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Macro hedge fund primer: uncovering the unconstrained

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In summary

Macro funds typically take positions (either directional or relative value) in currencies, bonds, equities and commodities, based on fundamental and qualitative judgements. Investment decisions are usually based on a manager's top-down economic and political views, such as views on economic growth, interest rates, inflation, government policy, and geopolitics. Relative valuations of financial instruments within or between asset classes can also play a role in the investment process. In this article we explore macro trading and provide insights into the most common macro strategies. For each macro strategy, we provide a description and sample trades and consider how the strategy has historically performed in different markets.

Macro managers are inclined toward tactical risk-taking, favouring dynamic portfolio adjustments as situations change.

What are macro hedge funds?

Macro hedge funds focus on trading asset classes that are predominantly driven by macroeconomic factors, particularly fixed income and, to a lesser extent, currencies, and commodities. Macro funds tend to be less active in equities and credit, due to the significant impact of bottom-up factors on these asset classes. However, macro managers are often willing to express top-down views on equities and credit through aggregated securities, such as index futures and credit default swaps.

Macro managers are inclined toward tactical risk-taking, favouring dynamic portfolio adjustments as situations change. As such, practitioners place a high value on the liquidity of securities traded, resulting in a primary focus on developed markets, except for the subset of funds specialising in emerging markets. The strategy is also characterised by substantial use of derivative products—such as futures, options, and swaps—owing to the advanced state of derivative markets for primary macro asset classes. The appeal of derivatives extends to their embedded leverage and optionality.

Macro trades can be directional or relative value. While quantitative tools and analysis increasingly inform trades, risk-taking is discretionary. The time horizon of trades typically ranges from days to months. Trading over shorter time horizons has largely been ceded to quantitative funds, as macro managers struggled to compete over short time frames as quantitative strategies became more sophisticated in the 2010s.

Most common macro strategies

Macro funds can be categorised in various ways; however, the sub-strategy classifications used in this article align with those employed by Aurum's Hedge Fund Data Engine, as follows:

- global macro
- fixed income relative value
- macro emerging markets, and
- commodities.

Global macro funds are generalist macro funds, while the other three sub-categories specialise in trading particular markets, specifically fixed income, emerging markets, and commodities. Global macro is the largest sub-strategy, representing over half of assets within macro, according to Aurum's Hedge Fund Data Engine. The next largest strategy group is fixed income relative value, representing close to a quarter of assets, followed by macro emerging markets, representing around a fifth of assets, and commodities, the smallest sub-strategy by some way.

Aurum's Hedge Fund Data Engine also tracks the performance of quant macro/global asset allocation ("GAA") funds, however these are categorised as a sub-strategy within the quant master strategy. You can read more about quant macro/GAA in our recently-published [Quant hedge fund primer: demystifying quantitative strategies](#).

Risk return summary

	Global macro	Fixed income relative value	Macro emerging markets	Commodities
Typical assets traded	Fixed income, currencies, commodities; aggregated securities for equities and credit; related derivatives	Government bonds and related derivatives, such as fixed income futures, options, and swaps	Emerging market fixed income, currencies, and equities; commodities; ordered from most to least actively traded; related derivatives	Commodity derivatives, such as futures and options; material and energy equities; physical commodities; ordered from most to least actively traded
Directional or relative value bias	Combination between directional and relative value trades, with 'old school macro' favouring the former and 'new macro' favouring the latter	Relative value	Predominantly directional	Combination between directional and relative value trades
Long/short bias	None	None	Typically long-biased, particularly with respect to fixed income	None, with the exception of funds managed with a long bias or 'long or out' approach
Observed beta to traditional risk assets	Low (over medium term time horizons), with global macro funds often excelling during periods of market stress	Low	Medium to high	Low to medium (over medium term time horizons)
Historical volatility relative to other hedge fund strategies	Below average	Below average (among the lowest), although with some significant tail risks	Above average (among the highest)	Above average
Liquidity of underlying securities typically traded	High	High	Lower than global macro, particularly in global risk-off periods	Variable, dependent on the underlying commodity and specific contract traded, as well as the level of assets deployed
Typical leverage	Medium to high, dependent on the mix between directional and relative value trades	Very high	Low to medium	Low to medium, dependent on the mix between directional and relative value trades

Global macro

DESCRIPTION

Global macro funds have broad investment mandates to trade across asset classes, financial products, and geographies. The strategy is the least constrained among hedge fund strategies, with global macro managers essentially given the licence to invest in whatever opportunities they perceive as most compelling at any given time. The strategy has been described as the “007” of hedge fund strategies.

While the multiple degrees of freedom afforded to global macro managers result in a wide variety of investment styles, most global macro funds share certain key attributes. Firstly, as implicit in the name, investment decisions are typically based on top-down or ‘macro’ views, such as views on:

- economic growth
- interest rates
- inflation
- capital flows
- government policy, and
- geopolitics.

As a consequence, global macro funds tend to focus on trading fixed income and, to a lesser extent, currencies, as these asset classes are particularly sensitive to macroeconomic considerations. By contrast, macro managers trade single name equities and credit less frequently, as bottom-up or ‘micro’ company-specific factors tend to play a more dominant role in determining the outcome for these securities. Similarly, unless they are commodity specialists, managers do not tend to be particularly active in commodity markets. While commodity prices are impacted by macro considerations, they are also driven by idiosyncratic supply dynamics.

