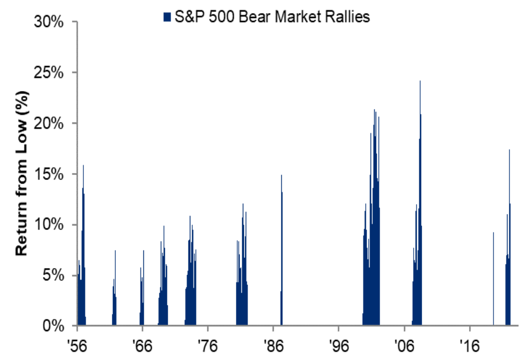


Figure 7: US equity bear market rallies have been as large as 26% before a final lasting bottom



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The Fed's Selective Data Syndrome

The three consecutive 75-basis-point rate hikes are the Fed's fastest hikes ever and the largest increases since 1980. The forward curve anticipates approximately 125bps in additional rate hikes, culminating at a Fed funds rate of 4.5% -- an increase that may come over just 9-10 months. Comparable to highway accident data, higher speeds and larger rate hikes combine to increase the probability and magnitude of negative consequences.

On Oct. 5, Federal Reserve Bank of San Francisco President Mary Daly summarized the Fed's current stance on raising rates and reducing its balance sheet to fight inflation. "We're data dependent. When the data shows what we need to see, then we will downshift. When the data doesn't show it, then we're going to have to keep doing what we're doing." Daly's pronouncement suggests that the Fed is likely to sustain its hawkish measures to crush inflation with limited regard for the time it takes for its medicine to work, likely damaging some markets along the way.

The September nonfarm payrolls data, released Friday, paints a rosy employment picture, implying that the Fed will need to continue to raise rates sharply to slow it down (see Figure 8, end, and Data Watch from Oct. 7). Looking at the futures market, expectations of a further 75-basis-point hike in November sit at over 80%, with two further hikes of 50 and 25 basis points set to follow in December and February. We strongly suspect Quantitative Tightening will end with real US job losses, but until such an event occurs, the Fed will be working to raise capital costs of firms while sapping market liquidity.

What further data will the Fed deem valid? Earlier in the week, the US reported a 1.1 million drop in job openings, the largest monthly decline since COVID struck in 2020. That's good data, but it can also be interpreted and ignored. The Fed could say that job openings remain high, pointing to the ratio of openings to job seekers, a misleading and perhaps irrelevant "fact" given the low cost and ease of posting job listings online (see Figure 9, end).

While the Fed would certainly pause or reverse course if the “core” financial system were threatened, it appears the Fed is willing to see asset prices fall considerably to achieve its inflation reduction goals. At his Sept. 19 FOMC meeting, Fed Chairman Powell said: “…we probably in the housing market have to go through a correction.” That’s well underway with mortgage purchase application volumes down a stunning 45% in the year-to-date. A very sharp and rapid rise in mortgage rates this year appears set to sink home values in 2023.

By openly encouraging lower asset prices, whether in housing, equities or foreign currencies, the Fed is leading market participants to become extremely defensive. That defensiveness can not only reduce liquidity and increase volatility, it can change investors’ behavior and create negative feedback loops.

Selling USD Reserves to Support the Yen

When Japan wanted to defend its currency last week, the Japanese government sold US dollars, some of which have been held in US Treasury bonds. Japan had previously been a net buyer of these bonds. Now, as the market continues to test the Japanese F/X rate to see if its interventions will continue, Japan may have to choose between raising its own rates (which the Bank of Japan has clearly indicated it is unwilling to do), allowing its currency to drop further, or selling chunks of its UST portfolio, potentially causing rates in US markets to rise higher due to additional bond supply.

This cycle may spread. As the yen declines, it pressures other Asian currencies such as the South Korean won and the Chinese yuan. While China has its own macroeconomic challenges, it would not want its currency to depreciate significantly versus the USD. China is also a huge holder of US Treasuries. If it engages in supporting its currency through sales of Treasuries, US rates could also be pressured higher, and make the US dollar stronger.

