ADVOCATE CAPITAL MANAGEMENT, LLC

Up, Up and Away

Come on up for the rising
Come on up, lay your hands in mine
Come on up for the rising
Come on up for the rising [in the next two years]

- The Rising, by Bruce Springsteen (with Advocate taking some liberties)

The first 50bp rate hike since 2000 is now in the books. What now? Interest rates have risen considerably in recent months, but Advocate believes rates may rise substantially higher. Our rate views are: 1) the Fed may need to raise the Fed Funds rates to as high as 5% by the end of this tightening cycle, and 2) long-term interest rates will likely rise substantially from current levels, with 10-year Treasury yield reaching 4% and 5% by the end of 2022 and 2023, respectively.

Advocate's Recent Calls

Let us briefly review the outcome of recent Advocate calls on interest rates and how rising rates may affect equity-bond correlation and various rate-sensitive asset classes.

1. Interest Rates

Back in January 2021, Advocate called for 10-year Treasury yield to rise by 160bps to 2.5% by the end of 2021[1]. As it turned out, we were about 3 months early on that call – 10yr Treasury yield moved above 2.5% in early April. In a subsequent article in October 2021, Advocate shared the view that the leading edge of the rising rate tsunami is here[2]. From October 2021 to May 2022, 10-year Treasury yield rose by 1.5% (from 1.5% to 3.0%).

FIGURE 1. 10Y TREASURY YIELD, 1998 - 2022

Data period 1998 – 2022. Source: Bloomberg

[1] "*Special Topic: The Perfect Storm for Rising Rates*", Advocate Capital Management, January 2021
[2] "*The Leading Edge of the Rising Rate Tsunami is Here! Advocate to Launch Rising Rate Hedge ETF Shortly*", Advocate Capital Management, October 2021

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2. Bond-Equity Correlation

In May 2021, Advocate discussed how a rising rate environment may weaken or invalidate the protection that bonds have historically provided to equities[3], thus impairing the risk-return profiles of equity-bond portfolios such as the classic 60/40 portfolio. The returns of both equity and bonds in 2022 were both quite negative, validating our fears of the equity-bond correlation change. The evolving relationship between equity and bonds is borne out by the shifting correlation between the S&P 500 and the U.S. Aggregate Bond daily returns, which moved from -0.18 in 2020 to +0.06 in 2022 (YTD). ***This correlation shift means the risk of equity-bond portfolios and risk-parity products may be considerably higher than recent history might suggest***.

FIGURE 2. 2022 YEAR-TO-DATE TOTAL RETURNS OF EQUITY INDEX (S&P 500), U.S. AGGREGATE BOND INDEX, AND 60/40 EQUITY-BOND COMBINATION

Asset Class	Representative Total Return Index	YTD Total Return of Index
Equity	S&P Total Return Index (SPTR)	-12.9%
Bonds	Bloomberg Aggregate Bond Index (LBUSTRUU)	-9.5%
60/40	60% Equity + 40% Bond	-11.5%

Index total returns from 31 Dec 2021 to 30 Apr 2022. Sources: S&P, Bloomberg, Advocate

3. Asset Classes that are Sensitive to Rising Rates

In a December 2021 interview with *ETF Trends*[4], Advocate shared the view that many asset classes (outside of Treasuries) could be highly sensitive to rising rates. We identified four rate-sensitive asset classes in particular: tech, high-yield, emerging market, and real estate. With 10-year Treasury yield having risen by 142bps between the end of 2021 and the end of April 2022, the YTD returns of the four rate-sensitive asset classes identified by Advocate have been quite challenging.

