

The New Normal - defining Alpha in Currency Management

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Since the 1990s, institutional investors have been allocating resources less toward traditional assets like equities and bonds, and more towards alternative investments like hedge funds, real estate, private equity, currencies and commodities. This strategy was partly the result of a conventional belief that diversification is the key for successful investing and that the returns on alternative assets will have little or no correlation with returns on traditional investments. Unfortunately, during the financial crisis, investors discovered that correlations vary and that average correlations could be misleading.

In turbulent markets, all asset returns generally become more volatile and more highly correlated. For example, the correlation of hedge funds to global equities is 4% when global equities produce returns greater than one standard deviation above their mean return, but it rises to 80% when equities generate returns more than one standard deviation below their mean (see Fig 1). Thus, diversification tends to fail exactly when it is most needed, i.e. in falling markets.

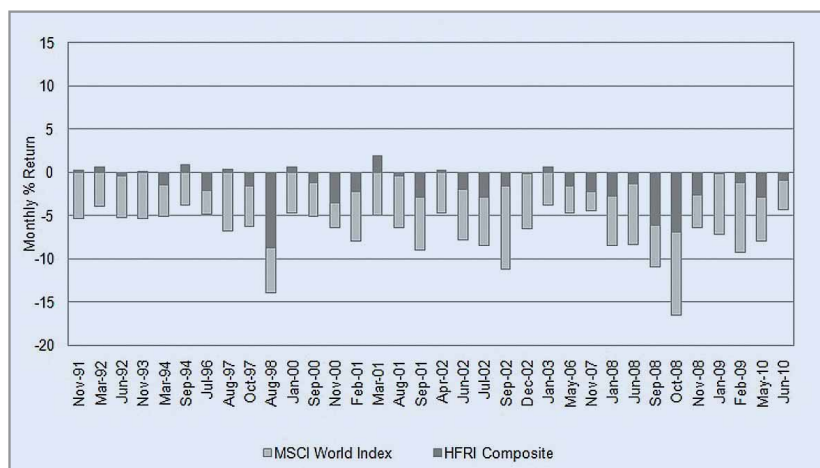


Figure 1: When MSCI World Index Monthly returns $\leq -1\text{STD}$

Do currency managers provide “real” diversification to investors with large equity exposure? Talking about currencies to institutional investors reminds me of one of the most famous baseball comedy acts, a humorous exchange between Bud Abbott and Lou Costello: “Who’s on first, What’s on second, I Don’t Know is on third...” The confusion arises from the peculiar names of the ball players. But what explains the confusion about currency investing?

One of the most confusing things about currency investing is that every currency mandate is unique. The easiest way to differentiate between currency investment mandates is to look at the expected excess return, or the Alpha Continuum¹. Let’s take as an example a USD based investor, who wants to allocate USD100 million to global equities, but does not want exposure to foreign currencies. In this case, a currency mandate could be to simply hedge the foreign currency exposure (sell the local currencies versus the US Dollar). The expected excess return of such a mandate is zero; the objective is only to remove currency risk. This is passive currency management.

In contrast, let’s assume an institutional investor, who has an USD98 million allocation to global equities and has used the remaining 2% of its assets to a cash margin account to invest in a currency alpha mandate with USD20mn notional exposure. The objective of such a mandate could be to generate a 15% return with volatility of 20%. In this case, the expected alpha is obviously quite large. Currency overlay is another typical example of a currency management mandate and it falls somewhere between the two previous examples on the Alpha Continuum. The prime objective of a currency overlay is to limit the risk from adverse movements in exchange-rates, i.e. hedge, as

well as to profit from tactical foreign-exchange views.

Institutional investors should find the right point along the Alpha Continuum, depending upon their specific needs. When the primary concern is to eliminate currency risk embedded in foreign investments, a passive currency management product is most appropriate. When the primary concern is to increase the return on their portfolio, a currency alpha mandate could be more suitable. However, one of the challenges for institutional investors after allocating assets to currency managers is to find an appropriate benchmark to gauge the performance of these managers. While evaluating passive mandates is a simple exercise, gauging the performance of alpha mandates is more challenging. Without an appropriate benchmark, the investor cannot know if he should be pleased or disappointed with the results achieved by his managers, or put differently, if these managers have demonstrated true skill or not. The lack of a well-established benchmark may be one of the reasons why allocations to currency strategies are still relatively low compared to other asset classes.

Is the benchmark zero or something different?

Traditionally, the benchmark for an unfunded currency manager (someone who is trading only on credit lines while core assets are invested elsewhere) has been zero, while the benchmark for cash funded mandates has been the risk-free rate. Such benchmarks imply that all the returns generated by currency managers are alpha returns and beta returns are assumed to be zero. However, financial market theory² tells us that the return of any portfolio

1. Anson (2008) introduced the term Beta Continuum and shows that beta is not a point estimate, but rather there is a range of risk premium capture that can be described as beta. The term Alpha Continuum should highlight that alpha might not be just a simple point estimate, but should reflect the objectives of the specific mandate.
2. Waring and Siegel (2006) show that the returns of any portfolio can be broken down into market (beta) components and an alpha component. Currency fund returns offer another example of this principle.



