

2022 ANNUAL REVIEW AND 2023 OUTLOOK

SUMMARY

The year was marked by resilient growth and inflation that persistently exceeded expectations, leading the Federal Reserve to adopt a hawkish stance. Russia's invasion of Ukraine and geopolitical uncertainty fanned the flames of commodity inflation earlier in the year, pushing Europe to the brink of recession. The sharp rise in U.S. rates crushed low-yielding fixed income assets and sky-high equity valuations, resulting in the worst performance of a 60/40 stock/bond portfolio since the Great Depression. Value beat Growth by 21.6% (based on Russell 1000 indices).

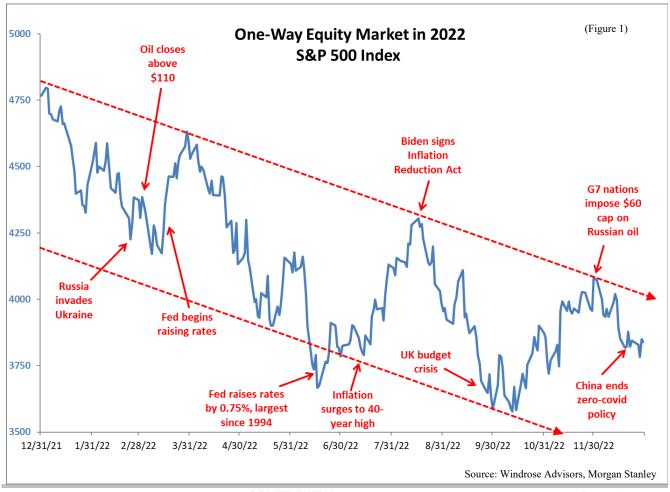
For the year, global equities fell by 18.4% while U.S. fixed income declined 13.0%. Broad commodities surged 16.1%. Market liquidity declined alongside rising volatility.

2022: A ONE-WAY MARKET



Despite ups and downs, equity markets were on a one-way downtrend in 2022 (figure 1). Investors tended to anticipate moderating inflation readings following successive hawkish Fed policy announcements, only to be disappointed again and again by upside inflation surprises and renewed expectations of rising rates.

Equity downside stemmed from declining valuations as the cost of money increased (figure 2).



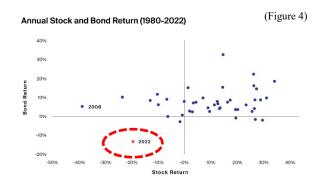


Source: Standard & Poor's, Refinitiv, FactSet, Credit Suisse

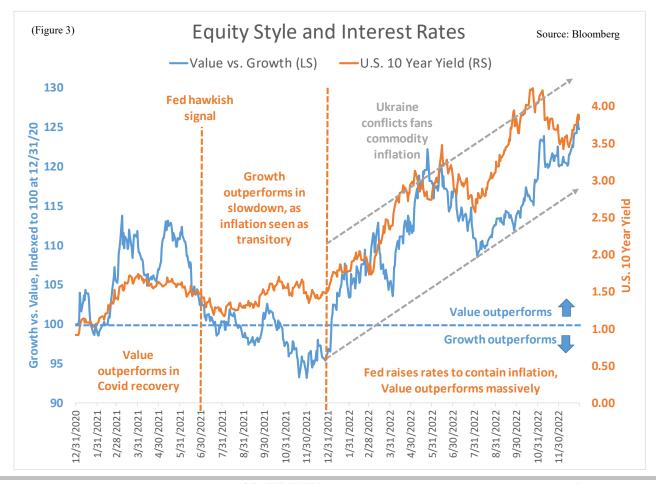
Growth-oriented, longer duration sectors bore the brunt of the adjustment as they started the year at historically high valuations following years of outperformance. On the other hand, Value sectors proved resilient on the downside, leading to huge relative performance of Value vs. Growth (figure 3).

On the back of high inflation and Fed fund hikes, the yield on the 10-year bond spiked from 1.51% at the beginning of the year to a high of 4.24% in October, ending the year at 3.88%, an increase of 2.37% for the year. This massive increase wreaked havoc on fixed income portfolios with all major indices posting negative returns.

Most shocking to investors, however, was the fact that both stocks and bonds fell at the same time by an unprecedented order of magnitude (figure 4)



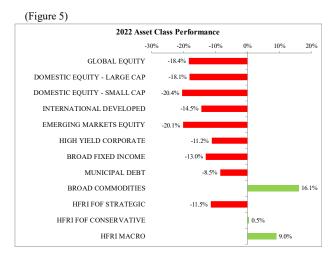
Source: CAIS



This rare conjunction caused traditional 60/40 stocks/bonds portfolios to fall the most since 1931, demonstrating a lack of diversification against inflation risk.

