Estimating Foreign Risk Exposure during the Foreign Currency Crises: A Firm- and Industry-Level Analysis of U.S. Multinationals

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This paper examines the impact of the foreign currency crises, especially the East Asian and the Mexican crisis, on the estimates of foreign risk exposure of U.S. multinationals. Realizing that managers' and investors' risk-hedging managements prevent most empirical studies from estimating statistically significant exposure, we focus on the "*fast and furious*" [1] foreign currency crises and the U.S. multinationals that have sales and assets in the foreign countries. Based on the hypothesis that the effectiveness of risk management for the foreign currencies is mitigated during the crises, we find that the sample firms are more likely to be exposed during the crisis than before the crisis.

Also, by decomposing the estimated exposure into firm-specific factors, we find cross-sectional differences in foreign risk exposure sensitivity. The findings are that the sample firms are more exposed as they have higher ratio of the Asian (Mexican) sales and assets to total foreign sales and assets, and the firms with narrow business scope,

[1] This term is originally from the article, Kamisky et al, "The Unholy Trinity of Financial Contagion," Journal of Economic Perspectives, Fall 2003

which is defined as acting in a few of industries with less than 500[2] employees, are more exposed than any other firms. These results shed light on the importance of the *ratio* term of foreign involvement rather than the *level* term and economies of scale in hedging ability as the decomposition factors.

In addition to the firm-level analysis, we investigate industry-level foreign exposure by segregating the firms into comparative industrial groups. This industrial analysis shows that foreign exposures of the two-digit SIC are different with each other, and the manufacturing industry is more exposed than any other industry due to its higher amount of foreign trade. For the sub-industries under the manufacturing industry, we find that the durable industry, non-intermediate industry, and competitive industry are more exposed than the non-durable, the intermediate industry, and the non-competitive industry, respectively.

[2] The SBA's Office of Advocacy defines a small business for research purposes as an independent business having smaller than 500 employees. For more information, visit the homepage at http://www.sba.gov/advo