ACCESS FINANCIAL SERVICES, INC.

Quarterly Review and Outlook

January 15, 2023

Fourth Quarter, 2022

Index Returns as of December 31, 2022	3 Mo.	6 Mo.	12 Mo.
US STOCKS			
S&P 500 Index TR (large-cap stocks)	7.56	2.31	(18.11)
Dow Jones Select Dividend Index TR	13.77	5.00	2.31
NASDAQ Composite Index TR	(0.79)	(4.67)	(32.54)
Russell 2000 Index TR (small-cap stocks)	6.23	3.91	(20.44)
FOREIGN STOCKS			
MSCI EAFE Net Total Return Index (US$)	17.34	6.36	(13.92)
S&P Europe 350 Index Net TR Index (US$)	19.91	7.48	(14.57)
MSCI Japan Net Total Return Index (US$)	13.23	4.54	(16.65)
MSCI Emerging Markets Net TR Index (US$)	9.70	(2.99)	(20.09)
COMMODITIES & CURRENCIES			
US Dollar	(7.67)	(1.11)	8.21
Euro	9.21	2.11	(5.85)
Gold	9.84	0.93	(0.28)
Oil (West Texas Intermediate)	3.81	(18.52)	22.42
Bloomberg Galaxy Crypto Index	(19.72)	(6.76)	(70.19)
BONDS			
Bloomberg US Aggregate Bond (inv. grade)	1.87	(2.97)	(13.01)
Bloomberg US Treasury 20+ Year	(1.36)	(11.32)	(31.09)
Bloomberg US Treas. Inflation Protected Secs.	2.04	(3.21)	(11.85)
Bloomberg Municipal Bond	4.10	0.50	(8.53)
Bloomberg US Corporate	3.44	(1.68)	(15.26)
BBgBarc US Corp. High Yield Bond	4.17	3.50	(11.19)
Bloomberg Global Aggregate Treasuries	4.82	(3.12)	(17.47)

Source: Bloomberg

It was a volatile year (to say the least) with a downside bias for most financial asset classes. For the quarter, however, most broad stock market indices posted strong returns (see table above).

Similar to the third quarter, the S&P 500 (SPX) put in a new low for the year early in the quarter followed by a strong recovery. This time, however, the SPX did not take back all of its gains into the end of the quarter (Chart 1). The Index ended the year down -18%.

During the year, we saw large price declines in many bellwether names, particularly in the technology related sectors even as many of these stocks posted relatively strong returns during the fourth quarter (Table 1). Excluding dividends, only the energy sector was positive for the year. When dividends are included, the utilities sector also eked out a small gain. The sectors with the most sensitivity to rising interest rates (communication services, consumer discretionary, information technology and real estate) generated substantially lower returns during 2022 than the other seven sectors (Table 2).

Foreign stocks handily outperformed US issues in the fourth quarter as the US dollar declined rather significantly (Chart 2) on perceptions of narrower US – eurozone interest rate spreads, cheaper valuations and smaller weightings in sectors most susceptible to rising interest rates.

Chart 1: S&P 500 Major Market Swings During 2022

Chart source: Access Financial Services using Bloomberg Software & Data

Table 1: Single Stock Returns During 2022

Security	GICS Sector	2022 Full Year Return	Fourth Quarter, 2022
Tesla Inc	Consumer Discretionary	-65.0%	-53.6%
Meta Platforms Inc (Facebook)	Communication Services	-64.2%	-11.3%
Netflix Inc	Communication Services	-51.1%	25.2%
NVIDIA Corp	Information Technology	-50.3%	20.4%
Amazon.com Inc	Consumer Discretionary	-49.6%	-25.7%
Intel Corp	Information Technology	-46.7%	3.9%
Walt Disney Co/The	Communication Services	-43.9%	-7.9%
General Motors Co	Consumer Discretionary	-42.4%	5.1%
Ford Motor Co	Consumer Discretionary	-42.2%	4.9%
Adobe Inc	Information Technology	-40.7%	22.3%
Alphabet Inc (Google)	Communication Services	-38.7%	-7.7%
Target Corp	Consumer Discretionary	-34.3%	1.0%
NIKE Inc	Consumer Discretionary	-29.0%	41.2%
Microsoft Corp	Information Technology	-28.0%	3.3%
Apple Inc	Information Technology	-26.4%	-5.8%

Source: Access Financial Services using data from Bloomberg

As we wrote in our fourth quarter, 2021 *Quarterly Review and Outlook* (and have continued to point out during the year):

"Arguably, two of the most important macro factors for financial markets this year are inflation and employment. More specifically, their impact on monetary policy and interest rates. In an environment where financial assets are richly valued as a result of the massive fiscal stimulus and central bank liquidity injections since February 2020, along with ultra-low interest rates, risk assets have a history of stumbling when liquidity is withdrawn and interest rates rise."

Table 2: Sector Returns During 2022

GICS Sector	2022 Full Year Return	Fourth Quarter, 2022
S&P 500 Energy Sector TR	65.7%	22.8%
S&P 500 Utility Sector TR	1.6%	8.6%
S&P 500 Consumer Staples Sector TR	-0.6%	12.7%
S&P 500 Health Care Sector TR	-2.0%	12.8%
S&P 500 Industrial Sector TR	-5.5%	19.2%
S&P 500 Financial Sector TR	-10.5%	13.6%
S&P 500 Materials Sector TR	-12.3%	15.0%
S&P 500 Real Estate TR	-26.1%	3.8%
S&P 500 Information Technology Sector TR	-28.2%	4.7%
S&P 500 Consumer Discretionary Sector TR	-37.0%	-10.2%
S&P 500 Communication Services Sector TR	-39.9%	-1.4%

Source: Access Financial Services using data from Bloomberg

Chart 2: US Dollar Index

Chart source: Access Financial Services using Bloomberg Software & Data

With the Fed having raised short term interest rates at its last seven consecutive meetings in increments ranging from 0.25% to 0.75% from a target rate of 0% to 0.25% (0.08% effective) at the beginning of 2022 to a target rate of 4.25% to 4.50% (4.33% effective as of year-end) (Chart 3) and interest rates surging higher across the maturity spectrum (Chart 4), liquidity was definitely withdrawn during 2022. In the case of global stock performance, modeling by Numera Analytics suggests monetary policy and financial stress explain nearly 90% of 2022's losses (Chart 5).

We remain in this back and forth cycle where market participants swing from being "surprised" either by the strength of incoming data (especially as it relates to inflation and employment) or when a Fed official reiterates what they have been saying for almost a year (interest rates will need to stay elevated for some time) which pressures risk assets, to conjuring up the notion that the Fed is ready to capitulate and signal that interest rates have peaked and will start coming down soon thereby driving risk assets higher.

Chart 3: Federal Funds Rate

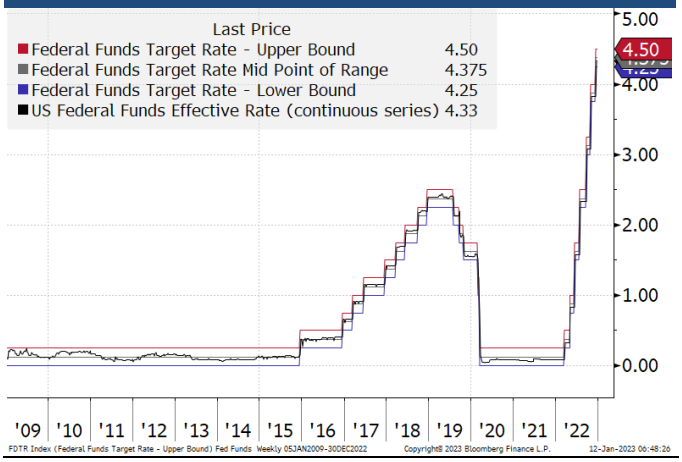


Chart source: Access Financial Services using Bloomberg Software & Data

Chart 4: US Treasury Yield Curves 12/31/21 & 12/30/22

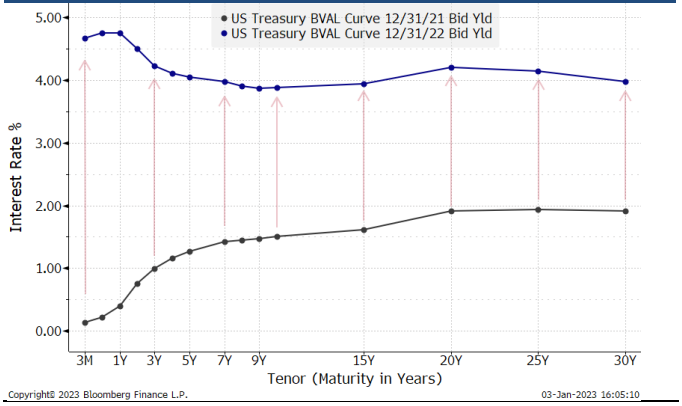
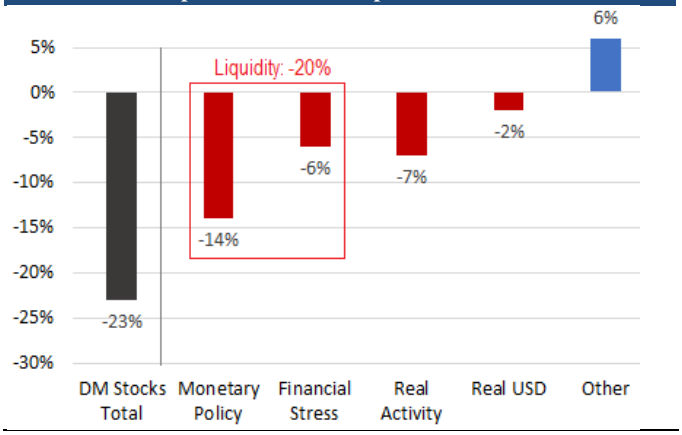


Chart source: Access Financial Services using Bloomberg Software & Data

Chart 5: Decomposition of Developed Market Returns



Source: Numera Analytics

As I write this on January 6, global stocks are surging over 2.5% as "traders expect a slowdown in wage growth to aid the Federal Reserve in its battle against inflation" (Bloomberg News 01/06/2023 15:06:34 EST). This follows a drop of 6.4% between November 30 and December 19 "with investors concerned that the Federal Reserve's resolve to keep raising rates could tip the economy into a recession" (Bloomberg News 12/16/2022 16:33:44 EST), followed by "the dollar rallied after a wave

of rate hikes from central banks this week, with the Federal Reserve and the European Central Bank warning of more pain to come" (Bloomberg News 12/15/2022 17:00:37 EST), and "after central bank officials vowed to keep raising rates until they're confident inflation is coming down meaningfully" (12/19/2022 17:01:53 EST).

