The Dollar Index Meets Its Match

There are two ways of approaching the seemingly simple question, "What's the euro worth?" The first and most reflexive response would be to run over to your nearest quote screen and punch in the exchange rate between the euro (EUR) and the U.S. dollar (USD). This is also the standard answer, but it is shockingly incomplete.

A second way, and an attempt at greater completeness, would be to provide a group of cross-rates between the EUR and the currencies of its major trading partners, such as the British pound (GBP) and the Swiss franc (CHF). While a more complete answer, it confuses data with information: All those cross-rates without some measure of their relative importance just confuse the issue. Moreover, the relative importance of these cross-rates changes constantly.

A third way would be to quote the EUR in something alleged to be an absolute standard. Both gold and the International Monetary Fund's Special Drawing Rights (SDR) have been offered as such a standard, with gold by far having the greatest number of adherents and cultists. But if the 2004-2006 experience with gold has shown us anything it is gold is really nothing more than just another commodity whose price may or may not reflect absolute currency stability or even inflation expectations.

If the long-only commodity indexers start buying gold in large quantities or if one or two major central banks decide to place a greater portion of their reserves into gold as opposed to, say, the USD, gold ceases to be an absolute standard. This certainly appears to have occurred in late 2005, when the currency-adjusted movements of the London AM fix in USD, EUR and GBP turned parallel even though the currencies themselves did not. With SDRs non-accessible for investors and with gold no longer an absolute standard, we will have to seek a fourth way of quoting the EUR, a fixed basket.



Currency-Adjusted London AM Gold

The Basket Case

The dollar index (DXY) has demonstrated the utility of a fixed-weight basket approach to answering the question, "What's the dollar worth?" for more than three decades on a descriptive basis and for more than two decades as the basis for exchange-traded futures and options. As we move ever-closer to what was described here last in December 2005 as a "firm" exchange rate environment, one characterized by USD and EUR blocs, it would be useful to have a parallel to the DXY. In this way we could express the euro as a multilateral, not as a bilateral, quote.

Once we agree on an indexation approach, we run into the problem of how to assemble the index, how to weight the index, what to include in the index, etc. Think of all the indices in your investing life; each claims to be the best for a given purpose, but you have no single way of making that determination.

The European Central Bank created a 12-currency Euro Effective Exchange Rate index, but stopped publishing that index in October 2005 in favor of a 23-currency index. This latter index looks like European political correctness run amok. In includes the small-weight currencies of countries on the European periphery such as Latvia, Lithuania, Estonia, Malta, Cyprus, the non-Euro Scandinavian currencies and non-European trading partners such as Hong Kong, Singapore and Korea. Basically, if your currency is a dollar or crown of some kind, you are in the index.

Three index approaches are depicted below. The original 12-currency Euro Effective exchange rate index is on the left; its members are highlighted in the legend box. If we add nine additional currencies (Chinese yuan (CNY), Czech koruna (CZK), Cypriot pound (CYP), Estonian kroon (EEK), Latvian lat (LVL), Lithuanian litas (LTL), Maltese lira (MTL), Polish zloty (PLN), Slovakian koruna (SKK), Slovenian tolar (SIT) and Hungarian forint (HUF)) to the mix and bloc its 17.35% weight off as "Other," we arrive at the new 23-currency index depicted on the right. The middle stack of five currencies comprises the Euro index (ECX) discussed below.

🛛 OTH 🗖 AUD CAD 100% SGD 90% DKK HKD 80% KRW 70% SEK CHF 60% JPY GBP 50% USD 40% 30% 20% 10% 0% Euro Eff. Exchange (12) Euro Index Eur. 23-Index

Three Euro Indices: Are They Equivalent?

