Do Derivative Markets Contain Useful Information for Signaling "Hot Money" Flows?

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Summary

It is widely recognized that "*hot money*" and other large movements of capital, both into and out of a country can exert a significant impact on financial markets and the overall economy. Large capital inflows: exert upward pressure on the exchange rate by raising the demand for the local currency; decrease interest rates by increasing the supply of credit; increase asset market turnover and bid up the prices of both investment and consumption goods. Conversely, large capital outflows can exert downward pressure on the local currency's exchange rate and asset prices; promote greater short-run market turnover; and lead to higher interest rates as the supply of credit decreases. The volatility of asset prices may also be affected by capital flows.

The experience of Hong Kong is especially interesting because: its de facto central bank, the Hong Kong Monetary Authority (HKMA), employs a currency board system ("Linked Exchange Rate System"); the territory has active derivative markets; and "hot money" may arrive due to a change in the perceived fundamentals of Hong Kong and the Chinese Mainland, or as a "play" on the Chinese renminbi (RMB).

This study attempts to ascertain whether information from Hong Kong's derivative markets is useful for signaling "hot money" and other large capital flows during a commonly agreed period of intense IPO activity and speculation on a revaluation of the renminbi. The choice of time period is deliberate. If derivative markets contain useful information in signaling hot money flows, the information should be readily apparent during a period of intense speculation. Several possible sources of information from derivative markets are examined. These include: changes in Hong Kong Inter-Bank Offer Rate (HIBOR) futures prices, changes in Hong Kong dollar forward prices; changes in non-deliverable forward prices on the renminbi; and changes in the implied volatility of Hang Seng stock index futures options. This approach allows one to determine if some derivative markets contain more information than others or signal earlier than others.

The results show that derivative markets contain useful information for signaling "hot money" flows. Granger causality tests from a VAR model show that Hong Kong dollar forward and RMB non-deliverable forward (NDF) prices predict future variation in the aggregate balance. Moreover, changes in aggregate balance has a significant impact on Hong Kong's interbank rates. The findings also suggest that the introduction of the May 18, 2005 Convertibility Undertakings may have increased the credibility of the Linked Exchange Rate System by discouraging the use of the Hong Kong dollar and Hong Kong dollar denominated assets as speculative vehicles on RMB denominated assets.