When engaging with equities or credit, macro managers tend to express views through aggregated or asset class-level securities, such as baskets of stocks, index exchange-traded funds (“ETFs”), index futures, and credit default swaps. Even then, managers can be wary of trading equities and credit, given the propensity of these asset classes towards exuberance and irrationality, so engagement is often from the short side.

Another common trait of global macro managers is a value and contrarian mindset, with the objective of performing well during periods of market stress and regime change. Practitioners tend to be tactical risk-takers, as opposed to longer-term investors, willing to make meaningful changes to portfolio positioning as circumstances evolve, particularly in the event of a deterioration in macro conditions or an exogenous shock.

As such, global macro managers prize liquidity in the securities traded, which is another reason why fixed income and currencies—the most liquid asset classes—are favoured over equities, credit, and commodities. The requirement for liquidity also results in a developed markets focus.

Another hallmark of the strategy is meaningful use of derivative products, given the objective of performing well during periods of market stress and rising volatility. The use of derivatives can also assist with the timing of trades, which is often a challenge for value/contrarian strategies. While the asymmetry offered by derivatives is desirable, managers need to be wary of the cost, as option premiums can accumulate and be a meaningful drag on performance, particularly in periods of elevated volatility. Derivatives contain embedded leverage, which is often desired, given that fixed income and, to a lesser extent, currency securities typically exhibit lower volatility than equities and commodities.

Lastly, while global macro managers tend to have a value bias and are often early in identifying emerging themes, they are also willing to ride themes as they converge towards their expectation of fair value. As such, the return profiles of global macro funds can exhibit meaningful correlation to momentum or trend-following strategies, which trade similar ‘macro’ products.

Global macro trading has evolved over the decades, which gives rise to a useful distinction between trading styles. The pioneers of the strategy in 1980s and 1990s were predominantly directional traders, utilising relatively simple products, i.e. primarily cash instruments and futures, to express directional views on markets. While positions were tactically traded, the investment horizon was medium term—a few weeks to a few months typically—and portfolios tended to be concentrated in just a few big ideas or themes at any given time. Funds consisted of just one dominant risk-taker. As such, return profiles were often ‘lumpy’, exhibiting outsized gains (or losses) in opportunity rich periods when risk was amply deployed, though more muted returns when

opportunities were less plentiful, or a manager was recovering from a drawdown. This style of global macro trading is described as ‘old school macro’ or ‘macro 1.0’.

The maturation of macro derivative markets gave rise to a new style of global macro trading in the early 2000s, ‘new macro’ or ‘macro 2.0’.

- The new breed of manager favoured relative value trading, often utilising more complex derivative products, such as options, swaps, repurchase agreements, and exotic options, to express views through ‘structured’ trades.
- Managers tended to be active traders, investing over shorter time horizons—days to weeks typically, and portfolios were more diversified across several smaller positions. To borrow an analogy from baseball, while old school macro managers were willing to bide their time for the occasional ‘fat pitch’, new macro managers were willing to target more regular ‘singles’ and ‘doubles’.
- The emergence of trading platforms, consisting of several underlying portfolio managers (often with particular areas of expertise), further diversified risk and contrasted with the ‘key man’ style of ‘macro 1.0’.
- Return profiles, though perhaps lacking the upside potential of old school macro, were more consistent and ‘all weather’. This became particularly apparent during the zero interest rates policy environment of the 2010s, when ‘macro 1.0’ struggled and ‘macro 2.0’ really rose to prominence.

Relative value macro strategies, however, tend to be more capacity-constrained than directional strategies and returns can erode if managers are not disciplined in managing capacity. In addition, relative value strategies typically utilise more complex trade structures and higher levels of leverage, so enhanced scrutiny of risk and risk management processes is often required. While the distinction between old school and new macro is somewhat false, as most contemporary managers incorporate elements of both trading styles, managers typically favour one style over the other.

SAMPLE TRADE

At a high level, global macro managers seek to exploit:

- market imbalances or inefficiencies, whether at the macro level, as asset prices improperly discount macro realities, or at the micro level, due to inconsistent pricing between similar securities.
- patterns or trends.
- inflection points.
- thematic opportunities, such as secular trends or policy shifts.

Examples of directional trades include ‘risk off’ trades during the early stages of the pandemic in 2020, such as long government bonds, long the US dollar, long precious metals, long volatility, short equities, and short crude oil.

Examples of relative value trades are yield curve steepening and flattening trades, which involve going long and short bonds of different maturities on the same yield curve in the expectation that the shape of the curve will change. Yield curve flattening worked well during 2022 as yield curves flattened (indeed inverted) on the expectation of steep rises in interest rates to address surging inflation.

PERFORMANCE IN DIFFERENT MARKETS

Global macro funds are flexible by design and have the potential to generate gains in most market environments. However, the degree to which funds are able to adapt to different market regimes varies, based largely on the willingness, or otherwise, of the manager to explore new strategies and expand the skill set of the investment team.