Concurrent with rising uncertainty and poor liquidity conditions, equity volatility (VIX index) rose from 17.2 at the beginning of the year to 21.7 by year-end. Rising interest rate differentials between the U.S. and foreign economies led the U.S. currency higher by 8.2% for the year (DXY U.S. Dollar index). Currency declines against the U.S. Dollar presented strong headwinds to the performance of foreign equity markets (Japanese Yen -12.2%, Euro -5.9% vs. the U.S. Dollar).

For the year, all major indices across equities, credit and fixed income markets posted declines. Commodities were up broadly, led by energy. Interestingly, the greater weight of value sectors in international developed indices helped offset currency headwinds, resulting in outperformance over U.S. equities. Similarly, high yield outperformed investment grade fixed income assets thanks to a lower duration profile. Uncorrelated hedge fund strategies (proxied by the HFRI Macro index) delivered positive returns, due to their ability to short rates and equities or seek exposure to commodities (figure 5).



Source: Bloomberg

Globally, Energy was the only sector in positive territory for the year (figure 6) as disruptions due to the conflict in Ukraine led to a spike in oil prices. Traditional defensive sectors generally

outperformed (Utilities, Health Care, Consumer Staples) while longer duration growth sectors underperformed (Information Technology, Consumer Discretionary, Communication Services).

(Figure 6)

2022 (%)	ACWI	US	Europe	Japan	EM
Energy	34.5	64.8	29.4	6.5	-23.8
Utilities	-3.9	1.4	-13.2	10.4	-4.2
Health Care	-5.7	-2.7	-9.8	-13.5	-23.4
Consumer Staples	-6.0	-0.7	-13.6	-8.9	-10.3
Financials	-9.2	-12.2	-8.1	13.1	-7.3
Materials	-11.1	-12.0	-14.3	-19.4	-14.3
Industrials	-12.6	-7.0	-21.5	-18.3	-10.2
Real Estate	-24.0	-25.9	-42.0	-14.0	-18.7
Information Technology	-30.9	-29.9	-32.9	-32.0	-33.0
Consumer Discretionary	-31.5	-37.7	-21.3	-23.9	-20.7
Communication Services	-35.3	-40.8	-17.2	-6.2	-26.9

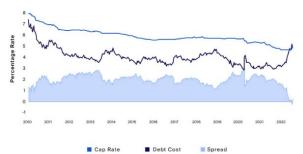
Source: Morgan Stanley

The jury is still out on the performance of private assets, but we believe that the adjustment in valuations was merely deferred.

Given the significant underperformance of growthoriented sectors and the preponderance of these sectors in private equity portfolios, some markdowns are inevitable, especially among venture capital funds. This is why we prefer to look at private equity as a growth asset with eventual correlation to public markets, rather than think of it as a diversifier. However, we were glad to have sidestepped exposure to collapsing crypto markets.

Similarly, the real estate sector was a notable underperformer for the year due to commonly used leverage and the resulting sensitivity to rising rates. While public real estate was quick to reprice, the rising cost of debt above capitalization rates has triggered a sharp slowdown in private transactions, impeding price discovery (figures 7, 8).

(Figure 7)



Source: CAIS



Source: CAIS

We believe that mark-downs will trickle into the asset class, although dynamics will differ among sectors, with Multi-Family housing benefitting from positive demand tailwinds compared to Office.

We did overweight client portfolios in opportunistic private credit, however, an asset class that weathered market volatility and is well positioned to take advantage of possible market dislocations.

LESSONS OF 2022



In our 2022 outlook paper a year ago, we advised clients to act on a regime change from deflationary to inflationary conditions, highlighting various recommendations in figure 9 below.

With the benefit of hindsight, we are happy to report that most of our predictions were confirmed.

While there were few places to hide last year, a focus on Real Assets, including Energy, and more

(Figure 9)	INFLATIONARY	DEFLATIONARY	
Equities	Tilt toward Real Assets, Financials	Tilt toward Technology	
	Diversify internationally	Favor U.S. exposure	
	Favor Value stocks	Favor Growth stocks	
Fixed Income	Shorten duration	Lengthen duration	
	Reduce credit exposure	Favor credit exposure	
	Favor floating rate debt	Favor fixed rate debt	
Alternatives	Favor Real Estate	Favor Private Equity	
	Favor Commodities A	Favor Equity Strategies	
	Favor Trend Following strateg	Favor Relative Value Strategies	

broadly Value stocks proved beneficial. While emerging markets underperformed U.S. equities, international developed equities did outperform, a mixed outcome that is impressive considering the substantial appreciation of the U.S. Dollar.

In fixed income, a focus on shorter duration (including floating rates) and higher credit quality protected on the downside. We were early in cutting duration across client portfolios in 2021 but are pleased with the positive outcome there.

