Volume or Order Flow? :
Which contains more information in really traded Yen/Dollar Foreign Exchange Market?

Nagasaki University,   Masayuki Susai

One of our objectives in this paper is to find out the impact of information arrival on foreign exchange market. So many papers are exploring the fact that the proxy of the information arrival can be the trading volume. In foreign exchange market, it used to difficult to obtain trading volume. This is because that the trade in foreign exchange market is carried out between two dealers in a market. This means that the trade in foreign exchange market is over the counter trade.

The researches on foreign exchange market so far are using the number of news headlines on Reuter screens, the number of quotes in given time interval (sometimes referred as trading activity or trade intensity) and representative trade volume. For example, even in resent papers , Evans and Lyons (2006) used order flow data from Citibank and Frommel and Alexander and Menkhoff, (2007) obtains a transaction data from a bank. We call this kind of   data as representative data in this paper. Brzeszczynski and Melvin, (2006) and Bauwends and Omrane and Giot, (2005), Bauwens and Rime and Sucarrat, (2006), Frommel and Alexander and Menkhoff, (2007) utilize the number of trade in a given interval. Almost all papers commonly use the indicator of the volume, and count the number of quote in a given interval or they estimate the volume with some econometric models.

The data we use in this paper contains traded foreign exchange rate, bid or ask indicator, traded volume and time stamp of the trade. The minimum interval of the record is 1 second. We obtained this data from ICAP, and the name of the data set is Data Mine ver.1.5 as I will refer in detail in next section. This research can provide one of the first results with really traded foreign exchange rate.

The main contribution of this paper concerns the data and clear results. The results we get from our analyses are that trading volume can reduce the GARCH effect as we will show later. These kinds of clear results are unique especially with foreign exchange rate.