This said, certain environments have been more conducive to global macro trading than others. Global macro funds tend to perform well in periods of market distress or regime change because macroeconomic factors come to the fore and market volatility rises, increasing both the frequency and magnitude of trading opportunities. Examples of such periods include the Global Financial Crisis (“GFC”) of 2008, monetary policy change in Japan during 2013 (“Abenomics”), the pandemic during 2020, and the surge in inflation during 2022. Global macro funds, however, are not immune from the effects of unexpected changes in policy or market

shocks and can also be caught off guard. Examples include the “Taper Tantrum” of May 2013 and the failure of Silicon Valley Bank in March 2023.

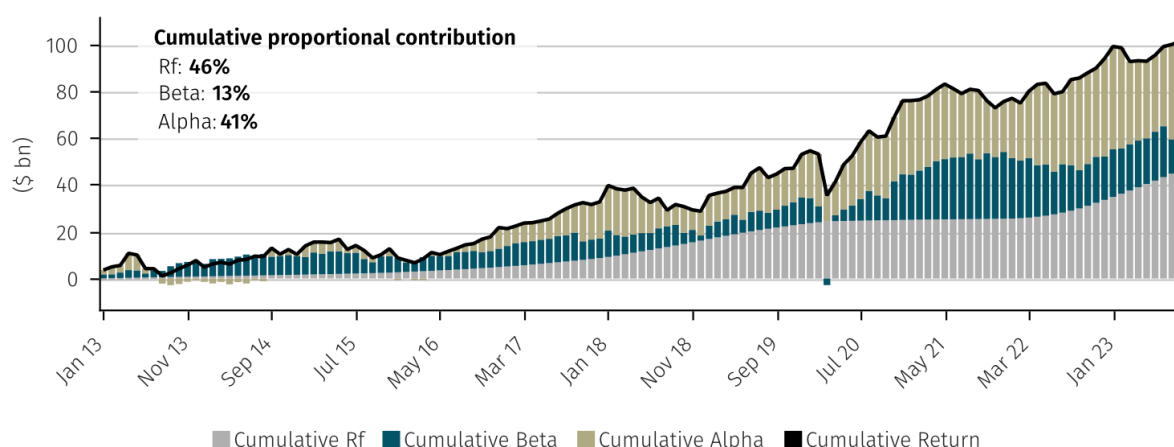
By contrast, macro funds have found benign and predictable market environments more challenging because macroeconomic factors are less relevant in such periods and market volatility is subdued. Such environments are often characterised by low interest rates. In addition to encouraging risk-taking and suppressing volatility, low interest rates also deny macro funds of the yield typically associated with high cash levels, given the predominant use of derivative securities in trade expression. The quantitative easing and forward guidance policy period during the years following the GFC is a classic example of an environment that was less favourable for macro trading.

RISK/RETURN PROFILE

Risk and return expectations vary quite widely across global macro funds. ‘Old school’ macro funds typically target higher returns, though are willing to accept greater risk and therefore susceptible to higher volatility and larger drawdowns. While such funds may generate higher returns, the quality of returns—as defined by risk-adjusted return measures such as Sharpe ratio—may be lacking. By contrast, ‘macro 2.0’ places greater emphasis on the quality of returns, willing to sacrifice some upside potential for a smoother journey.

While global macro funds can be directional at times and exhibit material exposure to asset classes of interest over medium time horizons, they do not tend to be structurally long or short any particular asset class. As such, over full market cycles, returns of global macro funds tend to exhibit a material proportion of returns attributable to alpha, while beta to key market factors tends to be low.

