

## Currency Carry And Yield Curve Trading

Two traders walk into a bar. One says, “I borrow at the short end of the yield curve and lend at the long end of the yield curve when the yield curve is positively sloped. I focus on the spread between two-year and ten-year instruments. I guess you could say I am a carry trader.” The other says, “I borrow at the short end of the yield curve in one currency and lend three months later in another currency when the rate at which I borrow is less than the rate at which I lend. I guess you could say I am a carry trader, too.”

The punchline is both traders are doing pretty much the same thing. The key difference, of course, is the term trader is taking on a great deal of yield curve risk over a longer period of time while the currency trader is taking on very hedgeable spot market risk over a short period of time. But beyond that similarity, the two traders live on opposite ends of the trading universe and almost certainly trade on different desks and share virtually no information.

Logic says the two carry trades should be related in some form to each other. After all, if a country drives its interest rates down toward zero, as Japan, Switzerland and the U.S. have done in turn, they open up carry trades (see “*Looking At The Carry Trade*,” June 2007, “*The Short, Awful Life Of The Dollar Carry Trade*,” August 2008 and “*Franc-ly My Dear, I Don’t Give A Carry*,” September 2008). Moreover, carry trades are the one class of long-term currency trades capable of producing significant excess returns (see “*Currency Traders Should Be Humbler*,” May 2007). That very same stimulus at the short end of the yield curve should have some, but not necessarily proportionate, impact on longer maturities.

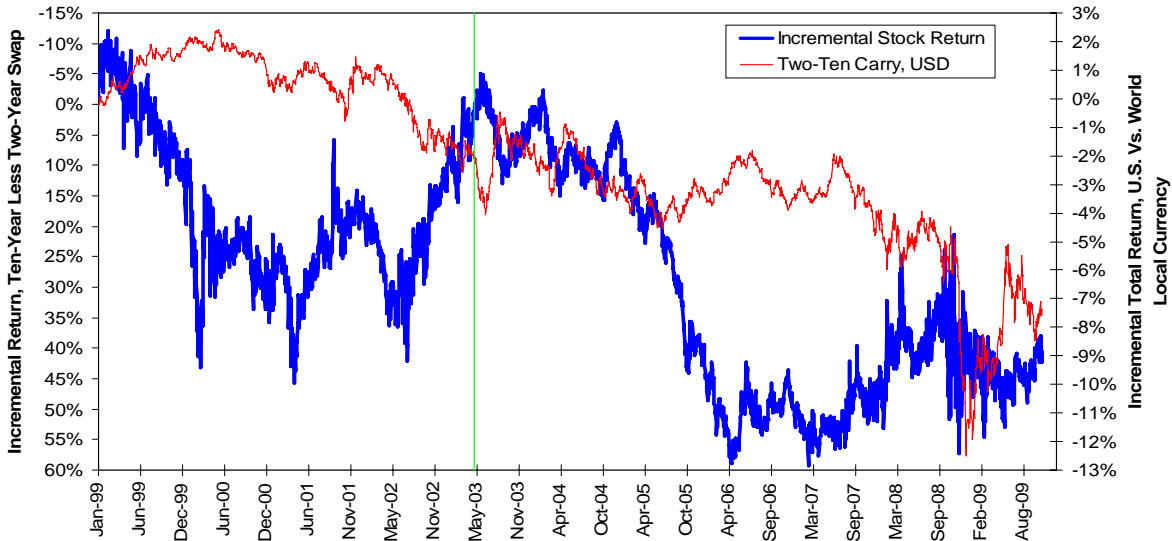
As is always the case in such matters, we should expect to learn more from what we cannot explain directly, the residuals of the process and the various anomalies of the market relationship. Two variables will be examined for each of nine currencies below, the return on the carry trade of borrowing the U.S. dollar and lending in that currency and the return on the trade of financing a ten-year fixed-rate receiving position on a swap in the non-USD currency with a two-year fixed-rate paying position on a swap in the non-USD currency.

The return on the swap trade will be presented on an inverse scale; as you move toward the more positive numbers on the bottom, the return on the ten-year fixed-rate receiving position has increased; this is similar to saying there has been a bull market in bonds. The currency carry trade is presented on a normal scale; here as the numbers become more positive, the return on financing short-term deposits in another currency with USD borrowings has increased. We should expect the two curves to move in similar directions: A bull market in bonds often occurs in the context of lower short-term interest rates and hence lower returns on the currency carry trade. Finally, the scales are displayed as incremental returns to the base indexing date of the January 4, 1999 advent of the euro.