FIGURE 3. 2022 YEAR-TO-DATE TOTAL RETURNS OF TECH, HIGH YIELD, EMERGING MARKET AND REAL ESTATE INDEXES

Asset Class	Representative Total Return Index	YTD Total Return of Index
Tech	Nasdaq 100 (NDX)	-21.1%
High Yield	Bloomberg US Corporate HY TR Index (LF98TRUU)	-8.2%
Emerging Market	MSCI Emerging Market (MXEF)	-12.1%
Real Estate	Dow Jones US Real Estate Index (DJUSRE)	-10.3%

Index total returns from 31 Dec 2021 to 30 Apr 2022. Sources: Nasdaq, Bloomberg, MSCI, Dow Jones

[3] "*Portfolio Protection in the Time of Rising Rates*", Advocate Capital Management, May 2021
[4] "*Advocate Capital: For Rising Rates, Advisors Need to Consider a Multi-Asset Hedge*", Evan Harp, *ETF Trends*, 7 Dec 2021

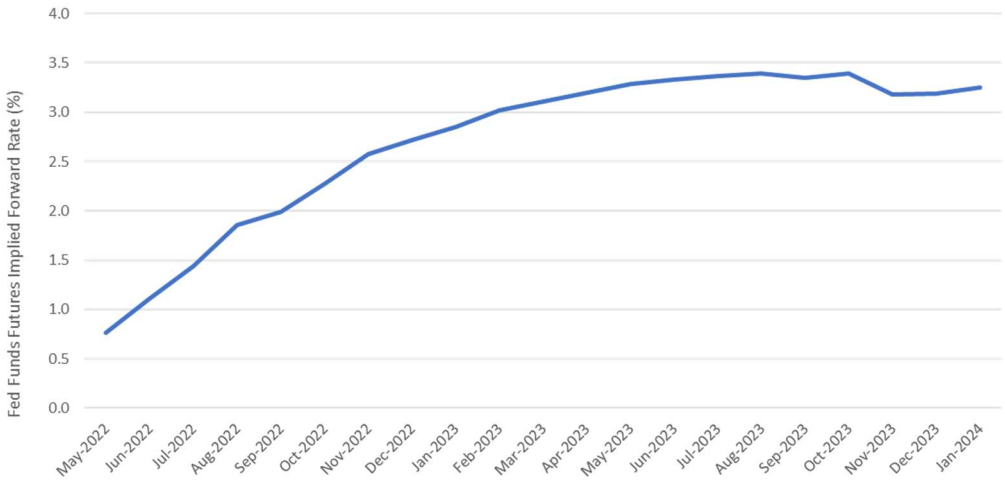
The trillion-dollar question facing global markets now is whether we are close to the end of the rate-rise, or whether there is more to go. While some street pundits have declared the all-clear for interest rates, Advocate is most definitely *not* in that camp. ***Advocate believes that interest rates and the Fed Funds target rate have substantially more room to rise from here***.

Market Pricing of Fed Hikes – Please Chair Powell. May We Have Some More (Hikes)?

The Fed has communicated its intent to rapidly raise rates and front-load these rate hikes. In the March FOMC meeting as well as the subsequent Chair Powell testimony to the Senate, Fed officials communicated their intent to push rates up by 50bps at the May meeting and potentially at several meetings beyond that. This has resulted in a flattening / inversion of the U.S. yield curve, with 5-30 Treasury yield now inverted.

The terminal Fed Funds rate can be seen in the term structure of rates implied by Fed Funds futures.