MACRO STRATEGY DECOMPOSING DOLLAR PERFORMANCE INTO ALPHA, BETA AND RISK FREE (RF) COMPONENTS

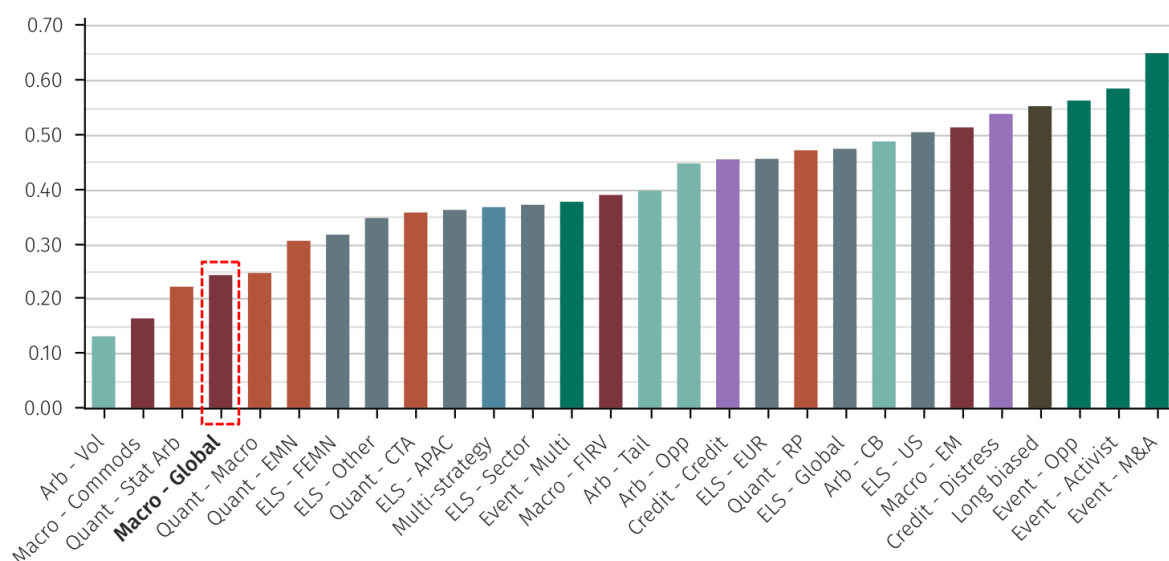


Source: Aurum Hedge Fund Data Engine, Bloomberg

Moreover, global macro funds have excelled during periods of market stress and elevated volatility, environments which tend to be challenging for traditional asset classes and some hedge fund strategies. As such, the return profiles of global macro funds have exhibited long volatility or tail risk qualities, making global macro funds commonly sought-after additions to portfolios for diversification purposes.

As a result of the broad investment mandate and ability to invest across multiple asset classes, the global macro peer group exhibits a high degree of heterogeneity, with intra-strategy correlations among the lowest relative to other hedge fund strategies (see figure below). As such, hedge fund allocators have the potential to add significant value through manager selection.

AVERAGE INTRA-STRATEGY CORRELATION (5 YR)¹ – SUB-STRATEGY



Source: Aurum Hedge Fund Data Engine, data to 30 September 2023. ¹ Equally weighted returns

Fixed income relative value (“FIRV”)

DESCRIPTION

FIRV funds seek to capitalise on pricing discrepancies within fixed income markets. FIRV managers take simultaneous long and short positions in related or similar fixed income securities to construct a portfolio that is close to market neutral in terms of sensitivity to changes in interest rates. Primary products traded are government bonds and related derivatives, such as fixed income futures, options, and swaps. The size of the discrepancies that FIRV managers seek to exploit are often very small, such as a few basis points. As a consequence, FIRV funds typically utilise meaningful levels of leverage (the highest among hedge fund strategies), which is a hallmark of the strategy.

Distortions in the pricing of related fixed income securities may arise from a multitude of factors, including:

- market events
- investor preferences
- supply and demand imbalances
- liquidity premiums
- credit concerns in the banking sector, and
- structural features of fixed income markets.

Given the need for liquidity and mature derivative markets, FIRV funds typically focus on the largest developed markets. However, some funds are willing to trade in smaller developed markets, as well as more liquid emerging markets.

While risk-taking is ultimately discretionary, relying on the judgement of experienced portfolio managers, FIRV funds typically employ sophisticated quantitative tools and systems to screen for potential trading opportunities across a large universe of tradable securities. In addition, funds tend to utilise advanced systems to model portfolio risk, given the complexity of the instruments traded and the meaningful leverage employed.

FIRV trading was historically dominated by proprietary trading desks at investment banks. However, since the Volcker Rule came into effect in 2015, restricting the proprietary trading activity at banks, this strategy is predominantly employed by hedge funds now. This said, given high barriers to entry, there are relatively few standalone FIRV funds, with the majority of FIRV trading taking place within more diversified global macro funds and, to an even greater extent, multi-strategy funds. Key barriers to entry relate to:

- The availability of appropriately skilled investment professionals, as the highly technical nature of the strategy requires specialist knowledge and significant experience;
- Access to finance, given the trading of cash securities (alongside derivatives) with high levels of leverage; and
- Sophisticated risk and trading systems.

Large, well-resourced multi-strategy funds typically exhibit a competitive edge on all of these fronts, able to attract the most sought-after professionals and fund investment in best-in-class trading and risk infrastructure. They can also access the most favourable financing terms, given the size of their balance sheets and the importance of their trading relationships with the prime brokers and ISDA counterparties.

FIRV funds can consist of a single portfolio manager, though more often than not comprise of several independent, though perhaps collaborating, traders, typically with particular areas of focus.

SAMPLE TRADE

At a high level, FIRV trades tend to involve positioning for a normalisation in divergent pricing between:

- different types of fixed income securities with the same maturity, i.e. at the same point of a yield curve (such as on-the-run versus off-the-run Treasury bonds), or
- the same type of securities at slightly different points on the yield curve (positioning for the ‘ironing out’ of ‘kinks’ in the shape of the curve).

A classic example of the former is ‘cash versus futures basis trading’, which is a staple trade for FIRV. Cash/futures basis trading involves going long a bond future and short the bond that is deliverable into the

bond future, or vice versa, in order to take advantage of a spread in pricing, the 'basis', between the closely-related securities. Such trades represent arbitrage opportunities, as any basis remaining by the date of expiry of futures contracts can be monetised at that time. Funds may be long or short the basis at different points on a yield curve, as bases may trade rich or cheap at different points at different times for various technical reasons.

The 'micro RV' trades described above typically account for the majority of trades for FIRV funds. However, FIRV managers also engage in 'macro RV' trades that are common among 'macro 2.0' managers, such as yield curve steepening and flattening trades and swap spread trades (FIRV can be viewed as a specialised extension of new macro). While the distinction between micro and macro RV trades is not clearly defined, it ultimately relates to the similarity, or otherwise, of the securities on either side of trades. Micro RV trades tend to require a high degree of leverage or run with a very high degree of notional risk in order to capitalise on small pricing anomalies. Macro RV trade typically require less leverage or use of balance sheet and involve larger pricing inconsistencies between correlated instruments.

