FIRST QUADRANT

# Arguments Against the Arguments for Not Acting on Currency Risk

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**FQ Perspective**

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*Man who stand on hill with mouth open will wait long time for roast duck to drop in.*

*- Confucius*

Perhaps the most common reason investors chose not to make carefully examined, conscious choices about what to do with currency risk is that it is assumed that if you simply wait long enough, "everything will come out fine." Currency risk is zero-sum, right? Assuming it is, the choice for inaction over action implies a level of patience inconsistent with most investment horizons. Over the horizon in which you need to eat, that roast duck is unlikely to find its way into your mouth. You starve.

It is also the case that inaction in portfolio management often comes with an implied assumption that risks passively acquired in a portfolio are somehow less risky than risks actively taken. That is, of course, a fallacy. Risk is risk regardless of whether its presence in your portfolio is the result of action or inaction.

When it comes to managing currency risk, the justifications for inaction are numerous. Roughly seven years have passed since we wrote a piece challenging the most common justifications[1]. Since the writing of that earlier piece, currency risk has been a clear source of disappointment in some investors' portfolios, a clear source of good fortune in others, and a significant source of volatility in everyone's portfolio. The choice *not to* act came with significant consequences… as did, in many cases, the choice *to* act. Because inaction doesn't allow one to escape the consequences, investors have no option but to make a conscious, intentional decision about what to do with currency risk.

It is our aim here to re-examine, in light of the last seven years, the most important of the top ten excuses commonly used to justify inaction and indecision. As currency effects have demonstrated during the intervening years since we wrote that paper, currency risk can have material implications not only for risk and return, but for funding ratios, solvency, and spending goals.

## "Why worry? Currency is a zero sum game – Right?"

Currency returns are presumed to "wash out" over time. What this refers to is the fact that across markets at similar levels of development and with similar levels of productivity growth, currency returns do tend to wash out over time as exchange rates re-equilibrate in response to inflation. Note that it is the returns that are presumed to wash out, not the risk. Just as tides may rise and fall, yet consistently average out over a lunar cycle, sometimes along the way the tides rise high enough to wipe out homes, piers, and parts of towns. An investment portfolio may only be able to survive a high tide for so long. All this is a lot like saying that the gap between assets and liabilities will tend to wash out over time. In the mean time, funding ratios will suffer and spending goals will be missed while we wait for this to happen. Investors simply don't have the luxury of being as patient *with risk* as this would imply. The investment time horizons over which their investment objectives pertain is far too short to ignore either currency risk or the risk that assets underperform liabilities.

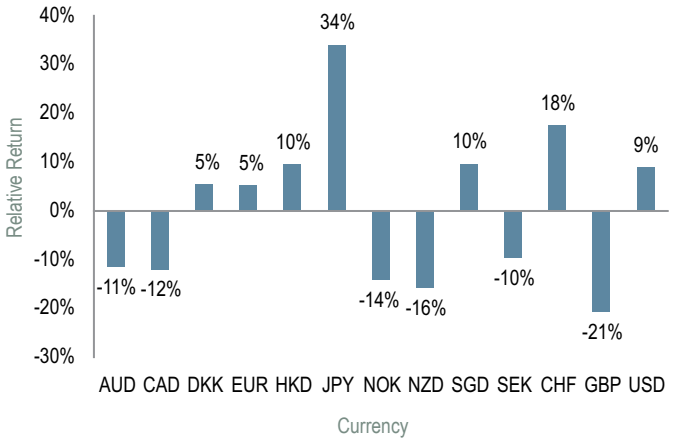
Take the last seven years since we wrote the first version of this paper. Over that period, if you had been a Euro-based, Australian, Swiss, or Canadian investor, you would have given up 13.2%, 11.6%, 10.0%, or 6.3%, of your (cap weighted) equity returns to the depreciation of foreign currencies relative to your home country. If you were a UK or US investor, your international investments would have benefited to the tune of 19.3%.

