



The Quant Corner

November 2008

Global Macro strategies

Fundamental expertise and quantitative modeling

What is a Global Macro Hedge Fund?

Global Macro hedge funds have **the widest mandate of all hedge fund strategies**, as managers take positions in any market, currency or instrument. It is the least constrained and most flexible of all Hedge Fund strategies.

The word “**Macro**” refers to the hedge fund manager’s attempts to identify mispriced assets, based on macroeconomic analysis. The word “**Global**” refers to the ability to find such opportunities worldwide.

Hence, Global Macro managers are able to invest dynamically across a **broad range of trading instruments and sectors**, moving frequently from an opportunity to another when expecting a shift in the economic or political situation.

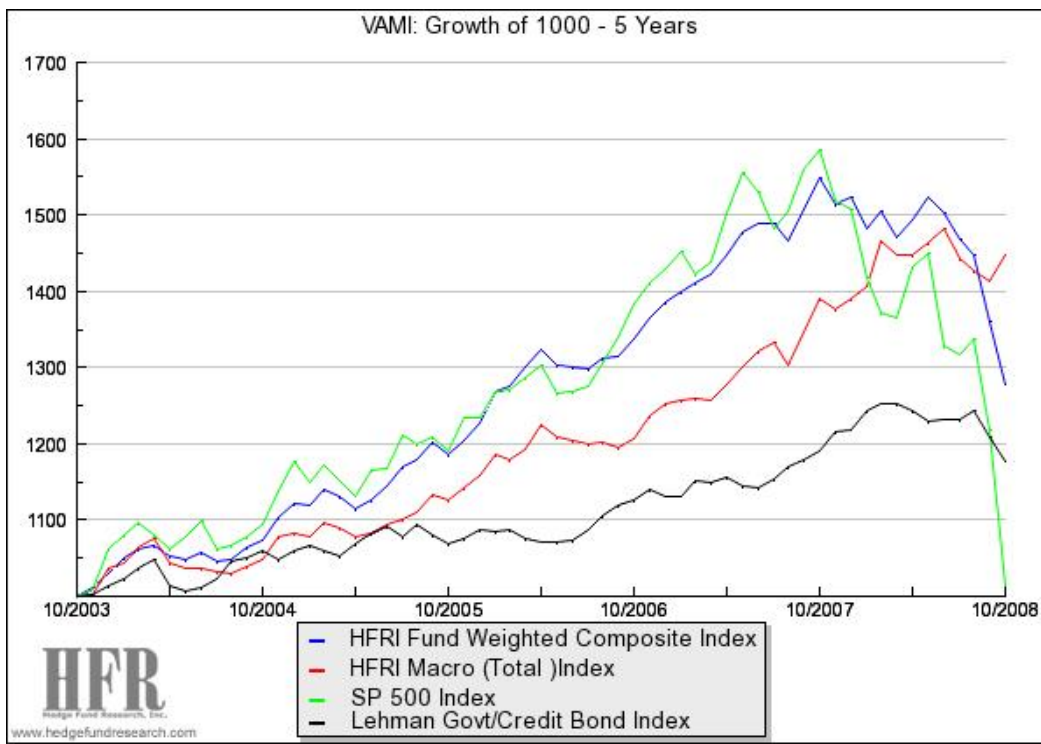
Some history

In the 90’s, the Global Macro strategy was the most popular hedge fund strategy worldwide, accounting for about 70% of hedge funds by assets under management. Today, the global macro strategy represents **less than 20% of all hedge fund assets**.

One of the most famous global macro strategies is a relative value (see below for the definition) trade designed by **George Soros**, also known as “**the man who broke the Bank of England**”. George Soros bet that the UK would be forced out of the European Exchange Rate Mechanism (ERM) in 1992. He borrowed sterling pounds and converted them into a mixture of Deutschmarks and French francs. On September 16th 1992 (Black Wednesday), Soros’ bet paid off when the pound reached its lowest level.

More recently, Global Macro strategies have managed to weather recent market turmoils better than most of the others, as illustrated in the chart below. This chart shows that the **HFRI¹ Macro Index** (red) did not suffer large drawdowns in the past weeks as opposed to the equity market (green) and hedge funds in general (blue).

¹ The [HFRI Monthly Indices \(“HFRI”\)](#) are a series of benchmarks designed to reflect hedge fund industry performance by constructing equally weighted composites of constituent funds, as reported by the hedge fund managers listed within HFR Database. The HFRI Macro Index reflects the performances of Global Macro hedge funds.



HFR indices vs. Market indices from October 2003 to October 2008 (source: HFR)

How do global macro managers take advantage of market opportunities?

There is a **great diversity** in the underlying strategies of Global Macro managers.

Global Macro managers' profits are typically derived from correctly anticipated price trends and spread moves across markets. Generally, global macro managers are more **value-oriented** but can also take outright *directional* positions, depending on their own expertise.

Some managers decide their trades based on their subjective opinion of market conditions, while others will use quantitative rules. Trading methods used by Global Macro managers can be classified into two main approaches:

- **the discretionary approach**, meaning trading decisions are based on managers' subjective opinions of market conditions;
- **the systematic approach**, meaning trading decisions are based on a quantitative model.

But other managers use **a combination of both methods**. However, all global macro managers are linked by the international scope of their strategies, the use of leverage and a primary focus on structural macroeconomic trends.

In either approach (discretionary or systematic), Global Macro strategies fall under two categories:

- **directional**: the manager bets on discrete price shifts with long or short positions.
- **relative value**: the manager pairs a long and a short position in similar assets to take advantage of a relative mis-pricing.



