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Balance of trade announcements and movements in exchange rates - a review.

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BALANCE OF TRADE ANNOUNCEMENTS AND MOVEMENTS IN EXCHANGE RATES- KEIVAN DERAVI, PHILIP GREGOROWICZ AND CHARLES E. HEGJI IN SOUTHERN ECONOMIC JOURNAL VOL. 55, NO. 2 OCTOBER 1988

Summary of the Main Issues

The paper focussed on short run movements in exchange rates in reaction to the United States Commerce department's monthly announcements of merchandise trade balances. It sets out to explore the relationship between monthly merchandise trade announcements, the spot and forward exchange rates and the possible reaction of the Federal Reserve system to the depreciation or appreciation of the dollar resulting from an announced deficit/surplus in the merchandise trade account. The attraction of the study lies in its identification of the possible impact of trade announcements on spot and forward exchange rates as well as its inquiry into whether capital flows, and interest rates are contributing factors to the outcome of merchandise trade balance. It also made an indirect reference to the impact of interest rates on merchandise trade balance.

Taking changes in exchange rates as a function of the U.S. Commerce Department's monthly merchandise trade announcements, the trade accouncement is decomposed into expected and unexpected components in which the relative strengths of the components depend on the efficiency of the market. Based on the theory of rational expectations, when participants have perfect knowledge of the market and the announcements are expected, the effects on the trade balance or asset prices might be expected to be zero while only the unexpected component may have significant impact on asset prices.

The relationship between the spot exchange rates and trade announcements is specified in a function which relates changes in the spot exchange rate to expected and unexpected components of the trade announcements, such that when the market is efficient and trade announcements are expected the sign and magnitude of the associated parameter would indicate a zero change. On the otherhand, the sign of the parameter of the unexpected component of trade announcements depends on the perception of market participants about trade induced demand for foreign exchange and expectations about the reactions of monetary authorities to the information provided in trade announcements. The sign could be positive when market participants expect a deficit trade balance to lead to further import induced demand for foreign exchange or when they think that an unexpectedly large trade deficit would encourage the monetary authorities to depreciate the value of the dollar.

The covered interest rate parity theory was applied to test for the presence of any anticipated monetary response through capital flows and interest rates movement. The covered interest parity was given as equal to the difference between domestic and foreign interest rates. Put in another way, the premium on spot exchange rate should be equal to the difference between domestic and foreign interest rates for parity to hold. It is thus implied that the value of the forward premium depends on market participants perception of future capital flows, the reaction of monetary authorities to trade announcements and the predicted values of both domestic and foreign interest rates after the trade announcements. However, the covered interest parity was not the main focus of the paper but the possible impact of trade announcements on domestic and foreign interest rates was recognised and this formed the main point of departure of the study from previous works in this regard.

The study identified market participants reaction to trade announcements as a function of both the magnitude of the trade deficit announced and the perception of the reaction of the monetary authorities to the announcement. Between 1980 and 1985, the trade deficit average $5.69 billion but it rose sharply to $13.64 billion 1985 and 1987. In the first sub-period, both the spot and forward premium failed to respond to trade announcements. This was probably because market participants did not perceive the deficits as large enough to provoke large demand for foreign exchange and the monetary authorities may not have considered foreign exchange intervention as a major objective of monetary and economic management. However, the constant parameters showed significant movements thus indicating that factors other than trade announcements may have been responsible for significant exchange rate movements. The implied appreciation of the dollar against four of the major currencies used in the study would appear to explain the positive signs of the constant parameters.

During the second sub-period 1985-1987, spot exchange rates showed a high degree of response to unanticipated balance of trade announcements. Five of the six currencies studied responded significantly as about 30 per cent of the movement of the closing spot rate was explained by the announcement. However, the reaction of the forward premiums to the trade announcements were less significant. This indicates a weak link between trade announcements and the following variables; anticipated future capital flows, future interest rate movements, anticipated future changes in export and import flows as perceived by market participants. The non-response of forward rates to unanticipated trade announcements suggested market inefficiencies although it is possible that the forward premiums were based on exchange rate expections which might not have moved in line with actual data.

The continuous widening of the forward premium suggested either that market participants took the deficits in the trade balance as indications of future deficits or that increasing deficits were expected to lead the monetary authorities to depreciate further the value of the dollar.

Although the study did not directly address interest rate responses, it indicated that if interest rate parity held, the expected depreciation of the forward exchange rate vis-a-vis the spot exchange rate represents the response of the monetary authorities through increases in interest rates. This would be more likely if domestic monetary expansion is already high and net capital inflow is declining.

The main findings in the paper can be summed up as follows; Prior to 1985, the response of foreign exchange markets to trade announcements was marginal but after 1985 there was strong evidence of market response, the dollar depreciated in both the spot and forward markets during the period covered by the study and widening of the forward premiums after 1985 was an indication of the anticipation of widening gaps between U.S. domestic and foreign interest rates in the future.

Assessment

The article made a consistent attempt to identify the implications of official trade announcements for the foreign exchange and domestic money markets. The findings by the authors that spot exchange rates responded to unanticipated trade deficit announcements while forward exchange rates did not between 1985 and 1987 was expected. This is because spot rates are dependent on current market trends and anticipated and future market trends. Drawing from the rational expectation theory of neo- classical economics, anticipated trade deficit announcements would indicate that market participants based their judgement on relevant economic factors and applied a correctly specified model. On the otherhand, unanticipated trade deficit announcements could be due to faulty forecast based on inappropriate information or changing economic conditions. Hedging against speculation and unstable market trends in the future forms the basis for estimating the forward exchange rate. This fact did not appeal to the authors. However the argument of imperfection in market information may hold only if it is advanced in relation to an incorrectly estimated forward exchange rate.

Although the authors suggested that the expectation of higher interest rate diferentials between domestic and foreign interest rates may be responsible for the widening gap between the spot and forward exchange rates during the period covered by the study, they did not show this conclusively. The relationship may only be indirect through developments in the money stock. As a result, it is better to limit the reason for the widening of interest rate gap to the effect of the continuous deficit in the trade balance. The deficits led market particípats to believe that the exchange rate would continue to depreciate as a corrective measure.

The period covered by the Study 1980—1987 was rather short. A longer series would have provided more observations and a firmer basis for making conclusive statements on the impact of trade announcements on exchange rates. However, in Nigeria where a forward market for foreign exchange has not developed it may be difficult to apply the model adopted in this study to determine the relationship between trade announcements and forward exchange rates. Also the fact that information may not be available on various indicators needed to form rational expectations and that even where information is available final outturn may differ from expection due to the volatility of the oil market, announced trade balances may differ from expectations most of the time. The relationship between spot exchange rates and announced trade balance which may be unexpected may not follow a unique direction since the domestic currency is not convertible and its value is not strictly determined by developments in the international foreign exhange markets. The exchange rate, determined by managed auction system may not move in sysmpathy with the trade balance.

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