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In the fourth quarter of 2023, the Federal Reserve (the "Fed") shifted to a more dovish stance and fueled speculation that rate cuts could be on the table in 2024. Risk assets seized on this pivot and staged a furious rally. Equities put on a "light show" reminiscent of the moonshot of later 2020 then driven by trillions of Covid relief money. Fixed Income also participated as hopes were high that inflation was vanquished and that a redux of the 1970s rate cycle would not be repeated. Not surprisingly, Alternative Investments ("Alternatives") lagged as risk managed approaches or strategies lacking significant beta received punitive treatment by investors. Economic growth and unemployment have yet to show the effects of the steep rise in rates of the past 21 months while inflation data has fallen from its highs but is now flattening out at levels still above the desired 2% range. In our view, the market sentiment seems to be declaring that the war on inflation has been won, central banks are operating with the skill of neurosurgeons not lumberjacks, and the money pumps of the 2010s could and should be turned back on again. To those who believe monetary policies take a while to work through the system and aren't quite as sold on the skills of central bankers, it might evoke images of President George W. Bush standing on the aircraft carrier USS Abraham Lincoln in 2003 against a backdrop with a sign declaring "Mission Accomplished".

Historically, significant interest rate increases have resulted in slower economic growth, higher unemployment, weaker consumer spending, poor to negative investment returns and even steep recessions. The current rate increases seemed not to have produced any of those results. The riddle to be solved is has the Fed actually threaded the needle and delivered the "all gain no pain" outcome or are we in the eye of the storm? While no one has the answer for sure, there are a few lines of thinking that merit consideration.

1. The 3% rate threshold was breached a mere 15 months ago and the real pain of increases above that are yet to be felt, but we believe they certainly will be going forward (the long and variable lag train of thought often quoted in economics).

2. We believe the sheer speed of rate increases, by design, will allow the Fed to quickly lower rates and therefore better telegraph and fine tune their handling of the economy and that removal of uncertainty is supporting the capital markets as well as employer confidence.

3. In our view, financial conditions might not be all that tight especially compared to pre-Covid metrics. Interest rates are much higher but the drawdown in the Fed balance sheet has been slow and there have been other sources of monetary and fiscal stimulus of sizeable magnitude that may be offsetting the Fed's rate increases: immense spending by the Federal government, massive growth in reverse repos through the third quarter of 2023, high level of bank reserves at the Fed, sizable growth in money supply and Covid relief money still fueling consumer, state and local government spending, and Fed sponsored liquidity programs such as the Bank Term Funding Program (see Figure 1).

4. We believe the multiple sources of large scale fiscal impulse have temporarily forestalled the economic reckoning but resulted in a deteriorating financial profile: huge spending deficits, deep immutable entitlement costs, record debt, and soaring debt payments all of which will ultimately converge with consistently negative money supply growth and the delayed effects of a steep rise in interest rates. In our opinion, the aforementioned profile makes the soft landing or no landing scenario improbable and the euphoria of the 4th quarter around rate cuts ignore why the Fed would be induced into rapidly reducing rates (a severely faltering economy).

Figure 1 Federal Reserve Balance Sheet

	1/31/2020	12/31/2023	Change vs Pre-Pandemic
Fed Funds Rate	0.25%	5.50%	5.25%
Fed Balance Sheet (Trillion)	4.15%	7.71%	3.56%
Reverse Repo (Trillion)	0.00%	1.02%	1.01%
US Treasury Debt (Trillion)	23.22%	34.00%	10.78%
Fed Budget Deficits - % of GDP	-4.90%	-6.29%	1.39%
Money Supply (Trillion)	15.40%	20.77%	5.37%

Source: Bloomberg.

The Fed did not alter Fed Funds rates during the 4th quarter, despite two opportunities to do so. It was the 3rd straight Federal Open Market Committee (FOMC) meeting in which rates were not changed. The Fed Funds rate remained at 5.25% - 5.50%. The Consumer Price Index Year-over-Year (CPI YoY) came in at 3.10%, month-over-month (MoM) CPI registered 0.10%. CPI Ex Food and Energy was 4.00% (YoY) and 0.30% (MoM), respectively. The YoY Producer Price Index Final Demand (PPI) came in at 0.90% and the MoM PPI was +0.00%. With the overall direction in inflation continuing to trend lower, the Fed changed its messaging to a more dovish stance and the markets have begun to anticipate a rate cutting cycle to begin in 2024. This shift in tone and hint of a dovish cycle sent bond prices soaring and yields plummeting. The dramatic movement in bonds all but retraced the rise in yields experienced from June through October and rates are now back to levels seen in May and June of 2023 in U.S. Treasuries, corporates and mortgages.

