

# A Case for Currency in Institutional Portfolios

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## The Overlooked Asset Class

Over most of the last decade we have extensively investigated the theory and practice of currency investing.<sup>1</sup> Our research has developed empirical evidence on the risk and return of the most prominent styles of currency investing. We have measured the returns of individual currency managers as well as groups of managers and assessed their performance against conventional and more demanding benchmarks. And we have studied how different currency investment styles can impact the performance of a well-diversified portfolio of global stocks and bonds. At the heart of this research, there remains a fundamental question: “Does currency investment, whether in the form of style investing that seeks to earn beta returns or discretionary managers mandated to hunt for alpha, deserve to have a place in an institutional portfolio?”

The question is controversial. As a result and as we will elaborate, currency investing appears to be overlooked and has yet to establish itself as one of the essential asset classes for institutional investors. However, based on our research as well as others who have contributed to the

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<sup>1</sup> See <http://people.stern.nyu.edu/rlevich/research.html> for more than dozen co-authored papers and essays including *A New Look at Currency Investing*, published in 2012 by the CFA Research Foundation.

literature, there is strong evidence to conclude that in most cases even a small allocation to currency investing could improve the overall performance of institutional investors.<sup>2</sup> At least three reasons support this conclusion.

First, various established currency trading strategies have tended to produce returns, which can be proxied by style or risk factors and have the nature of beta returns.<sup>3</sup> These returns tend to be imperfectly correlated with traditional equity market returns. Second, even if a more demanding expected return benchmark based on style factor returns is used, some currency managers produce alpha. Persistence of both alpha and beta style currency returns heightens the appeal of the currency asset class. And finally, the global currency market offers enormous liquidity and continued to function uninterrupted throughout the depths of the recent Global Financial Crisis. While a global recession may provoke a decline in all equity markets, currency values and returns depend on the relative performance of economies. And so, the opportunities for profitable currency investing are likely to persist throughout business cycles, and may even be enhanced by an economic shock that impacts only one economy or one region.

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<sup>2</sup> It is important to stress early in this discussion that we use the term “currency investing” to mean taking on exposure to currency risk with the intent of earning a risk premium or excess return as distinct from holding currency risk that happens to be embedded in foreign stocks or bonds or other assets.

<sup>3</sup> Three basic trading strategies (carry, trend and value) and the volatility of the FX market explain the bulk of the returns generated by professional currency managers. The carry strategy is a bet that higher yielding currencies will not depreciate enough against low yielding currencies to outweigh the interest rate differential. Trend-following strategies and related technical trading strategies assume that patterns in the past data can be used to predict future currency movements. Value strategies involve buying undervalued currencies and selling overvalued currencies with “fair value” determined by macro-economic variables.

Institutional investors have a choice of two basic types of currency mandates commonly known as “Currency Overlay” and “Absolute Return.” Either mandate can be implemented using passive or active investment strategies.

In currency overlay mandates, the investor already owns a portfolio of foreign debt or equity. The objective of the currency overlay is to reduce or possibly completely eliminate currency risk from the portfolio. The manager could follow a passive strategy by hedging a predefined fraction from zero to 100% of FX exposure in the underlying portfolio.<sup>4</sup> With an active currency overlay, the manager retains discretion to vary the size of the hedge. The manager may be opportunistic and decide not to hedge currencies expected to be strong and hedge larger fractions of currencies expected to be weak.

By comparison, in an absolute return mandate, the investor seeks to earn a positive return by taking on currency exposure subject to acceptable risk levels.<sup>5</sup> An absolute return currency mandate could be implemented with a passive investment style designed to follow predefined strategies for carry, trend and value. These passive strategies deliver beta returns. Alternatively, an absolute return mandate could be pursued with an active strategy whereby the manager

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<sup>4</sup> For example, if the portfolio held British shares valued at GBP 1,000,000 a full currency hedge would entail selling GBP 1,000,000 in the forward market for delivery in one-month and then rolling over the forward contract at maturity. This standard approach ignores the composition of the British equity portfolio and the currency exposure embedded in each of the underlying companies.