FIGURE 4. CURRENTLY MARKET EXPECTATIONS FOR FED RATE HIKES

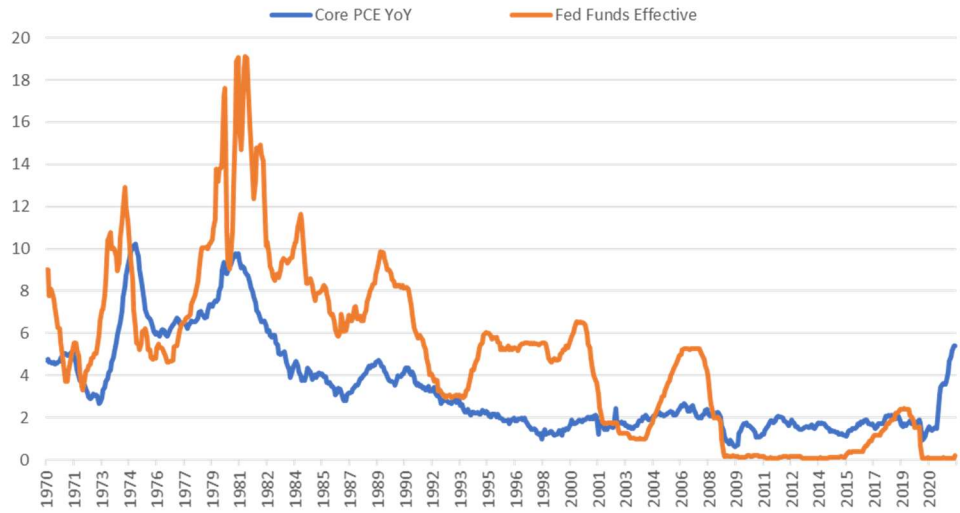


Fed Funds futures implied rates. Market data on 5 May 2022. Sources: CME, Bloomberg

The terminal Fed Funds rate (from the Fed Funds futures market) in this rate cycle is currently 3.4%. In other words, the market is pricing in less than 75bps of rate hike after the end of 2022. We believe this scenario is highly implausible given the backdrop of persistently high inflation.

Where should a "normal" level of Fed Funds rate be relative to inflation? Since 1970, the Fed Funds rate has been reliably higher than inflation (as represented by Core YoY PCE), with two notable exceptions: during the latter phase of rate-cut cycles, and the post-Global-Financial-Crisis period (after 2008). The average spread between the Fed Funds rate and inflation since 1970 is 1.5%. With the recent return of inflation to less quiescent levels, we expect the historical FF>PCE relationship to once again become the norm, especially if the Fed wishes to bring down inflation.

FIGURE 5. HISTORICAL FED FUNDS RATE AND INFLATION (CORE YOY PCE), 1970 - 2922



Sources: Bureau of Economic Analysis, Federal Reserve, Bloomberg

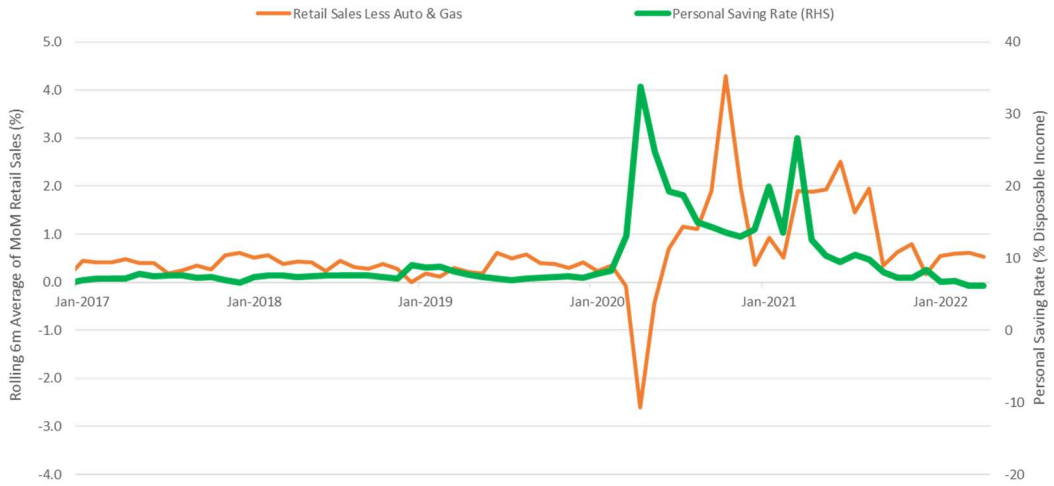
Rates May Rise Further Given the Difficulty of Quelling Supply-Shock-Driven-Inflation