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It was against this tremendous rally for both equities and fixed income in the 4th quarter that Alternatives struggled both on an absolute basis and a relative basis. The average underperformance versus the S&P 500 Index was -1,002 basis points ("bps"), 7 out of 10 categories were positive, but only 1 out of 10 outperformed the S&P 500 Index. The average underperformance vs the Bloomberg U.S. Aggregate Bond Index was -514 bps with 9 of 10 categories underperforming the Index for the quarter. Real Estate was the best performing category (+17.98%). Other notable gainers were Equity Long/Short (+3.93%), Equity Market Neutral (+2.96%), Fixed Income Arbitrage (+2.86%) and Multi-Strategy (+2.00%). Commodities was the worst performing sector (-4.63%), weighed down heavily by the fall in energy prices. Managed futures also struggled significantly, likely due to the quick shift in trends that all but the shortest time frame focused strategies were able to detect (Figure 2 and Figure 3).

Figure 2 Alternatives Performance

	Q4 2023	2023
Equity Long/Short	3.93%	7.83%
Event Driven	0.74%	5.41%
Equity Market Neutral	2.96%	6.33%
Real Estate	17.98%	12.25%
Commodities	-4.63%	-7.91%
Convertible Arbitrage	0.76%	3.15%
Multi-Strategy	2.00%	8.98%
Fixed Income Arbitrage	2.86%	7.66%
Global Macro	-2.35%	2.20%
Managed Futures	-4.54%	-1.51%

Source: Bloomberg. Data as of 12/31/23.

Figure 3 Alternatives Performance (Over/Under) vs S&P 500 Index

	Q4 2023
Equity Long/Short	-7.76%
Event Driven	-10.95%
Equity Market Neutral	-8.74%
Real Estate	6.29%
Commodities	-16.32%
Convertible Arbitrage	-10.93%
Multi-Strategy	-9.69%
Fixed Income Arbitrage	-8.83%
Global Macro	-14.05%
Managed Futures	-16.24%

Source: Bloomberg. Data as of 12/31/23.

Traditionally, managed futures and macro strategies are viewed as having lower correlations to equities because they are diversified across a variety of markets and often employ shorting as part of their approach. Strategies that had lower 2-year correlations to U.S. equities (less than 0.60), on average, underperformed those strategies that had a higher correlation with U.S. equities. The spread was -898 bps (Figure 4) which was a complete reversal of the prior quarter in which low correlation strategies outperformed higher correlation strategies by 811 basis points. Real asset returns had a solid quarter as real estate and gold posted double digit gains. Lower rates across the treasury curve and the prospect of rate cuts in 2024 and beyond were likely drivers. Commodities on the other hand suffered deep losses mostly due to a steep fall in energy prices, specifically petroleum related products (Figure 5).

Figure 4 Correlations (2yr) & Returns

	S&P 500 Index	Q3 2023
Equity Long/Short	0.79	3.93%
Event Driven	0.44	0.74%
Equity Market Neutral	0.16	2.96%
Real Estate	0.90	17.98%
Commodities	0.31	-4.63%
Convertible Arbitrage	0.43	0.76%
Multi-Strategy	0.46	2.00%
Fixed Income Arbitrage	0.68	2.86%
Global Macro	-0.14	-2.35%
Managed Futures	-0.51	-4.54%
Lower Correlation Avg TR (≤0.60)		-0.72%
Higher Correlation Avg TR (>0.60)		8.26%

Source: Bloomberg. Data as of 12/31/23. Correlation of monthly returns over 24 months.

Figure 5 Real Assets

	Q4 2023	2023
Real Estate	17.98%	12.25%
Commodities	-4.63%	-7.91%
Gold	11.60%	13.10%
Average	8.32%	5.81%

Source: Bloomberg. Data as of 12/31/23.

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Cryptocurrencies, traded up sharply in the 4th quarter in sympathy with other risk markets. The Bloomberg Galaxy Crypto Index rose a stunning 75.57%, Bitcoin, Ethereum, Ripple and Litecoin all were up double digits +57.01%, +35.83%, 19.63% and +11.06%, respectively (Figure 6). Bitcoin, in particular, had a spectacular run as anticipation of SEC approval of the first Bitcoin ETFs backed by actually bitcoins has stoked an almost euphoric sentiment. As the sector continues to mature, the investment profile from a portfolio diversification perspective remains inconclusive. Returns can be compelling at times, but volatility in the past few years has been 3-4 times that of stocks, as have the drawdowns. Though the correlation of cryptocurrencies to stocks and bonds is fairly low, how much of that low correlation is due to legal, regulatory and structural pricing risks that will dissipate as the sector comes under greater governmental oversight is unclear.