### **The U.S. Base**

Before moving into the series of charts for the non-USD currencies, let’s take a look at the U.S. market with a different dimension. The U.S. has been in a secular bull market for bonds since 1981. This ranks as perhaps the most-disbelieved three decade-long bull market in human history. If we look at the swap carry for the U.S., we see a small top during the Federal Reserve’s first declaration of war on deflation in May 2003, marked with a green vertical line. The bull market resumed and hit what may turn out to be a generational top in December 2008.

### Steep U.S. Swap Curve Led To U.S. Equity Underperformance

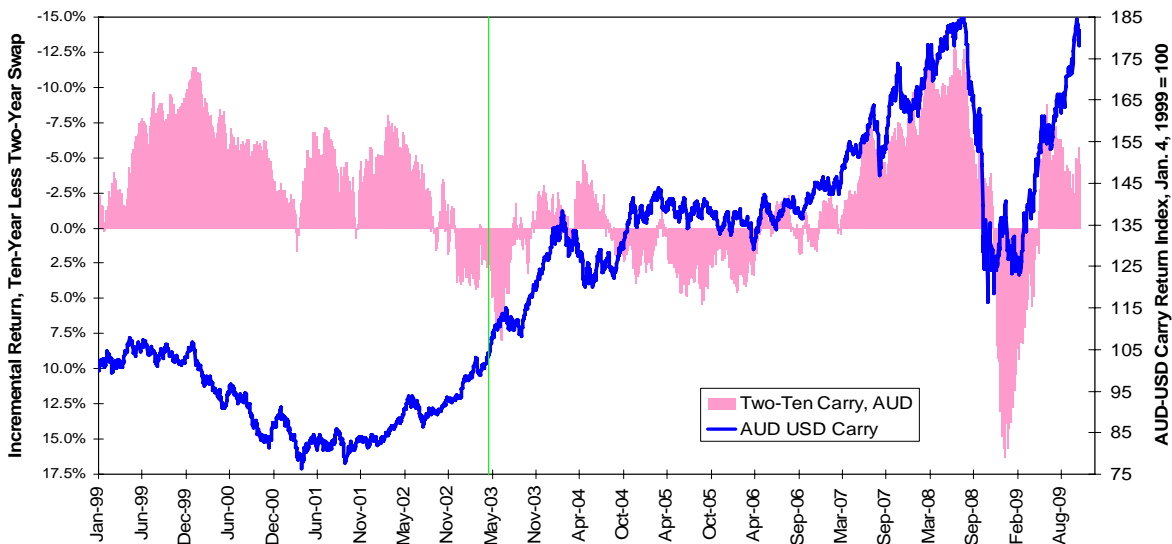


Note what happened to the performance of the U.S. stock market vis-à-vis the MSCI World Free index in local currency terms after May 2003. The U.S. underperformed the rest of the world significantly after this date and after the Federal Reserve’s second declaration of war on deflation in December 2008. And yet the Federal Reserve continues and is likely to continue targeting the U.S. stock market with low interest rates for a long time to come despite this rather demonstrable failure. That policy will affect both the currency carry indices seen below and the swap market differentials.

