MACROLENS
Markets in High Resolution

The Macrolens Approach to Currency Analysis: Part I
or
Why Currency Markets Tell You Little About Exchange Rates

"Currencies are difficult" is a common refrain. And for good reason: they are!

We have no illusions of solving the mysteries of exchange rate forecasting, but endeavor to establish a sound analytical framework for attempting such assessments. We'll begin here by breaking down an "exchange rate" into its component pieces and rebuilding it in steps in order to elucidate a logical truism of exchange rate: FX rates are merely **revealed** in the foreign exchange market. ***They are not determined by it***.

1. Think of currencies not as pairs, but as Individual units with individual absolute valuations

Depending on the point of reference, the "value of a Dollar" might be described as 110 Yen, 1/3rd of a gallon of gas, 1/12th of a movie ticket, 1/20th of an hour of manual labor, and so on.

Like anything else, the value of an individual currency is ultimately determined by "supply and demand." In the case of the U.S. Dollar then, its value is determined by the expression:

$$\text{The Value of a USD} = f\left[\frac{\text{Demand for USD}}{\text{Supply of USD}}\right]$$

Other things equal, more demand results in a higher value for the Dollar, more supply in a lower value.

What makes currencies so to predict is that in the case of currency "supply and demand" are amorphous concepts, as opposed to goods and commodities in which "supply and demand" are definitive concepts.

I may demand two loaves of bread for dinner tonight. I also demand a certain amount of monetary liquidity in the form of cash, liquid deposits, marginable securities and access to credit, although I couldn't possibly describe to you what "quantity of liquidity" I derive from each of those decisions.

*2. Currency values are predominantly driven by **domestic** shifts in currency (aka liquidity) supply and demand.*

At this point it's imperative to maintain the concept of an *individual* currency as a discrete unit with value:

$$\text{The Value of a USD} = f\left[\frac{\text{Demand for USD}}{\text{Supply of USD}}\right]$$

In assessing the value of the Dollar as a **stand-alone concept**, would the first thing you ask yourself be "how many U.S. Treasuries will China buy this year?" Of course not. It would be far more important to ask such questions as:

- What will be the effect of Fed policy on liquidity supply?
- What are banks doing to increase or decrease liquidity supply? Are regulatory changes effecting this behavior?
- Are shifts in economic activity likely to generate increases or decreases in demand for financial liquidity?
- Are the liquidity preference of economic actors shifting as a result of changing perceptions of economic health or financial safety?

3. Exchange rates are simply the value of currency 1 expressed as the value of a currency 2.

As if assessing the supply and demand for USD isn't difficult enough, in order to analyze the JPY/USD exchange rate one would have to analyze a similar set of question for Japan as well!

Just as with the Dollar, the value of the Yen can be expressed as follows:

$$\text{The Value of a Yen} = f\left[\frac{\text{Demand for Yen}}{\text{Supply of Yen}}\right]$$

Having expressed the value of the USD and JPY as demand / supply ratios, we can express the JPY/USD exchange rate as simply a ratio of two ratios:

$$\text{JPY/USD FX rate} = f\left[\frac{\frac{\text{Demand for USD}}{\text{Supply of USD}}}{\frac{\text{Demand for JPY}}{\text{Supply of JPY}}}\right]$$

4. Stay focused on the fact that you are now simply analyzing the value of two separate currencies expressed as a ratio of one another

At this point in the process, the vast majority of analysts make what we consider to be ***the fatal logical error of exchange rate analysis***: they assume that the JPY/USD exchange rate is determined primarily by the exchange of USD for Yen and vice versa.

For some reason, the expression of the value of the Dollar as a ratio to the value of the Yen tends to leads to a narrowing of the analytical field of vision in which the focus becomes almost exclusively the direct exchange of Dollars for Yen, *which is in fact an insignificant subset of the overall supply and demand functions of the Dollar and of the Yen*.

If a loaf of bread costs $3 and a bottle of wine costs $15, the bread/wine exchange rate is 5:1. If tasked with establishing a forecast for the bread/wine exchange rate, would you focus exclusively on the direct trading of bread for wine? No, you would likely analyze grain harvests, grape harvests, shifts in consumer preferences, etc. Why, when it comes to exchange rate analysis, is the conventional approach to obsess over cross-border capital flows, trade balances, and "who's buying and selling" in FX markets?

A focus on FX market dynamics and a reliance on quantifiable "flow metrics" produces a myopic view of exchange rate determination.

Exchange rate forecasting should be approached holistically, with a focus on potential shifts in the underlying value of each individual currency in the exchange rate pair, *emphasizing overall drivers of liquidity supply and demand* in each currency realm.

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