Returns for major asset classes were strongly positive in the fourth quarter of 2023. Real Estate, which had taken a drubbing in 2022 and the first three quarters of 2023, was a standout in the fourth quarter up +17.98%. U.S. 20+ Treasuries were up +12.92% as yields on the long-end of the curve plummeted on hopes of rates cuts in 2024.

Equity markets similarly championed what was being framed as the end of the rate hiking cycle. The S&P 500 Index, MSCI EAFE, and Emerging Markets posted solid gains (+11.69%, +10.42%, +7.86%), respectively, as did High Yield and general Fixed Income (+7.51%, 6.82%), respectively. Commodities fell sharply (-4.63%) despite a significant decline in the U.S. Dollar (-4.56%). The yield curve, which was inverted but had been flattening, underwent a deeper inversion as fixed income markets embraced a no change in rates, a softer tone from the Fed and a belief that an aggressive rate cutting cycle would begin sooner than later. The movement in real rates was mixed as the shortest and longest maturities saw real rates tick down a touch while intermediate maturities saw real rates push marginally higher. Currently real rates are positive across the entire curve (Figure 8). Negative real yields, which existed for much of the 2010s, are considered accommodative from a monetary perspective while positive real yields are considered more restrictive.

Alternatives have historically provided significant diversification benefits when paired with a portfolio of traditional assets, in addition to both competitive absolute returns and attractive risk-adjusted returns. **Please Note: Alternative investments may employ complex strategies, have unique investment, and risk characteristics that may not be suitable for all investors.**

Figure 6 Cryptocurrency Returns

	Q4 2023	2023
BB Galaxy Crypto Index	75.57%	139.56%
Bitcoin	57.01%	157.01%
Ethereum	35.83%	90.29%
XRP (Ripple Dig.Asst)	19.63%	81.02%
Litecoin	11.06%	5.13%

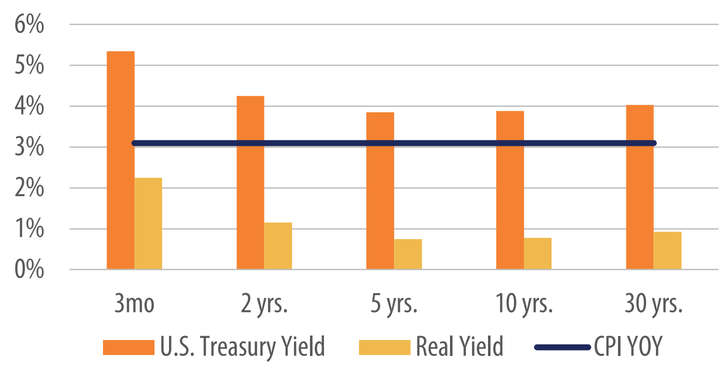
Source: Bloomberg, data as of 12/31/23.

Figure 7 Asset Class Returns

	Q4 2023	2023
U.S. Equities	11.69%	26.29%
International Developed	10.42%	18.24%
Emerging Markets	7.86%	9.83%
U.S. Treasury	12.92%	0.00%
Real Estate	17.98%	12.25%
Commodities	-4.63%	-7.91%
High Yield Bonds	7.51%	13.76%
U.S. Aggregate Bonds	6.82%	5.53%
Bitcoin	57.01%	157.01%
U.S. Dollar	-4.56%	-2.11%

Source: Bloomberg. Data as of 12/31/23.

Figure 8 U.S. Treasury Yield Curve and CPI



Source: Bloomberg. Data as of 12/31/23.

Definitions

10-Yr Treasury: Yield of U.S. Treasury securities maturing in approximately 10 years.

30-Yr Mortgage Rate: is a fixed interest rate home loan that will be paid off completely in 30 years if you make every payment as scheduled.

Aggregate Bonds: The Bloomberg US Aggregate Bond Index is a broad-based benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market.

