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anticipated: a case study of Korea (A  
comment)**

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**Private inflows when crises are anticipated: a case study of Korea**  
by Michael Dooley and Inseok Shin  
in Reuven Glick ed. *Financial Crises in Emerging Markets*  
(Cambridge: Cambridge University Press, 2001), 275-279.

**Comment:** Carmen M. Reinhart

This chapter makes a compelling case that the Korean financial crisis of 1997 was not the consequence of a misaligned exchange rate and external imbalance, nor was it the classic first-generation credit-financed fiscal deficit stressed by Krugman (1979). The authors also cast doubt on explanations of the Korean crisis that rely exclusively on a liquidity crisis/ banking panic story, as in Goldfajn and Valdes (1995), or on earlier models with self-fulfilling expectations (see, for instance, Obstfeld, 1994). Instead, they argue that the Korean banking and currency crises had their origins in the financial liberalization that took place in the earlier part of the 1990s. Financial liberalization, coupled with explicit or implicit government guarantees, fueled a surge in capital inflows that were largely intermediated through Korean banks. Owing to (in part) increased competition, the banks saw their franchise value erode, took on greater risk, and relied increasingly on foreign creditors.<sup>1</sup>

<sup>1</sup> Those foreign creditors were largely, although not exclusively, Japanese banks.

A central theme of the chapter, as the title suggests, is that the financial liberalization Dooley (2000) insurance explanations of the crisis offer testable predictions as to what the antecedents of the crisis should be - particularly as to the nature of capital flows and bank lending - and that these predictions accord well with the Korean stylized facts.

I will divide my remarks into three parts. First, I will elaborate on some of the points made in the chapter, as to why financial liberalization and moral hazard have played a very important role in explaining the antecedents of the twin crises - in Korea and elsewhere. I will also refer to a variety of "stylized facts" that, over and beyond the Korean episode, fit well with the insurance/capital inflow story. Second, I will focus on two types of macroeconomic policies that significantly influenced the volume and composition of Korean capital inflows prior to the crisis which are not discussed in the chapter. Lastly, I will argue that the authors dismiss too lightly explanations of the Korean crisis that are offered by variants of the earlier first- and second-generation currency crises models. When confronting competing models with the data, serious observational equivalence problems arise, making it difficult to pin down "the model" - as the authors suggest.

In my earlier work on capital flow cycles, I once compared the surge in capital inflows to emerging markets that took place in the early 1990s with the flows of the late 1970s-early 1980s (see Calvo, Leiderman,

and Reinhart, 1994). A striking difference between the two episodes appeared to be that in the 1990s it was the private sector who was borrowing from abroad, while in the 1980s it was the governments. Of course, the external debt data I was analyzing reflected the state of affairs after the debt crisis; when someone suggested that I look at the distribution of public and private external debt as it stood before the crisis, it became very evident that an important reason why governments held the lion's share of external debt ex post was that they had assumed much of what was private sector debt ex ante. Given such antecedents, and the scores of bailouts of collapsing banking systems around the globe, it is not difficult to see why implicit guarantees would give rise to indiscriminate borrowing by Korean banks and firms and equally reckless lending - this time, by the Japanese and European banks. In the case of Korea, at least, expectations of a government guarantee ex post turned out to be well-justified. Korea, however, is not unique in this regard.

The insurance model predicts booming credit growth financed by capital inflows prior to the crisis. It also predicts that the maturity of those inflows would shorten as the crisis nears - not surprisingly, as the crisis is fully anticipated. Because there is insurance, the model also suggests that interest rates need not rise on the eve of the crisis. The initial trigger factor for the inflows of capital could be a financial liberalization, a decline in international interest rates, or both of these. Indeed, above and beyond the evidence presented in the analysis for the Korean case,

there is much broader empirical evidence to support all these stylized facts - even the more surprising prediction about interest rates (see Kaminsky and Reinhart, 1999).

I also share the authors' assessment of the importance of the pullout of Japanese creditor banks in explaining the sudden and massive capital outflows from Korea toward the end of 1997. Indeed, in a recent chapter of mine with Graciela Kaminsky we present evidence that a powerful channel of contagion during the Asian crisis came from the behavior of Japanese banks after they suffered initial losses in Thailand, where they had their greatest exposure (see Kaminsky and Reinhart, 2000).

Above and beyond the motives discussed in the chapter, however, there are two key reasons why Korea experienced a surge in capital inflows and why an increasing share of those inflows were tilted toward very short maturities. The first of these reasons had to do with how the authorities responded to the initial surge in capital inflows. In Korea, as in many other emerging markets, there was a marked reluctance to allow the currency to appreciate during the capital inflow phase of the cycle. The authorities dealt with pressures on the currency by intervening in the foreign exchange market and accumulating foreign exchange reserves. The Korean monetary authorities were also concerned, however, that unsterilized intervention would lead to a rapid expansion in the monetary aggregates and fuel overheating and inflationary pressures.

The solution they found to this dilemma was sterilized intervention. However, persistent sterilization policies kept domestic short-term interest rates well above international levels for a prolonged period of time. The banks responded to this differential in rates of return by borrowing offshore at short maturities. Indeed, this outcome was also not unique to Korea; Montiel and Reinhart (1999), who study a panel of fifteen emerging markets in the 1990s, show that sterilized intervention significantly increases the volume of capital inflows. Furthermore, this policy skews their maturities toward the short end of the spectrum. As the paper notes, all this short-term borrowing set the stage for the December banking panic, as Japanese and European creditors pulled out. This "policy inconsistency" is yet another complement to the insurance story/botched liberalization story.

The second reason why such a trivial share of the borrowing was long term had to do with how the liberalization proceeded. While some countries, such as Chile and Colombia, introduced impediments or disincentives to external short-term borrowing - even as they continued to liberalize - in Korea the opposite was true. Barriers to short-term offshore borrowing were significantly reduced, while impediments to equity investment and other types of long-term finance remained in place.

Lastly, however, I do not share the authors' assessment of the uselessness of first- and second-generation models of currency crises in

providing useful insights into the Korean crisis. Consider, first, the Krugman (1979) explanation. Surely, a fiscal deficit was not a problem for Korea - that was not the source of the policy inconsistency. Yet, a very simple variation of Krugman's story fits Korea and some of the other recent twin crises rather well. It is not the government who needs credit from the central bank - it is the ailing financial institutions. The central bank's usual willingness to support the banks (as it did in Korea) creates the policy inconsistency. Being lender of last resort requires credit creation, which is, of course, incompatible with maintaining the exchange rate.

Turning to a second-generation setting, we can entertain a very plausible reinterpretation of the Obstfeld (1996) explanations for shifts in investor sentiment that are highly pertinent for Korea. In the Obstfeld stories, investors know that the authorities will be reluctant to raise interest rates to defend the currency for one reason or another. In his examples, the authorities are concerned about the consequences of high interest rates for unemployment or the implications for the burden of servicing the public sector debt. To fit Korea, only a moderate adjustment is needed. Although a high stock of public sector debt was not an issue, the private sector was highly leveraged. If, as this chapter suggests, private sector debt is a contingent liability of the government, then the Obstfeld debt story is still applicable - except in a slightly disguised form. Furthermore, even without considerations about debt, the authorities

may feel constrained in hiking interest rates because of the weak state of the banks. If investors know this, then we have the prerequisites for a self-fulfilling speculative attack in place.

In the end, I am still compelled to conclude, Will the "real model" please stand up?



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