### Country Cases

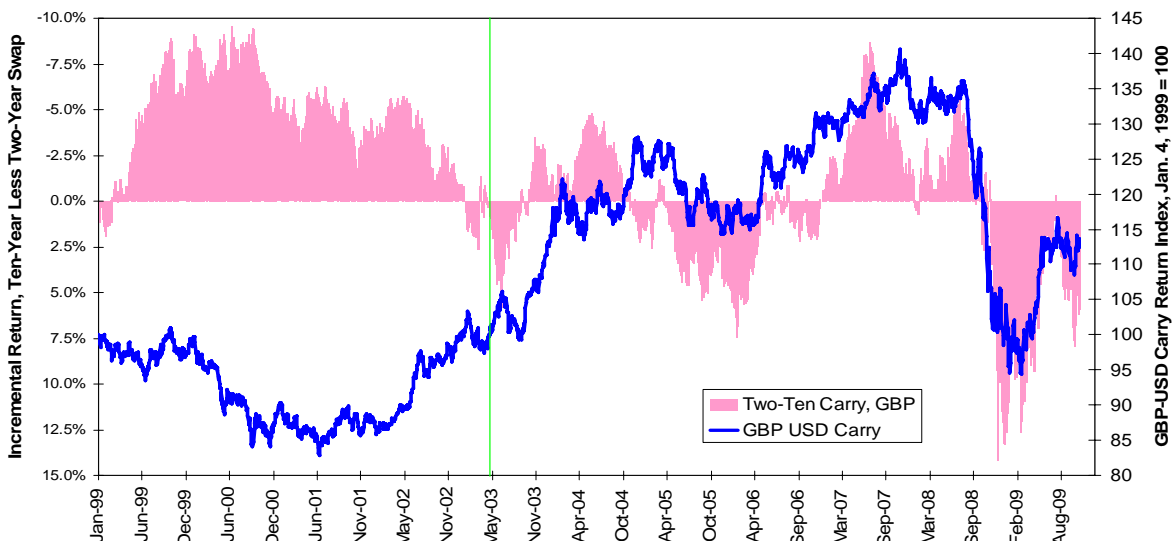
The country with the greatest conformance to the hypothesis swap carry and currency carry are linked is, rather surprisingly, Australia after May 2003. The flood of money coming out of the U.S. spurred demand for Australia’s resource exports (see “What’s Down With The Australian Dollar?” March 2008) and led to a return flow of capital into Australia. That capital influx pushed swap yields lower and lowered the swap return differential. The one prominent exception during the post-May 2003 period occurred during the financial crisis’ peak in 2008-2009; here the plunge in Australian bond yields coincided with a flight out of the AUD as resource exports and prices fell. Australia raised short-term interest rates in October 2009, and this served to arrest some of the one-way nature of the AUD’s carry trade.

### Australian Two-Ten Carry Linked To Currency After May 6, 2003



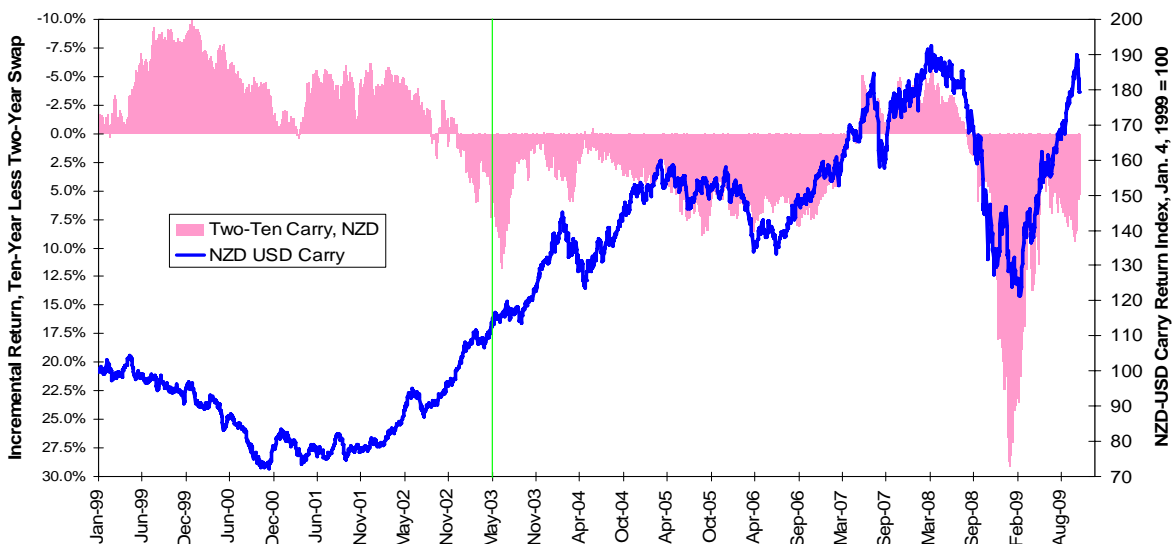
Next in line comes the British pound, and there is an interesting twist. The two countries most affected by the financial crisis were the U.S. and the U.K., and the U.K. very well may have gotten the worst of it. The two financial systems linked closely during the post-May 2003 credit bubble and then stayed linked during the very depths of the financial crisis. A massive lowering of British short-term interest rates culminating with a move to quantitative easing in March 2009 led to both a lower currency carry and a bull market in British bonds.