<sup>5</sup> A systematic approach, referred to as Dynamic Hedging, attempts to combine risk reduction with return enhancement by varying the hedge ratio for each foreign currency between zero and 100%. Such a constrained approach is typically sub-optimal, as neither risk-reduction nor return-enhancement is achieved in an efficient way: tracking volatility can remain high due to large swings in the hedge ratio of key currencies, while return-enhancement is typically low due to the severely constrained and asymmetric use of currency opportunities. This type of approach used to be popular in the early days of currency management until it became clear that risk-reduction and return enhancement should be addressed and evaluated explicitly as distinct activities.

exercises discretion in taking currency positions subject to a predefined target or maximum risk level. These active strategies deliver alpha returns.

In theory, a currency overlay with passive hedging will reduce the risk of the portfolio with little impact on the return.<sup>6</sup> Stated differently the expected long term return on hedged foreign assets is the same as the expected long term return on unhedged foreign assets. On the other hand, absolute return mandates have the potential to add value with little impact on the volatility as currency investment strategies are typically uncorrelated to traditional assets. Importantly, manager selection is crucial as some managers offer greater benefits than others with the average manager delivering zero value.<sup>7</sup> In a recent study, we investigated the impact of both mandates on institutional portfolios and the empirical results are as expected.<sup>8</sup> Our research found that both absolute return and currency hedging mandates can have a positive impact on institutional investor portfolios.

Exhibit 1 illustrates the benefits of both types of mandates. Our benchmark is a typical institutional portfolio which holds 60% in equities (comprising 27.5% US, 25% non-US

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<sup>6</sup> When the manager hedges, he effectively locks in a value of his foreign assets at today's one-month forward rate,  $F(t, 1 \text{ month})$ . By not hedging, the manager will value his foreign assets at the spot rate one month in the future,  $S(t + 1 \text{ month})$ . These values are identical when uncovered interest parity holds (the forward rate equals the expected value of the future spot rate). This implies that there is no expected opportunity cost from currency hedging, and so no impact on average returns. And because the forward rate is set near the middle of the range of possible realized future spot rates,  $\sigma(F) < \sigma(S(t+1))$  meaning that the currency hedged portfolio has lower volatility.

<sup>7</sup> See Jones and Wermers (2011) for a recent survey of the literature on the value of active management. They show that the average manager does not outperform but that a significant minority of active managers do add value.

<sup>8</sup> See Pojarliev, Levich and Kasarda (2014): "Currency Exposure and Investment Performance: The Good, the Bad and the Ugly", Working Paper. [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2378987](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2378987)

developed market, and 7.5% emerging market shares) and 40% in US bonds. Our benchmark further assumes a currency hedge ratio of 50% for the non-US developed equity part of the portfolio.<sup>9</sup> We evaluate this benchmark portfolio against three alternative portfolios (points *P1*, *P2* and *P3* in Exhibit 1) with some exposure to currency risk. Each of the alternative portfolios hedges 70% instead of 50% of its non-US Developed Equity part of the portfolio, which frees up risk budget to allocate to absolute return currency strategies.

As Exhibit 1 shows, passive hedging tends to reduce portfolio volatility with little impact on returns. By hedging more, i.e. 70% instead of 50%, portfolio risk declines from 10.71% to 10.46% with only an 8 basis point impact on returns, falling from 4.01% to 3.93% as shown by points *A* and *B*.<sup>10</sup> By comparison, absolute return mandates have the potential to increase the portfolio return with little impact on volatility. Point *P1* with a 10% allocation to currency style factors illustrates this effect. Comparing point *P1* with Point *P2* suggests that beta grazers delivered little additional return relative to the style factors, but provided better diversification benefits; the volatility of *P1* is the lowest at 10.33%. Importantly, however, differentiating between managers who simply follow common currency investment strategies (beta grazers, as shown with point *P2*) and managers who show little correlation to the common strategies (alpha hunters, as shown with point *P3*) can be useful for manager selection.<sup>11</sup> Not surprisingly, alpha

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<sup>9</sup> Given that managers face the choice of hedging 0% or 100% or any point in between, Strange (1998) argued that a 50% hedge ratio became the most popular choice. A currency manager is deemed to add value if the manager outperforms a naive strategy of hedging half the exposure, which is the position a manager would take if the manager had no expertise to determine whether a currency was rising or falling relative to its forward premium.