The cheap (low interest rates) and easy (low lending standards) money regime of the last 13 years combined with low inflation (green box in Chart 6), plenty of fiscal stimulus and rising government social benefits (Chart 7) has been a boon to financial assets and led to US stock market valuations that exceeded even those of the late 1990s (Chart 8).

During the last two years of this regime (2020 and 2021), we saw "investments" like meme stocks[1], SPACs[2], nonfungible tokens (NFTs) and crypto currencies (Chart 9) surge to preposterous levels only to come tumbling back to earth during 2022. This was probably the only pleasure derived from 2022's malaise for most of the adults in traditional finance.

Chart 6: Inflation and Interest Rates

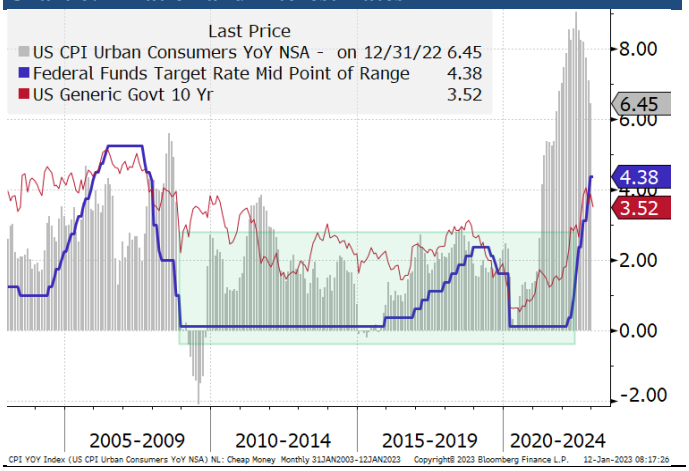


Chart source: Access Financial Services using Bloomberg Software & Data

Chart 7: Growth of Fed's Balance and Social Benefits

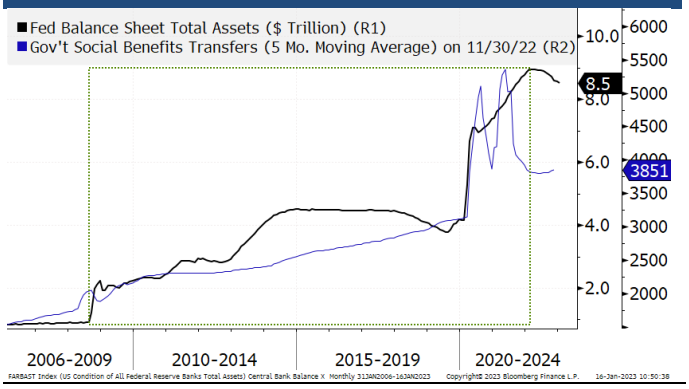


Chart source: Access Financial Services using Bloomberg Software & Data

Chart 8: US Stock Market Measures of Valuation

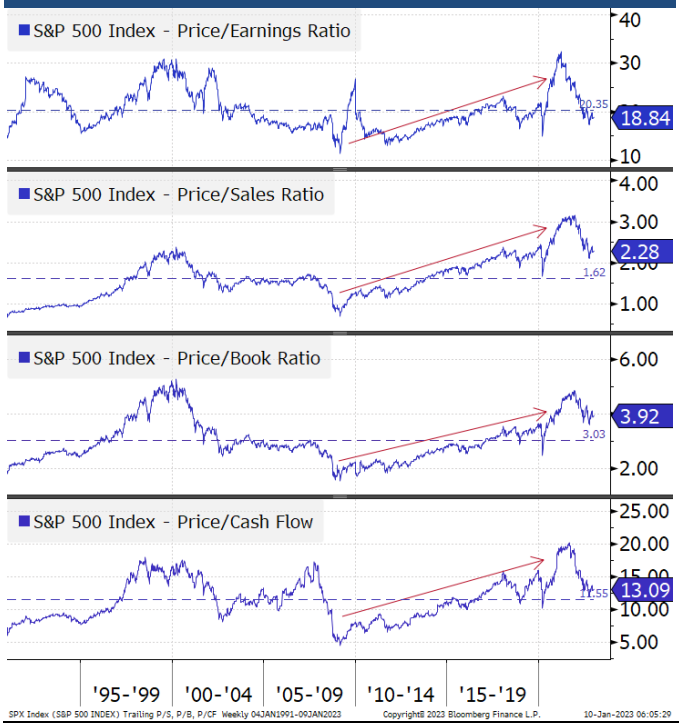


Chart source: Access Financial Services using Bloomberg Software & Data

Chart 9: Bitcoin

Chart source: Access Financial Services using Bloomberg Software & Data

2022's setback in financial assets has been attributed to a surge in inflation causing central banks around the world to aggressively raise interest rates. While this was the trigger for the selloff, it was only a matter of time before the reality of sky-high valuations, speculative excesses and the unsustainability of easy and cheap money were acknowledged by investors.

Financial markets are grappling with the possible death of the "Fed put": the belief that the Federal Reserve will always backstop risk assets by rescuing them with a

[1] Meme stocks are stocks that gain a following through social media whose popularity is based on internet memes shared among traders and trade at prices above their estimated fundamental value and are known for being extremely speculative and volatile.

[2] SPACs special purpose acquisition companies also know as blank check companies. They are publicly listed non-operating companies formed to raise money through an initial public offering to purchase a yet unknown private company at some future date.

more market friendly monetary policy when they decline, and trying divine the Fed's new "reaction function" (the Fed's pain point with regard to how low financial markets can decline before it steps in to support them). Some things never change…

The end of cheap and easy money has taken a massive toll on the bond market too. Total returns were the worst on record for a number of bond market indices (Chart 10). Even Treasury inflation protected securities (TIPS), the bonds meant to shield investors from the damage that inflation does to savings, lost over 11% in 2022.

Chart 10: Bloomberg Aggregate Bond Index 1977 – 2022 Annual Return Distribution

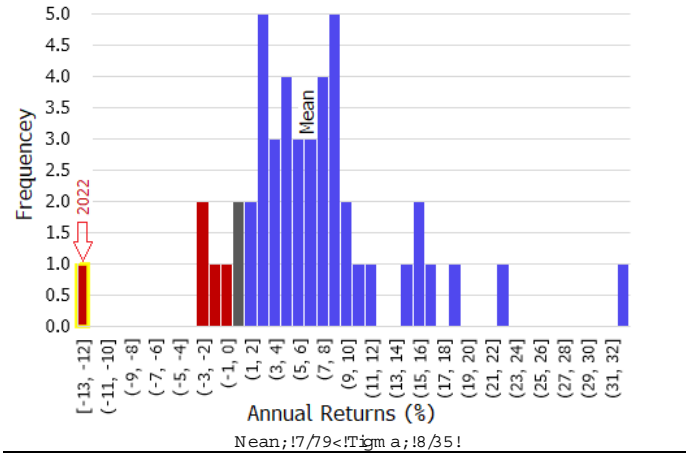


Chart source: Access Financial Services using Bloomberg Data

The housing market was also a massive beneficiary of cheap and easy money with the year over year change in home prices as measured by the S&P CoreLogic Case-Shiller US National Home Price Index reaching 21% in March and April 2022 (Chart 11).

Chart 11: S&P CoreLogic Case-Shiller Home Price Index

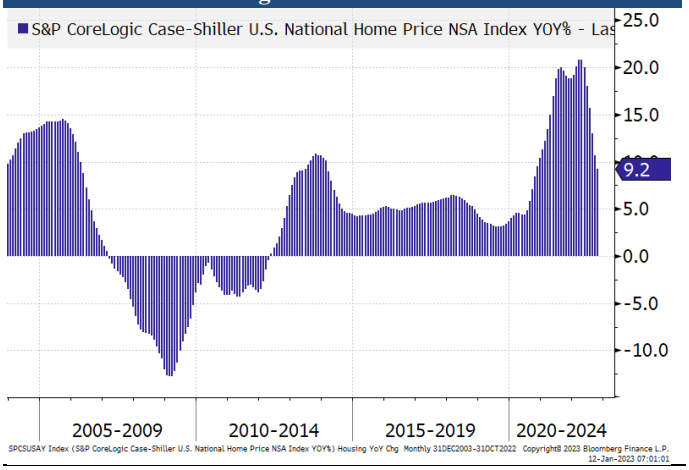


Chart source: Access Financial Services using Bloomberg Software & Data

With mortgage rates surging in excess of 100% during 2022 (Chart 12), home price appreciation has turned negative on a month over month basis and the average mortgage loan size is down 14% over the last nine months. Affordability has also seen a major decline (Chart 13) as mortgage payments for the median existing home price have about doubled since February 2021 (Chart 14).