**British Pound Two-Ten Carry Linked To Currency After May 6, 2003**



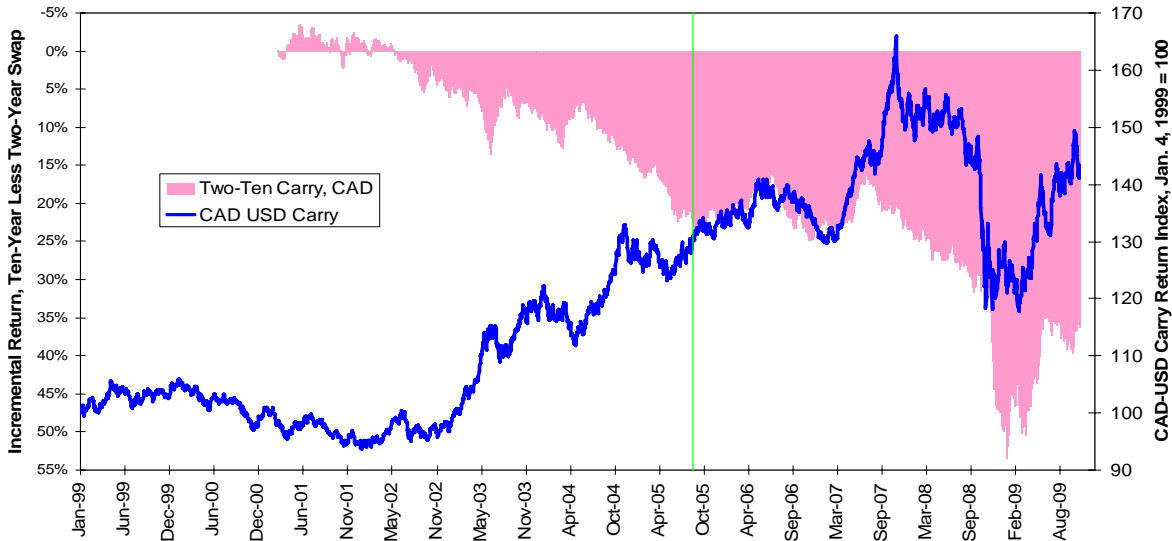
The New Zealand dollar is next on the list – and yes, there does seem to be an English-speaking theme here – even though the carry most affecting the kiwi has been that based on the Japanese yen (see “*Getting Carried Away With The Kiwi*,” July 2008). The small New Zealand economy is tied to short-term external financing, and that is always a dangerous spot. Let us hope they fare better than Iceland in this regard.

**New Zealand Dollar Two-Ten Carry Linked To Currency After May 6, 2003**



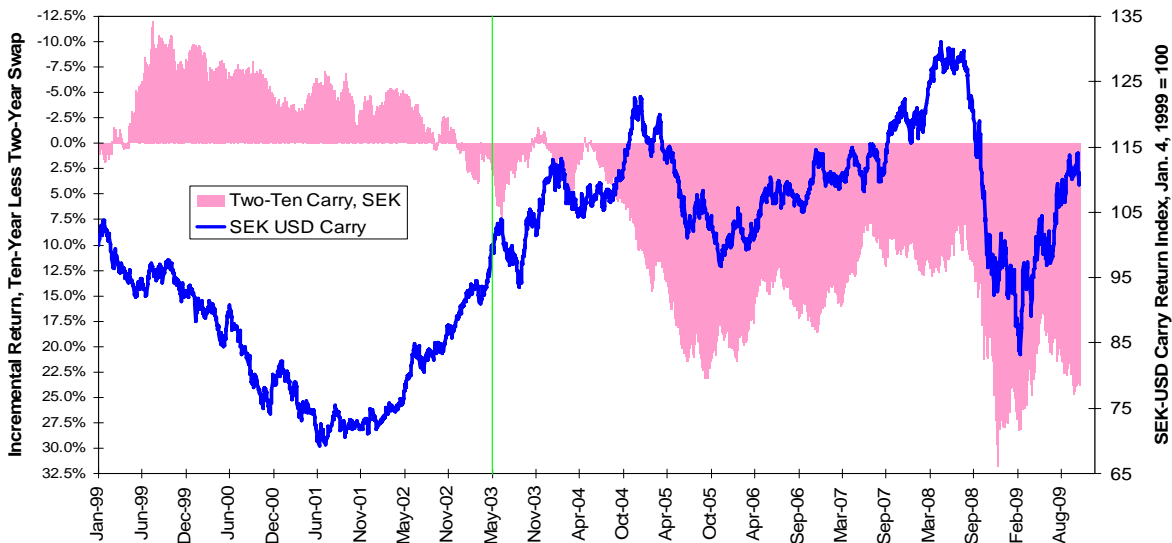
We can end the list of English-speakers with bilingual (just ask them and they will tell you) Canada. Unlike other currencies where the May 2003 date is significant, the key date for the CAD was September 2005. It is quite hard to point to a single development which may account for this belated linkage, but once it occurred it remained quite strong going into the depths of the financial crisis in 2008-2009.

