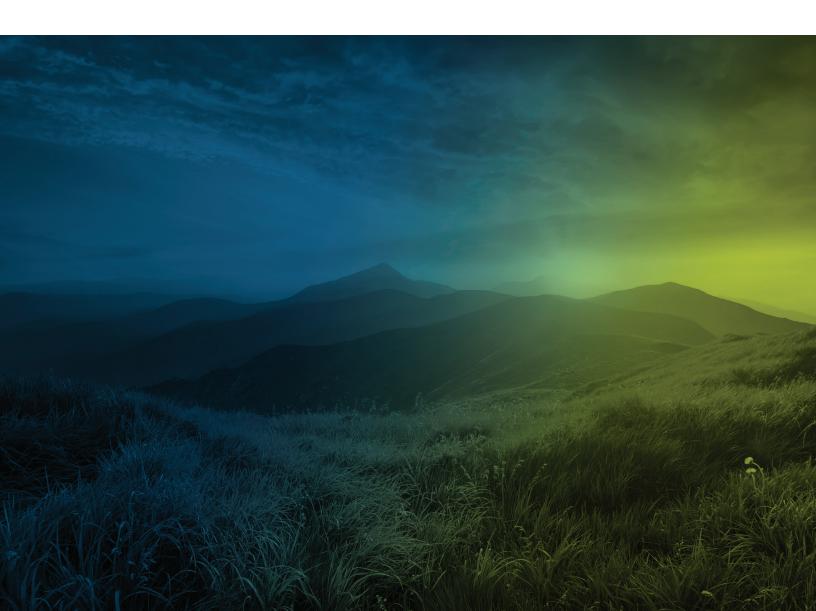
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Can Macro Hedge Funds Continue to Shine?

November 2022



Our assessment of the drivers of recent macro hedge fund outperformance suggests that the strategy's upswing has room to run.

Back in March 2018, we authored a paper entitled "Global Macro: (Finally) Time to Shine?" in which we suggested that "macro funds may be poised for a resurgence as the market cycle shifts from one of calm to increasing uncertainty."

We were not wrong about macro strategies - which have performed strongly since we wrote the paper, collectively returning over 29% on a cumulative basis (See Exhibit 1) and outperforming global equities with less than one-third the volatility - though we may have been a bit early.

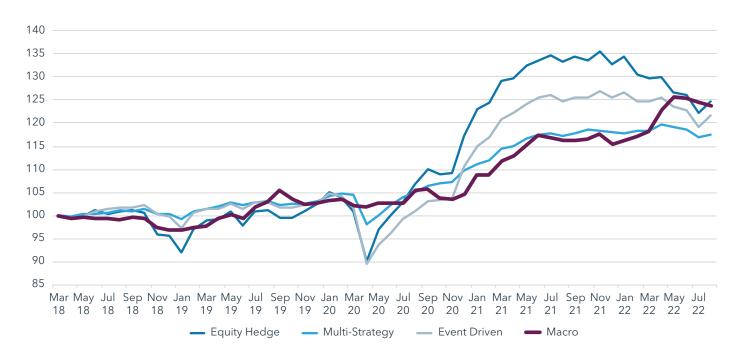
The impact of the rate hiking cycle from early 2016 through mid-2019 was to some extent counterbalanced by the impact of earlier quantitative easing (QE). Easy money helped dampen volatility and limit the emergence of performance dispersion between asset classes and across geographies. The opportunity we saw emerging

for macro strategies was therefore constrained, for a period at least. It took the global disruption wrought by the COVID-19 pandemic to create market conditions in which macro funds were able to outperform, including the surge in inflationary pressure and the consequent tapering of QE. And as Exhibit 2 illustrates, macro's recent relative improvement has coincided with a sharp rise in interest rates and comes in the face of steep stock market declines.

However, macro strategy performance has multiple distinct, though often interlinked, drivers. Macro funds typically take positions that reflect their views in a relative value or directional construct and can execute a vast array of trades designed to take advantage of changing economic and geopolitical circumstances. Trades can include stocks, bonds, currencies, commodities, and derivative instruments.