Chart 12: Bankrate.com US 30-Yr. Fixed Mortgage

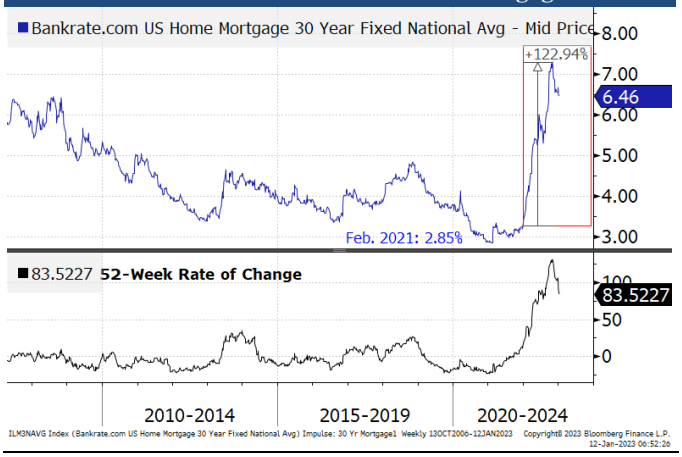


Chart source: Access Financial Services using Bloomberg Software & Data

Chart 13: Housing Market Fundamentals

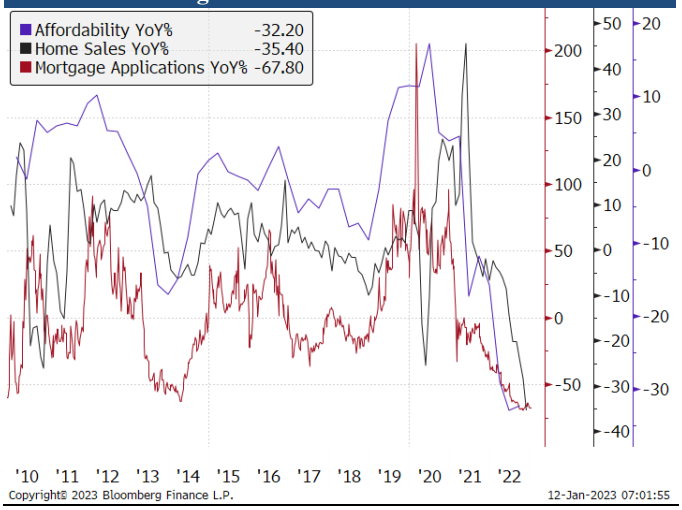


Chart source: Access Financial Services using Bloomberg Software & Data

Chart 14: Monthly Mortgage Payment for Median Home

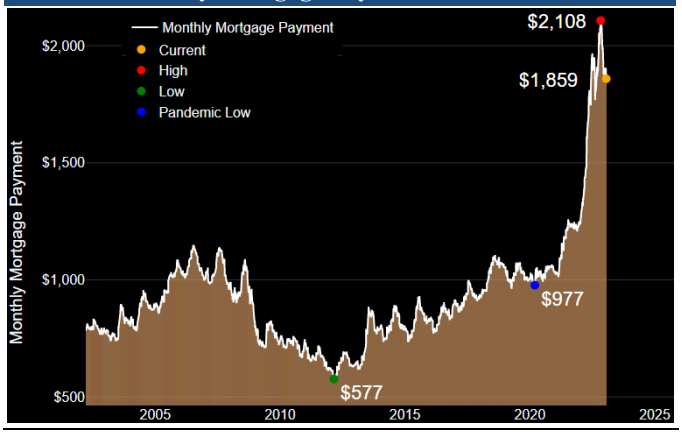


Chart source: Bloomberg

It's a bit ironic how investors love asset price inflation but despise goods and service price inflation… like asset prices can surge forever and goods and service price appreciation can remain compressed forever. Neither is true and it is only a matter of time until the right catalyst triggers a correction.

As they say, stability breeds complacency. And as Artemis Capital Management has said, volatility is an instrument of the truth, the more you deny the truth, the more the truth will find you through volatility. Volatility is often the mechanism for closing the gap between the world as we imagine it and the world that actually exists.

With the aid of our fearless leaders in Washington and at the Fed, investors became especially complacent in 2021. The reality of the sustainability of, and the market's dependence on cheap and easy money was finally revealed in the form of volatility. It is really no more complicated than that. What *is* complicated is figuring out how far financial assets will move away from any semblance of fair value before cracking to the downside.

So, now that we've had a painful year in the financial markets on the back of surging goods and services inflation, where do we go from here?

First of all, I believe the Fed is serious about keeping short term interest rates high until inflation comes down. It is a message its members continue to send. According to the minutes of the FOMC's December 13 – 14 meeting:

"Participants noted that, because monetary policy worked importantly through financial markets, an unwarranted easing in financial conditions, especially if driven by the misconception by the public of the committee's reaction function, would complicate the committee's effort to restore price stability,"

At this point, most FOMC members expect the fed funds target rate (currently 4.38%) to be between 5.13% and 5.38% at year-end (Chart 15) while investors (as measured by the fed funds futures market) see the highest fed funds rate in June at 4.93% and declining to 4.47% in December (Charts 16, red and black lines) for a difference between what the Fed expects and what the market expects of between 0.66% and 0.91% at year-end. The upper end of this range is not insignificant.

Assuming that financial assets are priced based on what investors expect to unfold in the future (the world as we imagine it), investors – who have generally underestimated how far the Fed would lift interest rates since it began its rate hiking campaign in 2022 as shown by the orange lines in Chart 17 – look poised to be disappointed relative to expectations.

As an aside, inflation fell back below its ten year average on a couple of occasions in the 1970s without permanently reversing direction. That is probably another reason the FOMC has been so straightforward in maintaining that policy will stay restrictive despite the apparent reversal in the direction of price trends. The committee wants to ensure that the inflation dragon is truly dead before sheathing its monetary sword.

Chart 15: FOMC Fed Funds Rate Projections

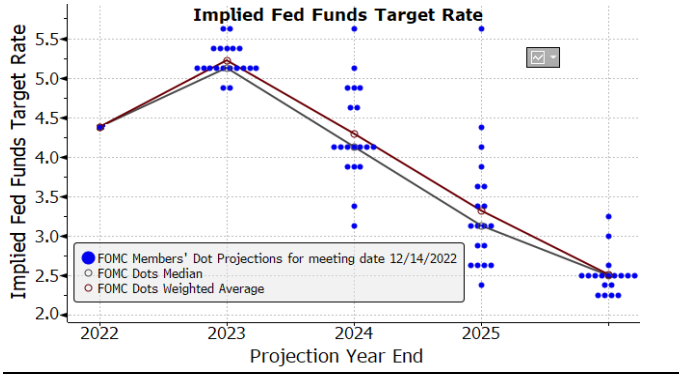
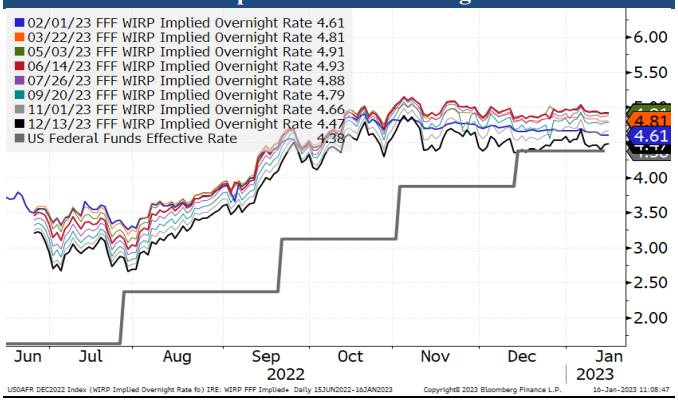


Chart source: Access Financial Services using Bloomberg Software & Data

Chart 16: Market Implied Fed Funds Target Rate



Note: WIRP is Bloomberg's world interest rate probability function
Source: Access Financial Services using Bloomberg Software & Data

Chart 17: Market Implied Fed Funds Rate vs. Actual

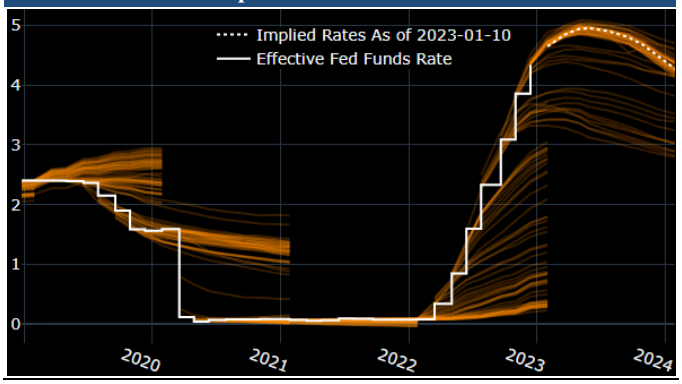


Chart source: Bloomberg

It is interesting that the market is priced for the Fed to start easing the fed funds rate after its June meeting but expects inflation to be 3.65% at that point (Chart 18, yellow

arrow). This is well above the Fed's target level of 2.0% to 2.5%.

Chart 18: Point in Time Inflation Swap Curve vs. US CPI

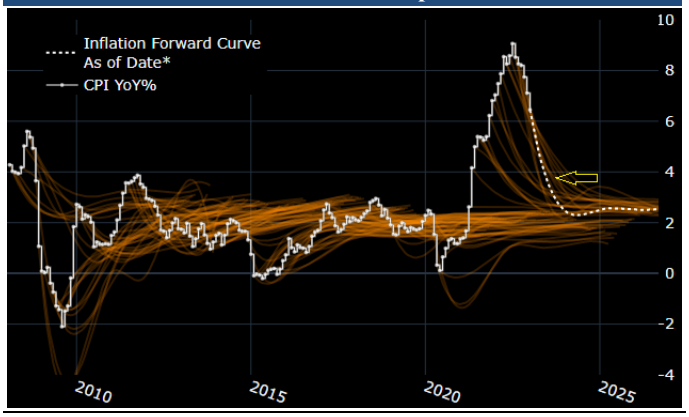


Chart source: Bloomberg

Many leading inflation indicators do, indeed, point to lower inflation in the months ahead:

> ISM supply chain measures, which lead the producer price index (which leads the consumer price index) are now in contractionary territory (Chart 19)

Chart 19: Supply Chain Measures and Producer Prices

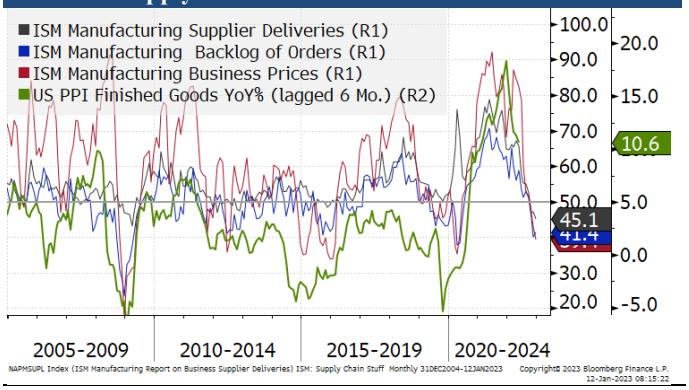


Chart source: Access Financial Services using Bloomberg Software & Data

> Money supply (M2), which is a reasonable leading indicator of inflation has dropped to multidecade lows (Chart 20)