### Canadian Two-Ten Carry Linked After September 2005



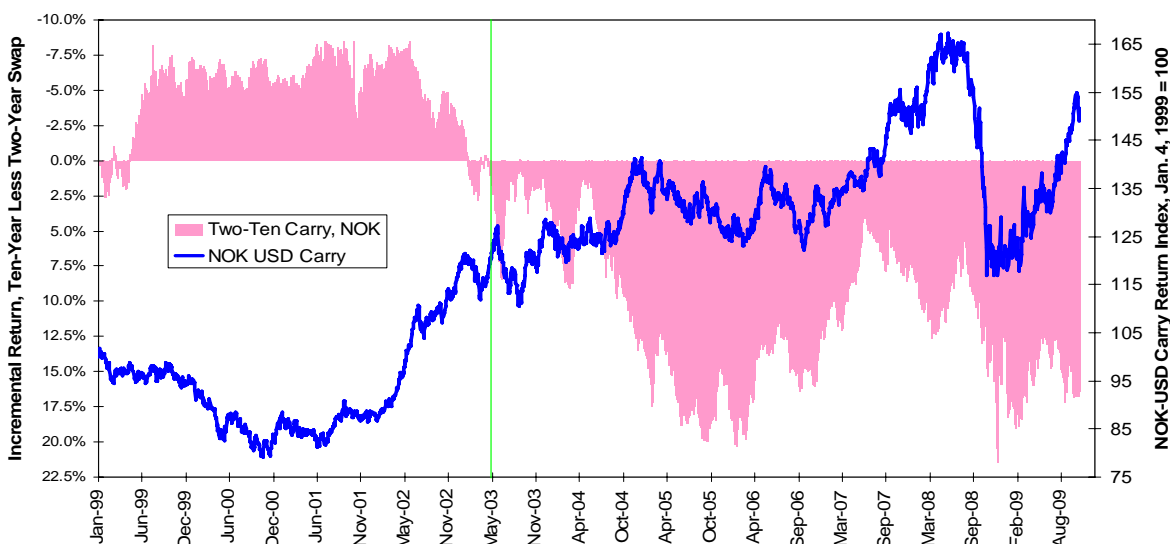
Two Nordic currencies, the Swedish krona and the Norwegian krone, are on the list, and the two behave differently as is their wont (see “*Nordic Currency Confusion*,” November 2008). The SEK’s carry to the USD was far less active after May 2003 than was the return on the swap trade. This is an odd case where mid- and long-term interest rates seem to be carrying more of the adjustment burden within an economy than the currency exchange rate is carrying externally. Of course, the primary currency trade for the SEK is not its carry to the dollar but rather its spot rate against the euro.

### Swedish Krona Two-Ten Carry Linked Weakly To Currency After May 6, 2003



The case of the Norwegian krone is far simpler: The NOK carry to the USD has been unimportant and scarcely moved in the same direction as the return on the swap trade. Norway became the first European country to raise short-term interest rates in October 2009; this has had no discernible effect on the carry trades.