<sup>10</sup> A portfolio with “No Overlay”, i.e. 0% hedge, would have had volatility of 11.38% and return of 4.17%.

<sup>11</sup> Investment theory today commonly separates the return of an investment into the contribution resulting from risk exposure (risk premium or beta) and one resulting from skill-based investing (alpha). This forms the basis for active and passive investing (indexing). Respectively, managers can be classified into beta grazers, whose returns

hunters offer greater benefits than beta grazers. What may seem startling, however, is that portfolios *P2* and *P3* each with a 10% allocation to active currency investment produced higher return and lower risk than the benchmark portfolio *A*.<sup>12</sup>

Despite the growing numbers of empirical studies making the case for currency investing, currencies appear to be an underutilized asset class. Indeed, BarclayHedge estimates that AUM at specialized currency funds is roughly \$20 billion as of Q1 2014 while Hedge Fund Research estimates AUM at all hedge funds is close to \$2 trillion, indicating that professional currency managers account for less than 1% of the hedge fund industry.<sup>13</sup> Of course, currency strategies are one of the various strategies used as a source of alpha by global macro hedge funds, as well as emerging market debt funds and global fixed income funds that may rely more on currency overlay rather than absolute return strategies. Nevertheless, the AUM estimates by BarclayHedge strongly suggest that currency remains an underutilized asset class among institutional investors.

A number of factors—some historical, some institutional, and others grounded in economic theory and policy making—help explain why currency investing is often viewed differently than equity or bond investing. The history of currency investing and market experience with

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can be tightly linked to risk factors and into alpha hunters, which exhibit no significant exposure to the risk factors. The terms alpha hunters and beta grazers were coined by Leibowitz (2005)

<sup>12</sup> The value added by the alpha hunters at 31 basis points might seem economically insignificant, but this is because the impact is calculated on the whole portfolio. On a stand-alone basis, the alpha hunters delivered 3.75% return annually with 2.40% volatility.

<sup>13</sup> For quarterly AUM at currency funds since 2006 see [http://www.barclayhedge.com/research/indices/cta/mum/Currency\\_Traders.html](http://www.barclayhedge.com/research/indices/cta/mum/Currency_Traders.html)

fluctuating exchange rates are relatively brief compared with the much longer historical experience for equities and bonds. A shorter history means there is less familiarity and accumulated technical expertise in currency compared to other financial markets. Moreover, the number of freely floating currencies is limited and some emerging market currencies are subject to limited capital mobility and the possibility of capital controls which raises questions about the diversification potential within an FX-only portfolio.

On the institutional side, the foreign exchange market is not a place you can visit like the New York Stock Exchange or the Chicago Mercantile Exchange. Currency trades in an interbank market through many banks and trading rooms around the world. There are no set trading hours, no centralized record of transactions, and no unique closing price as there is for a listed stock or futures contract. Currency markets lack significant regulatory oversight. Foreign exchange uses a different infrastructure for trading, it uses a different quotation system, it relies on different means of contracting using different platforms, and so institutions need a separate apparatus or infrastructure to deal in foreign exchange.

On the theoretical side, currency values are notoriously difficult to model, more so than equities or bonds. As a result, currency valuation can be elusive. Economists have debated for years whether currencies move randomly or are predictable. And despite evidence to the contrary, reflected in part by the profitability of well-known currency strategies, many professionals still harbour the belief that currencies are not predictable. In addition, currencies are prone to central bank intervention and may be used as instruments of political and/or economic policy.

These aspects, reinforced by the fact that currency trades in its own market with its own institutions for clearing and settlement, help explain why currency has earned a reputation in some quarters as being a highly specialized area for currency professionals only. As a result, many institutional investors have avoided carving out an allocation for currency in their portfolios.

While the landscape of active currency management has changed dramatically over the last 25 years, following Black's (1989) seminal article on universal hedging investors have focused predominantly on hedging and less on using currencies as a source of alpha. In practice, currencies are often viewed as an unwanted by-product of international portfolio diversification.