PERFORMANCE IN DIFFERENT MARKETS

Periods of higher interest rates and medium to high levels of rates volatility have been conducive to generating returns because payouts on trades tend to be larger and the frequency of tradable opportunities tends to be higher. By contrast, low interest rates and low rates volatility have been headwinds to return generation. For example, the 2004 to 2007 and 2018 to 2023 periods, when interest rates were rising and/or rates volatility was elevated, were fruitful for the strategy. Conversely, returns for the strategy were more muted during the post-GFC 2011 to 2018 period, when interest rates were low and rates volatility was suppressed.

As a mean reversion or convergence strategy, FIRV can be challenged by exogenous market shocks, banking/financing crises, or unexpected changes in monetary policy. Such events can overwhelm normal trading relationships, resulting in spreads staying wider for longer than usual. A key risk for FIRV funds is being forced out of trades prematurely at inopportune times due to financing or liquidity stress, which is why access to secure stable financing arrangements is so important. Examples of such stressed periods were March 2008 (the collapse of Bear Stearns), October 2008 (the GFC), June 2013 (the Taper Tantrum), March 2020 (the pandemic), and October 2021 (the start of the post-pandemic rate hiking cycle).

Some of the most successful FIRV funds with long track records exhibit some or all of the following characteristics:

- Stable capital and fund liquidity terms that protect the integrity of the portfolio by ensuring that funds are not forced to liquidate positions during times of stress.
- Exceptionally strong financing relationships (some FIRV and multi-strategy funds trading the strategy not only have well-resourced dedicated Treasury and cash management teams, but also have established agreements with dozens of ISDA counterparties).
- Significant co-investment, which further strengthens the capital base and ability to secure financing.
- Diversification provided by other strategies, such as tail-protection and directional macro strategies, which can mitigate potential negative mark-to-market P&L from the 'core' FIRV convergence book.

RISK/RETURN PROFILE

The structured nature of trades has resulted in relatively steady, albeit modest, returns for FIRV funds. While return targets may be more conservative than global macro funds, returns tend to exhibit lower volatility and less severe drawdowns, resulting in better risk-adjusted performance. Sharpe ratios in excess of one are not uncommon over full market cycles. Returns typically exhibit low correlation to traditional risk assets, as well as other hedge fund strategies, with the exception of global macro and multi-strategy, given the frequent inclusion of FIRV trading as a sub-component within these strategies. As such, FIRV funds can be attractive diversifiers to portfolios.

This said, FIRV is a predominantly mean reversion or convergence strategy that employs meaningful leverage, so the risk of a 'blow up' is arguably higher. The analogy of 'picking up pennies in front of a steamroller', referencing strategies which offer small premiums but with the risk of exorbitant losses if a negative tail event occurs, is sometimes applied to FIRV. The collapse of fixed income arbitrageur Long-Term Capital Management in 1998 is probably the highest-profile historical example of what can happen when things go wrong.

Macro emerging markets

DESCRIPTION

Macro emerging markets funds are global macro funds that focus on investing in emerging, as opposed to developed, markets. As such, macro emerging markets funds share some characteristics with global macro funds, particularly 'old school' macro funds, such as a top-down, primarily directional macroeconomic approach to investing and a focus on trading sovereign bonds and currencies.

However, the distinct nature of emerging markets results in some important differences between macro emerging markets and global macro funds. Emerging economies are significantly smaller than developed counterparts, resulting in capital markets that are less liquid and less developed in terms of the availability of derivative products. Shorting cash bonds in emerging markets may also be operationally challenging and often undesirable, given the large negative carry associated with the typically higher interest rates prevalent in these markets. As a consequence:

- Relative to global macro funds, the approach of macro emerging markets funds is typically longer-term and more directional. More specifically, macro emerging markets funds tend to be long-biased, at least with respect to sovereign bonds (shorting of currencies and equities is more straightforward).
- Macro emerging markets funds typically lack the tactical and contrarian qualities of global macro funds, resulting in return profiles deficient in the long volatility or tail risk features of many global macro funds. Indeed, macro emerging markets funds' return profiles often exhibit short volatility characteristics and funds have historically been vulnerable to sell-offs in global risk assets.

A primary appeal of investing in emerging markets is a broader opportunity set compared with developed markets. While global macro managers typically limit themselves to investing in just a handful of heavily-scrutinised developed markets, macro emerging markets managers can invest across a broad range of less-followed and distinct emerging economies. In addition, emerging markets tend to be less economically diversified than developed market peers and more sensitive to macro influences, whether internal—such as domestic policy—or external—such as commodity prices and the actions of the US Federal Reserve. As such, emerging market economic cycles are typically shorter and more pronounced, giving rise to a higher frequency of tradable opportunities and larger market moves. In short, there tends to be a lot happening in emerging markets.

