

Currency Category Handbook

By: Terry Tian, Alternative Investments Analyst

Currency investments are foreign to many investors. Currency trading began in the early 1970s, following the collapse of the Bretton Woods System, yet it took another 20 years for investors to even become aware of the asset class. In the 1990s, hedge fund managers such as George Soros made headlines by taking large bets against the currencies of Great Britain and Latin American nations. Even after the media piqued the public's interest in currencies, however, currency trading was not accessible to the average investor until the mid-2000s, when currency exchange-traded funds and mutual funds became widely available. Now there are at least 47 such vehicles, trading currencies according to several different strategies.

I Strategy Overview

By Terry Tian

Alternative Investments Analyst

Currency funds seek to profit from foreign-exchange movements by investing in derivatives, such as currency forwards, futures, and options, or by holding actual foreign currencies in forms of cash or short-term bonds. Not all currencies are available for trade, and currency funds generally delineate which currencies they invest in. G3 currencies refer to the world's three most liquid ones—U.S. dollar, euro, and Japanese yen. G10 is the G3 plus the Canadian dollar, the Australian dollar, the New Zealand dollar, the British pound, the Swiss franc, the Swedish krona, and the Norwegian kroner. Some currency managers invest in G20 or emerging-markets currencies, which are less liquid but may present more investment opportunities.

Investors are often confused as to how one actually makes money by trading currencies. After all, shouldn't one investor's gain be another investor's loss? One of the unique characteristics of the currency market, though, unlike the stock or bond markets, is that many of its participants are not profit seekers. Central banks, multinational corporations, and travelers, for example, trade currencies to promote economic stability, to hedge foreign operations, or simply to buy things. These participants cause anomalies in currency markets that speculative investors can profit from.

Generally speaking, currency strategies can be categorized into two broad groups, passive and active. Passive strategies, typically found in ETFs, may track a diversified currency index, such as the U.S. Dollar Index, or the exchange rate between the U.S. dollar and another currency. If an investor wants to generally hedge his U.S. dollar exposure,

a currency index ETF is prudent. If the investor has a view about a particular currency relative to the U.S. dollar, he can buy or short an ETF tracking a single currency. Single-currency funds can serve the purpose of tactical allocation but may not be suitable for buy-and-hold strategies, as predicting currency movements is difficult.

An actively managed currency strategy, typically found in mutual funds, may trade a basket of foreign currencies against the U.S. dollar, or it may offer nondirectional currency strategies such as the carry-trade, momentum, or non-U.S. dollar valuation trades.

Carry Trade

The most famous and probably most widely used currency trading strategy is the carry trade. This strategy involves taking a long position in a high-yielding currency (one with high interest rates such as the Australian dollar and the New Zealand dollar), financed by shorting a low-yielding currency (one with low interest rates such as the Japanese yen). Investors earn the interest-rate spread.

The carry trade works well when interest-rate spreads are wide and remain so for an extended period of time. Between 2000 and 2007, when carry trade was extremely popular, the returns for dollar-based carry traders investing in Brazil, Mexico, and Canada were as high as 7.9% annualized.¹ Carry trades can be self-fulfilling—the more people jump on the bandwagon, the higher the pressure for the low-yielding currency to depreciate and high-yielding currency to appreciate, making the strategy more profitable.

¹ Ronald McKinnon, Stanford University, "Worldwide Inflation and International Monetary Return: Exchange Rates or Interest Rates?" June 2011. <http://www.stanford.edu/~mckinnon/papers/McKinnon%20World%20Inflation%20June.pdf>

The trade falls apart, though, when the interest-rate spreads narrow (usually when the country with high-yielding currency begins to cut interest rates), or the exchange-rate's movement offsets the gains (for example, the low-yielding currency begins to appreciate)—both of which incur losses for the carry traders and eventually make the strategy profitless. The 2008 financial crisis ended almost a decade of rosy days for carry traders, who are mostly hedge funds. Hedge funds needing liquidity unwound their carry positions en masse, and the sharp rise of yen erased seven years of gain in merely three months.²

Momentum

Momentum exists in the currency universe, as it does in other asset classes. Investors exhibit certain behavioral biases (such as anchoring, selling winners too soon, and holding losers too long), which prevent prices from immediately adjusting to the fundamentals. The resulting price trends provide opportunities for currency managers. As long as a trend continues, either upward (for long positions) or downward (for short positions), the momentum trade can make money.