The disconnect between the empirical evidence supporting currency investing and the actual allocations to currencies in institutional portfolios provided the motivation for this book. Our goal was to assemble a group of prominent portfolio managers, strategists and economists to offer their insights regarding the role of currency in institutional portfolios. The chapters are arranged into four themes. Part 1 explores how currency exposure impacts investment returns and the techniques and trade-offs managers face when developing a currency exposure management or hedging strategy. In Part 2, the chapters focus on the risks and returns of different currency investment strategies in both developed and emerging market currencies. In Part 3, we include several chapters devoted to the currency investment process including systematic strategies as well as the value added through discretionary mandates. Finally, the chapters in Part 4 take a higher level perspective to consider broader macroeconomic factors and



trends that are likely to impact exchange rates and what role recent developments will play for the future of currency investing.

In the next section, we offer a brief overview of each of the chapters. And in the final section, we summarize the main conclusions of the book and suggest the possible implications for developing a new and larger role for currency in investment management.

## **An Overview of the Chapters**

### Part 1: Currency Exposure in Institutional Portfolios

In Chapter 2, Mark Anson aptly highlights the dilemma for institutional investors with exposure to currency risk. “The Currency Conundrum” he identifies follows from the classic hedge versus no hedge decision when managers operate in a competitive market with transparency. Under the null hypothesis that bilateral currency risk offers a zero risk premium in any period, managers may be tempted to hedge currency exposure completely. But if foreign currencies appreciate, hedgers suffer regret and appear to underperform relative to managers who elected to retain the exposure. On top of that, hedging has a cost, but accounting costs and economic opportunity costs may offer conflicting measures and signals. Static hedging rules offer simplicity but are likely to underperform a discretionary model with an edge and a means to outperform. When facing these complex trade-offs, Anson offers us what could be a potential solution out of the regret syndrome.

In Chapter 3, Daniel Brehon and Arup Pal address hedging relative to strategic benchmarks. While hedging foreign currency exposure might reduce overall portfolio volatility, hedging more than implied by the benchmark introduces tracking error risk. The authors conclude that investors should hedge only when foreign currency exposure deviates from the foreign currency exposure implied by the benchmark or when they expect the foreign currency to depreciate against their base currency. Complementing Chapters 2 and 3, in Chapter 4 Wei Chen, Mark Kritzman and David Turkington, investigate a variety of currency hedging strategies, including linear strategies, non-linear strategies, and combinations thereof, for the purpose of helping investors determine which strategies best meet their objectives. The authors quantify tradeoffs faced by investors. Not surprisingly, more flexible strategies reduce risk more and offer greater downside protection than more constrained strategies.

In Chapter 5, Ross Kasarda and Stephen Peterson argue that uncompensated currency risk should be hedged away and replaced with exposure to currency beta with positive expected returns (compensated currency risk). The authors investigate the impact of such a strategy on the typical institutional portfolio and show that the result is a portfolio with a higher Sharpe ratio and more efficiently managed risk exposures.

Ian Toner reaches much the same conclusion as Kasarda and Peterson, but he develops the point differently going back to first principles of index construction. In Chapter 6, Toner argues that it is a mistake to measure the potential value or impact of currency as the difference between the returns on a unhedged and hedged global portfolio. Toner reminds us that while equity indices like the Russell 3000 or the S&P 500 may have been created as benchmarks for investors to

gauge their own performance in these asset categories, they are now also viewed as investible strategies, sometimes with the convenience of highly liquid exchange traded funds. By analogy, Toner makes the case that currency investing benchmarks ought to reflect a reasonable opportunity set of currency investments that might be drawn from (but not limited to) well-known style such as carry, trend following, value, and volatility. Toner's work suggests that investors stand to benefit (i.e. earning risk premiums) by viewing currency risk as a separable investment and making currency investments in a conscious, purposeful style similar to the way investors approach other investment decisions.

## Part 2: Currency Investment Strategies

In Chapter 7, Allesio de Longis and Eren Tufekci present a systematic currency investment strategy based on economic data surprise indices. A surprise is defined as the difference between the actual economic data release and the consensus expectations. The authors propose a trading strategy, in which an investor establishes short (long) USD Trade Weighted Index position when both Eurozone and Emerging Market surprise indices are in positive (negative) territory. This strategy would have delivered an attractive performance between January 2003 and June 2013.

