OLSEN

Interest Rates and Currency-Price Volatility

By Richard Olsen

The interest rates associated with individual currencies are one of the most obvious yet least-understood forces in the foreign exchange marketplace. Their most negative effects capture public attention during carry-trade bubbles, such as the recent (summer 2007) rise—and then abrupt fall—of the New Zealand dollar versus the Japanese yen. But day-to-day, currency traders are misled by a broken market mechanism that encourages pricing to skew away from any connection with reality.

In the following interview, Richard Olsen, co-founder of OANDA, discusses this little-understood issue. The solution he recommends—and has put into practice at Olsen and OANDA, the prominent online forex brokerage he founded in 1995—is continuous interest-rate payment, second-by-second, on all open positions.

Continuous interest makes the yield component of every currency transaction real. In a marketplace where fundamentals are few and far between, and where pricing tends to lack any fundamental frame of reference, continuous interest will help stabilize markets and enable incremental intervention to avoid valuation free-falls.

1. What's wrong with the way interest is currently handled in forex?

For most traders, it's not handled at all. 90% of currency trades are closed before the end of the trading day, so no interest is paid or received. For the small portion of positions that are rolled over to the next day, the applicable rates of interest are calculated at *closing rates*—regardless of what the individual trader may have owned or sold during the trading day.

2. You say "rates" of interest—you mean there's more than one?

There are two sides to every currency transaction (a fact that many people don't understand): one currency is bought and one is sold. The trader should *receive* interest on the currency she owns and *pay* interest on the currency she is selling.

For most intra-day traders this is not the case—except for those who use the OANDA platform, where interest-rate payments are calculated every second.

OLSEN

3. Why is daily interest-rate payment a problem?

Because it encourages traders to take speculative positions in weak currencies. Intra-day, this institutionalizes a systematic bias: with interest rates removed from the risk/return equation, speculation is subsidized.

Why does this matter? Ignoring the rates of interest associated with every currency gives speculative day-traders permission to act as though all currencies are the same—that every currency is just a price point on the trading screen.

Given the herd behavior that characterizes day-trading, small pricing discrepancies can quickly get out of hand, driving prices to extremes that have no connection to the value of the underlying currency.

4. But isn't price volatility a fact of life in forex?

Extreme volatility resulting from speculation for its own sake should not be encouraged by the way the market is set up to work. Yes, volatility is not going to disappear, but we believe—and our trading practices confirm—that continuous interest can eliminate some of the excesses.

5. You're saying that the currency markets are broken; how did this happen?

Basically, it is a case of trading practice lagging available technology. As recently as 10 years ago, forex activity was much, much lighter; most trading was inter-day, and trades were executed manually.

With the explosion of online retail trading, daily volume now exceeds $2 trillion, and most trading is intra-day. But most trading systems are still stuck back in 1990.

For the previous generation of systems the manual calculation of continuous interest would have been impossible. Electronic trading today can easily accommodate it, but banks are unwilling to make the investment—primarily because the loss of interest would cut into their profits.

6. Forex is widely described as an "efficient" market. You seem to disagree.

Analysts and commentators confuse volume and liquidity with "efficiency." An experienced forex trader is likely to scoff at the notion that this market is efficient. Because the purpose of any market is to

create asset prices that directly link intrinsic value with the reward of buying or selling the asset.

In forex there is no direct link. Given sufficient liquidity you may always be able to make a trade, but the evolution of price is all over the map. And for no good reason.

7. And you think continuous interest will make the forex market more efficient?

We believe continuous interest will work to stabilize the market. Instability is a serious issue because there is no fixed point of reference. Don't forget: forex traders come in all shapes and sizes. Some are "value traders" who may hold positions for six months or longer; others are looking to profit from very short-term price displacements. Instability makes it impossible for any trader—whatever his objective or time horizon—to develop a consistent experience of pricing relationships on which to base a reasonable investment strategy.

Forex shouldn't be roulette. In the absence of proven pricing relationships traders cannot possibly develop consistent frames of reference that stop them from buying an overpriced asset or selling an asset that is already at a trough.

8. With the huge number of traders and massive volume in forex, can't we just rely on the market to stabilize itself?

No. Because the stakes are too high, and because the risks extend beyond the traders and market makers and banks to entire national economies.

Shifts in exchange rates alter the relative competitiveness of manufacturing and service industries and impact the flow of goods. The in- and outflows of capital have as great or even greater impact on exchange rates than do the trade balances of individual economies. Vulnerable currencies may be victimized by a random exchange-rate spike that starts an avalanche of further devaluation.

And it's not only unstable currencies or economies that run this liability: the global imbalance between currency prices and exchange rates invites the sort of herd behavior that can precipitate a crisis anywhere.

9. Have we had such a currency crisis?

Several, in fact. One of the most devastating was the attack on the Turkish lira in early 2001. A minor political crisis sparked widespread selling of the lira; the interbank overnight rate shot up to 7,500%

(annualized), and the Turkish stock market lost 18% of its value in one day.

The central bank of Turkey first intervened to prop up the lira—by buying the national currency and selling some $5 billion of its reserves in U.S. dollars. But to avoid further depletion of its reserves, the central bank quickly decided to allow the lira to float. Traders saw this as a signal to further dump the currency. It lost 36% of its value in two days.