Exhibit 1: Macro strategies have performed strongly since March 2018

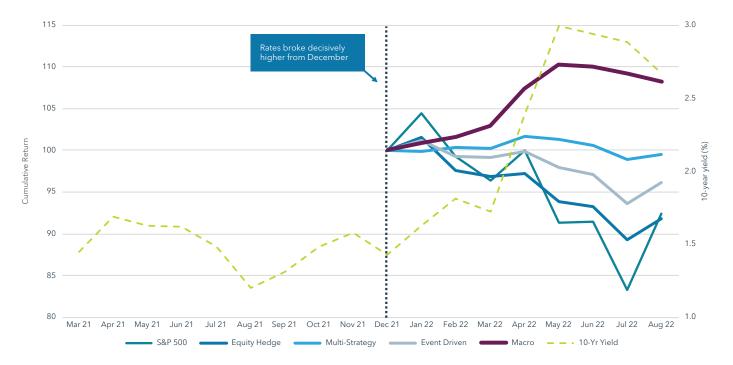
Cumulative Return



Source: HFRI, as of October 1, 2022. 100 = March 1, 2018. Fund-weighted aggregate returns from monthly data. Index Indexes: HFRI Equity Hedge (Total) Index, HFRI RV: Multi-Strategy Index, HFRI Event-Driven (Total) Index, HFRI Macro (Total) Index. For illustrative purposes only. Past performance is not indicative of future results.

Exhibit 2: Macro strategies have outperformed as rates have risen since the start of 2022

Hedge fund strategy cumulative returns vs. 10-year yield



Source: HFRI, Federal Reserve Economic Data, as of October 1, 2022. 100 = Dec 1, 2021. Hedge fund performance is fund-weighted aggregate returns from monthly data. Index Indexes: HFRI Equity Hedge (Total) Index, HFRI RV: Multi-Strategy Index, HFRI Event-Driven (Total) Index, HFRI Macro (Total) Index. S&P 500 is monthly total returns. 10-year yield from first trading day of month. For illustrative purposes only. Past performance is not indicative of future results.

Part of the reason macro funds had experienced muted performance across much of the last decade was the relative homogeneity of central bank policy globally.² Rates in most OECD member countries were essentially locked at zero, or even below, and geopolitical disruption was relatively limited. In an environment with a wider dispersion of potential outcomes, as we have witnessed of late, macro investors have more opportunities to generate uncorrelated returns with minimal dependency on the direction of risk assets. In other words, large market and price movements in either direction – not just short-term volatility – are an important driver of returns for macro managers. General economic and geopolitical instability provides opportunities to establish positions and take advantage of resultant mispricings.

With all this in mind, we identify five interlinked drivers of recent macro strategy outperformance:

- 1. Rising/elevated interest rates
- 2. Rising/elevated inflation
- 3. Uncertain economic growth
- 4. Geopolitical instability
- 5. Heightened volatility

So, to look for clues as to whether macro strategies can maintain their relatively strong performance for each of these drivers, we examined what has happened and whether recent trends may be sustained. In short, the general picture is that macro funds should continue to benefit from tailwinds over the coming quarters.

INTEREST RATES

What happened

- After falling sharply at the onset of the COVID-19 pandemic in early 2020, following massive intervention by the U.S. Federal Reserve (Fed), interest rates have risen consistently.³
- Since the end of 2021 rates have moved sharply upwards as the Fed stepped up its campaign to fight inflation (See Exhibit 3). In September, the U.S. 10-year yield topped 4.0% for the first time since 2008.⁴
- The rise has increased the cost of borrowing for governments and businesses, creating fiscal strain and widening dispersion in stock performance, as well as shifting fixed income yields and pricing.⁵ Rate rises have also created opportunities for macro funds via movements in global currencies.

Outlook

The tightening campaign by the Fed over the course of 2022 is already its most aggressive since 1994, and interest rates look likely to rise further as inflation proves far from transitory. The dot plot, which illustrates the expectations for the Fed funds target range among the committee's members, suggests that rate increases still have some way to go from the current 3.00 – 3.25% range (See Exhibit 4). The median target level is 4.375% by the end of 2022, rising further to 4.625% in 2023, before declining steadily to a longer run level of 2.5%. However, it is important to note, as the second chart in Exhibit 4 shows, that the markets (represented by the Fed Funds Futures Rate) are currently pricing in higher rates than the FOMC members expect—a signal that the Fed may need to hike rates more than what has been previously communicated.