Within alternatives, our exposures to commodity traders and trend following funds were both winning strategies, especially early in the year during the most volatile period. Our miss was to prefer Real Estate over Private Equity as we did not anticipate the speed and magnitude of the Fed's hiking campaign. Longer-term, owning real assets with high replacement cost should prove beneficial in a higher inflation environment.

ECONOMIC OUTLOOK

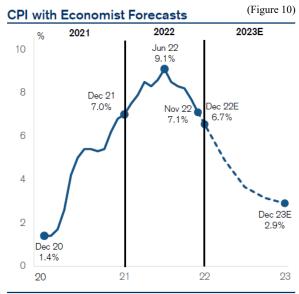


Looking ahead to 2023, much has changed and yet much remains the same, resulting in ongoing uncertainty and volatility.

2022 was marked by resilient growth, elevated inflation and hawkish monetary policy. 2023 should prove different, with slowing growth, slowing inflation and an end to rate hikes.

What will not change are longer term structural inflationary factors, including a decline in the workforce due to the aging of the baby boomer generation, a trend toward re-shoring of strategic industries because of rising geopolitical tensions, and the world moving from an era of abundant commodities to constrained supplies.

Near term, the world economy may enjoy a benign period as slowing inflation (figure 10) allows the Fed to end rate hikes.



Source: BLS, the BLOOMBERG PROFESSIONAL™ service, Credit Suisse

Source: Credit Suisse

This could allow for a relief rally earlier in the year. However, this is the first time in history that the Fed has raised rates in a slowing economy (figure 11), inducing unusal stress.

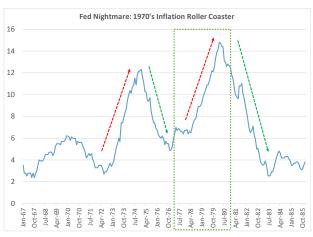
(Figure 11)



Source: Bloomberg

Usually, monetary policy is eased when economic activity slows, offering a countercyclical boost. However, the Fed is haunted by the specter of the 1970's when inflation slowed initially, only to pick up strength again as conditions eased (figure 12).

(Figure 12)



Source: Bloomberg

Therefore, even if inflation does indeed slow as expected in 2023, the chance of an actual cut in interest rates remains slim in our view. And meanwhile, the Fed's commitment to quashing inflation is clearly impacting earnings (figure 13). Rather than pressure from declining multiples, we think equity markets are likely to face pressure from declining earnings in 2023.

(Figure 13)

Path of Consensus S&P 500 EPS: 2023



Source: Standard & Poor's, Refinitiv, FactSet, Credit Suisse

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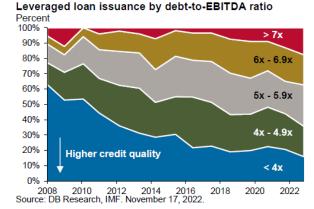
TAIL RISKS



The base case scenario thus involves slowing inflation and a plateau in rates, but also looming recession risk stemming from the higher cost of money. While most investors anticipate a shallow recession in the broader economy, there could be larger repercussions in financial markets.

As always, areas that incurred excessive leverage will be most at risk in the new environment. As shown in figure 14, the credit quality of leveraged loans decreased markedly over the past decade as leverage increased. With Fed fund rates having risen from essentially zero to 4.5% over the past 12 months and earnings set to decline in a recession, the interest burden on these levered companies will reach unsustainable levels, requiring some level of restructuring in the near future.

(Figure 14)



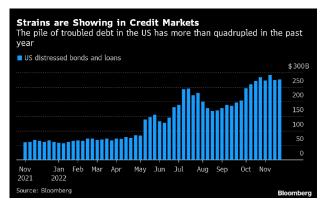
Source: JP Morgan

In addition to rising leverage, covenant-lite structures proliferated during the era of easy money. This likely means that levered companies will be able to defer dealing with their bloated capital structures until problems are worse, resulting in lower recoveries in a default.

Along the same line, it is worth pointing out the greater use of unitranche financing in recent years, a structure blending senior and subordinated debt into a single loan. Recoveries should be expected to be much lower in these situations given the absence of junior debt to absorb losses.

Hence, we anticipate that a distressed credit cycle will materialize once a recession appears, creating opportunities for distressed credit specialists. Already, around \$250 billion of bonds and loans are trading at distressed levels in the U.S. (figure 15).

(Figure 15)



Source: Bloomberg

To address the growing opportunity set, we are rebalancing our hedge fund portfolio to favor credit managers, and launching a private credit portfolio combining several funds focused on stressed and distressed investing. We also anticipate that our multi-strategy funds will organically rebalance toward credit opportunities as the year progresses, given their increasingly favorable risk-reward characteristics compared to equities.

The other area that continues to represent a considerable tail risk in our opinion is the looming shortage of energy as China exits pandemic restrictions and sanctions on Russian refined products go into effect as soon as February 5th, potentially boosting demand and curtailing supply.