Chart 20: Money Supply and Inflation

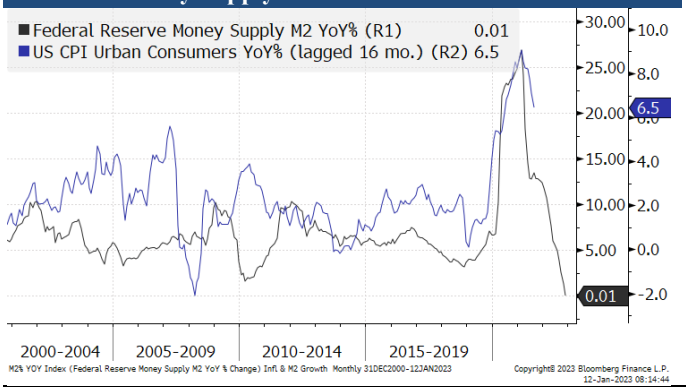


Chart source: Access Financial Services using Bloomberg Software & Data

> The rate of change in commodity prices has declined markedly (Chart 21)

Chart 21: Commodity Price Inflation

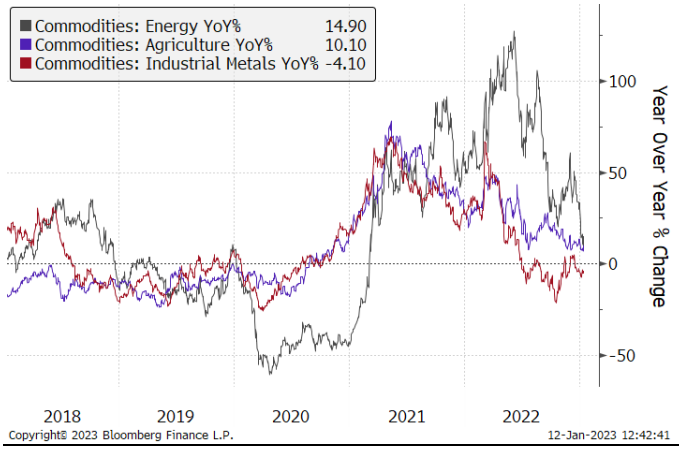


Chart source: Access Financial Services using Bloomberg Software & Data

> ISM manufacturing prices and services prices are contracting (Chart 22)

Chart 22: ISM Manufacturing and Services Prices Lead

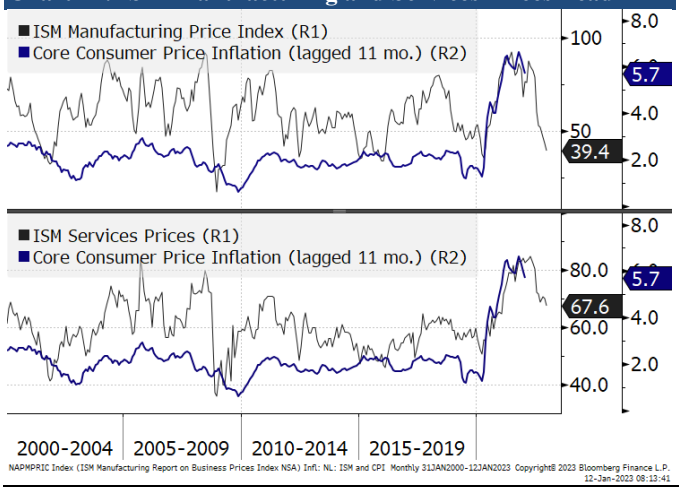


Chart source: Access Financial Services using Bloomberg Software & Data

> Market implied measures of future inflation in the TIPS market are between 1.85% and 2.25% over the next five years (Chart 23)

Chart 23: TIPS Market Implied Inflation Break Even Rates

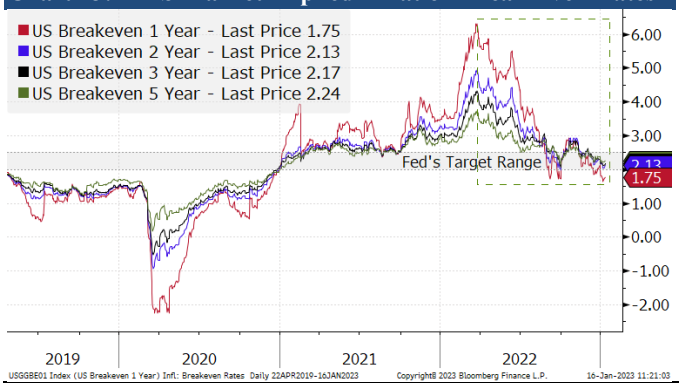


Chart source: Access Financial Services using Bloomberg Software & Data

One of the two major remaining hurdles to inflation coming down is shelter inflation which makes up 32% of the consumer price index (CPI). As shown in Chart 24, it has yet to show signs of easing. As we mentioned last quarter, there isn't much the Fed can do about this as landlords are trying to make up for pandemic losses due to forbearance and are raising rents as rental units change hands. Shelter inflation should, however, begin to move lower if and as housing prices cool. The other hurdle is services excluding shelter (also shown in Chart 24) which makes up 28% of CPI. Food, energy, and commodities excluding food and energy make up the remaining "goods" category which has declined significantly over the last 11 months.

Chart 24: Shelter, Services and Goods Inflation

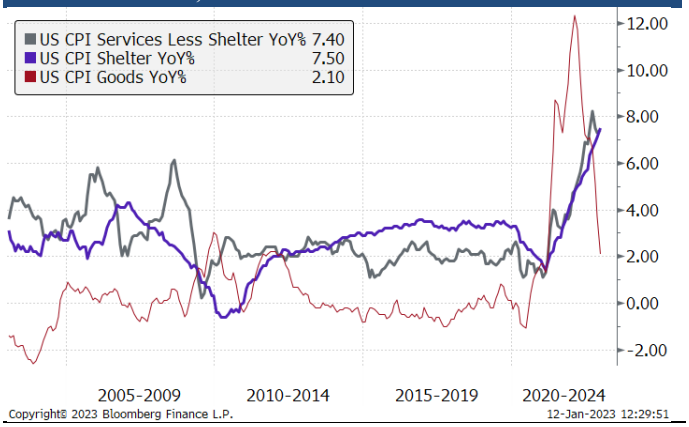


Chart source: Access Financial Services using Bloomberg Software & Data

The bottom line is that I do believe inflation will trend lower during 2023. It is just that the trajectory currently being priced by the inflation swap curve shown in Chart 18 looks a bit steep form my perspective.

Other than the level of inflation, the Fed is concerned with the level of employment as tight conditions in the labor market contribute to inflation (the "wage price spiral"). On this front, Fed Chair Powell described the labor market as "out of balance" and "extremely tight" and warned that restoring stable prices is likely to require some "softening" in job market conditions. Chart 25 illustrates the strength of a number of labor market measures.

At 3.5%, the unemployment rate is at a five-decade low. The figure underscores both the persistent strength of the jobs market and how a persistent imbalance between the supply and demand for labor is keeping upward pressure on wages. Looking ahead, central bank officials see the unemployment rate rising by about a full percentage point this year (Chart 26). This conclusion is supported by the Conference Board's US Leading Index which has a history of leading payrolls by around six months (Chart 27).

As we have explained in the past, whenever US unemployment has risen by 0.6%, it has gone on to increase by over 2%. The unemployment rate tends to be non-linear – it either barely moves, or it surges. And, whenever the three month average rate of unemployment has increased by more than one-third percent, a recession has followed (Chart 28).

Chart 25: Labor Market Gauges

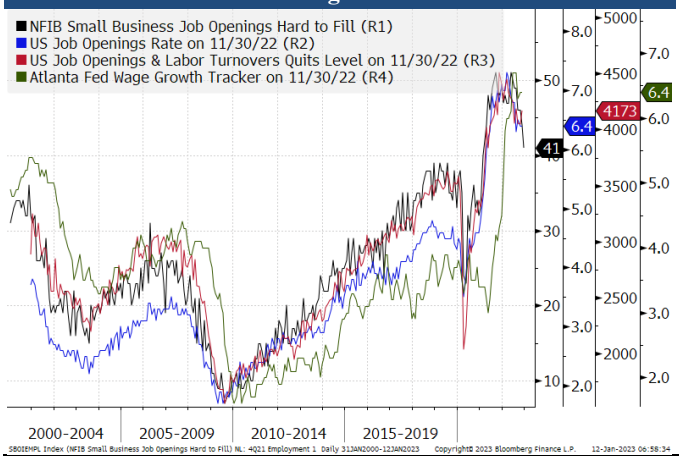
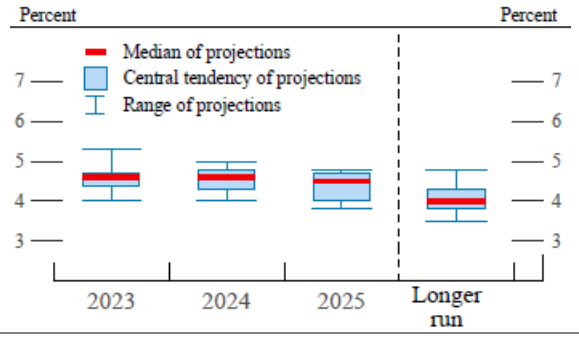


Chart source: Access Financial Services using Bloomberg Software & Data

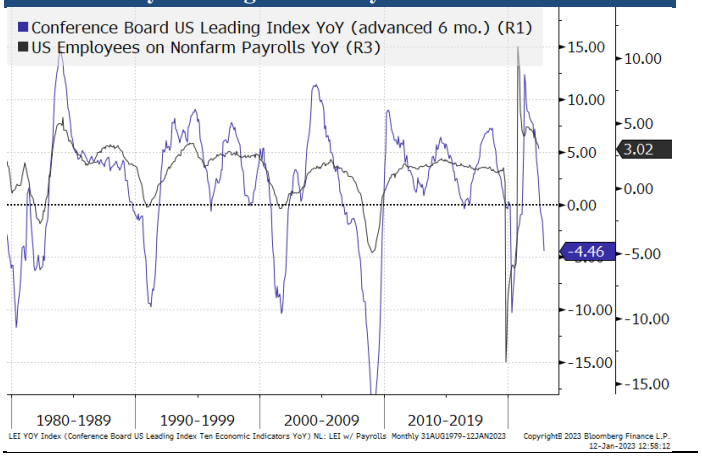
Chart 26: FOMC Summary of Economic Projections for Unemployment



