The globalization of the financial world has brought about opportunities for wider diversification and greater potential returns through international investment. While investing across international asset markets does provide these benefits, it also introduces the by-product of currency exposures, which can have a significant impact on investment returns.

When investors have international asset exposures, changes in currency rates will cause the value of those holdings to change. This added volatility can be significant and at times can dominate the volatility of the underlying asset. For this reason the risks involved with currency exposures must be understood and carefully managed.

Currency Market Overview

According to the latest (2010) Bank of International Settlements Triennial Survey (http://www.bis.org/publ/rpfxf10t.pdf), the daily volume of the world currency market is almost $4 trillion (up from $1.2 trillion in 2001).

The world has more than 170 currencies but 90 percent of the volume is concentrated in about 10 currencies: U.S. dollar, euro, Japanese yen, U.K. pound, Australian dollar, Swiss franc, Canadian dollar, Hong Kong dollar, Swedish kronor, and New Zealand dollar.

It is important to note that every currency trade is two-sided, i.e., one currency is “exchanged” for another. The U.S. dollar appears in approximately 85 percent of all currency trades, although there has been a slow decline in the dollar’s dominance in recent years as globalization has increased.

Interestingly, the currencies that have experienced the greatest increase in volume are the emerging market currencies.

The three main types of participants in the currency markets are: global banks, other financial institutions (pension funds, hedge funds, etc.), and nonfinancial firms (governments, corporations, etc.). A casual observer may be surprised to learn that less than 15 percent of global foreign exchange volume is directly linked to trade and service flows (see figure 1).

The largest proportion of currency flows is a by-product of another decision to move capital across international boundaries such as merger-and-acquisition (M&A) activity or repatriation of profits from an overseas subsidiary. This leads to a situation that is unique to foreign exchange (FX) when compared to other asset classes: A significant proportion of the participants in FX transactions do not have a profit-seeking motive, e.g., the day-to-day operations of a multinational corporation, cross-border M&A activity, or central bank intervention activity to dampen market volatility. Compared to other markets, this prevalence of nonprofit maximizers leads to opportunities for the relatively small percentage of market participants that are seeking to profit from currency trading.

Unlike equity and futures markets, no centralized trading exchanges exist for currency transactions and foreign currencies primarily are traded over-the-counter. This leads to issues such as subjective pricing, a lack of transparency (information on a transaction usually is not known beyond the two parties involved), and in some instances, conflicts of interest.

Currency Overlay Overview

Currency overlay is a trading strategy that normally is outsourced to a specialist firm known as an “overlay manager.” These specialist firms manage the currency exposures of institutional clients, such as pension funds that have exposure to foreign assets.

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sure to foreign currencies as a result of diversification into overseas markets. One way for investors to reduce the volatility from their foreign currency exposures is to convert these exposures back to the domestic currency, namely to hedge some or all of the exposure (the proportion of the exposure hedged is known as the hedge ratio).

While this reduces volatility, it can add incremental transaction costs and also may cause regret when comparing returns to those where exposures were left unhedged.

Institutions that desire to have their currency exposures managed can employ a specialist currency manager to hedge them and/or to seek profit through active FX trading.

Hiring a specialist currency firm separates the management of FX exposures from the underlying investment decisions for the institution, thus "overlaying" the hedging program atop the underlying investment portfolios.

What is Special about Currencies?
It already has been noted that FX is the only asset class with a significant number of participants entering the market without a profit motive, but a number of arguments have been put forth that bring into question the virtues of currency management and demean its role in an investment portfolio. These arguments are summarized below.

#1. Currency trading is a zero-sum game. The debate here argues that one participant’s currency gain is another’s loss, and when taking transaction costs into account it is probably a negative-sum game. In answer to the first point, this probably depends on how gains and losses are defined. For example, one participant may define returns relative to a benchmark, another may judge returns as a percentage, another as cash profits and losses, and others may have completely different investment time horizons or measure returns after adjusting for risk. Some seek nonmonetary gains, e.g., for central banks or corporate transfers. Others seek a return independent of the currency transaction, e.g., an M&A deal. Thus defining gains and losses in different ways may not result in a zero sum, and it therefore can be argued that it is possible to generate positive returns from currency trading.

A second zero-sum argument is that the impact of currency exposure washes out over the long term as currencies go through offsetting weakening and strengthening cycles. This may be correct over a very long period of 10 or more years, but investment horizons are normally of a much shorter nature and therefore the impact of currency fluctuations cannot be ignored.

#2. Currency movements are random and unpredictable. Predicting the movement of currency rates is notoriously difficult. However, the performance reports of currency managers show plenty of evidence that consistent returns can be had from trading in foreign exchange. The computer power and analytics now available to currency traders have significantly increased their ability to better predict currency price action.