While investment opportunities within emerging markets may be plentiful, the risks are higher. A less appealing consequence of the greater sensitivity to macro influences is greater vulnerability in the event of a crisis. Emerging market assets tend to be overly punished in global risk-off periods, as international investor de-risking and a 'flight to quality' can cause liquidity to become significantly impaired. As such, in addition to deep knowledge of local markets, a good understanding of the global landscape is very important. Successful managers have typically experienced multiple investment cycles and, through prudent risk-taking, demonstrated the ability to capture upside opportunities while containing downside risks.

Principal asset classes of expression are fixed income, currencies, equities, and commodities, ordered from most to least actively traded. Within fixed income, managers trade sovereign bonds, as well as quasi-sovereign bonds, i.e. the bonds of state-owned enterprises. Most managers will not engage with corporate credit, due to the lack of liquidity in emerging market credit markets. Fixed income exposure typically comprises of cash bonds, though managers may utilise derivatives, such as swaps, where such products are available and sufficiently liquid.

Within sovereign debt, managers tend to favour hard currency bonds over local currency bonds, due to the volatility of emerging market currencies and greater comfort with respect to legal recourse in the event of default. Local currency bonds, by contrast, offer lower default risk (the central bank of the issuing country controls the country's money supply so can print currency in order to meet repayment obligations), although have greater currency risk.

Macro emerging markets funds are typically active in major emerging economies within South America, Eastern Europe, Africa, the Middle East, and Asia. Some managers are generalists, investing across the spectrum of emerging markets, while others focus on particular regions. Funds can consist of a single portfolio manager or several risk-takers, typically with particular areas of expertise.

Developed markets exposure is also taken, though such exposure tends to stem from emerging market themes or the desire to hedge the core emerging markets book, particularly when the risk seeking to be hedged derives from developed economies. Developed markets exposure is also typically implicit in currency trades, as views on emerging market currencies tend to be expressed against developed market currencies, particularly the US dollar.

SAMPLE TRADE

At a high level, macro emerging markets managers seek favourable and unfavourable economic opportunities among emerging economies, particularly situations that are considered misunderstood by other market participants. The optimal expression of views, whether through bonds, currencies, or equities, is also carefully considered. Managers may be willing to invest in distressed or other less liquid situations, if the risk/reward is deemed justified.

A flavour of trades macro emerging markets funds have engaged with at different times during recent years is as follows:

- Long Brazilian fixed income, through receiver swaps, and, to a lesser extent, long Brazilian equities, through an index product, based on an anti-consensus view that interest rates would remain lower for longer due to high unemployment, low inflation, and market-friendly policies.
- Long Argentinian bonds due to attractive pricing related to market disillusionment, confidence in the President to enact much-needed reforms, and a large loan from the International Monetary Fund.
- Long Egyptian T-bills based on high carry and authorities delivering on reform pledges.
- Long the Mexican peso, given geopolitical tensions between the US and China and the trend of 'nearshoring'.
- Short the Turkish lira due to the potential for a twin currency and credit crisis, amid a consolidation of political power and loose monetary policies.
- Long Puerto Rican fixed bonds following Hurricane Maria's devastation of the island. This is an example of a distressed trade, as Puerto Rican general obligation bonds traded down to close to 20 cents on the dollar. very short-term signals driven by market microstructure anomalies and patterns.

PERFORMANCE IN DIFFERENT MARKETS

Macro emerging markets funds usually favour benign market environments because deep fundamental analysis of emerging economies tends to be rewarded in such circumstances. By contrast, the strategy typically struggles in periods of volatility and macro uncertainty because global events can overwhelm local markets. Market shocks and crises can be particularly challenging, as emerging markets tend to experience deeper drawdowns than developed markets in risk-off periods. Examples include the GFC in 2008, the pandemic in March 2020, and the Russian invasion of Ukraine in the first quarter of 2022.

Some macro emerging markets funds carry concentrated exposures to particular themes, leaving them vulnerable in the event of market shocks, which tend to occur more frequently in emerging markets. For example, multiple hedge funds have suffered significant losses trading Argentinian sovereign bonds over the years, a country that has experienced several debt defaults.

RISK/RETURN PROFILE

While there are exceptions, macro emerging markets funds may be seen as relatively high risk, high reward funds (although, admittedly, funds have arguably exhibited more risk than reward in recent years, as emerging markets have struggled). Macro emerging markets managers tend to target returns at the upper end of the range for macro funds. However, managers are willing to accept higher volatility, larger drawdowns, and more meaningful exposure to risk assets in the pursuit of returns, resulting in less flattering Sharpe ratios at times. Returns tend to exhibit meaningful beta to emerging market fixed income and, to a lesser extent, emerging market equities, however, managers can add a thick layer of alpha on top of the market component of returns.

Commodities

DESCRIPTION

Commodities funds are funds that focus on trading commodities, such as crude oil, metal, and agricultural products and their related financial instruments. Some funds have the ability to trade physical commodities, however, most managers focus on trading liquid derivative contracts, such as futures and options. The equity securities of companies linked to materials and energy are traded on occasion. Currency and fixed income products may also be utilised, though typically only for hedging purposes or to access a theme that is expected to be highly correlated to commodities.

While commodities funds often employ sophisticated quantitative models for trade idea generation, the strategy is overwhelmingly discretionary in nature, with a portfolio manager ultimately deciding what risk to deploy. As such, commodity funds should not be confused with commodity trading advisors (“CTA”) funds, which are systematic funds and, despite their name, trade futures contracts across a range of liquid assets classes, not just commodities. There are a small number of CTA and quantitative funds that focus on the commodity space.