Exhibit 3: The 10-year yield reached an 11-year high in October 2022





Source: Federal Reserve Economic Data, as of October 19, 2022.

Exhibit 4: Fed expects target rates to remain elevated, while markets expect a more hawkish path

U.S. Treasury 10-year yield (%)





Source: Federal Reserve Economic Data, as of October 19, 2022. CME Group, as of October 19, 2022.

INFLATION

What happened

- U.S. inflation surged from a low of 0.1% in May 2020 to a peak of 9.1% in June 2022 - the largest annual increase since 1981 - driven in part by supply chain issues resulting from COVID-19, trade tariff policies, and governmental fiscal largesse, both before and during the pandemic (See Exhibit 5). And while inflation has receded from its recent high, it has proven to be far more "sticky" than many expected.
- Increased input costs have rippled across the U.S. economy, putting pressure on businesses and, in turn, consumers. This disruption, in conjunction with rate rises, elevates recession risk but also creates greater opportunities for macro strategies, including from upward pressure on commodity prices.

Outlook

Inflation seems likely to remain elevated for the foreseeable future, with 12-month-forward median point consumer inflation expectations at 7.0% in September (See Exhibit 6). In some sectors, such as energy, upward pressure from supply issues may take years to resolve and reach a new equilibrium. On the demand side, a massive amount of money was injected into the economy via both QE and pandemic-related stimulus.7

Historical precedents are not encouraging either: It took more than three years for the 14.8% inflation recorded in April 1980 to retreat below 3%.8 That said, history does not necessarily need to repeat itself - a potential recession would likely reduce certain demand-side pressures and alleviate some strain on the supply side. The resulting downswing in inflation and its ripple effects would also provide opportunities for macro strategies, which have great latitude to actively trade around shifts in the economic landscape.

Exhibit 5: Inflation has proved far from "transitory," reaching modern highs

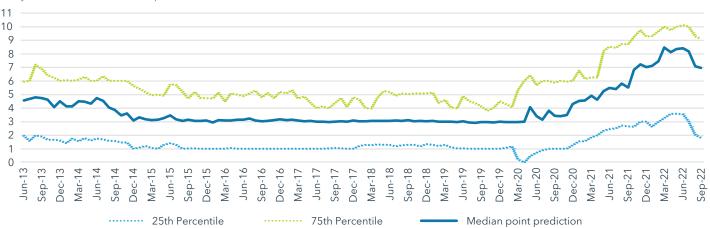
U.S. Consumer Price Index inflation, year-over-year (%)



Source: Federal Reserve Economic Data, as of October 19, 2022. All items Consumer Price Index inflation.

Exhibit 6: Consumers expect sustained high inflation over the coming year

One-year ahead inflation expectations (%)



Source: Survey of Consumer Expectations, Federal Reserve Bank of New York, as of October 19, 2022

GROWTH

What happened

- U.S. GDP growth was broadly robust following the sharp decline triggered by the COVID-19 pandemic in early 2020. More recent observations, however, point to an economic slowdown with GDP contracting mildly in the first two quarters of 2022 (See Exhibit 7).9
- While headline GDP data has turned lower, certain underlying measures of business activity have remained resilient. Consumer spending, which represents twothirds of the U.S. economy, has been supported by a strong labor market, with nonfarm payroll employment and total unemployment returning to pre-pandemic levels by June 2022. 10 Meanwhile, corporate earnings have continued to grow, albeit at a slower pace.¹¹

Outlook

Expectations for GDP growth have been repeatedly revised lower since the start of the year (See Exhibit 8), and the potential for an outright recession has increased as the Fed's tightening cycle continues at an aggressive pace. 12 While markets have already begun to discount this possibility, the downshift in economic activity is likely to further impact the pricing of risk assets, providing fertile ground for macro practitioners who can navigate through the slowdown.

Exhibit 7: GDP rebounded strongly in the wake of 2020's COVID shock, but...