These strategies, which are generally computer-driven, work well when trends are clear with long time duration. Conversely, it suffers when the exchange rates veer into a choppy road, where a trend becomes difficult to identify. The strategy is also vulnerable to sudden trend reversals, because the trading program requires a certain period of time to identify a new direction, and the manager may be on the wrong side of the trend, losing money.

Valuation

Theoretically, exchange rates are determined by fundamentals, such as economic growth, inflation, and interest rates. Purchasing power parity, or PPP, is one of the most popular theories. It states that countries with higher inflation should see their currencies depreciate over time. But because (as previously mentioned) not all currency participants are profit seekers, exchange rates can deviate from their theoretical fair values. A valuation currency strategy bets on the appreciation of undervalued currencies and the depreciation of overvalued currencies. Fund managers attempt to identify under- and overvaluation by analyzing and identifying economic and policy directions. The success of a valuation strategy depends on the manager's ability to make the right calls at the right time.

Use of Leverage and Derivatives

Some investors have a misconception that currency strategies are dangerous because they use derivatives and leverage extensively. Admittedly, some currency-focused hedge funds do use leverage. Most mutual fund and ETF offerings do not, however. Currency funds use derivatives primarily for convenience and liquidity purposes. It is expensive and sometimes infeasible to actually hold the foreign currencies in cash or bonds. Therefore, a currency manager will take a position in forward or futures contracts to get the desired long or short exposures. As derivatives do not require large up-front investments, managers usually invest the remaining assets in money market funds or high-quality, short-term, fixed-income instruments.

² Kathy Lien, Currency Carry Trades 101 http://www.investopedia.com/articles/forex/07/carry_trade.asp#axzz1bLtDXeM2

II Currency Strategies Across Structure

Although currency strategies are now accessible through several different investment vehicles, there are still very few choices. Morningstar's hedge fund database (as of Sept. 30, 2011) contains 53 currency funds. (Figure 1.) These 53 funds account for less than 1% of the entire hedge fund database in number and less than 2% in terms of assets. The oldest currency hedge fund was launched in 1993 by Man AHL. Like all hedge funds, these currency funds are available only to accredited or qualified investors. Hedge funds also require substantial minimum investments (typically \$500,000), charge hefty fees (including an incentive fee), and are not required to disclose holdings.

Accredited investors seeking more transparency can choose to gain access to a currency strategy through a separate account vehicle. Separate accounts are similar to hedge funds in that both are unregistered investment vehicles available to more-sophisticated investors (often requiring a minimum investment of \$25 million or more). Whereas hedge fund or mutual fund investors own shares in a managed pool of securities over which they have no control, separate account investors

directly own the actual securities. Morningstar's separate accounts database lists only 14 currency strategies, the oldest of which was launched in 1978 by J.P. Morgan Asset Management.

Over time, currency strategies have migrated into more easily accessible, registered vehicles such as mutual funds and ETFs. These liquid alternatives, which provide at least daily liquidity, full transparency of portfolio holdings on a regular basis (quarterly for mutual funds and daily for ETFs), and limitations on leverage, date back to 1988. The oldest offerings are the Lord Abbett Emerging Markets Currency LDMAX and Franklin Templeton Hard Currency ICPHX mutual funds. Every other mutual fund or ETF offering, however, launched in 2005 or later. IPath brought currency exchange-traded notes to the market in 2007. These ETNs offer the total return of a single currency or basket of currencies and are backed by the credit of the issuer. ETFs and ETNs are the most tax-efficient and cheapest ways to invest in currencies. As of Sept. 30, 2011, Morningstar tracked 17 currency mutual funds, 21 ETFs, and nine ETNs.

