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Exchange Rate Policies in Korea: Has Exchange Rate Volatility Increased After the Crisis?

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given country may also change over time.

The Korean government responded to the currency crisis by adopting a free floating exchange rate regime and by more actively pursuing capital account liberalization. As a natural consequence, we may expect that the foreign exchange market is more likely to be linked to other financial markets, such as stock and bond markets. The empirical methodology to uncover inter-relationships among three variables is Granger causality tests and variance decomposition. Empirical results are, however, different from our conjecture: any statistically significant empirical relations are not found among three variables after the crisis. The foreign exchange market has been relatively stable during the post-crisis period, while the stock market has been quite volatile. Since the bond market in Korea is not fully developed and credit risks of corporate bonds are still high, foreigners are rather reluctant to participate in the domestic bond market. One important indication, to support our presumption that the Korean government has intervened in the foreign exchange market, is the stability of exchange rates relative to that of stock prices.

Under the free floating exchange rate regime with free mobility of capital flows, why has the Korean government intervened in the foreign exchange market? We would like to focus on two reasons. One is related to the vulnerability of financial markets in Korea. In order to build a buffer to this vulnerability, the Korean government continued to accumulate foreign reserves even during the post-crisis period. While financial and corporate restructuring were still underway, events of Daewoo's bankruptcy and resultant ITC troubles increased the vulnerability in Korea's financial markets. To counter the financial vulnerabilities, the Korean government has undertaken various measures. Also recognizing the fact that the currency turmoil resulted in financial panic in Korea just two years ago, the Korean government is now endeavoring to strengthen the ex ante defensive measures.

A certain level of foreign reserves can be geared into a set of ex ante defensive measures. However, the recommended level of foreign reserves, which is equivalent to the value of three month imports, will not be adequate in times of free capital mobility. Taking short-term capital movements and possible reversals into account, it can be suggested that a minimum level of foreign reserves, which can finance short-term external liabilities plus capital outflows, should be maintained.

The Korean government is keenly aware of the important lesson from the recent crisis that, in the age of global financial integration, the financial sector is increasingly as important as the real sector. Based upon this recognition, the Korean government will pursue financial sector restructuring on a continuous basis. However, it will take several years to develop healthy financial institutions and markets such as those in industrial countries. A more flexible exchange rate system will definitely reduce the required level of foreign reserves, only if Korea has much sounder financial systems. The other important justification for the government's intervention in the foreign exchange market can be found in the vulnerable and underdeveloped infrastructure of the foreign exchange market. As the free floating exchange rate regime was introduced, the Korean government also endeavored to develop the infrastructure of the foreign exchange market through various means. First of all, policy makers pointed out the problem that market participants are limited in Korea's foreign exchange market.

In order to broaden the foreign exchange market, the government has lifted various regulations on the speculative trading. If the foreign exchange market operates freely from any intervention, volatility will increase and the necessity of hedging and speculative demand will increase. Volatility may be a necessary evil so as to induce more market participants. In this regard, it might be argued that the government should allow for some degree of volatility as a natural outcome of the free floating exchange rate regime, since foreign exchange market intervention seems truly inconsistent with the government's plan for foreign exchange market development. Nevertheless, there are many other obstacles in developing a more liquid foreign exchange market. That is to say, the government's non-intervention exchange rate policies will not sufficiently increase the volume of daily turnovers in Korea's foreign exchange market.

The basic transaction fees in the interbank market are surprisingly cheap: only KRW 4,000 per USD one million for spot, forward, and swap (beyond one month). The major factor restraining the market access of domestic banks into the interbank market is the inadequate provision of credit lines. While foreign branches play a role as market makers, domestic banks as foreign exchange traders do not receive enough credit from those foreign branches because the credit ratings of most domestic banks are still below non-investment grade. This limited access of domestic banks to interbank forward or swap transactions has even aggravated foreign exchange trading in the customers markets. Since domestic banks have to square the foreign exchange positions through, such as, swaps, they have been reluctant to provide forward

contracts to domestic companies. Most companies should provide some form of guarantee such as deposits or securities. This extremely limited accessibility to the currency hedging markets has obliged the government to intervene in the foreign exchange market to stabilize exchange rate fluctuations. Nevertheless, the volume of transactions in the third quarter of 1999 has increased almost twice as much as that in the same quarter of 1998. This partly reflects the improvements in the creditworthiness of domestic companies.

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Executive Summary

. Introduction

. Stylized Facts on Exchange Rates and Related Financial Variables

1. Pre-Crisis Period: March 1990 - September 1997
2. Crisis Period: October 1997 - September 1998
3. Post-Crisis Period: October 1998 - September 1999

. Empirical Analysis

1. Data
2. Empirical Results
3. High Frequency Data Analysis

. Policy Challenges: Is the free floating exchange rate regime a viable option?

References

Appendix

Korean Abstract