Don't be Grumpy Because Currency Returns are Lumpy

By Arun Muralidhar and Harish Neelakandan[1]

Introduction

Currency overlay has gained broad acceptance across the globe with a number of clients recognizing the value-added from active currency management in reducing volatility and adding alpha. Currency managers have added value over long horizons and consultant studies have verified the same. With the dollar declining dramatically in the first half of 2002 a number of currency managers have had stellar performance, often delivering their annual expected excess returns in the span of a few months. A client we met recently had implemented a currency program with a fundamental and technical manager, and while the excess returns had been acceptable, the client was concerned about the lumpiness of these returns.

In this note we address three basic questions that currency clients face:

- What is lumpiness of returns and what causes it?
- Why might lumpiness of returns be a problem?
- What can a client do to manage lumpiness of returns?

We demonstrate that an innovative strategy employing options will protect clients from lumpiness of returns.

Lumpiness of Returns: Definition and Causes

Lumpiness of returns can be defined as positive returns occurring in a few months and then generally offset by other months where performance is negative or middling. This has been the case in currency markets over the last few years where specific months (December 2001, June 2002) have provided banner opportunities for different styles. However, other months such as July 2002 have provided the harsh return to reality.

Typical fundamental (who use economic and financial data to make predictions on likely currency moves) and technical (who evaluate currency price data to examine trends and cycles) managers generate a lot of alpha when markets move dramatically and hence the good performance in the second quarter of 2002. For example, in the first six months of 2002, the dollar declined by over 10% against the Euro and by approximately 10% versus the Japanese yen. But then July 2002 comes around, with the currency equivalent of the doldrums, and

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[1] Harish Neelakandan is Head of Options and Arun Muralidhar is Managing Director at FX Concepts – a currency management and research firm. Thanks to colleagues at FX Concepts Inc. for helpful comments. All errors are our own.

while currency markets moved, the ending rates were at levels not different from those at the start of the period (Figure 1). As a result, performance of different styles would have suffered. In Figures 2 and 3, we demonstrate the performance of simulated multi-currency alpha-oriented Trend and Fundamental models for June 2002. As the figures show, the dramatic positive performance in June is somewhat unwound in July. This is not an unusual occurrence and many consultants have recognized the same over the last few years. To some degree, the market dynamics have changed and the dramatic secular long term trends in currency markets in the early 1990s have been replaced by shorter trends and periods of sideways movements.

Lumpiness of Returns: Is it a Problem?

Lumpiness of returns is not a problem as long as the client generates positive excess returns over the long cycle and have a longer term investment horizon. Clients with short-term horizons will perceive lumpiness as a problem. In addition, lumpiness is not a problem when the first few months of a program deliver high excess returns – it is only when, there is sustained period of underperformance that clients have to justify to their colleagues or investment committees. However, with recent declines in the broad asset classes and pressure to generate returns, lumpiness can also be a problem as currency overlay is not meant to correlate highly with the returns and is expected to (and has) provide alpha when other assets struggle. Lumpiness is less of an issue during bull markets.

Lumpiness of Returns: How to Handle It

Clients have typically diversified across managers who are less than perfectly correlated and generally focused on a mix of technical and fundamental styles. But to the extent that the correlation of the managers is positive, the ability of this diversification to protect against sideways markets is limited. For example, the Technical and Fundamental models are marginally correlated and have had coincident up and down months in June and July 2002. This type of diversification does not help solve lumpiness. We designed an options program that has the unique feature of being strongly negatively correlated with the Technical models and uncorrelated with the Fundamental model. The performance of this Options model for June and July is demonstrated in Figures 2 and 3. As can be seen from these figures, the options strategy is able to profit in periods when the currency markets are moving sideways and generate adequate returns. Tables 1A-C show the benefit of adding an options strategy over a naïve combination of Fundamental and Technical models in three currency pairs (USD/Japanese yen, USD/Euro and USD/Swiss franc). The removal of lumpiness is demonstrated through the lower tracking error, higher returns and resultant higher information ratio (which also implied a higher confidence that the performance is skill-based).

Conclusions

Lumpiness has been an issue in currency programs and clients have tried to address it by diversifying across styles. We demonstrate that given the current market environment whereby short term trends are coupled with periods of markets moving sideways, clients will do well to incorporate strategies that eliminate the lumpiness of returns. One such strategy involves the use of options and we show how this strategy eliminates lumpiness through its negative correlation to other strategies. Clients will help their portfolios perform on a more consistent basis by incorporating such strategies.