There Is No Banking Crisis to Blame

In late September, investors began to panic over the health of a large European financial institution. It wouldn’t be the first time they’ve done so, even during the sustained expansion of 2010-2019 (see Figure 10, end). Nonetheless, we see no systemic risk from the banking sector. The strong capital position of US banks is clear (see Figure 11, end). We believe market conditions rather than fundamentals drove the sharp concern over the well-known Swiss bank.

After the financial crisis of 2008, G-7 regulators required that large banks add more capital to protect against a repeat of that period. Large banks in particular came to be designated as “systemically important,” and that label required even more capital. In addition, these banks undergo annual “stress tests” by their national regulators to maintain sufficient capital against these scenarios. The current weakness in the Swiss bank and to a lesser extent at other European banks, appears due to future profitability concerns relative to their market capitalization rather than concerns about capital or liquidity.

Implications for Equities

The Fed’s determined actions and the continued resiliency of both inflation and US employment do not bode well for equity markets in the near term. US equity markets are already down 23% through Oct. 7. Furthermore, US equity markets have never bottomed **before** a recession has even begun (see figure 12). Of course, if the US manages to avoid a recession altogether, we would gladly be wrong, lows in September or October proving to be the market nadir. (No one would love to see a new or continued economic expansion or a new recovery more than our clients.)

Conclusion: Seek to Protect Portfolios

Last week, we urged investors to stay the course given the significant portfolio impact of poor market timing (meaning sales after markets have already fallen and purchases after they have risen).

Even if the Fed does not publicly acknowledge these "little fires," they are certainly aware of how their actions affect markets globally. For now, they believe these all contribute to their goal of tightening financial conditions. But we believe the Fed will act if needed to prevent a systemic financial event, even if it requires them to pause or reverse policy.

As a base case, we expect the Fed to continue raising rates through the next 2-3 FOMC meetings, which in turn will likely lead to a greater frequency of small flare-ups across markets, stoking greater volatility.

Ultimately, a fall in employment sometime in 2023 is likely to see the Fed suspend its fight against inflation. As we've pointed out before, in seven Fed tightening cycles since 1980, the Fed has sustained its maximum policy rate for only seven months on average before cutting rates.

As we noted in our Oct. 2 CIO Bulletin, the fruits of long-term economic growth can only be earned in time through patient exposure to innovative companies. So too, must one be patient as the economy works through a difficult period for inflation and monetary policy.

There are many reasons why market timing is the wrong strategy in a period of high event risk. We believe it's prudent to "mind the gap" by seeking to maintain an up-in-quality bias in both equities and fixed income. Even in poor markets and even if returns are mediocre in the interim, the direction of that gap can be up.

Figure 1: Financials lead the economy. Financial sector debt weakened more than industrial debt this year

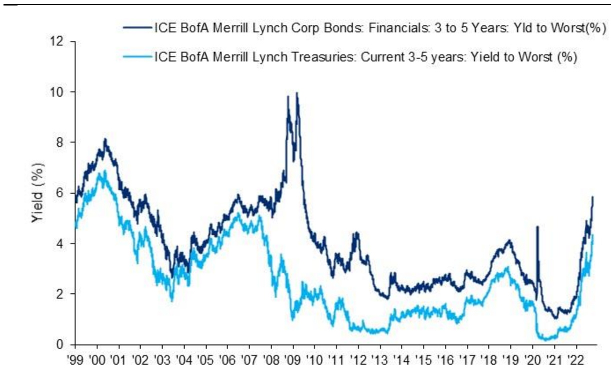


Figure 2: Expected currency and interest rate volatility has surged to early 2020 levels

Source: Haver Analytics and Bloomberg as of Oct. 6, 2022. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

Figure 8: US employment level (non-farm)

