

Economist.com

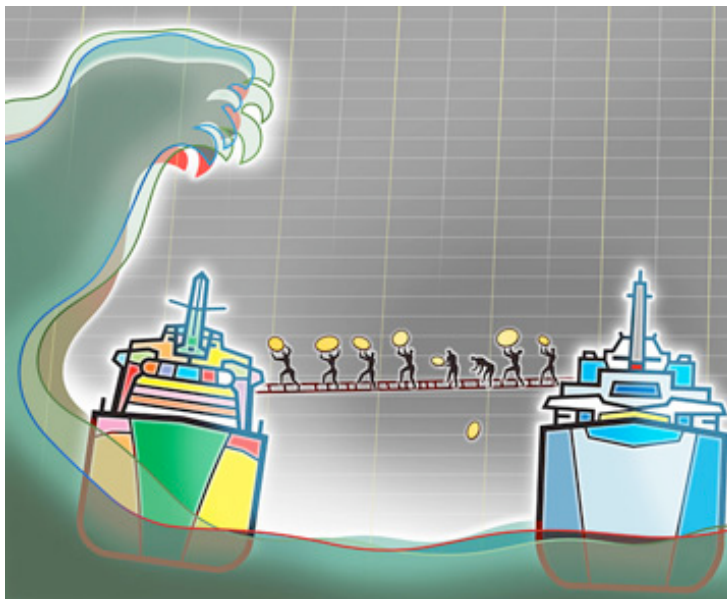
FINANCE & ECONOMICS
ECONOMICS FOCUS**Economics focus****Crash and carry**

Dec 10th 2009

From The Economist print edition

New research suggests a way to make steady profits from the carry trade

Illustration by Jac Depczyk



WHEN pundits worry about the distorting effects of cheap money on asset prices, they invariably single out the carry trade as a cause for concern. The term is often used loosely to describe any investment that looks suspiciously profitable. More specifically it refers to a particular sort of foreign-exchange trading: that of borrowing cheaply in a “funding” currency to exploit high interest rates in a “target” currency. The yen has long been a favoured funding currency for the carry trade because of Japan’s permanently low interest rates. As a result of the crisis and near-zero rates in America, the dollar has become one, too.

If markets were truly efficient, carry trades ought not to be profitable because the extra interest earned should be exactly offset by a fall in the target currency. That is why high-interest currencies trade at a discount to their current or “spot” rate in forward markets. If exchange rates today were the same as those in forward contracts, there would be an opportunity for riskless profit. Arbitrageurs could buy the high-interest currency today, lock in a future sale at the same price and pocket the extra interest from

holding the currency until the forward contract is settled.

In practice, the forward market is a poor forecaster. Most of the time exchange rates do not adjust to offset the extra yield being targeted in carry trades. So a simple strategy of buying high-yielding currencies against low-yielding ones can be rewarding for those that pursue it. The profits are volatile, however, and carry trades are prone to infrequent but huge losses. In late 2008 the yen rose by 60% in just two months against the high-yielding Australian dollar, a popular target for carry traders. That made it much more expensive to pay back yen-denominated debt.

If efficient-market theory cannot kill the carry trade, why don't volatile returns, and the occasional massive loss, scare off investors? A new paper* by Oscar Jordà and Alan Taylor of the University of California, Davis, may have the answer. They find that a refined carry-trade strategy—one that incorporates a measure of long-term value—produces more consistent profits and is less prone to huge losses than one that targets the highest yield.

The authors first examine returns to a simple carry trade for a set of ten rich-country currencies between 1986 and 2008. Buying the highest yielder of any currency pair produced an average return of 26 basis points (hundredths of a percentage point) per month. That would be fine, except that the standard deviation of returns, a gauge of how variable profits are, was almost 300 basis points. The monthly Sharpe ratio that measures returns against risk was a "truly awful" 0.1 (the higher the ratio, the better the risk-adjusted performance). Worse still, the distribution of monthly profits was negatively skewed: big losses were more likely to occur than windfall gains.

No sane trader would follow a rule with such poor results. So the authors put together a far richer model to help decide which side of a currency trade to be on. It included things that are most likely to influence short-term movements in currencies, such as the change in the exchange rate over the previous month, as well as the size of the interest-rate and inflation gap between each currency. They found that all three factors mattered. Currencies that rose in one month tended to rise in the next month. Those with the highest interest rates went up most, as did currencies with high inflation (which drives expectations of further rate rises).

These impulses can drive exchange rates a long way from their fair or "equilibrium" values. That creates the risk of a sudden reversion that could wipe out earlier profits. To guard against this, the authors added to their model a measure of how far the exchange rate has shifted from its fair value. They found that this alarm bell can sometimes turn a "buy" signal into a "sell".

This valuation check helped get rid of the negative skew associated with the simplistic version of the carry trade. But the authors thought the model could be improved still further. One worry was that although it makes sense for traders to buy currencies with fat yields, it may be dangerous past a certain point. After all, a high interest rate can be a symptom of a currency in distress. The authors judged that the link between profits and yields was likely to be "non-linear" (ie, its strength alters as the interest rate of the target currency climbs) and changed their model to reflect this. This non-linearity applies to currencies' values, too: the likelihood of a crash escalates as a currency becomes ever dearer.

Sharpe thinking

The fully evolved model performed well compared with its primitive ancestor. Used in a portfolio of separate carry trades (to limit the volatility that comes with making a single bet), it delivered average monthly returns of 57 basis points, much better than the 26 basis-points profit from the simple approach. The Sharpe ratio based on annual returns was a very healthy 1.27. And returns based on the deluxe model had a positive skew: large windfalls were more likely than big losses. It appears that savvy investors can indeed make sustained profits from the carry trade.

The authors stress that their sophisticated approach was scarcely better than the simple one at predicting

the direction of exchange rates. The crucial advantage is that where it made mistakes, the stakes were small. The deluxe model might tell a trader to turn his nose up at a trade with apparently strong returns because of the risk of a currency crash. The trade might well turn out to be profitable but the forgone profit is a small price to pay for avoiding a potentially big loss. It is a lesson that applies to other asset markets, including those for shares, bonds and homes. Trading momentum will often drive up asset values for long periods and persuade buyers that high prices can be justified. But investors ignore fair-value measures at their peril.

* "[The Carry Trade and Fundamentals: Nothing to Fear But FEER Itself](#)" by [Òscar Jordà](#) and [Alan Taylor](#), November 2009

Copyright © 2009 The Economist Newspaper and The Economist Group. All rights reserved.