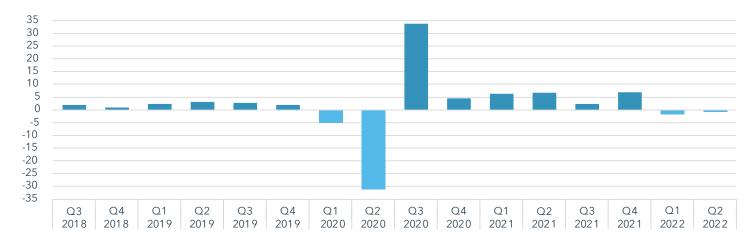




Source: TradingEconomics.com, as of October 19, 2022.

Exhibit 8: ...GDP expectations have been falling since the start of 2022

Consensus U.S. GDP growth projections over time (%)



Source: Bloomberg, as of September 30, 2022.

GEOPOLITICAL INSTABILITY

What happened

- Russia's invasion of Ukraine has created a level of geopolitical instability in OECD member countries unseen in recent decades (See Exhibit 9). The conflict has shaken up world markets.
- The most obvious market impact was in the energy space where Brent crude oil prices rose from around \$70/barrel at the start of December 2021 to briefly top \$120 in March 2022. Wheat and corn prices both key exports from Ukraine also surged in the wake of the invasion. These contributed to a spike of more than 40% in the Dow Jones Commodity Index from December 1, 2021, to its peak on March 8, 2022. Prices have since moderated as markets began to price in a potential economic slowdown, and many macro funds have been able to take advantage of these two-way moves in commodities.

Outlook

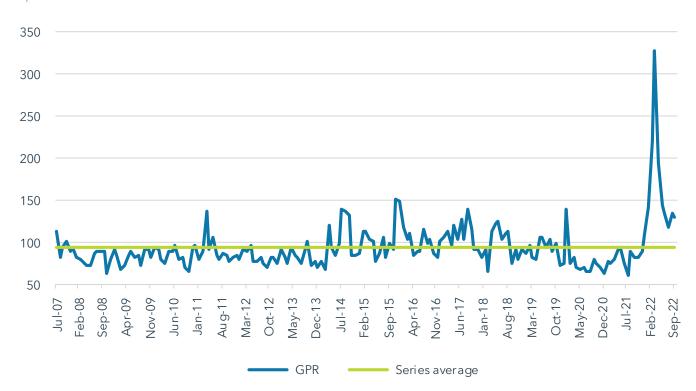
While geopolitical developments are impossible to predict with any certainty, BlackRock's Geopolitical Risk Indicator lists three risks as "high" likelihood for the months ahead: 15

- 1. Continued Russia-Ukraine/NATO conflict
- 2. Further decoupling between China and the United States
- 3. Escalating cyberattacks as the Ukraine conflict drags on

Markets are likely to remain relatively unsettled given this evolving and precarious geopolitical backdrop. Further economic disruptions - be they short-term imbalances or longer-term regime changes - may provide another wave of actionable trades for macro funds.

Exhibit 9: Geopolitical instability spiked to new highs on Russia's invasion of Ukraine





Source: Dario Caldara and Matteo Iacoviello, Geopolitical Risk Index, as of October 19, 2022. Index reflects automated text-search results of electronic archives of 10 newspapers, counting articles related to adverse geopolitical events as a share of total articles.

VOLATILITY

What happened

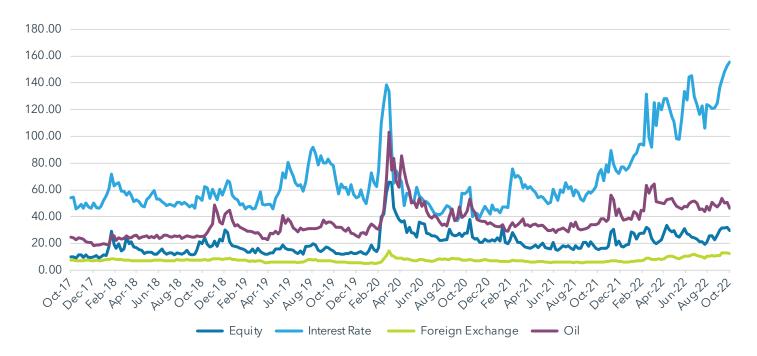
- Volatility across asset classes spiked during the initial disruption around the COVID-19 pandemic, before gradually returning to more normal levels as markets recovered (See Exhibit 10).¹⁶
- However, the trend in volatility has again been upward since late 2021. Surging inflation and the ensuing responses by global central banks have rippled across markets, causing repeated bouts of volatility across risk assets. This has contributed to a reset in equity and credit pricing, and greater dispersion of results across sectors and geographies.¹⁷ This uptick in volatility has also been seen in currencies as a "flight to quality" and varied monetary and fiscal policy responses have impacted the traditionally stable foreign exchange market. Finally, as highlighted earlier, commodity prices have experienced extreme short-term moves, swayed by shifting views on supply and demand imbalances. 18 This environment has provided a fertile opportunity set for macro managers to identify trends and exploit value after a period of more muted volatility.