As others have noted, in spite of academic studies documenting the random behavior of currency prices, foreign exchange professionals have maintained an "obstinate passion" for technical analysis. In Chapter 8, Pierre Lequeux reviews the empirical evidence on directional trading strategies and confirms their decline in profitability over the last 10-20 years. Lequeux who along with Emmanuel Acar developed the AFX Index, a popular benchmark for technical trading

in currencies, investigates possible explanations for this trend and offers his views on the future implications for active currency managers.

The carry trade is possibly the most well-known currency trading strategy of the post-Bretton Woods period, and also one of the most researched as it is linked to the Uncovered Interest Parity relationship which is a fundamental building block in international macroeconomics. In Chapter 9, Michael Rosenberg has compiled an extensive analytical survey of the carry trade. The carry trade has been notorious for subjecting investors to the possibility of large losses (i.e. “crash risk”) which is sometimes (but not always) associated with an economic shock in the target investment country. Rosenberg takes us from the theoretical foundations underlying the carry trade, through alternative means of implementing the trade and the risks and pitfalls attendant to owning carry trade positions. Complementing Rosenberg’s survey, in Chapter 10 John Bilson presents new empirical evidence on the risk and return of a stylized carry trading model implemented with emerging market currencies. Given the compression of G-10 interest rates following the global financial crisis, Bilson confirms that carry trade opportunities in developed country markets have declined substantially but opportunities in emerging markets remain robust. Bilson’s model makes use of a Markov switching component designed to select currency pairs and time periods with more favorable risk-return opportunities. While the empirical results are in-sample, the methodology provides a useful toolkit for how to formulate a discretionary carry trading strategy.

Building on Bilson's notion that carry trade opportunities remain robust in emerging markets, in Chapter 11, Javier Corominas and Jonathan Scott make the case for investing in emerging market (EM) currencies. The authors explain the drivers of EM currency return and recommend EM currencies as a standalone investment rather than only as an embedded exposure from EM equities or EM debt.

### Part 3: The Currency Investment Process

In Chapter 12, Ulf Lindahl lays out the essential components underlying the currency investment process in the G-10 currency universe. G-10 currencies are the most actively traded segment of the global currency market and offer investors the greatest liquidity. Lindahl describes the basics of carry, trend following and value trading strategies, and he emphasizes that while making precise numerical exchange rate forecasts is extremely difficult, in many situations simply gauging the direction of an exchange rate change is sufficient for earning a profit. Lindahl also stresses the role of risk management which includes knowledge of correlation of currencies and strategies, as well as choices made on sizing positions and leverage.

Anecdotal evidence suggests that most of the existing currency funds are systematic. In Chapter 13, Jolie de Miranda examines the motivation behind systematic trading (versus discretionary) and provides a high-level overview of how a systematic trading system could be designed.

Adnan Akant has been a professional currency investor for most of the post-Bretton Woods period. In Chapter 14, Akant takes us through the rationale and thought process behind adopting a discretionary approach to currency investing. Akant acknowledges the difficulties of gauging the course of exchange rates in the short run, but he stresses that some economic theories (e.g. purchasing power parity) offer useful guidance about a currency's long-run behavior. Moreover, the somewhat slow evolution of economic and political forces can offer strategists an edge in designing an opportunistic approach. He argues that discretion executed in this way can produce results that dominate purely quantitative rule-based trading strategies.

Arguably, the success of any absolute return program will depend on the specific investment firms selected to manage the portfolio. In Chapter 15, Chris Schelling focuses on manager due diligence, which broadly encompasses the process of researching and evaluating the performance and abilities of an investment management firm. The author acknowledges that the skill of picking managers who will outperform is as rare as the skill of making successful investment choices and concludes that the focus should be on finding managers highly likely to generate acceptable returns, rather than trying to find the managers who might generate the highest return.

#### Part 4: Global Markets and the Future of Currency Investing

The general decline in many types of currency investing is a common theme in several of the chapters in this book. As well, many authors point to the gradual decline in currency volatility over the last decade and the compression of interest rates across the G-10 following the global financial crisis as a possible explanation. A natural concern is whether markets are locked

permanently in a new normal (in the phrase popularized by PIMCO) or whether a time will come, post-crisis, when financial market conditions more typical of the late-20th century will return.