AllHedge Index: The Credit Suisse AllHedge Index is an asset-weighted hedge fund index derived from the market leading Credit Suisse Hedge Fund Index. The Credit Suisse AllHedge Index provides a rules-based measure of an investable portfolio. Index performance data is published monthly and constituents are rebalanced semi-annually according to the sector weights of the Credit Suisse Hedge Fund Index.

Beta: A measure of price variability relative to the market.

Bitcoin: A digital currency using encryption techniques created for use in peer-to-peer online transactions Introduced in 2008 by a person or group using the name Satoshi Nakamoto.

Bloomberg Galaxy Crypto Index (BGCI): The BGCI is designed to measure the performance of the largest cryptocurrencies traded in USD.

Coinbase: An online platform for buying, selling, transferring, and storing cryptocurrency.

Commodities: The Bloomberg Commodity Index is made up of exchange-traded futures on physical commodities and represents 20 commodities, which are weighted to account for economic significance and market liquidity.

Consumer Price Index (CPI): A measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food, and medical care. It is calculated by taking price changes for each item in the predetermined basket of goods and averaging them. Changes in the CPI are used to assess price changes associated with the cost of living.

Correlation: A statistical measure that quantifies the extent to which two or more data series fluctuate together. Values run from -1.0 to +1.0.

Cryptocurrency: A digital or virtual currency that is secured by cryptography, which makes it nearly impossible to counterfeit or double-spend.

Emerging Markets: The MSCI Emerging Markets Index captures large and mid cap representation across Emerging Markets (EM) countries. The index covers 85% of the free float-adjusted market capitalization in each country.

Equity Market Neutral: The Credit Suisse AllHedge Equity Market Neutral Index is a subset of the Credit Suisse AllHedge Index that measures the aggregate performance of equity market neutral funds. Equity market neutral funds typically take both long and short positions in stocks while seeking to reduce exposure to the systematic risk of the market (i.e., a beta of zero is desired). Equity Market Neutral funds typically seek to exploit investment opportunities unique to a specific group of stocks, while maintaining a neutral exposure to broad groups of stocks defined for example by sector, industry, market capitalization, country, or region. The index has a number of subsectors including statistical arbitrage, quantitative long/short, fundamental long/short and index arbitrage. Managers often apply leverage to enhance returns.

Ethereum: Ethereum is a platform that offers programming code of any decentralized application. It has been linked to payment style transactions. Ether is the cryptocurrency issued through open-source code executed on thousands of nodes.

Event Driven: The Credit Suisse AllHedge Event Driven Index is a subset of the Credit Suisse AllHedge Index that measures the aggregate performance of event driven funds. Event driven funds typically invest in various asset classes and seek to profit from potential mispricing of securities related to a specific corporate or market event. Such events can include: mergers, bankruptcies, financial or operational stress, restructurings, asset sales, recapitalizations, spin-offs, litigation, regulatory and legislative changes as well as other types of corporate events. Event driven funds can invest in equities, fixed income instruments (investment grade, high yield, bank debt, convertible debt and distressed), options and various other derivatives. Many managers may use a combination of strategies and adjust exposures based on the opportunity sets in each subsector.Gold: The return of the gold spot price as quoted as U.S. dollars per Troy Ounce.

Fixed Income Arbitrage: The Credit Suisse AllHedge Fixed Income Arbitrage Index is a subset of the Credit Suisse AllHedge Index that measures the aggregate performance of fixed income arbitrage funds. Fixed income arbitrage funds typically attempt to generate profits by exploiting inefficiencies and price anomalies between related fixed income securities. Fixed income arbitrage funds seek to limit volatility by hedging out exposure to the market and interest rate risk. Strategies may include leveraging long and short positions in similar fixed income securities that are related either mathematically or economically. The sector includes credit yield curve relative value trading involving interest rate swaps, government securities and futures; volatility trading involving options; and mortgage-backed securities arbitrage (the mortgage-backed market is primarily U.S.-based and over-the-counter).

Global Macro: The Credit Suisse AllHedge Global Macro Index is a subset of the Credit Suisse AllHedge Index that measures the aggregate performance of global macro funds. Global macro funds typically focus on identifying extreme price valuations and leverage is often applied on the anticipated price movements in equity, currency, interest rate and commodity markets. Managers typically employ a top-down global approach to concentrate on forecasting how political trends and global macroeconomic events affect the valuation of financial instruments. Profits can be made by correctly anticipating price movements in global markets and having the flexibility to use a broad investment mandate, with the ability to hold positions in practically any market with any instrument. These approaches may be systematic trend following models, or discretionary.