In the last three decades, inflationary episodes have been largely driven by demand-shock from rising consumer demand for goods and services driven by increases in wages, disposable income and wealth. By contrast, the current inflationary environment has been driven by supply-shock, from supply-chain snafus to labor shortages to manufacturing bottlenecks resulting from covid-driven shutdowns. Fed Chair Powell admitted as much after the May FOMC meeting, stating that **the Fed's "tools don't really work on supply-shocks, our tools work on demand"[5].** It may require considerably more hikes than the market has experienced in recent years before the Fed can get ahead of this bout of supply-shock-driven inflation.

While some demand-shock (from pent-up consumption) helped to drive inflation in the second half of 2020 and early 2021, that has largely dissipated. The chart below illustrates the reversion of the personal savings rate (green line) to more normal levels after the covid-driven savings spike in early-2020. The lower (and more normal) savings rate resulted (with a time lag) in retail sales dropping towards pre-covid levels after the covid-induced pent-up consumption was largely satiated in 2020 and the first half of 2021.

[5] Comments by Fed Chair Powell at the post-FOMC press conference, 4 May 2022.

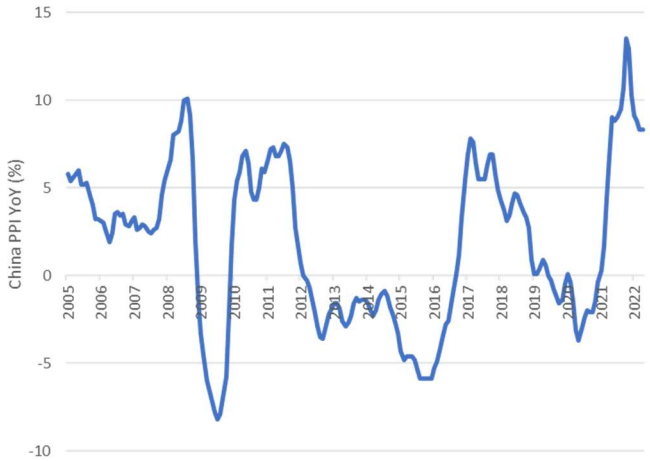
FIGURE 6. U.S. CONSUMER SAVINGS RATE AND RETAIL SALES (LESS AUTO & GAS), JAN 2017 – MAY 2022



Sources: Federal Reserve, Bloomberg

Another factor driving a sustainably higher supply-shock-driven inflationary environment is China. For much of the last four decades, the emergence of China as a new source of cheap labor and manufacturing outsourcing has provided a source of supply-driven disinflation to global developed economies. This is no longer the case as China has been shifting its economic focus from low-cost manufacturing to value-added services. The pandemic and China's subsequent Zero-Covid policy have accelerated this trend, exacerbating supply-chain snafus and inflation.

FIGURE 7. CHINA PRODUCER PRICE INDEX (% YOY) ILLUSTRATES THE IMPACT OF THE POST-COVID SUPPLY-CHAIN SNAFUS AND GLOBAL INFLATIONARY PRESSURE, 2005 - 2022