Stephen Jen has been as active and visible currency market strategist for many years. In Chapter 17, Jen offers his perspective on five high-level themes that in his view may possibly impact the global economy and currencies over the medium to long term. Apart from the specifics of each theme, Jen's narrative illustrates the range of economic and political forces that can play on a currency and the need to understand complex interactions in the global economy.

In Chapter 17, Richard Clarida and Shaowen Luo develop a theoretical model linking the nominal exchange rate with national price levels and the yield on inflation-indexed bonds. While national price levels capture information about current prices, inflation indexed bonds are forward looking and offer a market-based estimate of inflation over the maturity of the bond. Relying on Purchasing Power Parity as a long-run guide for exchange rates, Clarida and Luo are able to develop a model of the long-run fair value path of the exchange rate. The authors test their model against data for the US dollar, British Pound, Euro, and Japanese yen for the period 2001-2011 and find that roughly half of the unexpected increase in the risk premium for a pair of currencies is reflected in the inflation indexed bond return differential and the other half is reflected in an appreciation of the USD. Their results help us better understand market dynamics and could support a currency trading strategy based on inflationary expectations.

The recent Global Financial Crisis has reinforced the notion that asset class returns are driven by common risk factors. Hence, some strategists are advocating risk factors – as opposed to asset classes – as the building blocks for portfolio construction. In Chapter 18, Aysu Secmen, Charles Wu and Pierre-Alexandre Noual provide an example for a risk premium approach to currency investing. Their analysis supports the case for FX as an independent source of robust long term returns.

James Binny (2005) was one of the first financial economists to analyze the profitability of various stylized currency investment strategies such as Carry, Trend-following, Value, and Volatility Capture. Several of these strategies were based on observed empirical regularities some of which could be related to well-known economic principles, e.g. Uncovered Interest Parity, Purchasing Power Parity, and mean reversion. In Chapter 19, Binny updates the empirical evidence for these strategies through April 2014 and analyzes the results in periods before, during and after the recent global financial crisis. He confirms that each of the four strategies has suffered losses in at least one calendar year over that last decade, and the results of the last 5 and 10-year periods is meaningfully worse than in prior years. The interesting questions though are what explains these new results and are they likely to continue into the future, or be reversed? Citing another prominent example, when investors gave up on the small-firm premium after several years of poor performance, Binny advises both caution and perspective. Given that the empirical evidence stretches back only 40 years, the evidence of the last 5 years or is not inconsistent with the variability of results we have seen before. If that is correct, then profitability of the common strategies could return to more typical levels and investors would err by leaving currency out of the portfolio mix.



Michael Melvin directly addresses the future of currency investing in Chapter 20. Melvin approaches the question by analyzing how quantitative easing (QE) after the financial crisis affected markets and how financial markets may react once QE is halted. In part, Melvin concludes that currencies can play an important role in institutional investing because “currencies are exposed to key fundamental risks as in other assets classes.” And as the Fed exits from the QE period, opportunities for risk-based investing in currencies are likely to offer greater returns than in recent years.

### **Conclusions and Implications for the Role of Currency in Investment Management**

Without question, the marketplace for currencies is one of the largest in the world, offering liquidity and robust systems for trading, clearing and settlement of transactions sized for institutional investors. This is especially true among the largest developed country currencies while emerging market currencies are growing in volume and depth of financial products. Empirical evidence shows that various well-known currency strategies based on carry, trend-following, value, and volatility have been profitable over much of the last 30-40 years, although there is some evidence to suggest that profitability has been on the decline. Part of the decline in profitability may be related to the general decrease in currency volatility and compression of interest rates worldwide, in part the result of quantitative easing policies followed by several

major central banks. The risks of currency investing in the recent environment should not be ignored.<sup>14</sup>

On the other hand, the decline in AUM managed by specialized currency funds could be interpreted as good news for currency managers.<sup>15</sup> Pastor et al. (2014) investigate the link between scale and skill and show strong evidence of decreasing returns at the industry level: As the size of the active mutual fund industry increases, a fund's ability to outperform passive benchmarks declines. This could be interpreted as good news for currency managers – as AUM in specialized currency funds has dropped, it could become easier for the survivors to generate alpha. And as some authors in this book note, the experience of the last ten years and monetary policies since the Global Financial Crisis may be unusual outcomes and not a new normal. If so, excess returns from currency investing may return as countries manage their own national economies with less regard for other countries and the exchange rate. These results suggest that the role of currencies in institutional portfolios could be addressed by the following steps.