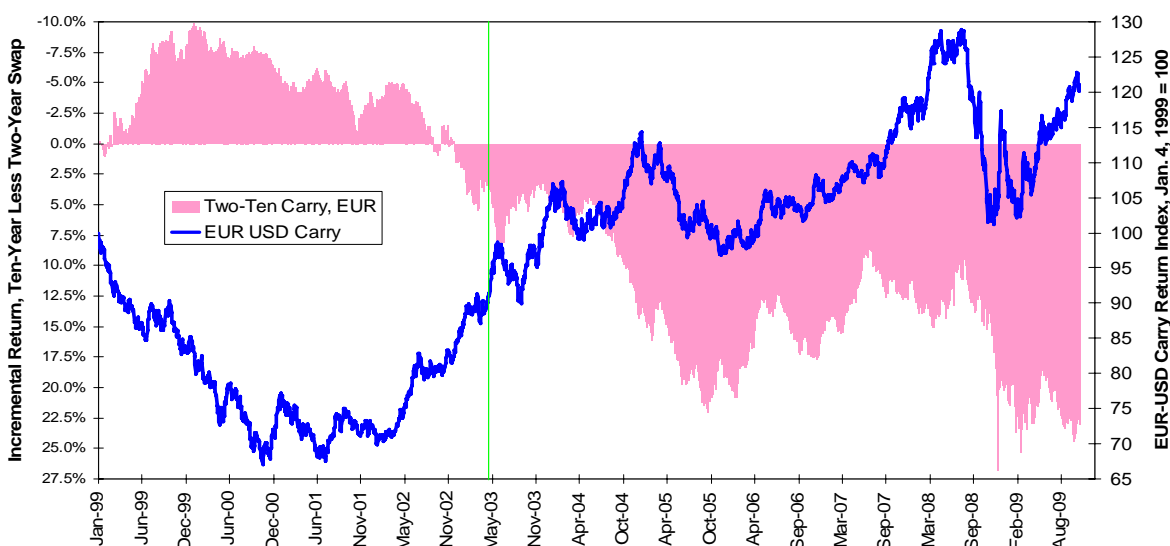
### Norwegian Krone Two-Ten Carry Not Linked To Currency After May 6, 2003



The last group of currencies has almost no discernible link between their carry to the dollar and the swap trade returns. The euro has had a positive carry to the dollar for years and has been in a bull market for bonds since May 2003, but the two moves are operating without any apparent connection to one another.

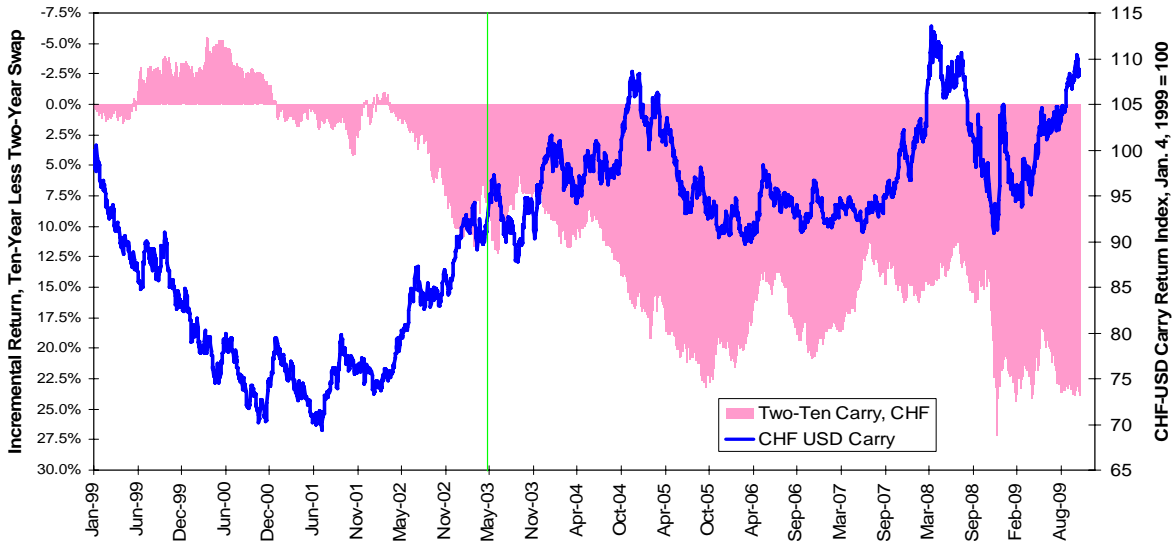
How can we account for this? The European Central Bank has a single mandate, price stability, while the Federal Reserve has the infamous dual mandate of both price stability and full employment. The Federal Reserve clearly has leaned to full employment since the late 1990s as evidenced by their role in the serial inflation of financial bubbles. These conflicting mandates have created swap markets out-of-phase with one another and with the currency carry trade. As an aside, this out-of-phase character is consistent with the idea global currency markets orbit around the central exchange rate of the USD-EUR trade (see “*The Dollar Index And ‘Firm’ Exchange Rates,*” December 2005).