Most commodities funds have not exhibited a structural directional bias, with managers comfortable running long or short different commodities, as well as net long or short at the overall portfolio level. However, some funds are managed with a long bias or adopt a ‘long or out’ approach. With respect to Aurum’s proprietary Hedge Fund Data Engine, funds which have exhibited a structurally long bias are not included within the commodities sub-strategy grouping, but rather are included within a separate long biased—commodities category.

The commodities traded are typically grouped into three main categories: energy, metals, and agricultural commodities.

- Energy, the largest and most liquid commodity market, spans crude oil and its distillates, natural gas, and power.
- Metals can be divided into base and precious. Base metals include copper, aluminium, zinc, and nickel and have become increasingly important, given the drive towards renewable power generation. Precious metals comprise gold, silver, platinum, and palladium.
- Agricultural commodities can be divided into grains, softs, and livestock. The main grains are wheat, corn, and soybeans, while cocoa, coffee, sugar, cotton, and rubber are the main softs. Funds do not tend to be active in livestock markets, due to the lower liquidity of derivative contracts.

Commodity funds typically trade on the large commodity derivatives exchanges in the US and Europe, such as the Chicago Mercantile Exchange and the London Metal Exchange. Some funds have started to trade on the commodity exchanges in Shanghai, though activity in China is largely limited to the minority of funds able to take physical delivery of commodities and can engage in geographic arbitrage trades.

Some funds are generalists, trading across the range of commodities, while others are specialists, focusing on one of the three main commodity groups, i.e. energy, metals, or agriculture.

- Generalists enjoy a broader opportunity set compared with specialists, able to deploy capital to the most exciting areas at any given time. Generalist funds are also more scalable than specialists, who tend to be more constrained in the amount of capital that they can successfully manage, particularly if focusing on smaller markets, such as agricultural commodities.
- Specialists, however, typically benefit from a deeper knowledge of their area of focus and so may be better able to monetise opportunities within markets traded.

Commodity funds have traditionally consisted of a single portfolio manager. However, commodity trading platforms, comprising multiple risk-takers, typically with particular areas of focus, have become more popular in recent years, especially among multi-strategy platforms.

On a standalone basis, the strategy is relatively niche among hedge fund strategies, representing just a small proportion of hedge fund industry assets and, as noted, the smallest sub-strategy within the wider macro strategy by some way. However, the strategy is a meaningful allocation within some multi-strategy funds, particularly some large, established platforms that have built substantial commodity trading operations and experienced meaningful success, particularly from trading within energy markets, which have significant capacity.

A primary appeal of speculation within commodity markets is the nature of market participants. Commodity futures markets are often dominated by the hedging activities of 'real world' actors, such as commodity producers and consumers, creating opportunities for speculators willing to take the other side. Another significant player within commodity markets are large tracker products, such as commodity ETFs, that have set renewal, or 'roll', schedules for futures contracts, creating opportunities for speculators able to trade around these passive flows.

This said, the risks within commodities should not be understated. Commodities are among the highest volatility assets within major asset classes. The prices of futures contracts, particularly those at the front-end of commodity curves, can be highly sensitive to short-term supply and demand imbalances. Lacking depth, some commodity markets are also susceptible to crowded market positioning, particularly given the growth of trend-following CTA strategies.

Commodities funds engage in both directional and relative value trading. The most common types of relative value trades are curve trades and cross commodity trades.

- Curve trades, also known as calendar spread trades, express views on the relative pricing of futures contracts with different maturities (e.g. one month versus three months) on the same commodity. These trades involve offsetting long and short positions at different points on a commodity futures curve.
- Cross commodity trades involve offsetting long and short positions in two closely-related commodities, such as corn and soybeans or platinum and palladium. Substitution effects play an important role in cross commodity trades. Certain commonly-traded spreads have developed creative monikers:
 - the spread between the prices of crude oil and its refined products, such as petroleum, is known as the crack spread
 - the spread between coal and power is known as the dark spread, and
 - the spread between natural gas and power is known as the spark spread.

Relative value trades are not necessarily lower risk than directional trades. Relative value spreads can exhibit meaningful volatility, such as the infamous 'widow maker' trade within natural gas involving the spread between March and April futures contracts. In addition, relative trades often possess an implicit directional bias, particularly curve trades, as short-dated contracts tend to be more volatile than contracts further out the curve. Furthermore, relative value trades may be put on with significant leverage.

Commodity funds typically utilise a combination of directional and relative value trades, though managers will often favour one style of trading over the other.

Key alpha drivers

- Macro trends: understanding of global economic drivers of commodity price formation, such as supply and demand imbalances, geopolitical events, and monetary policies, can provide an edge in monetising directional and relative value trading opportunities.
- Technical analysis: identification of shorter-term price patterns and trends, often supported by quantitative analysis and a deep understanding of commodity-specific market dynamics.
- Arbitrage: profiting from pricing differentials in different commodity markets, with inefficiencies typically linked to geographic, flow, or timing aspects.
- Fundamental research: deep expertise in particular commodity markets can give rise to opportunities to exploit phenomena such as seasonality, production cycles, and inventory levels.