Predictability, however, should not be confused with risk management. An investment manager who believes that currency moves cannot be predicted still faces currency risk on the underlying international investments.

#3. The currency market is efficient. One argument against active currency management maintains that it is impossible to beat the market because the market is very efficient and all available information has been thoroughly absorbed. This may be true in the very liquid Group of Seven (G7) currencies, but other currencies have plenty of inefficiencies. Recall that a large number of market participants are not seeking to profit from their transactions and this creates opportunities for those that are seeking profit. Efficient market theory assumes that investors are rational and are profit maximizers, this latter point is not the case in currency markets. Another characteristic of currency markets that is at odds with rationality is clustering of trading activity at certain price points and times. This creates short-term volatility as traders overreact to changes in market information.

#4. Foreign exchange is not a separate asset class. No consensus exists on whether foreign exchange is a separate asset class because it does not meet all the usual criteria. Typically a type of asset can be considered a separate asset class if:
- It has low correlations to returns from other asset classes.
- Returns on the asset react to changes in market information, e.g., changes in economic data.
- A risk premium exists for assuming the systematic risks associated with holding the asset.
- Capital is needed to invest in such assets.

Returns from currency trading historically have had low correlations to other asset classes, and currencies do react to changes in market information. But if a risk premium on currencies exists, it is difficult to identify. Finally, capital is not always necessary to establish currency positions. So currency markets do not meet all the criteria of a separate asset class in the traditional sense, but many investment managers view them as a “tactical asset class” (compared with equities, bonds, etc., which are considered strategic asset classes). But whether currencies are a separate asset class or not, they still need to be managed.

#5. Purchasing-power parity (PPP) prevails in the long term. PPP simply measures the cost of consumption in different countries; freely tradable products in different currencies should trade at the same price if they don’t then exchange rates should adjust until they do. In reality, currency prices deviate...
Consistently from parity values and parity values only have very limited value in determining the direction of a currency, particularly in the short term. #6. Hedging currency risk reduces the benefits of diversification. One view is that leaving international equities unhedged gives better diversification than hedged equities. The counterview is that if currency returns are correlated with equity returns then by hedging with other assets correlation will be lowered and diversification thus increased. The impact of currency hedging should be measured by comparing the hedged portfolio risk with the unhedged portfolio risk, but in our experience correlations are unstable.

Calculating Returns from Currency Trading

Returns from currency trading can be more difficult to quantify than returns on other assets such as equities or bonds because there are always two moving parts to every trade (i.e., a currency always is quoted relative to another currency). Other variables to consider when quantifying returns from currencies are relative interest rates, cost of capital, and the impact of hedging or not hedging. Returns can either be absolute or relative to a benchmark.

Risks Involved

FX fluctuations can considerably impact the risks and returns of global investments, which will vary from asset class to asset class. For fixed income portfolios, currency volatility is usually higher than bond volatility. Over the medium term, 40 percent to 80 percent of the total risk in a foreign bond portfolio may be attributable to movements in exchange rates. For equities, however, the effect is much less because equity volatility is typically higher than currency volatility; currencies will only account for between 5 percent to 30 percent of the total volatility. The actual impact will depend on the sample period, the period length, and the base currency.

Another component of risk is the correlation between the currency and the underlying asset. Historically bonds and currencies have had a higher correlation than equities and currencies. In any event, the correlations between currencies and underlying assets are not constant, and hence the diversification benefits of global investing have not been constant either.

Implementation

The currency exposures of an international investment portfolio can be managed in several different ways ranging from in-house currency management to fully outsourcing to a specialist currency manager.

In-house management. In-house management requires developing an internal infrastructure to manage all currency transactions and associated risks. This maximizes control but involves significant cost.

Custodial execution. As foreign securities are bought and sold, the custodian can be given instructions to convert funds back into the domestic currency or to buy a currency in advance of an anticipated purchase of an overseas asset. Though custodial execution is convenient and often is provided at no explicit extra charge, the execution quality can be poor, resulting in a significant hidden cost. This is a particular concern where the custodian’s execution is dealt in-house within its own FX department with the possibility that the interests of the FX department and the client are not aligned on pricing.

Third-party implementation. A third-party specialist currency manager can be hired to manage all of a fund’s currency needs such as managing hedges or trading for returns. Fees are explicit but can be wholly or partially offset if the execution quality is good.

Principal to principal trading. The institution buys or sells currencies from a counterparty’s proprietary book. No other service is offered and quotes normally will be defensive to protect the counterparty’s profitability on the trade, which can be seen as a conflict of interest.

Agency trading. A broker acts as the institution’s agent without taking ownership of the traded assets (just like a real estate agent). The broker makes currency transactions on the institution’s behalf and has the flexibility to search the market for the best prices available. The institution, however, still must manage various aspects of the currency transaction as well as the associated risk.