Outlook

To a large extent, volatility is a consequence of the other macro drivers we have identified. Given our outlook for those other factors, it is reasonable to suggest that ongoing macroeconomic and geopolitical uncertainty should continue to create volatility across asset classes. Certain market measures of expected volatility support that assessment: the implied volatility curve for equities, for example, has shifted higher recently and looks to remain elevated over the next 18 months (See Exhibit 11).¹⁹

Exhibit 10: Volatility has risen steadily since mid-2021

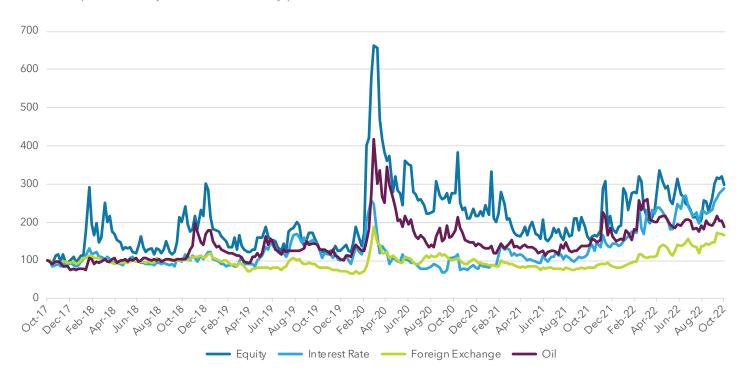
Volatility across asset classes



Source: Bloomberg, as of October 21, 2022. 100 = October 20, 2017. Fund-weighted aggregate returns from weekly data. Asset References: VIX Index, MOVE Index, CVIX Index, IVOLBRENT Index. For illustrative purposes only. Past performance is not indicative of future results.

Exhibit 11: Volatility curve has shifted higher in recent months

S&P 500 implied volatility (100% at the money price)



Source: Bloomberg, as of October 21, 2022.

CONCLUSION

Macro funds generally benefit from an environment of change and uncertainty, both shorter and longer term. Strategy returns are less dependent on the direction of major economic metrics, but rather a function of the fact that they have moved. Against this backdrop, macro practitioners who trade long and short across asset classes, sectors, and geographies have the flexibility to take advantage of an array of opportunities. As such, the ongoing uncertainty and potential shifts in the drivers of macro performance – as outlined here – would suggest the outlook for macro strategies remains attractive.

END NOTES

- Source: Yardeni Research, "Chronology of Fed's Quantitative Easing & Tightening."
- 2. Source: Bank for International Settlements, as of October 19, 2022.
- 3. Source: Bloomberg, as of October 19, 2022.
- 4. Source: Federal Reserve Economic Data, as of October 19, 2022.
- Source: S&P, "Index Dashboard: Dispersion, Volatility & Correlation," as of September 30, 2022.
- 6. Source: Federal Reserve Economic Data, as of September 21, 2022.
- Source: Yardeni Research, "Chronology of Fed's Quantitative Easing & Tightening."
- 8. Source: Federal Reserve Economic Data, as of October 19, 2022.

- 9. Source: TradingEconomics.com, as of October 19, 2022.
- 10. Source: U.S. Bureau of Labor Statistics, as of July 8, 2022.
- 11. Source: FactSet, as of October 14, 2022.
- 12. Source: Bloomberg, as of October 19, 2022.
- 13. Ibid.
- 14. Source: S&P Global, as of October 19, 2022.
- 15. Source: BlackRock, "Geopolitical Risk Dashboard," September 22, 2022.
- 16. Source: Bloomberg, as of October 19, 2022.
- 17. Ibid.
- 18. Source: Goldman Sachs, as of July 27, 2022.
- 19. Source: Bloomberg, as of July 25, 2022.

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