Markets were surprised by the strength of the rally in energy markets in 2022, attributing much of the price surge to the conflict in Ukraine. In our mind, however, this was a symptom of a world faced with limited spare capacity and dire resource depletion given ongoing lack of investment.

Consumers owed a reprieve to the U.S. government, which took the unprecedented step of releasing enormous amounts of oil from the Strategic Petroleum Reserve (SPR). This took total U.S. inventories to unsustainable lows, especially considering geopolitical instability (figure 16).

(Figure 16)



Source: Bloomberg

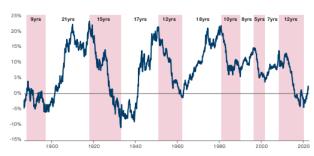
The end of SPR releases in December and the announced intention to replenish the reserve mean that markets should not expect government intervention in case of another energy shock.

In hindsight, investors got a second chance to build protection against the risk of rising energy prices.

Beyond a useful tail risk hedge, we actually think that energy exposure, and commodities more broadly, have only begun a longer term "supercycle."

Fundamental historical analysis shows multi-year bull and bear cycles for commodities, driven by the capital cycle (i.e. the long lead times involved in expanding supply). Figure 17 suggests that the average cycle for commodities lasts about 12 years.

(Figure 17)



Source: Man Solutions; as of September 2022. Chart shows the trailing 10Y nominal CAGR for the equal weight commodify basket and has been optically divided into bull and bear markets (bear markets shown in red). Numbers at the top indicate the length of each of these episodes.

Source: MAN Group.

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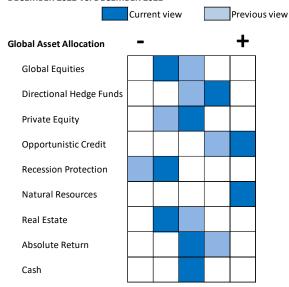
2023 VIEWS



Global equity markets are currently rallying as expectation of a successful "soft landing" by the Fed is apparently becoming the consensus view. The idea of taming inflation without inducing a recession seems about as easy as landing a jumbo jet on an icy road, as one of our managers recently put it. The odds of some accident or policy mistake are simply very high.

In this context, we anticipate that the U.S. economy will tip into recession by late 2023/early 2024. Equity markets will need to adjust to a decline in earnings while bonds could benefit. The wild card will remain inflation. While core inflation is set to slow, the odds of an energy shock remain high, which would sustain headline inflation (and real assets). In that scenario, the currently inverted yield curve may well steepen, with longer rates rising relative to short rates. Hence, we continue to prefer short to intermediate maturities and absolute return strategies to long duration risk. Despite near term markdowns, the outlook for private equity is actually improving as valuations decline. Nimble credit strategies are set to perform in this volatile environment thanks to seniority in the capital structure, lower volatility and value opportunities offered by forced sellers.

DECEMBER 2022 VS. DECEMBER 2021



Source: Windrose Advisors

Like travelers seeking direction and warning from road signs to safely reach their ultimate destination, we continue to actively monitor signals from the markets to guide client portfolios safely toward positive outcomes.

INDEX KEY

Indexes are unmanaged, statistical composites and their returns do not reflect payment of any brokerage commissions or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. The indexes include a different number of securities and have different risk characteristics than the model. Past performance of the indexes and benchmark is no indication of future returns.

Global Equity (MSCI All Country World-USD), Domestic Equity Large Cap (S&P500), Domestic Equity Small Cap (Russell 2000), International Developed Equity (MSCI EAFE), Emerging Market Equity (MSCI EM), Energy Equity (MSCI ACWI Energy) Broad Fixed Income (Barclays Aggregate), U.S. Government Debt (Barclays U.S. Treasury), U.S. Inflation-linked (Barclays U.S. Treasury Inflation Notes), U.S. Corporate Debt (Barclays U.S. Corporate), U.S. Securitized Debt (Barclays U.S. Securitized), Emerging Debt U.S. Dollar (JP Morgan Emerging Market Bond Index Global), Emerging Debt local currency (JP Morgan Global Bond Index Emerging Markets), High Yield Debt (Barclays U.S. High Yield), Municipal High Yield (Barclays U.S. Municipal High Yield), Municipal Debt (Barclays U.S. Municipal), Commodities (Bloomberg Commodity Index), Public Real Estate (MSCI U.S. REIT), Global Hedge Funds (HFRI Fund Weighted Composite), Directional Hedge Funds (HFRI Fund of Funds Strategic), Absolute Return Hedge Funds (HFRI Fund of Funds Conservative), Venture Capital (Cambridge Associates Venture Capital Index), Private Equity (Cambridge Associates Private Equity Index), Private Real Estate (Cambridge Associates Private Real Estate).

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