**Adopt higher strategic hedge ratios for foreign currency exposure in the underlying asset portfolio.**

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<sup>14</sup> Two prominent, high-profile currency investment firms, each with long histories and substantial expertise in markets, closed their funds within the last 12 months. FX Concepts a currency focused hedge fund, announced in October 2013 that it was winding down operations due to client withdrawals and poor performance. The firm was founded in 1981 and assets under management hit \$14 billion in 2007 before dwindling to below \$1 billion in 2013. In January 2014, another hedge fund closely associated with currency investing (QFS Asset Management) announced it would cease operations citing difficult market conditions.

<sup>15</sup> BarclayHedge estimates that AUM in specialized currency funds is down by about 25% since 2011.

Currency risk is a significant component of overall risk for the typical institutional portfolio. The investor is not compensated for the volatility introduced into the portfolio through embedded currency exposure. This suggests that the currency hedge ratio should be set higher. Passive hedging frees up a risk budget which can be allocated to absolute return currency strategies.

**Allocate the risk-reduction savings from increased passive hedging to an absolute return currency program.**

Consider for example a US-based investor who is exposed to foreign currency exposure through investments in international equities. Over the last ten years, increasing the passive hedge from 0% to 70% would have reduced portfolio volatility by 3.69% (from 18.94% to 14.81%) with little impact on the overall return.<sup>16</sup> The 3.69% risk reduction can then be allocated to an absolute return currency program. A 3.69% risk allocation translates into 36.9% notional portfolio allocation with a 10% volatility target.

**Choose the right managers whether beta grazers or alpha hunters.**

Absolute return strategies can be pursued in a passive mode to earn beta style returns or in active mode to earn alpha. While we have highlighted a short list of generic currency investment strategies – carry, trend-following, value, and volatility – there are numerous ways to implement each one in either G-10 or emerging market currencies. Persistent, robust performance, low cost and small tracking errors are useful metrics for deciding among beta strategies. For investors seeking alpha, it is critical to differentiate between managers who simply follow common currency investment strategies and managers who show little correlation to the common

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<sup>16</sup> These results are based on monthly data from April 2004 until March 2014 and using the MSCI All Country World Index (ACWI) ex US as proxy for international equities.

strategies. The success of any absolute return currency program will at the end depend on the manager selection.

Our general prescription – that institutional investors hedge more of the embedded currency risk in their underlying assets, and instead take on exposure to currency risk separately in a dedicated and purposeful fashion designed to earn risk premiums – is not an entirely new idea. Stylized, theoretical international capital asset pricing models going back to Solnik (1974) argued that in equilibrium it would be optimal for investors to hold combinations of two portfolios: a risky portfolio of assets common to all investors, and a personalized hedge portfolio designed to reduce purchasing power risks as investors consume goods and services in different countries subject to different inflation risks.<sup>17</sup> More than 25 years ago, Perold and Schulman (1988) put this idea center stage and coined the phrase “the free lunch in currency hedging” to signify that currency hedging should be the norm, unless managers have skill in forecasting exchange rates to time their hedging.<sup>18</sup> The new idea our research supports is that currency investing belongs in a separate bucket, not only as a means to hedge inflation risks (the currency overlay) but as a distinct set of strategies designed to earn risk premiums (the absolute return strategy) that are largely uncorrelated with traditional risky assets.