Figure 1 – Major currencies in July 2002

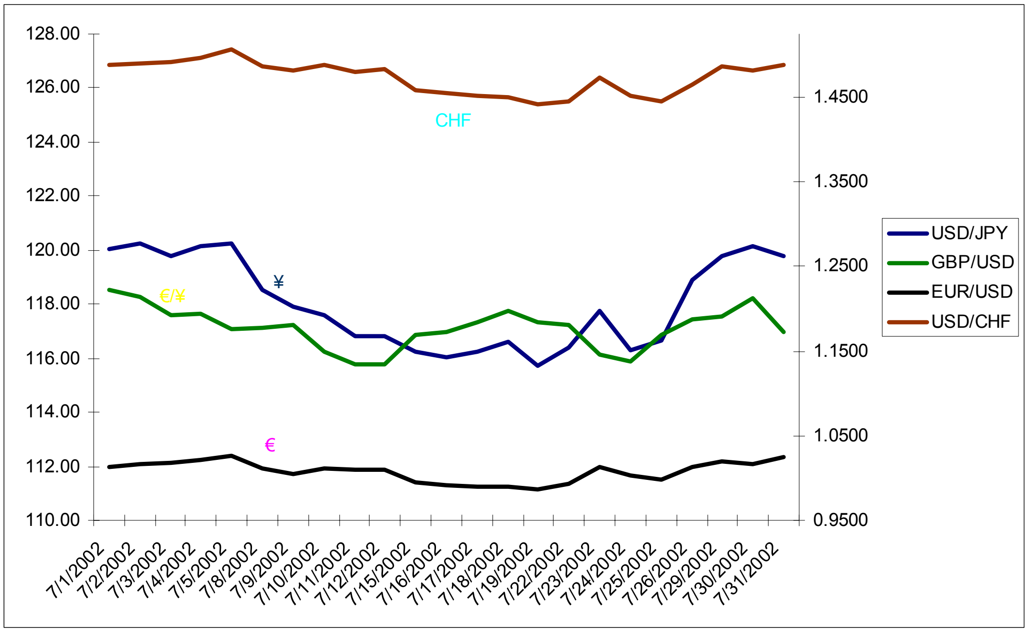

Figure 2 – Performance of Trend, Fundamental (Yield) and Options Models (June 2002)

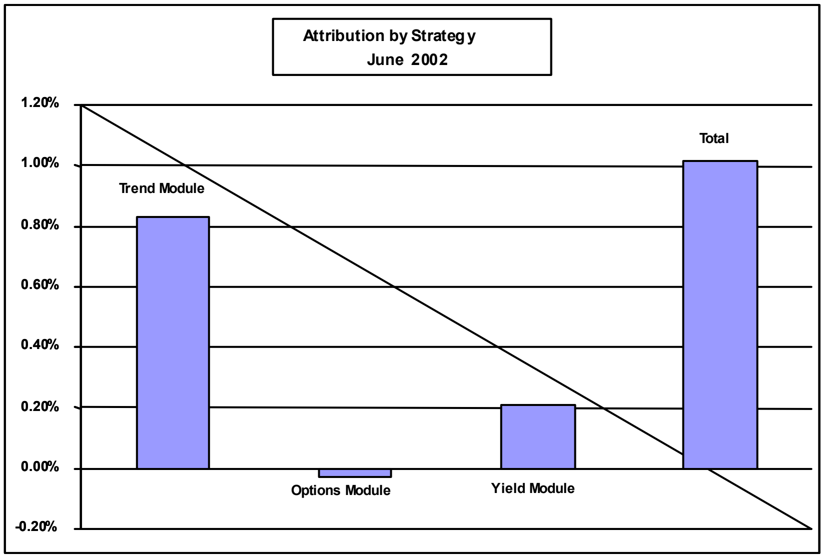

Figure 3 – Performance of Trend, Fundamental (Yield) and Options Models (July 2002)

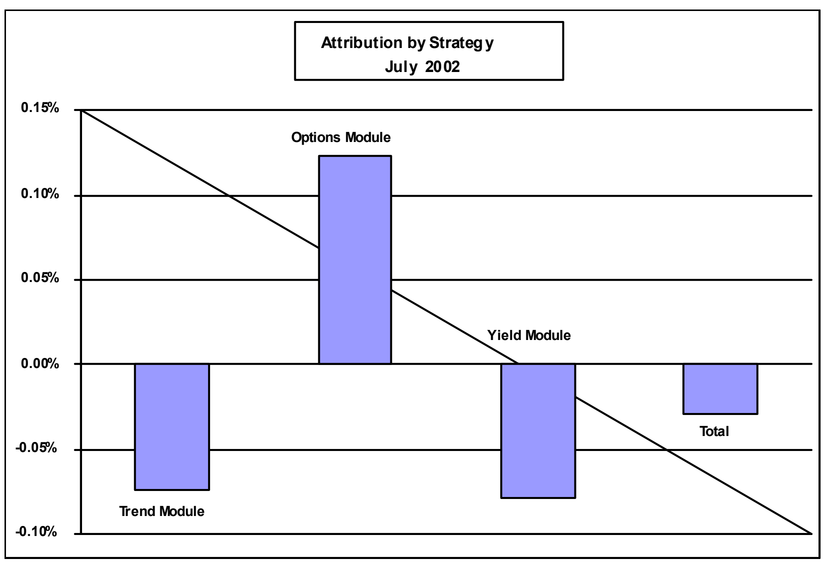

Table 1A: Performance Characteristics of the Combined Portfolios (USD/Yen)

	Portfolio 1 (Fundamental + Technical)	Portfolio 2 (Fundamental + Technical + Options)
Performance (Annual)	5.47%	4.22%
Tracking Error	5.91%	3.43%
Information Ratio	0.93	1.23

Table 1B: Performance Characteristics of the Combined Portfolios ($/CHF)

	Portfolio 1 (Fundamental + Technical)	Portfolio 2 (Fundamental + Technical + Options)
Performance (Annual)	6.05%	4.42%
Tracking Error	5.60%	3.25%
Information Ratio	1.08	1.36

Table 1C: Performance Characteristics of the Combined Portfolios (EUR/$)

	Portfolio 1 (Fundamental + Technical)	Portfolio 2 (Fundamental + Technical + Options)
Performance (Annual)	4.52%	3.64%
Tracking Error	4.98%	2.93%
Information Ratio	0.91	1.24

[3] This strategy has "optimized performance" by construct – most fundamental managers do not have such high information ratios. We wish to demonstrate that even such spectacular strategies can benefit from being combined with others.