Specialist Currency Manager or Custodian?

Most funds either appoint a specialist manager or use an incumbent custodial/banking relationship. Below are the distinguishing characteristics of each.

Currency Manager

A specialist currency manager usually offers three types of service:

- Passive currency overlay
- Active currency overlay
- Currency alpha programs

An institution that outsources currency management is transferring part of the operational risks to the currency manager in return for a management fee for any of the three services and a performance fee for the active currency and alpha services.

The mandate should have clear guidelines on how the currency management is to be structured, e.g., hedge ratios, benchmarks, tracking error, etc. A currency manager’s interests must be closely aligned with the client’s.

Several investment approaches are used by currency managers, including fundamental, discretionary, quantitative, and technical. A manager may use one or a combination of these.

Custodial Manager

The custodial management business is concentrated among a few large global...
participants that normally are a division of a banking group. Currency programs usually do not involve up-front cash investments because FX is dealt as either over-the-counter (spot or forward contracts) or through the futures markets with only margin payments required. This means that actually nothing is in safe custody, negating the primary role of a custodian. Furthermore, currencies are probably more efficiently traded by a specialist currency manager. However, the custodian does play a valuable role in reporting aggregate exposures across asset classes and some investors prefer this one-stop style.

Historically custodians have conducted currency transactions with the banking arm of the same group, which does not always lead to pricing that is favorable for the client. These hidden transaction costs can be substantial, even if the custodian offers the passive overlay component for “free” or at a small charge. High-profile lawsuits have resulted against custodians that allegedly failed to secure best prices on currency transactions (see sidebar).

Transaction Costs in FX

Generally speaking, four types of costs are associated with currency mandates:

- Transaction costs
- Management and performance fees if outsourced
- Opportunity costs
- Relative interest rate costs (positive/negative carry)

Transaction costs are a fact of life and cannot be avoided. However, a specialist currency manager that is fully focused on the markets can reduce these costs significantly.

The most obvious but not so easily assessed transaction cost is the bid/offer spread, which is how prices are quoted. The bid/offer spread quoted depends on a number of factors, namely size of transaction, type of client, value of relationship, overall volume and regularity of trading, liquidity of currency pair, and market conditions. A well-established currency manager normally will command tight bid/off er spreads with deep liquidity and will be able to check pricing with a number of counterparties simultaneously to ensure efficient execution.

Management and performance fees vary widely with the type and size of mandate. Passive overlay is usually in the range of 5–10 basis points (bp) per annum for management fees (no performance fee applies because it’s a pure hedging vehicle). Active and alpha mandates carry a management fee and a performance fee. An example of a ballpark active overlay would be a per annum management fee of 10–20 bp with a performance fee of 10–15 percent above the high watermark or over the benchmark. Standard alpha mandate fees are a management fee of 100–200 bp and a performance fee of 10–20 percent.

Opportunity costs occur when an investor hedges currency exposure but the underlying currencies actually strengthen. The hedge results in a loss and this is the opportunity cost of hedging.

Relative interest rate costs can work against the investor when the base currency has a lower interest rate than the hedged currency, because hedging would mean buying the base currency via a forward contract, which will be more expensive than the spot price.

Conclusion

Because of globalization, the recent rapid increase in cross-border investing puts a lot of focus on currency management issues. In response, specialist currency managers have developed

Transaction Costs: Recent Issues

Recently a number of high-profile cases have appeared where pension funds have filed lawsuits against two of the largest custodians for allegedly overcharging on foreign currency transactions.  

The suits allege that the custodians charged the pension funds the most expensive price of the day (namely the high or low of the day depending on the direction of the transaction) rather than the price at which the currencies actually were purchased, with the bank then pocketing the difference. The exact amounts are unknown, but on sizeable FX trades the differences could have been substantial, particularly over a long period of time, and are likely to involve many millions of U.S. dollars. This is highlighted by the fact that the lawsuits are each claiming several hundred million dollars in damages, costs, and compensation.

One of the lawsuits is actually very specific, claiming that the custodian “added hidden spreads, including mark-ups and mark-downs to foreign exchange trades rather than pricing the trades at the exchange rates at which it actually executed the transactions, causing the client to pay far more than it should have for buys and receive much less than it should have for sells.”

The custodians are defending themselves by saying that the lawsuits show a lack of understanding about how FX works.

To us it underscores the importance of having a specific agreement in place concerning how FX is to be managed. This should include performance objectives and guidelines like any other investment management agreement.

Transparency is key; most importantly, make sure that your currency manager’s interests are closely aligned with yours.
products to meet this need by providing passive and active overlay programs as well as pure alpha programs, most of which can be tailored to suit the specific requirements of institutions with overseas exposure.

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Endnotes
1 Canada, France, Germany, Italy, Japan, United Kingdom, and United States.