

Part 2

Over the years some theories have been said to influence the foreign exchange rates. Discuss each of these theories and critically evaluate their significance.

Foreign exchange rates represent the linkage between one country and its partners in the global economy. The exchange rates affect the relative price of goods being traded (exports and imports), the valuation of assets, and the yield on those assets. In the period of fixed or constant exchange rates these prices, values and yield were predictable over time. But ever since 1973 we have been living in a world where flexible rates have dominated, and the exchange rates aren't any longer predictable. Instead trade flows, interest rate differentials, differing rates of inflation; speculation and other developed theories are determining the exchange rates. In this essay I will examine theories that are believed to influence the exchange rates, and from a critically standpoint hope to see if these theories actually are as influential. However, it should be said that theoretically it has been difficult to differentiate clear, distinctive relations between the theories and the exchange rates since exchange rates are being influenced by several macroeconomic variables. Although interest rates always appear to be incorporated into the exchange rates, the certain importance of individual macroeconomic variables tend to shift over time.

The purchasing power parity approach to the exchange rates was, and continues to be a very influential way of thinking about the exchange rate. The PPP is derived from the very basic assumption that there exists a "law of one price" in the world. This assumption states that identical goods should be sold at identical prices, and it implies that exchange rates should adjust to compensate for price differentials across the global economy. The theory behind PPP is very attractive, but how good does this theory work. The evidence neither shows that the PPP doesn't hold in the short, nor medium run and but only in the long run. There are several reasons for its failure to hold in the short and medium run. First of all the law of one price requires a perfect arbitrage in goods, which implies that individuals would be able to both import and export any product that are identical and have differentiated prices across countries. This is not a good assumption in the short run. Considering that domestic markets have a tendency to be oligopolistic in the short run, it's then quite easy to understand that prices will differ on these markets. Secondly PPP assumes that a market will run freely without government intervention, as we all know the government is present by imposing tariffs, quotas, VER's and other taxes. It could be argued that the PPP won't even hold in the long run since there is an important component of non-tradable goods on the global markets, therefore the productivity differentials might be different across countries. This would mean that there actually is a permanent change in the price level across countries, and the price change shouldn't be compensated by the exchange rate. Ultimately traders do not view PPP as a useful concept in their operations, although that a small proportion believes that PPP at least partly determines exchange rates at periods over six months. (Cheung & Chinn)

The idea behind *the balance of payments approach* is that there must exist an exchange rate where there are a both internal and external equilibrium. The internal equilibrium assumes that full employment prevails, and that if unemployment exists it's such that it won't affect real wages. The external equilibrium refers to the balance of payments. This theory is quite unique, since it can explain permanent deviations in the PPP. However, there are some problems with this idea, since it is extremely difficult to assess what the exact natural rate of unemployment is. The exchange rate consistent with equilibrium in the external accounts tends also be very difficult to determine. The balance of payment approach will determine where the exchange rate has to converge to, but it provides very little guidance to the short-term fluctuations.

The monetary and portfolio approaches are asset-pricing views of the exchange rates. The idea is that agents have a portfolio choice decision between domestic and foreign assets. These instruments, either money or bonds, have an expected return that could be arbitrated. It is this arbitrage opportunity that determines the process of the exchange rates. In its simplest form, the theory implies the interest rate parity, where the idea is that if the expected depreciation does not compensates the interest rate differentials, agents would have arbitrage opportunities. The theory itself is very attractive but it just works extremely bad according to the data. It still today an area of research where and explanation for its failure haven't been identified.

Rudiger Dornbusch introduced the model of exchange rate *overshooting in 1976*. The model involves a small open economy with perfect capital mobility, a flexible exchange rate and sticky product prices. By combining capital mobility and perfect foresight, uncovered interest rate parity must hold. This simply states that in a small open economy, a drop in the domestic interest rate must be accompanied by an expected appreciation if the domestic exchange rate. This condition is the fundamental driving force of the Dornbusch overshooting model. To understand the model, first assume interest rates, domestic and foreign are equal and expected to remain equal. Then we disturb the domestic economy by a one time, permanent expansion of its money supply. In response to this monetary expansion, the domestic interest rates falls since prices are assumed sticky and do not immediately adjust. Accordingly, the domestic exchange rate depreciates as capital leaves the domestic market and enters the foreign market in favor of the higher interest rates. Slowly, domestic prices will adjust, once again leading to equal domestic and foreign interest rates. By uncovered interest rate parity however, the initial divergence in interest rates must be offset by an expected appreciation of the domestic currency in order to keep the foreign exchange market in full equilibrium. Thus, the immediate depreciation of the exchange rate must have been larger than its long run depreciation that is the exchange rate must have overshoot. Dornbusch's exchange rate overshooting model has and is used to explain the large movements of exchange rates. The model is still very much alive today on its own just because it is so clear, simple and elegant. It's clear that the model have been very significant since people claim the overshooting paper marks the birth of modern international macroeconomics. However, the data provides us with some few hard facts about the model. The basic problem with the Dornbusch model is whereas it seems to capture major turning points in monetary policy quite well; it does not seem to capture all the other big exchange rate swings that regularly take place.

Finally I would like to take a look at *the effect of news*. The idea that news causes the great bulk of movements in exchange rates has a long history. Empirical attempts to associate exchange rate movements to specific announcements of macroeconomic variables have been impeded by the difficulty in extracting the unexpected component in these announcements. But several sources show that in fact the response of the exchange rates to news is extremely rapid, on the order of minutes. In some cases the full adjustment of the exchange rate has take as little as 10 seconds. Even minute-by-minute data might not be able to capture this news effect. It's extremely difficult to predict the effect of news since the effects will most likely be unexpected. The real world is characterized by unpredictable shocks and surprises.

The conclusion I have come to after analyzing these different types of macroeconomic theories, is that most of them if not all have extremely difficult to influence the exchange rate in the short run. Even though one would be able to predict money supplies, government policies and other economic influences it would still not be enough to forecast exchange rates. In the short run many economists find the best solution to predict the exchange rate is that whatever will happen will happen today. The theories I have covered are clearly relevant in explaining the patterns of exchange rate behavior, but as we have seen they are very limited for predicting exchange rates.