Figure 1 Number of Currency Funds and Total Assets (as of Sept. 2011)

	No. of Currency Funds	Total Assets (\$ billions)
Hedge Funds Database	53	5.26
Separate Accounts Database	14	24.95
Mutual Funds Database	17	9.21
ETF/ETN Database	30	6.61

III Historical Performance of Currency Strategies

When selecting a currency fund, one must first distinguish between active and passive strategies. Passively managed currency funds (usually ETFs or ETNs), which typically bet on either the rise or fall of the U.S. dollar against a single foreign currency or a basket of currencies, should perform in line with the exchange rate or index that it tracks. The best-performing passive currency fund over the past three years (ended Sept. 30, 2011) is the WisdomTree Dreyfus Japanese Yen JYF, an ETF which that has returned more than 1.09% annualized. As the U.S. dollar lost value against most major currencies since 2009, the U.S. dollar-bullish funds suffered across the board.

Evaluating actively managed currency funds is no easy task. Most have short histories—very few funds boast 10-year track records, and the majority of currency funds were launched since 2005. In addition, active currency investments lack a widely recognized benchmark against which all managed currency funds can be compared, unlike traditional stocks and bond funds. Investors can use the Deutsche Bank Short U.S. Dollar Futures Index, which is the index tracked by PowerShares DB US Dollar Index Bearish UDN.

Despite these hurdles, one can still measure the performance of active currency funds, using total returns, risk-adjusted returns (Morningstar Risk-Adjusted Return, Sharpe ratio, or Sortino ratios), and correlation and beta against the U.S. dollar, stock, and bond indexes. Many actively managed strategies bet against the U.S. dollar. In 2009, UDN gained 5.4%; all actively managed currency mutual funds posted positive returns. But when the U.S. dollar appreciated in 2008 (UDN lost 4.4%), these funds suffered substantial losses. Currency hedge fund performance was substantially better than that of currency mutual funds in 2008 (Figure 2). Considering risk-adjusted returns, active currency funds have significantly outperformed the S&P 500 over the past five years, but they have lagged the Barcap US Aggregate Bond Index. (Figure 3).

Active currency funds provide a relatively low correlation and beta with the general stock and bond markets. (Figure 4). Many currency mutual funds and hedge funds have high correlations to UDN, as they bet against the dollar. Currency mutual funds take on more currency risk, as demonstrated by their high betas to UDN. (Figure 5).

Figure 2 Average Annual Returns by Actively Managed Currency Investment Vehicle

	2006	2007	2008	2009	2010	1-Yr*	3-Yr*	5-Yr*
Hedge Funds ¹	7.3	7.0	3.9	4.1	5.8	1.7	4.7	5.7
Mutual Funds ²	9.2	10.6	-5.9	9.9	4.9	-2.4	4.5	4.4
Separate Accounts	9.8	12.4	6.2	0.2	5.8	-2.3	2.5	4.7

* Annualized returns through September 2011.

¹ As measured by the Morningstar MSCI Currencies Hedge Fund Index

² As measured by a simple average of the oldest share class of each actively managed currency mutual fund.

Figure 3 Five-Yr Risk-Adjusted Return Measures of Active Currency Strategies*

	Sharpe Ratio	Sortino Ratio	Morningstar Risk-Adjusted Return
Hedge Funds	0.62	1.05	3.15
Active Mutual Funds	0.28	0.41	1.03
Separate Accounts	0.41	0.42	2.27
S&P 500 TR	-0.06	-0.07	-6.09
Barcap US Agg Bond TR	1.31	2.60	4.74

*through September 2011

Figure 4 Five-Yr Correlation & Beta of Actively Managed Currency Strategies to Stocks & Bonds*

	S&P 500 Correlation	S&P 500 Beta	Barcap US Agg Correlation	Barcap US Agg Beta
Hedge Funds	0.43	0.14	0.14	0.22
Active Mutual Funds	0.59	0.34	0.18	0.66
Separate Accounts	0.20	0.07	0.17	0.35

*through September 2011

Figure 5 Five-Yr Correlation and Beta of Actively Managed Currency Strategies with UDN*

	UDN Correlation	UDN Beta
Hedge Funds	0.75	0.44
Active Mutual Funds	0.69	0.78
Separate Accounts	0.32	0.33