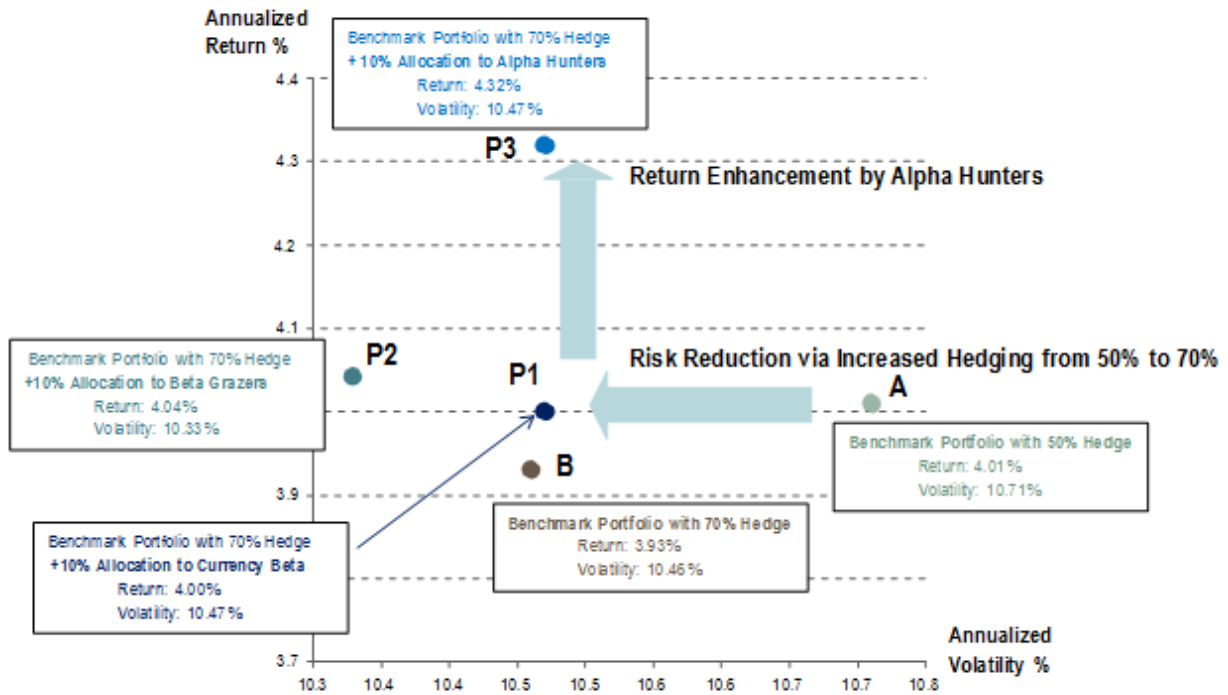
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<sup>17</sup> See Solnik (1993), pp. 25-30 for an early discussion of international capital asset pricing and the role of currency risk hedging in global portfolios. See Brusa, Ramadorai, and Verdelhan (2014) for an updated discussion and other references.

<sup>18</sup> Perold and Schulman (1988) explain that “The key to our argument is that, from the perspective of long-run policy, investors should think of currency hedging as having zero expected return. Therein lies the free lunch: on average, currency hedging gives you substantial risk reduction at no loss of expected return.”

While there are logical explanations for why institutional investors may have overlooked or avoided currency investments in the past, it seems clear that adding currency to the menu of suitable asset classes could enhance overall performance going forward. Collectively, the papers in this book offer a strong case supporting a greater role for currency in institutional portfolios.

Exhibit 1: Impact of Currency Management



Source: Pojarliev, Levich and Kasarda (2014) “*The Impact of Currency Exposure on Institutional Investment Performance: The Good, the Bad and the Ugly*”, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2378987](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2378987)

Note: Benchmark Portfolio: 27.5% MSCI US Index as proxy for US Equity, 25% MSCI World ex-US Index as proxy for Non-US Developed Equity, 7.5% MSCI EM Index as proxy for Emerging Equity and 40% Barclays Aggregate US Index as proxy for US Bonds. Only the Non-US Developed Equity part is 50% Hedged. Time Period: January 2006 to March 2013.

\*\*Currency Beta Portfolio: Equal-weighted exposure of three naïve currency indices. Beta Grazers Portfolio: Equal allocation to the top 3 managers with the highest R-square to FX beta. Alpha Hunters Portfolio: Equal exposure to the top 3 managers with the highest alpha estimate.

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