Gross Domestic Product (GDP): Is the monetary value of all finished goods and services made within a country during a specific period.

Inflation is the decline of purchasing power of a given currency over time.

High-Yield Bonds: The Bloomberg US High Yield Very Liquid Index (VLI) is a component of the US Corporate High Yield Index that is designed to track a more liquid component of the USD-denominated, high yield, fixed-rate corporate bond market. The US High Yield VLI uses the same eligibility criteria as the US Corporate High Yield Index, but includes only the three largest bonds from each issuer that have a min amount outstanding of USD500mn and less than five years from issue date.

International Developed: The MSCI EAFE Index is designed to represent the performance of large and mid-cap securities across 21 developed markets, including countries in Europe, Australasia and the Far East, excluding the U.S. and Canada. The index is a free-float weighted equity index.

Inverted Yield Curve: An unusual state in which longer-term bonds have a lower yield than short-term debt instruments.

Litecoin: A peer-to-peer cryptocurrency and open source software project similar to Bitcoin, Litecoin uses blockchain technology to process transactions. Litecoin, referred to as an alt-coin can process blocks faster than Bitcoin, uses a different mining algorithm and has larger supply.

Long/Short Equity: The Credit Suisse AllHedge Long/Short Equity Index is a subset of the Credit Suisse AllHedge Index that measures the aggregate performance of long/short equity funds. Long/short equity funds typically invest in both long and short sides of equity markets, generally focusing on diversifying or hedging across particular sectors, regions or market capitalizations. Managers typically have the flexibility to shift from value to growth; small to medium to large capitalization stocks; and net long to net short. Managers can also trade equity futures and options as well as equity related securities and debt or build portfolios that are more concentrated than traditional long-only equity funds.

Managed Futures: BarclayHedge US Managed Futures Industry Top 50 (BTop 50) Index. The Index seeks to replicate the overall composition of the managed futures industry with regard to trading style and overall market exposure.

Monetary Policy: Is the tool used by central banks to influence the money supply, and with it, the economy at large.

Money Supply: Is the entire stock of a nation's currency and other liquid instruments that is in circulation at a given time.

Month-over-Month (MoM): is a calculation that helps compare growth over the previous month and automatically negates the effect of seasonality.

Multi-Strategy: The Credit Suisse AllHedge Multi-Strategy Index is a subset of the Credit Suisse AllHedge Index that measures the aggregate performance of multi-strategy funds. Multi-strategy funds typically are characterized by their ability to allocate capital based on perceived opportunities among several hedge fund strategies. Through the diversification of capital, managers seek to deliver consistently positive returns regardless of the directional movement in equity, interest rate or currency markets. The added diversification benefits may reduce the risk profile and help to smooth returns, reduce volatility and decrease asset-class and single-strategy risks. Strategies adopted in a multi-strategy fund may include, but are not limited to, convertible bond arbitrage, equity long/short, statistical arbitrage and merger arbitrage.

Real Estate: The Dow Jones US Real Estate Index is designed to track the performance of real estate investment trusts (REITs) & other companies that invest directly or indirectly in real estate through development, management or ownership, including property agencies.

Real Yield: or Real Interest Rate has been adjusted to remove the effects of inflation to reflect the real cost of funds to the borrower and the real yield to the lender or to an investor.

Recession: Is a significant decline in economic activity that lasts longer than a few months.

Ripple: Known as XRP, Ripple is a cryptocurrency that can be used on open source distributed ledger created by the company Ripple. It is built upon the principles of blockchain as an on-demand option for faster cross border payments.

Securities and Exchange Commission (SEC): A government agency created by Congress to regulate the securities markets and protect investors.

U.S. Equities: The S&P 500 Index. An unmanaged index of 500 stocks (currently 505) used to measure large-cap U.S. stock market performance.

U.S. 30-Yr Treasury Yield: Yield of U.S. Treasury securities maturing in approximately 30 years.

U.S. Dollar: The U.S. Dollar Index (USDX) indicates the general international value of the U.S. dollar. The USDX does this by averaging the exchange rates between the USD and major world currencies. The ICE US computes this by using the rates supplied by some 500 banks.

U.S. Treasury: The ICE U.S. Treasury 20+ Years Bond Index is part of a series of indices intended to assess U.S. Treasury issued debt. Only U.S. dollar denominated, fixed-rate securities with minimum term to maturity greater than twenty years are included.

Year-over-Year (YoY): is a calculation that helps compare growth over the previous 12 months and automatically negates the effect of seasonality.