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on earlier hedge fund research, and several well-known currency trading strategies, Pojarliev and Levich³ (PL, 2008a) propose four potential factors that could explain currency returns generated by professional managers. These four factors are transparent, easily replicated trading strategies within the currency domain:

- **Carry** – Borrowing a low interest rate currency and investing in a higher interest rate currency.
- **Trend following** – Borrowing in a depreciating currency and investing in an appreciating currency.
- **Value** – Borrowing in an overvalued currency and investing in an undervalued currency.
- **Volatility** – Reflecting the impact of currency volatility on trading returns.

should have a beta and an alpha component. The beta component captures the systematic relationship between returns and the special factors driving returns. For currencies, the beta might stem from exposures to risk factors or trading styles similar to how the arbitrage pricing model relates returns on equities to factors representing large vs. small cap firms, value versus growth firms, etc...

In order to recognize currencies as an asset class, there should be factors that correlate with or explain patterns of currency fund manager returns. Building

Pojarliev and Levich use a 4-factor regression model as a technique to gauge the performance of currency managers. The model estimates what portion of currency trading profits is due to exposure to these specific trading style or risk factors (or beta), and what portion is due to skill, or alpha. PL (2008a) and PL (2008b)⁴ use different proxies for the risk factors, but the results are strikingly similar. Depending on the time period, periodicity, and model specification, four risk factors explain 50-75% in the variability of currency fund (index) returns. A significant part of currency returns comes from exposure to a small set of factors that proxy the returns from well-known and easily implemented trading styles. What is sometimes labelled as “alpha” is really more beta.

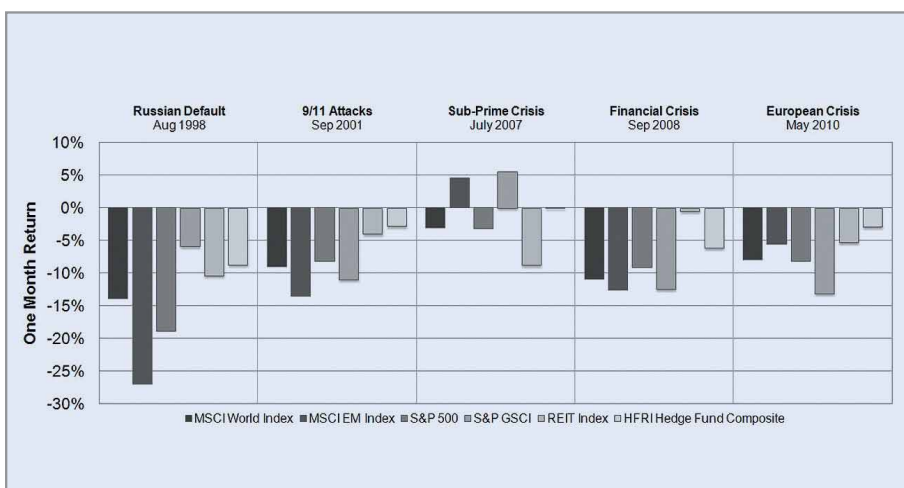


Figure 2

Why should institutional investors be concerned about how much of the currency return is alpha and how much is beta? First, proper return attribution could lead to some re-pricing for “active” currency products. Investors should not pay alpha fees for exposure to currency style betas that could be earned more cheaply. Second, currency beta might be less suited when the goal

3. See “Do Professional Currency Managers Beat the Benchmark?” Financial Analysts Journal, vol. 64, No. 5, pp: 18-30, Sep/Oct 2008]
 4. See “Trades of the Living Dead: Style Differences, Style Persistence and Performance of Currency Fund Managers, Journal of International Money and Finance, forthcoming

is to diversify global equity exposure. For example, the correlation of carry beta to global equities is -9.3% when global equities produce returns greater than one standard deviation above their mean, but it rises to 28.5% when equities generate returns more than one standard deviation below their means⁵. Thus, carry beta diversifies when it is not needed, i.e. in rising markets and it provides no diversification when it is most needed, i.e. in falling markets. Even though the recession caused by the financial crisis officially ended in June 2009, the global economic outlook is still uncertain. PIMCO calls this the “New Normal⁶,” a world in which growth prospects may be lower and long-held assumptions about portfolio allocations are being challenged. For example, many institutional investors still assume that asset returns on their investment portfolios will average 8% over the long-term future. With the investment grade bond market yielding only 2.5% and nominal GDP growth of 2 to 3% this assumption is increasingly coming under pressure and alternative sources of return are needed more than ever.

The New Normal

What does the New Normal mean for institutional investors? First, future returns from traditional asset

classes are likely to be lower, while currency alpha mandates offer an alternative source of return, which can be added on top of any investment portfolio. Second, future volatility is likely to be higher; the outlook is “unusually uncertain⁷,” while currency alpha mandates offer uncorrelated return, which will lower the volatility of the portfolio. Third, diversification might work less than expected and should be complemented with tail hedging. For example, Figure 2 shows the performance of different asset classes in periods of market stress and highlights that diversification often fails when it is most needed. Investors should consider managers with investment processes designed to benefit from periods of market dislocation.

Many questions remain open. First, how does one choose the right managers? Second, is past performance any indication for future performance (are alphas persistent)? Third, are investment styles (beta exposure) persistent? Fourth, do currency managers provide true diversification to institutional investors with large equity exposure? We will address these questions in future issues. The dialogue between managers and investors does not have to resemble the humorous exchange between Bud Abbott and Lou Costello.

5. These correlations are based on monthly return of the MSCI World Index (in local currencies) and the FTSE Currency Forward Rate Bias Index (Bloomberg Ticker FRB5USDE) from January 1980 until September 2010. Correlations computed using different proxies for currency beta exhibits similar pattern.
6. El-Erian, Mohamed A. (2009). “A New Normal,” Secular Outlook, PIMCO, May 2009
7. Bernanke (2010).