Worse is the impact that currency returns can have over horizons that do have a material impact on funding goals. One-year horizons matter to most investors. If we look at the currency returns just over 2008, the impact is

startling, ranging from a negative impact of 32% on international investments from the Japanese perspective, to a positive enhancement of international returns of 19% for a UK investor.

That's a 51% spread between the way exchange rate moves affected international returns for Japanese investors versus UK investors. That, it is worth noting, is a larger move than the equity downdraft itself! Clearly, those movements also represent an enormous opportunity for a currency manager to add value over the short-term by treating volatility as opportunity (even if you still believe that, over the long term, that volatility was to result in no net cumulative differential).

**FIGURE 1: RELATIVE CURRENCY RETURNS – 2008**
*Relative to Equal-Weighted World Currency Basket*




*Source: WM/Reuters and First Quadrant, L.P.*

How long are you willing to wait to see if you're right? Many investment returns either "wash out over time" or "wash out on average." Active management, broadly speaking, washes out on average: for every basis point of excess return one investor captures, another necessarily loses the same basis point. Should it be ignored for that reason? Certainly not! The entire business of managing long-short portfolios (in equities, global macro, convertible arbitrage, hedge funds in general) is predicated on profiting from short-term volatility independent of whether or not that volatility washes out over time.

## "I can't wait 3-5 years for my investments to work"

Numerous academic studies have shown that it takes, on average, three to five years for mis-aligned exchange rates to return to their long-term (real) fair value. Older academic papers cited cases where individual currencies sometimes took decades to return to fair value. Our own measure of relative value (Purchasing Power Parity) strips out some of the noise common to these models and shortens, therefore, the time frame involved, but that is not actually the issue. Instead, there are two rather simple errors in the line of thinking applied to evaluating the usefulness of PPP. First, investors should have no complaint with investments that take a long time to fully realize their potential gain. Nobody would ever hold bonds if that were the case. Patience would only be an issue if there were no gains realized for a long period of time, or worse, if there were losses over a long period of time that had to be sustained before realizing the gain. That's not how it works with currencies. Mis-valued currencies tend to move gradually in the direction of fair value generating an attractive risk-adjusted reward along the way with a reasonable frequency of gains occurring.

Second, investors measure the merits of an investment strategy at the portfolio level, not at the individual asset level. What we want to see is that a portfolio of holdings generates positive returns at a frequency and a risk level that we're comfortable with. In any given period, and even over long periods, we'll find that some of the holdings payoff while others will not. The fact that some holdings will fail to payoff over long periods of time may cause us to re-evaluate those particular holdings, but that does not call into question the efficacy of the strategy if the portfolio as a whole is working as intended.

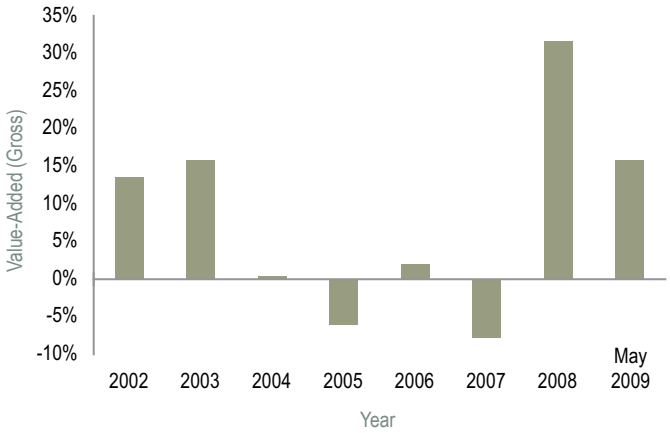
When we look at the portfolio performance of Purchasing Power Parity simulation, we see these principles at work. Seven years ago, for example, we found the Australian dollar to be 11.7% below its fair value, and the US dollar to be 25.6% above its fair value. It took sixteen months for the Australian dollar to return to fair value, and nearly two and a half years for the US dollar to return to fair value from mid-2002. Some currencies have taken longer to return to fair value (the British pound, for example, was overvalued seven years ago but didn't return to fair value until nearly seven years had passed) and some shorter, but in general all did return to fair value at least once in the last seven years . The portfolio, on the other hand generated positive returns in 52% of the months, 54% of quarters, 61% of every six month period and 67% of every twelve month period. The return per unit of risk was 0.6 (annualized). First Quadrant's construction has shown mean-reversion properties over much shorter—what we would describe as "investible"—horizons.[2]