Key risks

- Leverage: use of borrowed capital can amplify potential losses.
- Liquidity: lack of ability to quickly close positions in adverse markets. Some less actively traded commodities can become highly illiquid and even 'liquid' commodities can experience liquidity issues at particular points on the curve.
- Regulatory: changes in market laws can impact commodities trading.
- Roll yield: in futures markets, the cost of rolling contracts can, on occasion, materially erode profits.
- Contango and backwardation: the shape of the futures curve can also significantly impact returns.

- Geopolitical: some commodities are concentrated in politically unstable regions and a material event can cause multiple standard deviation moves in related prices.
- Protectionism: some commodities are politicised and subject to protectionist measures and retaliatory tariffs.

SAMPLE TRADE

Proprietary supply and demand models are commonly used to generate trade ideas. A broad range of fundamental data feeds models, including OPEC crude oil production limits, sanctions on commodity producing countries, oil and gas rig counts (and similar activity measures for other commodities), weather expectations for agriculture-producing regions, and macroeconomic data for key commodity-consuming economies. In addition, technical and market positioning data is considered.

In former years, insight into flows within physical commodity trading markets was considered an advantage for derivatives traders. Several of the large commodity trading companies launched their own hedge funds. In recent years, however, the growth of 'big data' and the amount of publicly-available data on commodities has rendered this advantage largely redundant. Nowadays, managers focus on sourcing a broad range of relevant data, cleaning the data where necessary, and packaging it together into something useful. It is not uncommon for data scientists to be an integral part of commodity investment teams.

As described above, the most common types of trades are directional, curve, and cross commodity. Trades between commodities sourced from different regions or between similar contracts trading on different exchanges, such as West Texas Intermediate and Brent crude oil contracts, are other common relative value trades. Managers may also be willing to engage in trades involving equities, such as long a nickel miner and short nickel. The time horizon of trades can vary significantly, though typically ranges from a few days to a few months.

PERFORMANCE IN DIFFERENT MARKETS

As noted, the nature of market participants within commodity markets often results in repeatable trading opportunities for commodity speculators. As such, commodities funds have the potential to generate positive performance in most market environments. This said, certain environments are typically more favourable than others.

Trending commodity markets, whether upwardly or downwardly trending, tend to be conducive to the generation of strategy returns. For example, commodities funds generally performed well during the 2003 to 2007 emerging markets-led rally, the 2009 to 2010 Chinese commodity boom, and the April 2020 to December 2022 post-pandemic shock rally. Commodities funds also performed well during the March and April 2020 pandemic shock sell-off, while held their own during the July to December 2008 GFC-induced crash.

By contrast, commodity funds typically find choppy sideways markets challenging, such as the 2011 to 2019 period, which was a sustained period of underperformance for the strategy.

The impact of large macro shocks on commodities funds can be difficult to predict. On the one hand, such events can challenge relative value trades, as correlations spike and usual relationships may be overwhelmed. On the other hand, crises can reinforce or establish new trends that provide fruitful directional trading opportunities.

Lastly, given trades are typically expressed through derivatives, commodities funds are typically very efficient from a cash perspective and so benefit from higher interest rates.

RISK/RETURN PROFILE

Given the volatility of the underlying asset class, commodities managers are typically willing to tolerate higher volatility, while targeting higher returns. Returns can be high in some cases, however, the net effect may be a Sharpe ratio that is less than one for the average fund.

This said, the broad range of commodities traded and trade structures utilised result in a variety of trading styles and a spectrum of risk/return profiles. Some funds are able to contain the volatility of returns and achieve Sharpe ratios in excess of one. The traditional reputation of commodities managers as 'cowboys' is rather dated. Such old school funds do still exist, however, similar to the evolution of global macro, a new

breed of commodities funds has emerged with a greater focus on tactical relative value trading, diversification, and risk management.

Given the directionality of the strategy, exposure to specific and broad commodity indices can be elevated at times, though can also be negative when funds capitalise on downward trends. Over full market cycles, exposure to relevant benchmarks has tended to be positive, though contained. However, the presence of some long-biased funds likely skews results. Similarly, long-run exposure to other major asset classes has been slightly positive.

With respect to other hedge fund strategies, with the understandable exception of global macro and CTAs, the strategy typically exhibits low correlations to other strategies.

KEY DUE DILIGENCE CONSIDERATIONS

- Expertise: verification of the portfolio manager's domain expertise/specific skillset relating to the commodity or commodities traded.
- Strategy validation: deep dive into the factors that drive the strategy's alpha and how the strategy adapts to varying market conditions, curve shapes (e.g. contango versus backwardation), and volatility regimes.
- Counterparty risk: particularly relevant, given the use of derivatives in commodities trading. For funds that trade physical commodities, a clear understanding of how commodities are transported, where they are stored, and how quality is verified is critical.
- Operational resilience: operational strength is particularly important, given the global nature of commodity markets and many commodities are traded 24 hours a day. Does the manager have an appropriate level of infrastructure, qualified operational staff, risk systems, and notification processes in place to support the strategy?
- Regulatory compliance: commodity markets have some unique regulations, so it is important to understand their impact on the trading strategy.

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