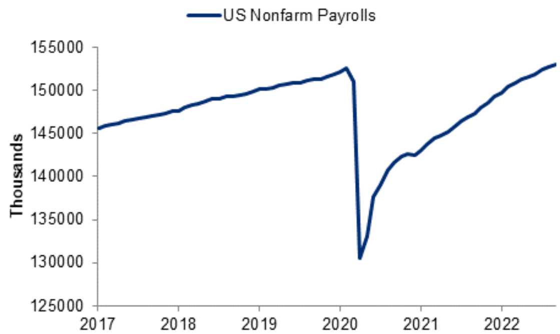
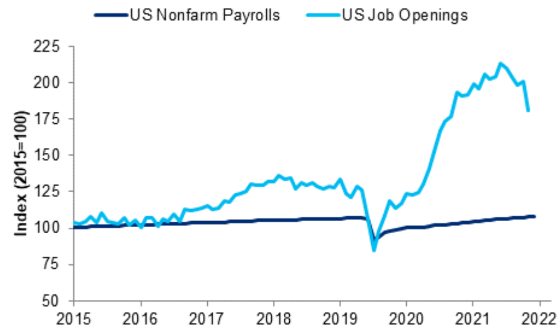


Figure 9: US job openings and employment (Indexed Jan. 2015=100)



Source: Haver Analytics as of Oct. 7, 2022.

Figure 10: US, European and Credit Suisse credit default swaps (CDS)

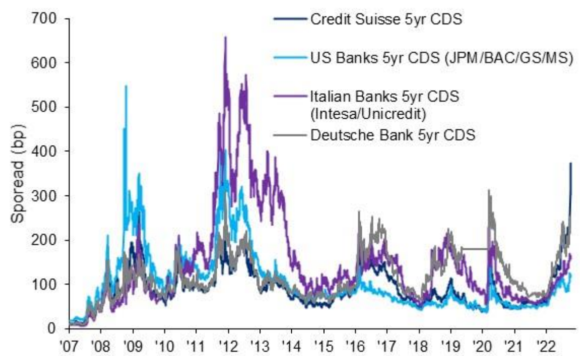
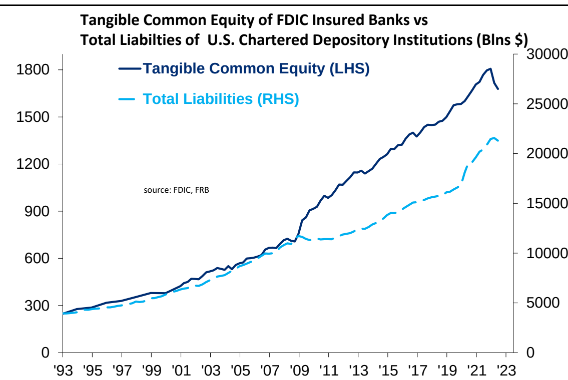


Figure 11: US bank tangible common equity and liabilities



Source: Bloomberg and Haver Analytics as of Oct. 6, 2022.

Figure 12: How soon do equities bottom when the US heads into recession?

Recession	Depth into Recession that trough occurred	Recession	Depth into Recession that trough occurred
Aug 29-Mar 33	77.3%	Nov 73-Mar 75	63.5%
May 37-Jun 38	76.7%	Jan 80-Jul 80	31.0%
Feb-45-Oct 45	11.5%	Jul 81-Nov 82	77.4%
Nov-48-Oct 49	60.8%	Jul 90-Mar 91	30.5%
Jul 53-May 54	14.6%	Mar 01-Nov 01	70.5%
Aug 57-Apr 58	21.6%	Dec-07-Jun 09	79.0%
Apr 60-Feb 61	59.3%	Feb-20-Apr 20	56.5%
Dec 69-Nov 70	43.5%		
		Average	**51.6%**
		Median	**59.3%**

Source: Haver Analytics as of Oct. 5, 2022. Proxy for equities data is S&P 500 Index. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

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