	2023	2024	2025	Longer Run
Median Unemployment Rate	4.6	4.6	4.5	4.0
Central Tendency	4.4–4.7	4.3–4.8	4.0–4.7	3.8–4.3
Range	4.0–5.3	4.0–5.0	3.8–4.8	3.5–4.8
September Projection	4.4	4.4	4.3	4.0
Difference	0.2	0.2	0.2	0.0

Source: www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20221214

Chart 27: Payrolls Lag the LEI By Around 6 Months



Source: Access Financial Services using Bloomberg Software & Data

Chart 28: US Unemployment Rate

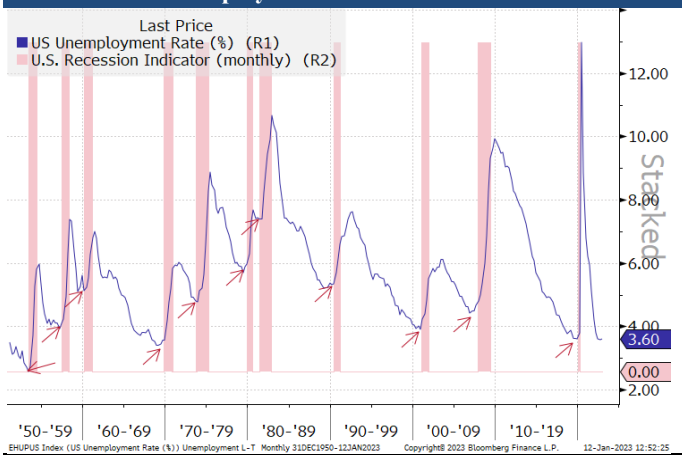


Chart source: Access Financial Services using Bloomberg Software & Data

Investors and policymakers are forever fighting the last war, especially when it is scarring. 2022 will be remembered by central banks, economists and most investors for the painful consequences of fighting the war on inflation. As a result, now it seems everyone is ultra-focused on inflation and, more importantly, when the Fed will "pivot" to easing monetary policy.

The financial market narrative seems to be this: US stocks will hold up this year because interest rates across the yield curve will drop, even as the Fed engineers an elusive soft landing, thanks to immaculate disinflation.

It is not that inflation doesn't matter, it is that people are giving insufficient attention to whether a US recession starts this year and how deep it will be. As a result, most are probably focused too much on inflation when, in all likelihood, it will no longer be the main driver of financial market returns.

The consensus 2023 forecast for real US gross domestic product (GDP) growth stands at 0.4% (0.8% in the first two quarters and -0.1% in the last two quarters), with the probability of recession at 65% according to Bloomberg. If there's no recession, it is unlikely the labor market will cool enough to bring inflation down to the Fed's target in a sustainable way, and that will force the Fed to maintain elevated rates for much longer.

It has become almost cliche to say that even if we do fall into recession, it would be the most widely forecast recession ever. (The reality is that a US recession has never been correctly forecast far in advance by the consensus.) Many are citing this to suggest that financial assets have adequately priced the recession risk and therefore have asymmetric upside potential if the economy proves resilient.

Maybe. But a recession is a bit of an arbitrary classification. It is defined as a significant decline in economic activity that goes on for more than a few months that is visible in industrial production, employment, real (inflation adjusted) income and wholesale-retail trade. What is important is that economists and market participants have always underestimated the scale of growth slowdowns.

Recessions are regime shifts and tend to happen quickly. The reality is that they are only labeled as recessions *after* there is enough negative data to affix the "recession" label. That is one reason why economists often miss them.

No single indicator is 100% reliable, but the best ones will exhibit this regime shift behavior early. As it stands, a number of indicators are at levels that have historically preceded recessions:

› The Conference Board's Leading Index of Ten Economic Indicators: The index includes economic variables that tend to move before changes in the overall economy and give a sense of the future state of an economy. A recession has almost always followed when the index falls below zero (Chart 29).

Chart 29: Negative LEI Usually Signals Recession

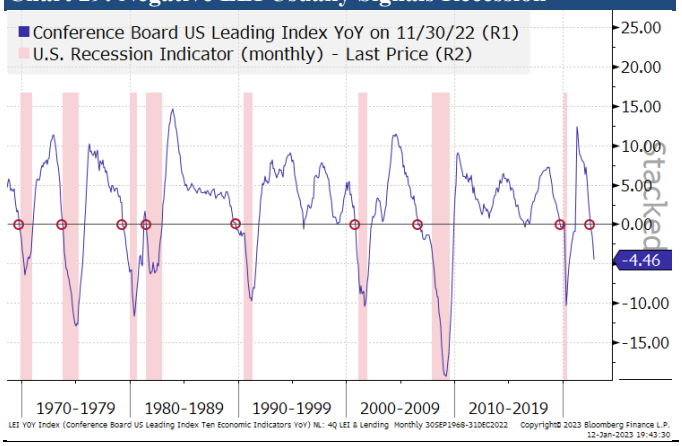


Chart source: Access Financial Services using Bloomberg Software & Data

› Yield curve inversion: The yield curve illustrates the term structure of interest rates (Chart 30). Under normal circumstances the curve slopes upward and to the right as investors demand higher interest rates from longer term bonds than those with shorter maturities. Short term interest rates that are higher than long term interest rates signal that the high levels of short term interest rates are unlikely to be sustained as growth slows and are signaling that an economic slowdown is expected. Historically, recessions have not happened without an inversion.

Yield curves can be monitored by measuring the spread between the yields of two specific bond maturities. Chart 31 illustrates the history of the spread between ten year Treasuries and three month Treasuries, and between ten year Treasuries and two year Treasuries. Another approach is to monitor the

number of points on the yield curve that are inverted as shown in Chart 32.

Chart 30: Treasury Yield Curves

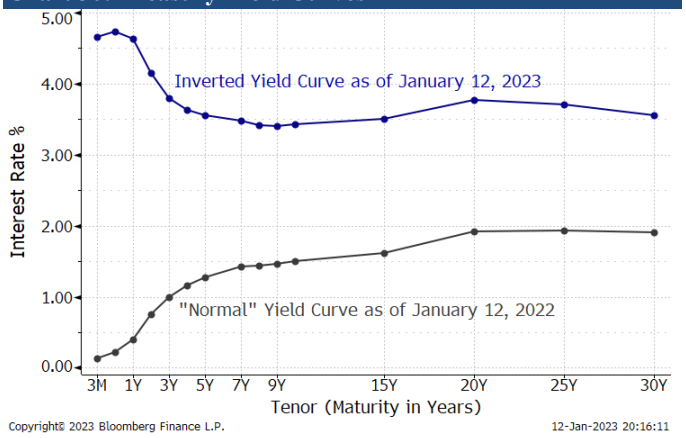


Chart source: Access Financial Services using Bloomberg Software & Data

Chart 31: Yield Curve Inversions Have Signaled Recessions

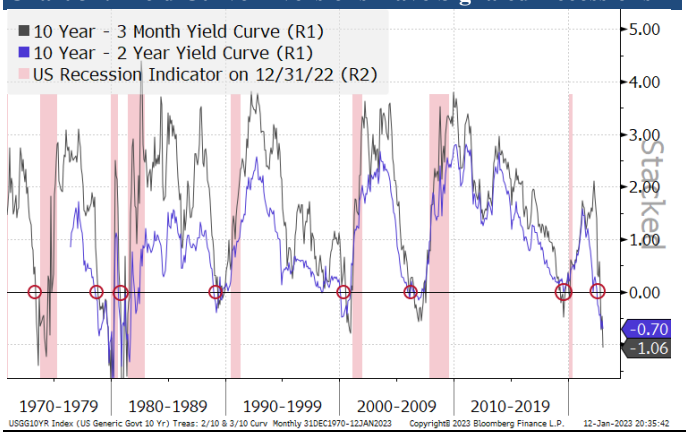


Chart source: Access Financial Services using Bloomberg Software & Data

Chart 32: Percent of Yield Curve Inverted as of Nov. 30, 2022

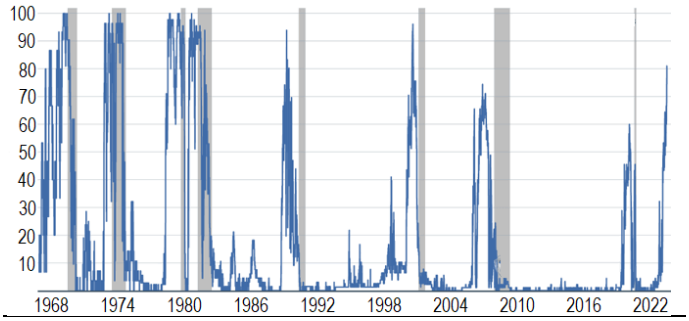


Chart source: Charles Schwab, Macrobond, US Department of Treasury

Inverted yield curves are rare and have a good track record of leading recessions – particularly the ten year/three month spread which is now deeply inverted. Generally, it is not the inversion that signals a recession but the unwinding of the inversion that gives the signal. As shown in Chart 33, the Treasury futures market is pricing a re-steepening in one to two years.

