Momtchil Pojarliev and Richard Levich look at the difficulties involved in benchmarking currency managers and show how they have created a model to separate the alpha seekers from the beta chasers

Hunting out the alpha seekers

The increased interest in alternative assets seen over the last decade has naturally put currencies on the radar. Should institutional investors invest in currencies as an alternative asset class? The answer to this question is probably "yes" and the reasons are twofold.

First, for most of the post-Bretton Woods era, various trading strategies, like trend following and the carry trade have been profitable. Second, returns generated by such strategies are generally uncorrelated with returns from other asset classes. 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. 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 allocations to other alternative investments like private equity, commodities, or real estate.

Gauging a benchmark

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 and the benchmark for cash funded mandates has been the risk-free rate. Such benchmarks imply all the returns generated by currency managers are alpha returns and beta returns are assumed to be zero. While there are complex economic theories to support a zero benchmark, the claim that a pool of assets qualifies as an "asset class" implies there are special factors that influence those returns and produce a non-zero benchmark. In other words, financial market theory tells us the return of any portfolio should have a beta and an alpha component. The beta component captures the systematic relationship between returns and the special factors driving returns. The beta component for currency 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 vs. growth firms, etc.

To recognise currencies as an asset class, there should be factors that correlate with or explain patterns of currency fund manager returns. Building on earlier hedge fund research, and several well-known currency trading strategies, we propose four potential factors that could explain currency returns earned by professional managers. These four factors are transparent, easily replicated trading strategies within the currency domain.

- Carry – To reflect the returns on the well-known strategy of borrowing a low interest rate currency and investing in a higher interest rate currency.
- Trend following – To reflect the returns of borrowing in a depreciating currency and investing in an appreciating currency.
- Value – To reflect the returns of borrowing in an overvalued currency and investing in an undervalued currency.
- Volatility – To reflect the impact of currency volatility on trading returns.

In our research (Pojarliev and Levich, 2008), we use a four-factor regression model as a technique to gauge the performance of currency managers. We use the model to estimate 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.

Empirical evidence on the four-factor model

In our research, we found the model explained about 65% of the variability in an index of professional currency manager returns between January 1990 and December 2006 (we used the Barclay Currency Traders Index, an equally weighted average of returns on between 44 and 106 fund managers over this period). So while many professional currency managers were able to generate returns in excess of the risk free rate, our model implies roughly two thirds of those returns could be attributed to three well-established trading strategies and currency volatility.

To show the impact of our model, Table 1 summarises the results for two managers who are on opposite ends of the alpha-beta continuum. On the surface – and using zero as the benchmark for measuring performance – managers M1 and M2 seem quite similar. They earned similar excess returns of 3.70% and 3.02% per annum respectively over six years, and their information ratios (IR, or ratio of excess return to standard deviation of returns) were nearly identical, 0.74 and 0.78 respectively.

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Using our model, however, we see that M1 earned his returns through significant exposures to the carry, trend and volatility factors. Manager M1's returns are tightly linked (with an R-square of 69%) to basic style factors that represent "beta returns". After accounting for these returns, the intercept (or alpha) for M1 is actually negative 2.48% per annum, although not significantly different from zero.

The calculations for manager M2, on the other hand, show no significant relationship to any of the four factors and the R-square is only 3%. The alpha for M2 is positive 3.52% per annum and significantly larger than zero. M2 is earning excess returns, but in a manner not related to the simple trading styles or risk factors that are prevalent in the currency market. In our framework, the 3.52% intercept for M2 represents true "alpha returns".

An alternative information ratio, IR*, calculated as alpha divided by its standard deviation, yields 0.93 for M2 and -0.52 for M1. Clearly M2 ranks higher by this alternative criteria.

Implications for the asset management industry

Our model recalibrates alpha from (1) all the excess return over the risk-free rate, to (2) only that part of excess return over the risk-free rate that is not explained by the four factors, i.e. the alpha in the regression. In follow up work, the model appears robust when applied over one-year periods, on different managers and using different proxies for the four factors.

Our definition of alpha can have dramatic effects on manager rankings using the classic information ratio (IR), which assumes all excess currency return equals alpha, versus an alternative definition (IR*), which accounts for exposure to simple trading strategies. Our regression approach distinguishes two categories of managers – beta chasers, who generate returns attributable to a set of factors, and alpha seekers, who generate returns unrelated to those factors (Leibowitz (2005) used the expressions "alpha hunters" and "beta grazers" to describe much the same distinction in investment styles).

Our study supports the notion currency markets can offer an attractive additional source of alpha. Roughly one-quarter of the 34 managers in our 2001-06 sample were able to generate significant alpha after accounting for exposure to currency risk factors. The average alpha of these "alpha seekers" was quite high, at 12.5% per year. These managers would deserve high management fees. On the other hand, the four-factor model was able to explain more than 50% of the variability for 26% of the managers. These managers could be labeled "beta chasers", as the bulk of their returns could be easily replicated at fairy low cost.

Our new approach for assessing currency fund returns should benefit investors and managers alike. Investors might get a better understanding of the sources and risks of manager performance. The increased transparency should provide more credibility for the notion of currency as an asset class and boost interest in active currency management.

Chart 1: Alpha seekers and beta chasers annualised

	Annualised Excess Return	Annualised Alpha	Carry Beta	Trend Beta	Value Beta	Volatility Beta	R Square	IR	IR*
M1	3.70%	-2.48% (-1.12)	2.27 (5.40)	0.90 (6.98)	0.33 (0.32)	0.37 (2.14)	0.69	0.74	-0.52
M2	3.02%	3.51% (2.02)	-0.07 (-0.23)	-0.00 (-0.06)	-0.19 (-0.23)	0.16 (1.17)	0.03	0.78	0.93

Source: Pojarliev and Levich (2008). Based on 72 monthly observations covering 2001-06 for each manager. T-values in parentheses. Boldface indicates statistical significance at 5%.