### Euro Two-Ten Carry Not Linked To Currency After May 6, 2003



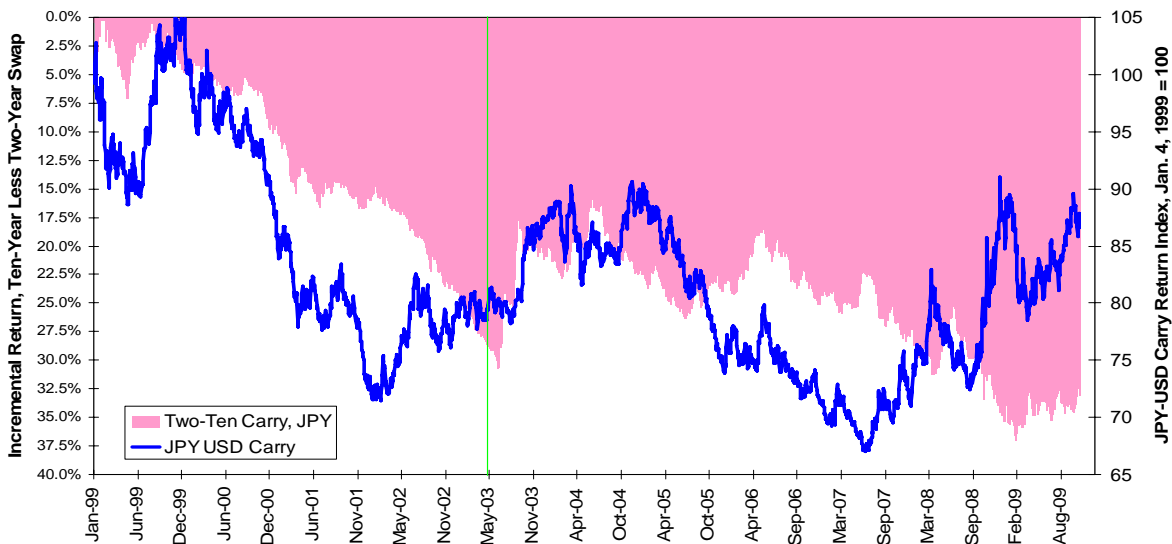
The Swiss franc is one of the few countries who short-term interest rates have competed with the dollar for the basement in recent years. As a result, the CHF’s carry against the dollar has been minimal for nearly five years while it remains in its own bull market for bonds. The link between the two trades is weak because the carry trade largely has been a non-factor.

### Swiss Two-Ten Carry Linked To Currency After May 6, 2003



Finally, we come to the champion of low interest rates, Japan. Here the long-term carry against the dollar has been a money loser, but the long-term bull market for bonds and the return on the swap trade have been linked erratically to the money-losing carry trade as both the U.S. and Japan have raced to zero in a leapfrog fashion.

### Japanese Yen Two-Ten Carry Erratically Linked To Currency After May 6, 2003



### The Second Front

The critical takeaway from the above is, as predicted, what was not displayed directly. While not all swap trades are joined at the hip to the currency carry trade, none move in contravention thereto. This means our two trader friends who walk into the bar should strike up more than a passing acquaintance; a successful carry trade into a currency generally reflects higher short-term interest rates in that currency and therefore likely invites a bearish position in that country's bond market as well. The opposite holds true, too: A bull market in a country's bonds often is accompanied by a weakening in the carry return into that currency.

Both of our trader friends could help themselves by keeping an eye on each other's markets. Not as a short-term trading indicator; that will not work. The gain will come from understanding the dynamics behind their own market.