Chart 33: Treasury USD OIS Swap Curves

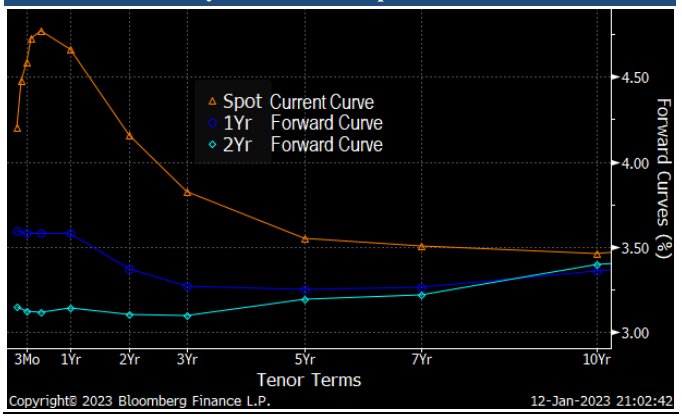


Chart source: Access Financial Services using Bloomberg Software & Data

Using yield curve and other data, Bloomberg Economics models estimate the probability of recession over various future time periods as follows (Table 3):

Table 3: Recession Timing Models

	Probability of Recession Within…				
Curve/Model	3 Mo.	6 Mo.	12 Mo.	18 Mo.	12 Mo.
10 Year - 2 Year	25.7%	37.4%	61.5%	78.7%	88.4%
10 Year - 3 Month	28.1%	41.0%	62.7%	74.6%	80.8%
18 Mo. Frwrd - 3-Mo. (a Fed Favorite)	18.8%	31.3%	50.8%	58.8%	62.3%
Bloomberg Recession Model	0.0%	5.7%	100.0%	100.0%	100.0%
Concensus of Economists*			65.0%		

**had a probability at 70% at the start of the 2008 recession and 25% at the start of the 2020 recession*

Source: Access Financial Services using data from Bloomberg

› Consumer confidence: declines in US consumer expectations gauges of ten points or more from either the University of Michigan or Conference Board surveys are predictors of recessions going back to the 1980s. The Conference Board measure is down 33 points since its recent peak and the Michigan measure is down 73 points (Chart 34). The tone of consumer confidence is also captured in surveys of buying conditions for big ticket items (Chart 35).

Chart 34: Consumer Confidence

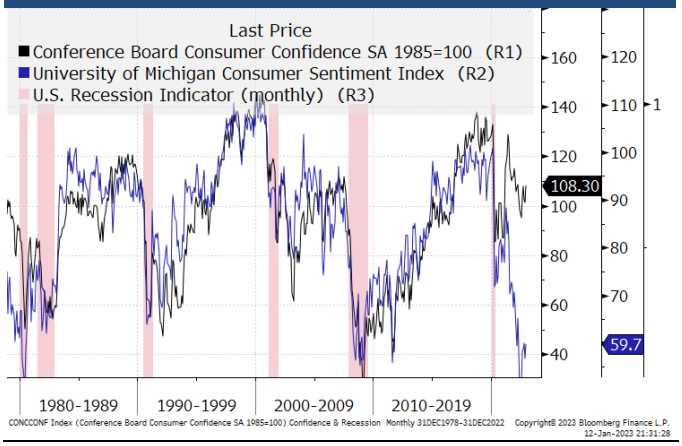


Chart source: Access Financial Services using Bloomberg Software & Data

Chart 35: University of Michigan Surveys of Consumers

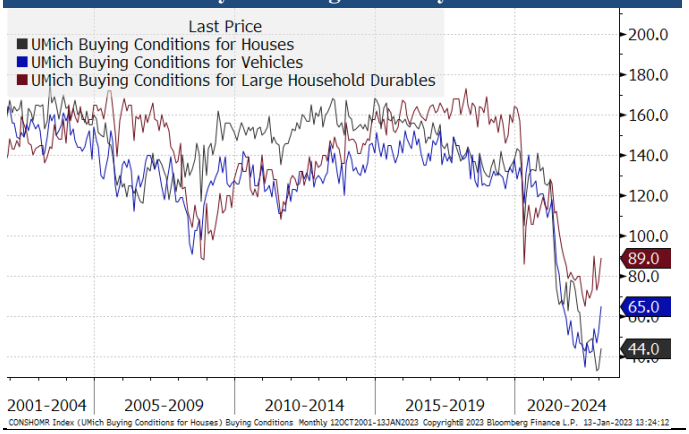


Chart source: Access Financial Services using Bloomberg Software & Data

› Philadelphia Fed State Coincident Diffusion Index: The purpose of the index is to track business cycles in each state. While it rebounded a bit in November (the most recent data point), it remains at a level that is only seen prior to a recession (Chart 36).

Chart 36: Philadelphia Fed Coincident 1 Mo. Diffusion Index

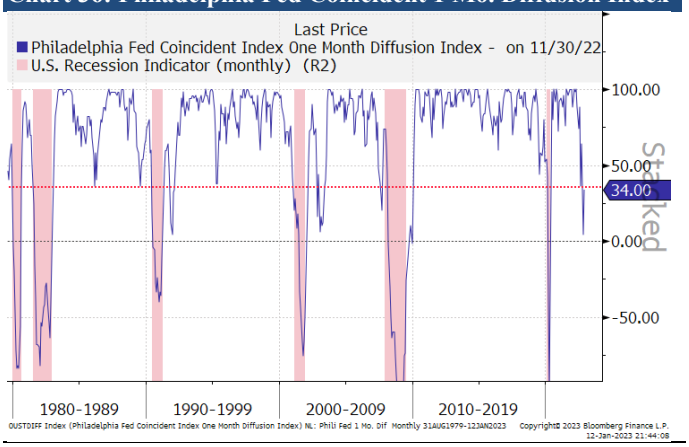


Chart source: Access Financial Services using Bloomberg Software & Data

› Unemployment: As noted on page 8, while the unemployment rate is very low at 3.5%, the expectation by members of the Fed is that it will increase to around 4.6% during 2023. This would most likely result in the three month average rate of unemployment increasing by more than one-third percent, which has historically preceded recessions.

It is time to put more emphasis on high frequency growth metrics than inflation measures. Beyond the immediate impact of inflation reports and next month's interest rate policy changes are the risks to economic and corporate earnings growth because the threat to stock prices is likely to evolve from monetary tightening to weakness in economic growth and corporate earnings.

Last quarter, we highlighted the degree to which year over year projected earnings growth for the SPX had declined between June 30 and October 7 in Table 4.

Table 4: Earnings Growth Estimates as of Oct. 7, 2022

S&P 500 Projected YoY% Earnings Growth As Of:	30-Jun-22	7-Oct-22	Change
3rd Quarter, 2022	9.70%	2.57%	-73.51%
3rd Quarter, ex-Energy	4.58%	-3.91%	-185.37%
4th Quarter, 2022	10.22%	4.70%	-54.01%
4th Quarter, ex-Energy	7.54%	0.93%	-87.67%
1st Quarter, 2023	9.32%	5.56%	-40.34%
1st Quarter, ex-Energy	8.83%	3.86%	-56.29%
2nd Quarter, 2023	10.54%	3.98%	-62.24%
2nd Quarter, ex-Energy	13.75%	8.52%	-38.04%

Source: Access Financial Services using data from Bloomberg

As shown in Table 5 and Chart 37, projected SPX earnings growth continued to be marked down during the fourth quarter of 2022 with the prospect of positive year over year earnings growth being pushed out nine months (third quarter, 2023 as of December 30 vs. fourth quarter, 2022 as of October 7).

Table 5: Earnings Growth Estimates as of Dec. 30, 2022

S&P 500 Projected YoY% Earnings Growth As Of:	7-Oct-22	30-Dec-22	Change
3rd Quarter, 2022	2.57%	2.50%	(actual)
3rd Quarter, ex-Energy	-3.91%	(not available)	
4th Quarter, 2022	4.70%	-2.63%	-155.96%
4th Quarter, ex-Energy	0.93%	-6.89%	-840.86%
1st Quarter, 2023	5.56%	-1.24%	-122.30%
1st Quarter, ex-Energy	3.86%	-3.04%	-178.76%
2nd Quarter, 2023	3.98%	-1.92%	-148.24%
2nd Quarter, ex-Energy	8.52%	2.29%	-73.12%
3rd Quarter, 2023	9.60%	4.81%	-49.90%
3rd Quarter, ex-Energy	13.26%	8.89%	-32.96%

Source: Access Financial Services using data from Bloomberg

Chart 37: S&P 500 YoY% Earnings Growth Estimates

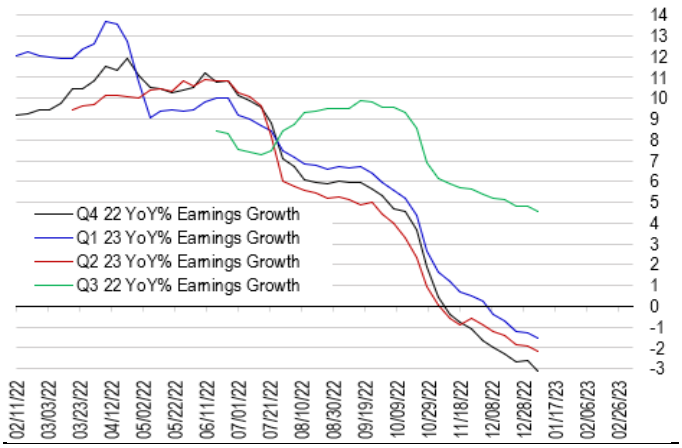


Chart source: Access Financial Services using data from Bloomberg

The deteriorating earnings outlook is supported by Citigroup's Earnings Revisions Index, which tracks the relative number of earnings upgrades versus downgrades. It has been in negative territory over the last ten months. The index has a history of leading actual earnings per share (EPS) growth by just shy of a year (Chart 38). And,

as shown in Chart 39, stock prices have a history of tracking earnings revisions.

