

# FX carry made easier and safer

By Ray Franzi

## AN INTRODUCTION TO THE FX CARRY TRADE

An FX carry trade takes place when an investor borrows in a low-interest rate currency, such as the Japanese yen, and invests in a high-interest rate currency, such as the New Zealand dollar. In the absence of changes in the level of the exchange rate, investors will receive the yield differential. It is common to construct a portfolio or index of carry trades to diversify the risk. Such portfolios have delivered strong returns over the past three decades, comparable and often better to those in equity markets.

The returns from these indices are applicable to every client group.

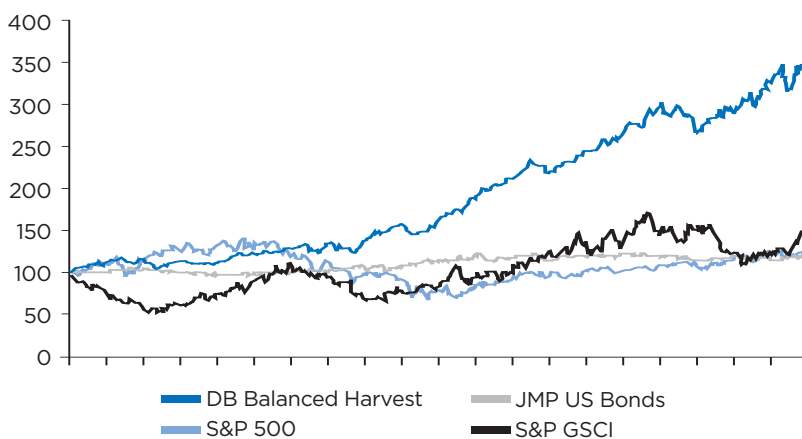
## CORPORATE, BANKS, DEBT MANAGEMENT OFFICES

Many Corporates already borrow in “cheap” currencies such as JPY and CHF or domestically fund their Net Investments in Emerging Market countries due to costs. Indices are an effective way to cheapen funding with a strategic ALM angle.

## ASSET MANAGERS

Through their hedging process or, as an alternative, Asset Class investment clients have tried to generate returns through FX. Carry indices display high, stable long-term returns with low correlation to other asset classes. Option investments may have

## BALANCED FUNDS



SOURCE: BLOOMBERG

additional benefits for Pension Funds in terms of Regulatory Capital requirements.

## CENTRAL BANKS, CASH MANAGERS

As in the case above, “money-market” types of investors have tried to enhance yields through FX. Due to compelling risk rewards, Carry has been a popular candidate.

These returns are typically characterised by long periods of steady appreciation followed by short, sharp depreciation (a colloquial saying is that ‘Carry climbs up the stairs and goes down the elevator’).

There are two main ways of managing

carry drawdown risk:

- Manage the risk implicitly through portfolio optimisation without the use of options
- Manage the risk explicitly through options without portfolio optimisation

Recently the most common way of implicitly risk managing carry returns is to employ one of the central tools of modern finance theory; mean-variance optimisation (MVO).

This technique adjusts the weights of each currency pair in the portfolio to deliver the highest returns for a given level of targeted volatility.

**“ The Deutsche Bank Currency Harvest Indices are simple equal weighted long-short carry strategies which rebalance periodically and that allocate based on observed interest rates ”**

**RISK AND REWARD**

	DB Balanced Harvest	JPM US Bonds	S&P 500	S&P GSCI
Average Excess Return	12.27%	2.18%	2.84%	6.67%
Annualised Volatility	8.9%	4.94%	17.5%	21.74%
Annualised Sharp	1.38	0.44	0.16	0.31

SOURCE: BLOOMBERG

However MVO is built on the idea that markets are efficient; that is, investors are just as likely to experience losses as gains. It is critical in this context because FX carry trades are profitable precisely because markets are not efficient.

Applying this technique to the carry trade is therefore paradoxical; Investors are employing an investment strategy premised on markets not being efficient, while at the same time employing an optimisation technique that is premised on markets being efficient.

However the very reason carry works is that it rewards investors for risk. Investors should select a “pure” carry strategy that doesn’t reduce this risk through historical optimisation and then floor potential losses on this strategy through options.

We believe a sounder approach is to define ‘pure’ carry indices, stable in terms of compositions and easy to manage, and have investors explicitly manage drawdowns through option payouts

In order to construct a rules-based index you need to have transparent rules based on observable data. For optimised indices these rules tend to be complex, requiring large amounts of data, some of which are not publicly available does not exist for EM currencies and this limits the investment universe. On the other hand, simple indices will enable investors to include a broader sample of currencies. In addition, derivatives pricing and risk management will be made easier due to index simplicity

In practice, investors should gain exposure to carry indices through options, as positive

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average performance will make their strategy profitable, the portfolio (diversification within the index) approach will decrease the cost of such strategies in case of a drawdown, client will not have to ‘hope’ that loss is in line with targeted risk, but will have a predetermined maximum potential loss defined as the premium, however harsh the drawdown turns out to be.

The Deutsche Bank Currency Harvest Indices are simple equal weighted long-short carry strategies which rebalance periodically and that allocate based on observed interest rates.

From main carry benchmark indices, Harvest has had the performance with highest Sharpe Ratio.

There are three indices, the G10, Global and Balanced Indices. These indices apply

the same allocation methodology differing only on the pool of currencies from which they can choose:

- G10: G10 currencies
  - Global: G10 and 10 EM Currencies.
  - Balanced: Same pool as global with a minimum number of G10 longs and shorts
- Global and Balanced indices have tended to outperform. These have benefited from core longs of emerging market currencies like TRY, BRL and ZAR (against core shorts of CHF, JPY). We believe this is a key structural feature of index success given that emerging market economies represent an ever-growing share of world GDP. Over the last few years we have seen impressive growth in emerging market countries. As a result, China, India, South Korea, Indonesia, Thailand, Philippines and Malaysia now represent 28% of World GDP versus 19% for US.

Balanced Harvest has outperformed on a risk reward basis due to the additional diversification benefit of broad investing. We display below the performance of the Balanced Harvest Index in USD vs. “traditional investments” (S&P, JPM Bonds, GSCI) on a total return indexed basis for the past 10 years. ■

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