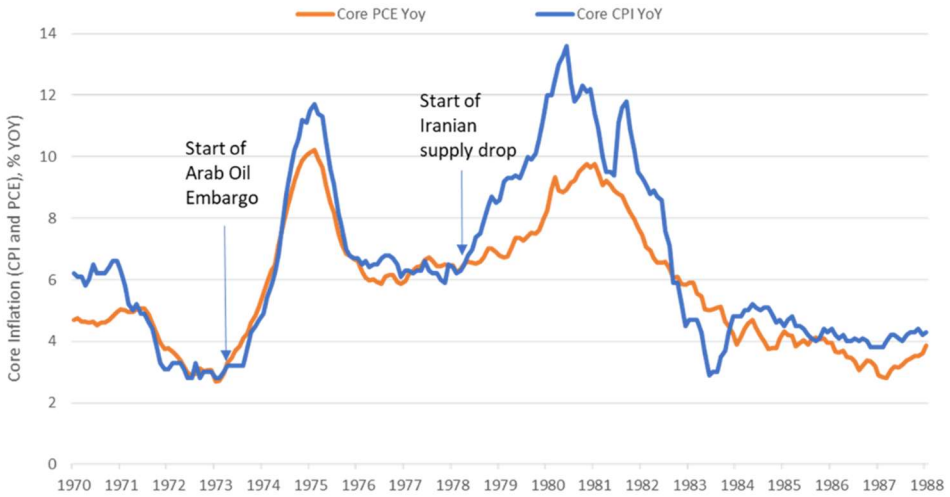
Source: National Bureau of Statistics of China

China's aging demographics also means it may soon face a rising tide of labor shortage and wage inflation. As a result, China may become a persistent exporter of inflation rather than disinflation for

years to come. The Fed may find, to its chagrin, that its 2% inflation target may no longer be attainable in the aftermath of the pandemic.

To find an analogous supply-shock-driven inflationary period in history, we need to go back to the 1970s and 1980s. The Arab Oil Embargo in 1973, followed by the Iran supply curtailment in 1978 combined to produce a large increase in headline and core inflation. The chart below shows it took more than 10 years for core CPI and PCE to descend back to pre-shock levels. The Volcker Fed pushed the Fed Funds rate to 10% above inflation to overcome the impact of this historical supply-shock.

FIGURE 8. ANALOGOUS SUPPLY-SHOCK INFLATION PERIOD: 1970 - 1984



Sources: Bureau of Labor Statistics, Bureau of Economic Analysis

With the assumption that terminal Fed Funds in this tightening cycle should be at least 1.5% above core PCE, we can consider various inflation scenarios and their implications for the terminal Fed Funds rate in this tightening cycle. Our estimate of the terminal Fed Funds rate spread-to-inflation starts off at 1.5% and rises to 3% in higher inflation scenarios.

FIGURE 9. INFLATION SCENARIOS AND IMPLICATIONS ABOUT TERMINAL FED FUNDS IN THIS TIGHTENING CYCLE

Scenario	Inflation (Core YoY PCE) at End of 2023	Expected Terminal Fed Funds Rate
Dream On	2%	3.5%
Great Job, Chair Powell	3-4%	4.5-to-6%
Some Like It Hot	5%	7-to-8%
Time for A New Fed Chair	≥ 6%	8-to-9%

Source: Advocate

Current market pricing is very much in line with our "Dream On" scenario – core PCE descending to 2% by the end of 2023, resulting in a terminal Fed Funds rate of 3.5%. Advocate's view of inflation is

less sanguine and more in line with a combination of the 2nd and 3rd scenarios, meaning terminal Fed Funds in this tightening cycle may be above 5%.

Final Thoughts – Rates Have Risen, More to Go

Advocate has been calling for higher rates since early 2021. While rates have indeed risen considerably in recent months, we believe that there may be quite a bit more to come. Advocate expects 10yr Treasury yield to reach 4% by the end of this year and 5% by the end of 2023. 5% yield is not as implausible as one might think, considering that core PCE inflation was *half* of today's level the last time 10yr Treasury yield was at 5% (2007).

If Advocate's higher rate view should materialize, investors holding rate-sensitive assets may face more volatility ahead and may wish to consider either the divestment of those rate-sensitive assets, or investment in assets that may generate positive returns when rates rise.

These are challenging times for global markets and central bankers. Will Chair Powell and the FOMC be up to the task? Overcoming this bout of supply-shock driven inflation will likely require much more Fed activity than in recent rate hike cycles. Let's hope they bring their "A-game".

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