Chart 38: Citigroup Earnings Revisions Index

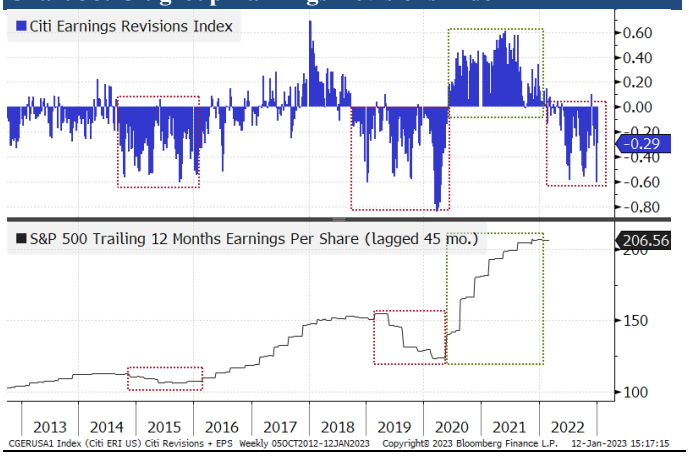


Chart source: Access Financial Services using Bloomberg Software & Data

Chart 39: Earnings Revisions and Stock Market Performance

Chart source: Morgan Stanley

Other objective models that rely on macro factors such as money supply, the US Treasury yields, the US dollar, corporate bond spreads and data from purchasing managers are also projecting a more significant decline over the next twelve months (Charts 40 through 44). The current level of the ISM Services Purchasing Managers Index is consistent with an earnings drawdown of more than 35%.

Chart 40: Real Money Supply (M2) and SPX EPS YoY%

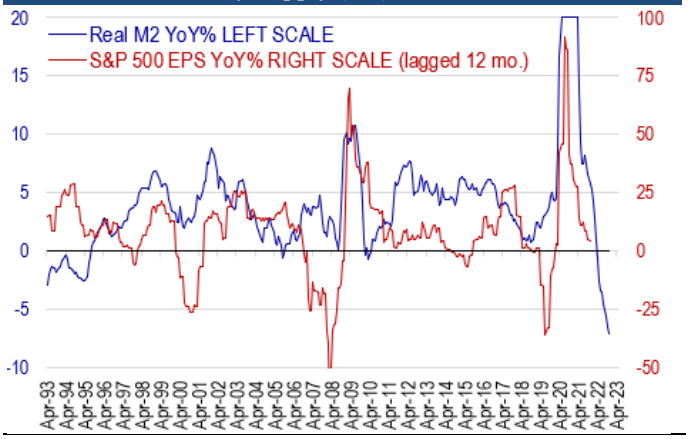


Chart source: Access Financial Services using data from Bloomberg

Chart 41: Alpine Macro EPS Growth Model

Chart source: Alpine Macro

Chart 42: Morgan Stanley US Non-PMI Leading Indicator

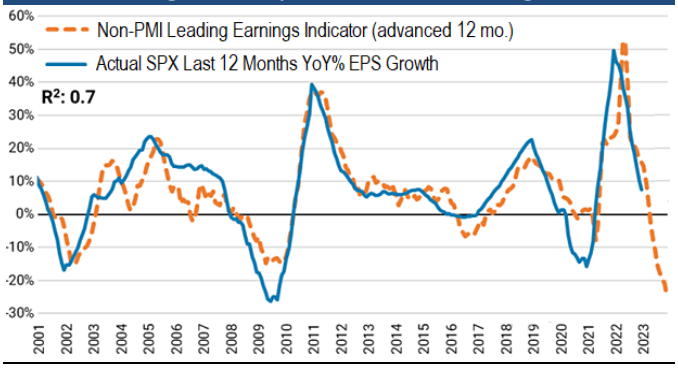
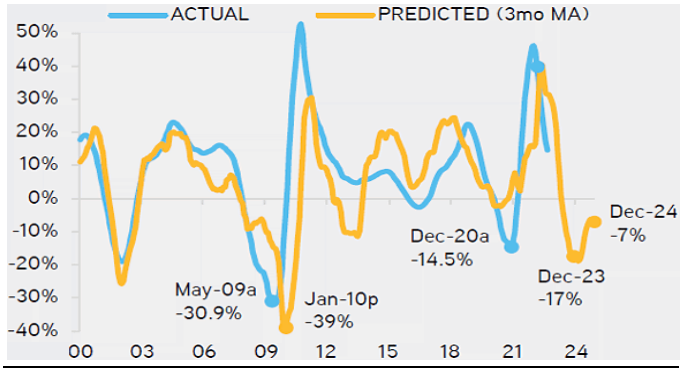


Chart source: Morgan Stanley

Chart 43: KKR Earnings Growth Leading Indicator



Indicator combines 7 macro inputs believed to have significant explanatory power with respect to the SPX EPS outlook; Chart source: KKR Global Macro

Chart 44: B of A Global PMA New Orders Model

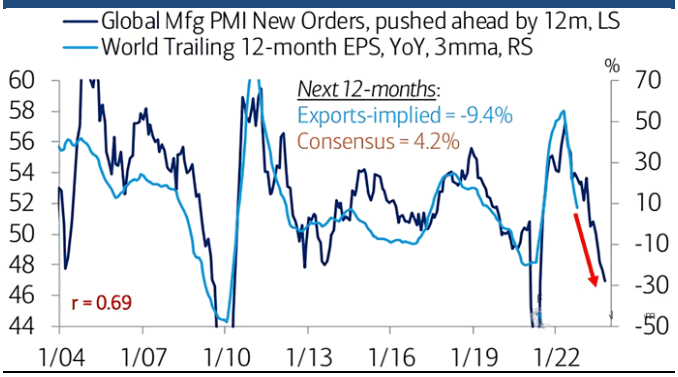


Chart source: Bank of America Merrill Lynch

Four primary drivers of stock market returns are 1) change in corporate earnings, 2) change in valuations, 3) inflation, and 4) dividends. Chart 45 illustrates a decomposition of SPX returns since 2015. It helps illustrate the impact of slowing earnings growth, reduced valuations and inflation on the SPX over the last year.

Chart 45: SPX Decomposition of Real Total Return

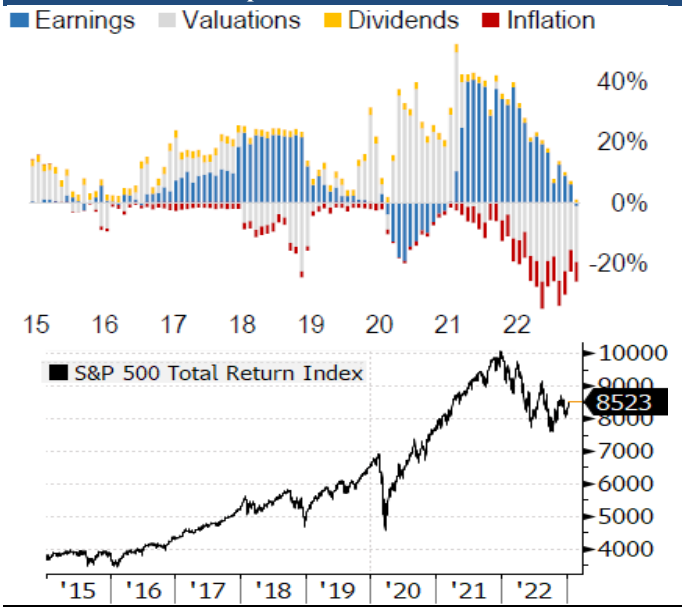


Chart sources: Numera Analytics and Access Financial Services using Bloomberg Software & Data

Looking ahead, it seems likely that the negative impact of inflation will probably reverse if we are right about inflation coming down from its current high level. While the decline in valuations pressured stocks lower during 2022, today's lower overall valuations – while still far from being low – are probably less of a headwind for stock prices going forward. And, in most cases, valuations expand when inflation and interest rates decline. Dividends – assuming they are not cut in a recessionary scenario – will continue to be supportive of total returns (which is just the change in the price of an investment plus income). This leaves us with the impact of the change in corporate earnings, which, as discussed above, look more likely to decline than advance at this point.

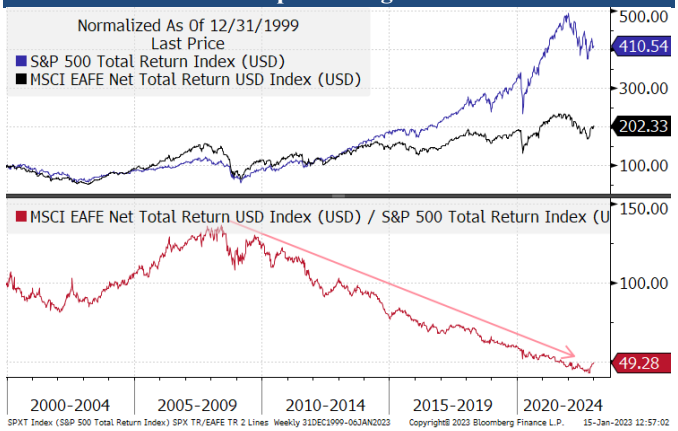
Pulling it all together, our outlook for the US stock market – large cap stocks in particular – in not great at this point. If corporate earnings do indeed decline a much as the objective models seem to imply, the "surprise" relative to the consensus of earnings analysts will be to the downside. And, negative surprises are almost never good for financial assets.

This time could be different, I suppose, if it results in the elusive "Fed pivot" that market participants keep trying to front run in the current "bad news is good news" environment (because bad news will, you guessed it, lead to a Fed pivot). But if the bad news comes in the form of a recession and the Fed is forced to lower interest rates *because* of a recession, I doubt this bad news will actually send US stocks higher.

In a declining inflation and slowing growth environment, high quality bonds almost always generate good returns. This seems particularly likely following a year of the worst bond market returns in many decades.

Foreign stocks, after underperforming the US stock market for almost 20 years (Chart 46), finally may be setting up to make a run at outperformance on more than just a short term basis as we are likely to see an increasing East-West divide in terms of economic growth and both monetary and fiscal policy.

Chart 46: US and Developed Foreign Market Stocks



Note: Red line in lower panel is the return of foreign stocks relative to US Stocks

Chart source: Access Financial Services using Bloomberg Software & Data

Specifically, a growth rebound in the Asia Pacific region as a result of China ending its zero-Covid policy combined with its low inflation and more stimulative monetary and fiscal policy than in the West seems likely. A turn around in Chinese growth will have important implications for the world economy and financial markets in 2023.

For years, the valuation of the US stock market has been elevated relative to the rest of the world. The rationale for this premium has often been attributed to the sectoral composition of various markets. With the US having a heavier weight of high growth technology stocks (which typically have higher valuations), it has been natural to accept a higher valuation multiple for the market as a whole. However, US valuations look elevated even controlling for this factor. Chart 47 shows the MSCI index level P/E ratio (based on 2023 EPS expectations) in blue. The orange bars show the harmonic mean[3] of individual sector level P/Es to create an equal-sector-weighted

[3] The harmonic mean is often used in finance to average multiples like the price/earnings ratio because it gives equal weight to each data point.

valuation metric. As you can see, the US market still looks exorbitantly valued.