*through September 2011

IV Fees and Taxation

The cost of investing in a currency fund is higher than traditional stocks and bonds but cheaper than other alternatives. Currency mutual funds charge average net expense ratios of 1.5%, compared with 1.2% for the average large-blend traditional-stock fund and 2.3% for the average long/short equity mutual fund. Currency ETFs are significantly cheaper than mutual funds (as of Sept. 2011). The average net expense ratio is only 0.5%. Currency-focused hedge funds charge a 1.8% management fee and a 20% performance fee on average, in line with the rest of the hedge fund industry. Separate accounts managing currency strategies charge an average management of only 0.58%, and only one account reporting to the database disclosed a performance charge (of 20%). The fees on currency separate accounts are likely lower than on other structures because the minimum account sizes are very high.

Currency funds may be taxed differently than traditional stock or bond funds. Because many currency funds extensively use futures, options, and other derivatives, the Section 1256 (60/40) rule typically applies, in which 60% of any gain recognized is treated as long-term capital gain and 40% short-term capital gain. The result is a blended 23% federal tax rate (regardless of holding period)—a major tax advantage compared with stock funds, which trade heavily and are subject to a maximum of 35% short-term capital gains tax.

Currency ETFs are usually structured as partnerships where tax treatment passes through to the shareholders. Investors must file a K-1 tax form, versus the 1099 Form used for mutual funds and other ETFs. ETNs are tax-efficient to the extent that an investor holds the ETN to obtain long-term capital gains treatment.

V Use in a Portfolio

In order to demonstrate how a currency fund can change the overall risk/return profile of a portfolio, we constructed several model portfolios, using S&P 500 as a proxy for the stock portion, Barcap US Aggregate Bond Index for the bond portion, and Morningstar MSCI Currencies Hedge Fund Index for the currency portion. For the 10-year period ended Sept. 30, 2011, we tested a 5%, 10%, and 20% historical allocation to currencies, funded by either the stock (Figure 6) or the bond (Figure 7) portion of a traditional 60/40 portfolio, and rebalanced quarterly.

The results show that a greater allocation to currency funds from the equity portion of the portfolio improved the risk-adjusted returns over the past 10 years. When the currency allocation was taken out of bonds, however, the overall results worsen. This is not surprising, given the bull market for bonds over the past decade. Bond's past performance may not be realizable into the future, however, as interest rates may

rise. Therefore, currency funds can be prudent bond diversifiers.

Currency funds also diversify the risk of inflation. For U.S. investors, this means the risk that the U.S. dollar will depreciate against foreign currencies, decreasing purchasing power. Investors tend to overlook the currency risk in their portfolios, thinking they are not exposed as long as their assets are mostly in the United States. However, the U.S. dollar exchange rates have a profound influence on every investor, as investors buy foreign goods. Even if investors have foreign stock and bond holdings, additional currency diversification may be prudent. The present value of future local currency income can be a large portion of portfolio assets, especially for younger investors.

Figure 6 Currency Model Portfolio—Taken out of the 60% Equity Allocation (through Sept. 2011)

Asset Allocation	10 -Yr Return (Annualized)	10-Yr Std. Dev. (Annualized)	10-Yr Annualized Sharpe Ratio	10-Yr Annualized Sortino Ratio	10-Yr Morningstar Risk-Adjusted Return
60/40 Portfolio	4.44	9.41	0.30	0.42	1.51
5% Currencies	4.49	8.69	0.33	0.46	1.69
10% Currencies	4.52	7.99	0.35	0.50	1.85
20% Currencies	4.57	6.63	0.41	0.61	2.10

Figure 7 Currency Model Portfolio—Taken out of 40% Bond Allocation (through Sept. 2011)

Asset Allocation	10 -Yr Return (Annualized)	10-Yr Std. Dev. (Annualized)	10-Yr Annualized Sharpe Ratio	10-Yr Annualized Sortino Ratio	10-Yr Morningstar Risk-Adjusted Return
60/40 Portfolio	4.44	9.41	0.30	0.42	1.51
5% Currencies	4.33	9.45	0.29	0.41	1.39
10% Currencies	4.21	9.50	0.28	0.39	1.27
20% Currencies	3.98	9.63	0.25	0.35	1.02