Just to be fair, when we look over the full data history (from 1975 to present), our measure of PPP (which is just one of several factors in our currency model) shows mean reversion of 12.1 months on average, which is quite a bit shorter than many other measures quoted in academic papers, making it an even more investible process.

We've long liked to point out that even the most naïve form of Purchasing Power Parity seems to work when applied in a portfolio approach to managing currencies.[3] The Economist's "Big Mac Index," which identifies expensive curren-

cies as those where the price of a McDonald's Big Mac is higher than the world average, has had an information ratio approaching 0.35 since its inception. That's not bad!

FIGURE 2: PERFORMANCE OF FIRST QUADRANT PPP MEASURE
*Simulated**




**Simulated Performance. Please see PPP Model Disclosures at the end of the document for more information.*

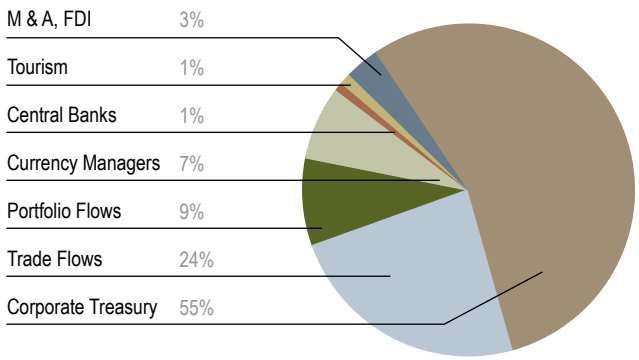
*Source: First Quadrant, L.P.*

## "Given the size and liquidity of the currency market, it must be efficient."

When we wrote about this in 2002, we spoke about how liquid and deep the Currency markets are (nearly $1.5 trillion per day in turnover, based on the 2001 BIS Triennial Survey), and yet how it may be the market with the lowest relative participation by profit-seekers.

Since that time, the Currency markets have grown even more liquid (the turnover as of 2007 by that same BIS survey reached $3.2 trillion per day), and yet we'd argue roughly the same (relatively low) proportion of profit-seekers are still present.

FIGURE 3: CURRENCY MARKET PARTICIPANTS




*Source: BIS, IMF, US Federal Reserve, World Tourism Organization, Datastream, and First Quadrant, L.P.*

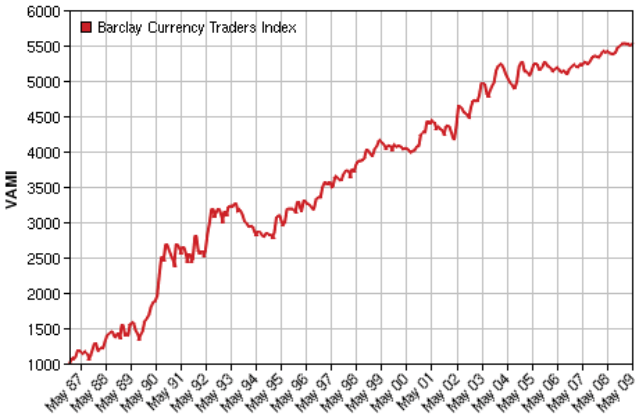
Fortunately this is a question that solid empirical evidence can address; either currency managers demonstrate the ability to add value or not. What we see when we look to performance data from Parker Global Strategies and Barclay Hedge is that active currency management did well in 2008, at a time when alpha more generally (i.e. uncorrelated positive returns) was harder to find.