Chart 47: Estimated P/E of MSCI Indices

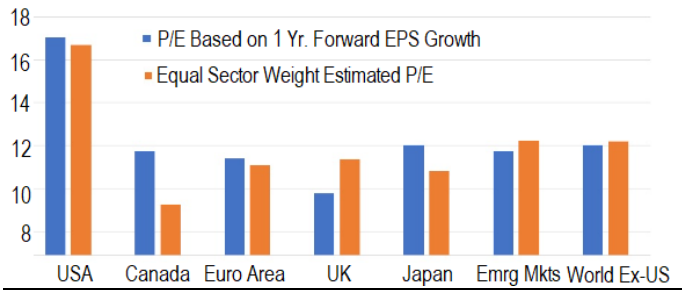
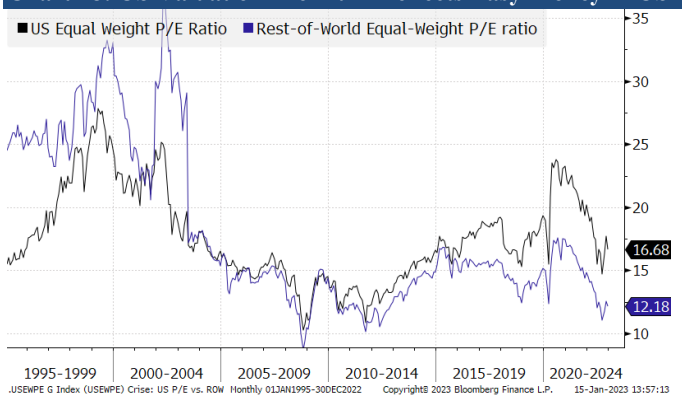


Chart source: Bloomberg

Plotting the equal weighted P/Es for the US market and MSCI World ex-US going back to 1995 confirms that the US valuation premium really emerged six or seven years ago (Chart 48). Not coincidentally, that was about the time that the Fed's estimate of the long run neutral rate of interest dropped below 3%. It is hard to not attribute a significant amount of the US valuation premium to expectations of generally friendly monetary policy.

Chart 48: US Valuation Premium Reflects Easy Money in US



Note: Data reflects trailing P/E until June 2003, 1 yr. forward P/E thereafter

Chart source: Access Financial Services using Bloomberg Software & Data

It seems unlikely that US stocks can maintain their lofty valuations against everyone else, particularly if corporate earnings do not hold up. US stocks have put in a sustained run of outperformance and enjoyed something of a valuation privilege when it comes to earnings multiples and the narratives investors are willing to embrace. The elastic band of relative valuation may just have been stretched to its limit though.

Emerging markets – China and Latin America in particular – should benefit from low valuations, stronger activity in China, high commodity prices and policy easing. Combining these factors with a weak earnings outlook in developed markets improves the relative appeal of emerging markets stocks as a source of diversification.

Beijing has finally realized that it was fighting a hopeless war. The financial and social costs of maintaining its zero-Covid policy had become prohibitively high. The Chinese government also did an about-face with its policy towards the property sector and is now launching a series of policy initiatives, including credit injection, to support and stimulate the real estate sector. Interest rates in China – especially at the short end of the curve – are significantly lower than in the developed markets (Chart 49). The easing of zero-Covid measures should also allow for favorable base effects. On the external front, Chinese currency weakness (Chart 50) should lift export volumes.

Chart 49: Chinese Interest Rate

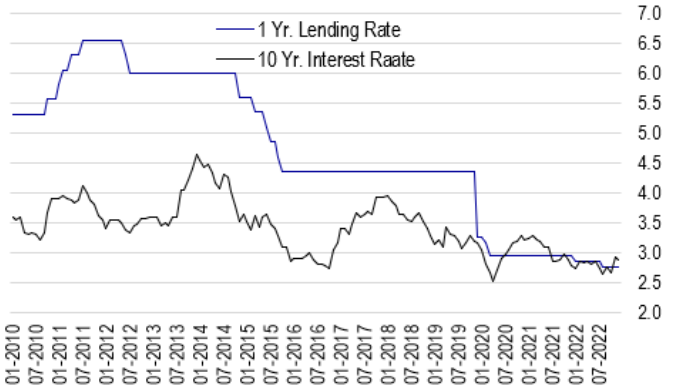
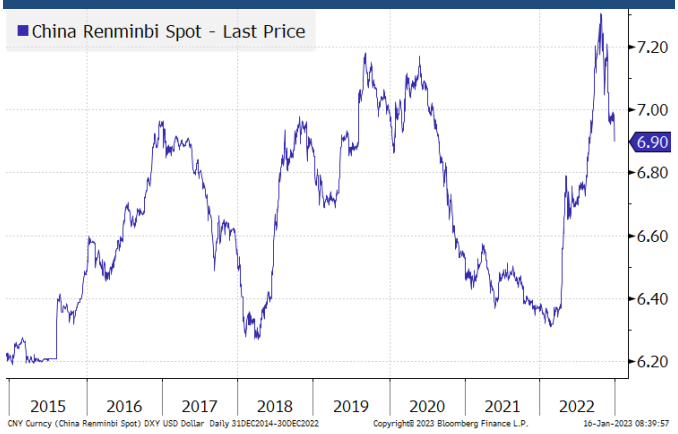


Chart source: Access Financial Services using data from Numera Analytics

Chart 50: Chinese Yuan



The head of the International Monetary Fund recently described China's pivot from zero-Covid as likely the single most important factor for global growth in 2023 and will mean China is a positive contributor to average global growth by around mid-year.

Taken together, these factors translate into high odds that Chinese growth strengthens this year allowing China's growth premium (Chinese growth minus growth in the rest of the world) to widen boosting the relative appeal of the region. For example, when the growth premium is strong, Asian emerging market stocks typically outperform DM stocks by 9% on average.

In addition to the growth premium, emerging markets stocks stand to gain from low valuations. Chart 51 shows that many emerging markets are trading at historically low values. In the case of China, when stocks have traded the current multiple, the MSCI China Index has historically generated average real returns of over 15% twelve months out.

Chart 51: Most Emerging Markets Trading at Discount

Normalized ratio of stock market capitalization to GDP.

Chart source: Numera Analytics

Latin America – especially resource rich South America – also looks attractive given its low valuations, strong exposure to China, low exposure to the technology sector and the potential for aggressive interest rate cuts out of Brazil. When valuations in Brazil are as low as they are today, the Brazilian stock market typically returns around 20% over the next twelve months versus 8% at "normal" multiples. Further, even when growth in Brazil weakens, in an environment of low valuations, a strengthening Chinese economy and Brazilian central bank rate cuts, the Brazilian stock market's average return is 27% over the next twelve months.

The relative appeal of non-US developed market stocks improves at longer holding periods. In particular, the price/earnings ratios noted above suggest most major DM equity markets other than the US are trading close to 'fair' value. When this is the case, developed markets ex-US historically double US returns over three year holding periods (Table 6).

Table 6: Valuations and Returns

	36 Month Forward Returns				
Starting Valuation	Canada	Europe	Japan	UK	US
Low (cheap)	11.0%	18.0%	11.0%	12.0%	13.0%
Normal valuations	8.6%	9.5%	10.0%	8.2%	9.8%
High (expensive)	5.9%	-2.6%	6.6%	1.5%	4.6%

Source: Numera Analytics

For shorter horizons, emerging market stocks exhibit a much lower correlation to the S&P than non-US developed markets. While less of a desirable feature in benign macro environments, the low correlation limits projected portfolio losses when the world economy is at the threshold of a recession.

Few (if any) stock or bond investment strategies delivered positive real (inflation adjusted) returns during 2022. However, being underweight technology related companies in favor of more defensive areas of the market helped limit portfolio losses.

Generally speaking, our clients' non-index fund US stock allocations outperformed the SPX by 6% to 7% and our bond allocations were slightly to moderately ahead of the Bloomberg Aggregate Bond Index.

At some point, weakening inflation, employment and/or economic data will be enough to convince the Fed to pull back giving the financial markets what they so desperately want. Unfortunately, it may take the kind of data that is bad for risk assets to get it done.

In this environment, we anticipate maintaining the defensive nature of our US stock allocation, moving to a larger allocation to foreign stocks, and staying up in quality on the bond side of our clients' portfolios.

Lastly, some thoughts on the US debt ceiling.

For now, it is estimated that the debt limit will be reached by late summer or early autumn. At that point, the government will no longer be able to borrow to meet its spending obligations, including paying interest on its debt.

Political standoffs over the debt ceiling have become common. Brinkmanship has pushed parts of the government to shut down, but a deal has always been reached to prevent the worst case outcome: a debt default.

Investors are concerned that with a slim majority in the House, the Republicans on the far right could prevent a deal to raise the debt ceiling and push the US government into default. The power of the GOP's far right was evident in the election of Kevin McCarthy as the speaker of the House, which took 15 rounds of voting.

There is little doubt that some members of congress will dig their heels in over the debt ceiling demanding sharp cuts to government spending for their support. It is also likely that parts of the government could be shut down to conserve cash for essential expenditures including interest payments. While tense negotiations will keep investors on edge, the worst case scenario of a debt default should be avoided.

Ultimately, moderate Democrats should be able to join with moderate Republicans to raise the debt ceiling without the need for appeasing the far right. The

Republican Party cannot allow itself to be held hostage and precipitate a debt default. Triggering a financial crisis and a severe recession (not to mention a halt to social security checks) would put the Republicans in a bad place in the 2024 elections.

The bottom line is that heated negotiations surrounding an increase in the debt ceiling could lead to a surge in market volatility this summer, but it would be political suicide for the Republicans to trigger a default of the US government. Eventually, moderate Republicans and Democrats should come to an agreement and raise the ceiling.

Thank you for your continued confidence. It means a great deal to all of us. Please do not hesitate to contact me if you would like to discuss any of this in more detail.

Brant Kairies
952-885-2732