Advantages and drawbacks of Global Macro strategies

Advantages	Drawbacks
<p>Flexibility Global Macro traders have more flexibility than most other hedge fund managers to benefit from investment opportunities.</p> <p>Lower correlation during “crisis periods” In the past, as shown in the chart above, global macro strategies have managed to “protect” capital better than most strategies during distressed periods in the global markets.</p> <p>Wide range of opportunities Imbalances in global markets offer good opportunities.</p> <p>Talented managers Global Macro managers primarily focus on fundamental analysis which requires good manager skills.</p>	<p>Disparity of returns The risk of selecting the wrong fund is to be considered. Indeed, the use of leverage on directional bets, which are not hedged, have a great impact on the performance of global macro funds. This results in the high disparity in the returns between global macro managers.</p> <p>Excessive usage of leverage Some investors are reluctant to invest in Global Macro funds because of the stigma that macro managers make huge “one-way directional bets”.</p>

Global Macro vs. CTA’s

Global macro and CTA’s (**Commodity Trading Advisors**, also known as managed futures) are often mentioned in the same breath. Indeed, both strategies can trade across a broad range of assets classes – including commodities, currencies, equities, bonds and interest rates.

But major differences do exist, some of which are listed below:

Global Macro	CTA
Global macro managers use a more diverse range of instruments and also invest directly into securities or currencies in addition to trading futures and options	CTA’s managers trade only futures and options
Global macro managers follow a more fundamental-oriented approach	CTA’s are often momentum traders
Global macro managers are more discretionary: in general, it is the manager’s subjective vision of market conditions lead to trade	CTA’s generally use a systematic quantitative approach
Global macro managers usually rely on a “team” specialized across the wider range of financial instruments they trade	CTA’s typically rely on one or two portfolio managers



Quantitative approaches as a leverage for Global Macro managers' intuitions

Global Macro managers might have a fundamental-oriented approach and still use quantitative approaches. **Quant is a powerful tool that should be used to leverage the intuition of the manager** and broaden his or her vision, but should not be used as a black box. Take correlation for example: there is no such thing as THE correlation. There are many ways to compute it depending on what you want to do with it and this very important choice must not be left to a Quant black box.

At RaisePartner, we provide risk and performance modelling tools that put **the manager at the center of the quantitative modelling process**, through the expression of expected trends. We bridge this fundamental expertise with unique **reactive risk models** and **robust dynamic allocation** schemes coming from robust control theory.

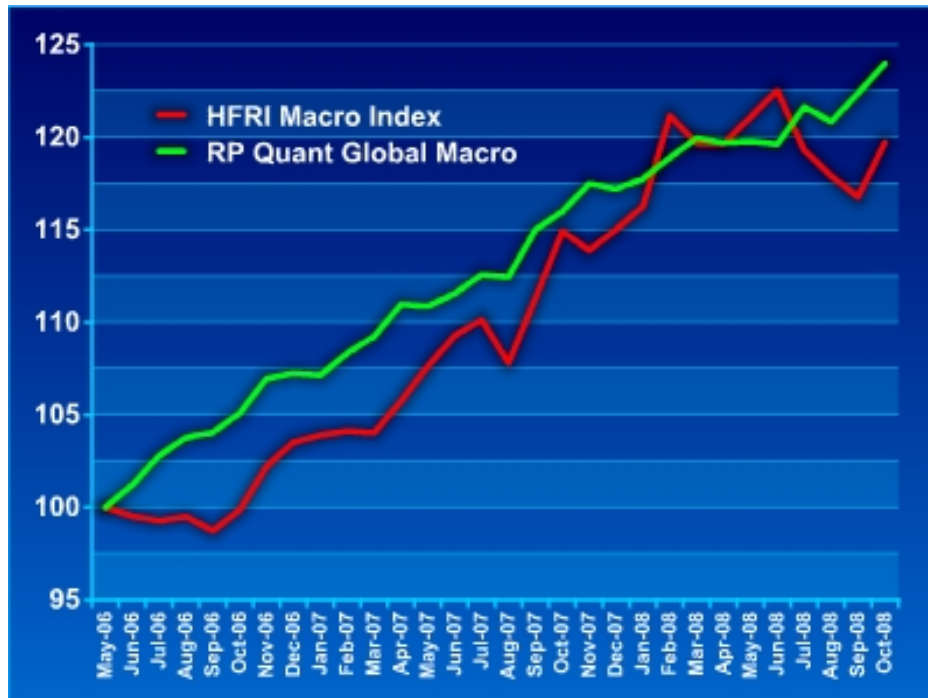


A bridge between fundamental and quantitative expertise

RP Quant Global Macro Index: a systematic Global Macro strategy that weathers market turmoils

The **RP Quant Global Macro Index** is a systematic Global Macro index built with RaisePartner modelling and allocation tools. The index is composed of diversified ETFs (Equity, Fixed Income, Commodities, FX, Bear Equity) and allocated once a week.

This systematic strategy did not suffer large drawdowns in September and October despite the crisis. In the chart below, we compare the RP Quant Global Macro Index to the HFRI Macro Index:



Base-100 performances (RP Quant Global Macro Index vs. HFRI, source: HFR)

	HFRI Macro Index	RP Quant Global Macro Index
Annualized mean return*	7,6%	9,0%
Annualized volatility*	5,6%	2,5%
Annualized Sharpe ratio*	0,8	2,4

Annualized ex-post statistics (*based on monthly returns from June 06 to October 08)

For more information on the RP Quant Global Macro index, visit our [website](#).