| | |
|---|---|
| 2008 Barclay Hedge Currency Traders Index: | +3.50% |
| 2008 Parker Global Strategies FX Index: | +6.31% |

*Source: BarclayHedge website (http://www.barclayhedge.com/research/indices/cta/sub/curr.html) and Parker Global Strategies (http://www.parkerglobal.com) page on Bloomberg (PGCIPCMI <GO>)*

We also can see from the historical chart below that there is no evidence to suggest that the alpha that currency managers produce is even shrinking over time…

FIGURE 4: BARCLAY CURRENCY TRADERS INDEX




*Source: BarclayHedge website (http://www.barclayhedge.com/research/indices/cta/sub/curr.html)*

Liquid and deep? Yes. Efficient? Unlikely! As we pointed out in 2002, the Currency markets may still be the best place to go hunting for alpha, as that liquidity and depth contributes one of the key prerequisites of any alpha program; namely low transaction costs.

## Conclusion

Aldous Huxley once said, "Several excuses are always less convincing than one." Investors have several excuses for failing to manage with intention their currency risk. Seven years ago we attacked ten of them; this time we've only addressed the three that are subject to empirical scrutiny.

What's most important is that we recognize that risk is risk regardless of whether we chose it or it choses us, and equally important that we recognize that patience is rewarded if the time horizon required suits well our own goals. We should manage all risks with clear intention, and currency is one that needs more attention.

## Endnotes

[1] *Darnell, Max and Levanoni, Dori, "The Top Ten Excuses for Not Actively Managing Currency", First Quadrant Partner's Message, June 2002.*

[2] *Darnell, Max and Levanoni, Dori, "How Fair is Fair-Value?" First Quadrant Currency Monitor, February 2003.*

[3] *Darnell, Max and Levanoni, Dori, "Purchasing Power Parity: Even the Big Mac Can Predict FX Rates", First Quadrant Partner's Message, October 1999 and Darnell, Max and Levanoni, Dori, "A Simple Measure of Purchasing Power Parity (PPP)", First Quadrant Partner's Message, June 2004.*

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**PPP Model Simulation Disclosures** — ***Simulated performance is no guarantee of the future results in a live portfolio using the strategy. Potential for profit is accompanied by possibility of loss.*** Unless otherwise noted, performance returns for one year or longer are annualized. Performance returns for periods of less than one year are for the period reported. ***General Disclosures:*** The simulated performance presented differs from live performance experienced using the strategy for the following reasons: • The simulation assumes all trading takes place once a month (on the last day of the month) whereas live portfolios may trade often during the month. • The simulation assumes that the guidelines are constant through the life of the portfolio, whereas the guidelines for live portfolios may have changed over the life of each portfolio. • The simulation assumes implementation of the strategy via forward contracts, whereas live portfolios may use other instruments (i.e. futures) with a different return or cost. • The simulations use a "synthetic Euro" for the period before January 1999, whereas live portfolios using this strategy before January 1999 would have used the "Legacy" currencies (ATS, BEF, FIM, FRF, DEM, IEP, ITL, NLG, PTE, ESP). Hypothetical or simulated performance results have certain inherent limitations. Unlike an actual performance record, simulated results do not represent actual trading. Also, since the trades have not actually been executed, the results may have under or over compensated for the impact, if any, of certain market factors, such as lack of liquidity. Simulated trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. No representation is being made that any account will or is likely to achieve profits or losses similar to those shown. ***Disclosures Specific to Simulation:*** The simulation is based in US Dollars and uses a benchmark rate of return of zero. The simulation uses live historical signals and +/-30% ranges on active currencies (AUD, CAD, EUR, JPY, NZD, SEK, CHF, GBP and USD). Per trade transaction costs were assumed to be 0%. The overall risk management system threshold was set to +/- 20% of the target risk level.





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