Real GNP for the year fell 9.4%, the inflation rate nearly doubled—to 68.5%, nine Turkish banks went under, more than a million people lost their jobs…

10. But can't central banks control the exchange rate for their native currencies?

No. They have a strong influence on overnight interest rates for their own currencies, but not international exchange rates. When central banks raise these short-term rates they don't have to buy up their own currencies. The downside is that any increase in short-term rates affects the whole domestic economy. Money, in effect, becomes more expensive; consumers and companies have to pay more to access capital.

11. How does continuous interest fit in here?

Central banks are responsible for maintaining the stability of their currencies. They engage in currency trading not to make a profit, but to manage the value of their home currency. They may lower interest rates or, as in the case of the Turkish crisis, they may raise rates.

But here's the catch: because 90% of forex trading is intra-day, any change the central bank makes has no impact until the following day—except that the announcement of an increase in rates sends a signal to the market that the currency is weak.

Under the current system, where rate adjustments affect only those positions held overnight, to have an impact the increase in interest rate has to be particularly large. And therefore disruptive to the national economy.

With continuous interest rates, central banks could intervene second-by-second to make smaller, more selective (and less damaging) adjustments. (In the example of Turkey, gradual interest-rate increases might have induced intra-day traders to prop up the lira for a few hours at a time, stemming the free-fall.)

Today, adjustments of overnight interest rates are a blunt instrument. When central banks have to maintain a high rate of interest to control inflation, for example, they risk the undesirable effect of a capital influx driving up the value of their currency. Continuous interest would allow them to selectively reduce interest rates to deter such an influx.

Making smaller adjustments in real time, throughout the trading day, is a more surgical and more effective approach. It would mitigate huge swings in exchange- and interest-rate volatility, stabilizing the forex market and restoring the link between a currency's price and its associated yield.

12. It sounds like there are really two trading systems in conflict: a free-wheeling intra-day market and a more constrained inter-day market.

That's right. And interest rates lie at the heart of this conflict. But the inter-day market is not necessarily constrained; the phenomenon of the carry trade shows how market disequilibrium can also wreak havoc through longer-term positions.

13. Can you explain how this works?

The recent bidding up of the New Zealand dollar against the Japanese yen is a perfect example.

First, what is the "carry trade"? Buying a currency with a higher rate of interest and selling one with a lower rate of interest. With the hope that the total return (interest + price appreciation) of the former will be higher than the total return of the latter.

Carry traders bid up the price of the higher-yielding currency. But remember: they are longer-term traders who hope that the momentum of their herding behavior will result in a profit. They ignore the underlying fundamentals of the economy that sponsors the high-yielding currency.

This is where the two perspectives you mentioned butt heads: for carry traders inflated interest rates are a boon, but for intra-day traders they are an incentive to short the currency. In other words, intra-day traders are a drag on the currency: their shorting activity exaggerates disequilibrium. And, as we have discussed, *during the trading day* there is nothing a central bank can do to counter this effect.

For inter-day traders interest rates work as expected; for intra-day traders the mechanism works in reverse.

14. So, who will be responsible for fixing this broken system?

It would be nice if regulators would lead the way, but we believe continuous interest will be advocated from the bottom up. Meaning that self-interested day-traders will recognize the potential advantage of receiving interest on their open positions. Two of the world's largest banks have already adopted OANDA's forex platform, so the movement toward continuous interest is already under way.

While two systems continue to exist, traders will use both to their own advantage: when they *buy* a high-yielding currency they will do so through the platform that pays continuous interest; when they *sell* a high-yielding currency they will use the old system. (Why pay interest if you don't have to?) As more and more traders realize there is an alternative to the old-fashioned system—and that they can earn extra return by trading on the new one—those older platforms will gradually disappear.

Central banks should endorse continuous interest for the reasons we have discussed. They will have to learn to manage intra-day rates without jeopardizing liquidity, but their motivation to change is strong.

The need for change is obvious: increasing market volatility creates huge, unwarranted imbalances in the global economy, and the current system of daily interest-rate payment simply cannot cope.

Finally, the trend toward higher interest rates (bigger differentials) creates larger arbitrage opportunities between platforms operating under the old and new interest-payment regimes.

OLSEN

15. One last question: How would continuous interest rates benefit the average citizen?

Today we think of interest rates distributed across a "yield curve" that reaches from one day to 30 years. Continuous interest would extend this curve (on the short end) from one day down to one second or one minute or one hour.

Forex interest rates could spike up or down at intervals of a minute or an hour, helping bring buying and selling demand into greater equilibrium, and then return to a "normal" value. Average citizens would not be affected because the interest rates that are most important for them (mortgages, credit, and bank loans) depend on the longer end of the yield curve.

Any systematic change that could avoid a crisis should be a priority for everyone. Remember the Turkish experience in 2001—sure, big investors lost money, but the brunt of the cost was borne by average people who lost their jobs and their savings.

But even short of such a disaster, continuous interest can go a long way toward making everyday forex trading more equitable and less susceptible to speculative exploitation. More stable exchange rates mean that currency value is more predictable and more reliable. And reliable currency value benefits every member of every country.

Richard Olsen is founder and chief executive of Olsen Ltd and the Chairman of OANDA, a leading foreign exchange broker and market maker.

OLSEN

Olsen Ltd is a research and development company and investment manager based in Zurich, Switzerland. Olsen has yielded practical applications and managed accounts and third-party products, investing in currencies as a separate asset class or as an overlay to an existing currency exposure.

Olsen Ltd
Seefeldstrasse 233
8008 Zürich, Switzerland

Phone +41 44 386 4848
Fax +41 44 422 2282

www.olsen.ch