The new 23-currency index has several problems. First, some of the components are currencies destined to become part of the euro. Second, several of the larger currencies are not freely floating at all. These include the managed float of the HUF against both the USD and EUR and largely fixed CNY. Third, this index has too many members whose currencies are too closely correlated with other to make the distinctions meaningful. The cross-rates between the Danish krone, Swedish krona and Norwegian krone may be of deep and lasting importance to our Scandinavian friends, but these are not lynchpins of global finance. Fourth, and most important for currency traders, the cumulative bid-ask spreads on 23 different currencies, not all of them deep and liquid, make trading this index too expensive.

The New York Board of Trade's FINEX division got around this problem in the time-honored tradition of equity basket traders: It constructed a representative sample out of five different currencies, the U.S. dollar, Japanese yen, British pound, Swiss franc and Swedish krona. This new Euro Index (ECX), the middle stack in the chart above, is a geometric weighted average of these five, is designed to match the original 12-currency index. This it did between its January 2001 start and mid-July 2005, at which point the 23-currency index weakened on a relative basis to reflect the USD's fourth-quarter 2005 rally.

The EUR/USD Rate And Euro Indices



Both the ECX and the 23-currency index had more moderate histories against the euro-dollar exchange rate, both during the euro's 2001-2002 weakness and later during its 2004 strength. This may be the cleanest example of the advantage a trade-weighted index has relative to a single-currency rate: It is less volatile and therefore reduces the overall risks involved in the timing and emplacement of a hedge. Of course, having a less-volatile hedge instrument does not necessarily translate into having a higher return on your hedge. If, for example, we were to compare the euro-denominated Morgan Stanley Capital International Euro index with the dollar-denominated Russell 3000 and hedge the MSER into USD with EUR, the ECX and the 23-currency index, we would get widely differing results. It just so happens that the EUR's burst of strength in 2003-2004 propelled its results higher; the opposite would have been true in 2001 and the first half of 2002.

Comparative Stock Index Performance, Hedged And Unhedged



Euro-domiciled investors might see the world quite differently, however. They would want the benefits of a diverse index such as the ECX to hedge their multi-currency portfolios. As many European global investors have portfolios denominated in a wide array of currencies, the value of an index-based hedge as opposed to a single-currency hedge is rather apparent. We can illustrate this by comparing the returns on a portfolio of non-EUR global government bonds, 7-10 years maturity, hedged back into EUR using both the ECX and the EUR itself.



Hedging A Non-Euro Bond Portfolio

While the unhedged portfolio underperformed over the entire period in question, this is hindsight. Between January 2001 and May 2002, it outperformed both hedged portfolios. After the start of 2003, the EUR-only hedged portfolio outperforms the ECX-hedged portfolio. Once again, this in hindsight; such a hedge presumes the bond manager is willing to act like a position trader in currencies over an extended period of time. Moreover, it presumes the bond manager is willing to tolerate the greater variance of a single-currency hedge in converting the portfolio back to a euro-denominated basis; the standard deviation of returns for the EUR-hedged portfolio is .00685, as opposed to .004562 for the ECX-hedged portfolio.

Trading The Index

How can investors access the ECX? Futures and options now trade on the familiar quarterly expiration cycle at the FINEX. The pricing of these futures contracts reflects the net interest rate differential between the cash index and the interest-bearing short-term deposits in each currency. If the average yield on the ECX is less than that of the euro itself – and money rates for the Japanese yen, Swiss franc and Swedish krona are less than the euro rates – we should expect the future to trade over the index. Why? Because a long futures position here is equivalent to borrowing at the higher euro rate and lending at the lower ECX rate. You "pay" this net interest rate differential by buying the future for more than the index and then suffering basis deterioration along the way. We can see this over the first month of the March 2006 contract's trading history.

Euro Index Futures Basis



While dollar-domiciled investors are likely to focus on the bilateral euro-dollar exchange rate, we should expect to see a move toward the ECX as an analytic and eventually as a liquid trading tool for global investors with euro-denominated assets or for euro-domiciled investors looking to hedge their own currency as so many Americans were looking to hedge the dollar in 2004. This completes the stage-setting for the two-currency world.