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The impact of IMF term loans on US bank creditors' equity values: an event study of South Korea's case

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Abstract

This study investigates whether the IMF term loan announcements to South Korea in late November and early December 1997 significantly increased the implicit value of the U.S. bank loans and investments to South Korea and hence, the equity values of its U.S. bank creditors. Using both the market model and the SUR model, this paper examines the potential abnormal performance of a total of 230 U.S. banks during mid-November to early December 1997. The findings show that there was a statistically significant positive equity response to the international bank creditors during the major event announcements. Further, the evidence shows the existence of different pricing behavior of different groups: groups that were more exposed experienced a more positive equity-price response. © 2001 Elsevier Science B.V. All rights reserved.

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1. Introduction and literature review

The roles played by the IMF in international debt crises have been controversial among both academics and policymakers.[1] This paper addresses a particular piece

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[1] Authors who criticize IMF policies include David Malpass (WSJ, 09/26/97 & 01/14/98), George Shultz, William Simon & Walter Wriston (WSJ, 02/03/98), Kurt Schuler (WSJ, 02/18/98), David Sacks and Peter Thiel (WSJ, 03/13/98), anonymous editorial articles (WSJ, 04/06/98, 04/15/98, 04/23/98), etc. Some even assert that the IMF caused the crises and therefore should be abolished. On the contrary,

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of that controversy: whether IMF loan commitments affect banks' equity values. It tries to resolve the serious concern from the policymakers and academics whether there exists significant equity response associated with the IMF loan commitments made in the international debt markets. In addition, the traditional rational pricing versus contagion pricing hypothesis studied in the previous literature is also tested.

Event studies focusing on bank equity values are widespread in the literature.[2] A brief review of the literature related to the international debt crisis is conducted below.

Cornell and Shapiro (1986) study the impact of the 1982 Mexican foreign debt moratorium on the pricing of U.S. bank stocks. Targeting the necessity of the International Lending Supervision Act (ILSA), the paper studies the question of whether, in the absence of disclosure, investors were able to discriminate between those banks with extensive foreign loans and those with lesser or no foreign exposure. The authors found significant negative coefficient estimates of Latin American loan exposure for biannual and annual returns but not for monthly and selected event dates' returns. This finding supports the authors' 'dribs and drabs' hypothesis, which holds that predominantly negative information was slowly disseminated throughout this time period. The authors conclude that event studies using the traditional methodology by pre-specifying the event dates tend to underestimate the impact of Latin American loan exposure on the relative pricing of bank stocks.

Bruner and Simms (1987) also study the impact of August 19, 1982 Mexican debt moratorium on bank stock returns. The paper tries to resolve an important question that previous studies of this event ignore: the rapidity of the market's response, or the duration of the response of the investors, to the actual deterioration in asset quality caused by Mexican exposure. Two pairs of hypotheses are tested in this paper. The first is the new information hypothesis versus the information leakage ('dribs and drabs') hypothesis. The new information hypothesis holds that the event provides new information about the deteriorating quality of Latin American loans, therefore, the stock returns should be affected significantly. On the contrary, the information leakage hypothesis argues that the event does not provide any new information because of the existence of the preceding events and signals. The second is the rational-pricing hypothesis versus the investor-contagion hypothesis. Simply speaking, the rational-pricing hypothesis holds that the size of the investor response to the event is related to the degree of the exposure level, while the investor-contagion

then U.S. Treasury Secretary Rubin, Fed Chairman Greenspan (1998) and then Deputy Treasury Secretary Lawrence Summers (WSJ, 03/27/98), David Rockefeller (WSJ, 05/01/98), etc., argue that IMF loans are not only necessary but also the IMF need to be strengthened. To make things even more ambiguous, it was reported (WSJ, 05/07/98), Paul Volcker testified, along with George Shultz, in the Congress that the IMF should be abolished. However, he argued in favor of fresh IMF funding.

[2] Some previous event studies using similar methodologies to those in this paper include: Sinkey and Carter (1999), Johnson and Sarkar (1996), Cornett, et al. (1996), Clark and Perfect (1996), Unal, et al. (1993), Demirguc-kunt and Huizinga (1993), Madura and Zarruk (1993), Musumeci and Sinkey (1990a,b), De Jong and Thompson (1990), Eyssell and Arshadi (1990), Cornett and Tehranian (1989, 1990), Karafiath and Glascock (1989), Billingsley et al. (1988), Smirlock and Kaufold (1987), Bruner and Simms (1987), Cornell and Shapiro (1986), etc.