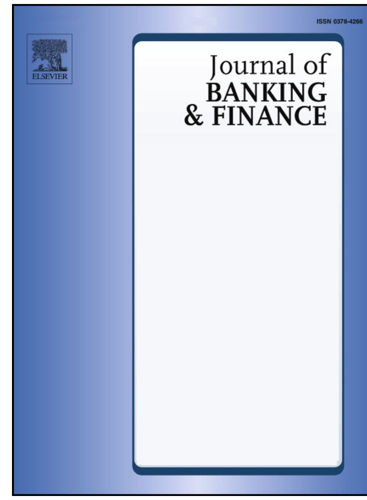

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Financial Contagion and Asset Pricing

Renée Fry-McKibbin#, Vance L. Martin+, and Chrismin Tang*
#CAMA, Crawford School of Public Policy, Australian National University
+Department of Economics, University of Melbourne
*School of Economics, La Trobe University

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Abstract

Asset market interconnectedness can give rise to significant contagion risks during periods of financial crises that extend beyond the risks associated with changes in volatilities and correlations. These channels include the transmission of shocks operating through changes in the higher order comoments of asset returns, including changes in coskewness arising from changes in the interaction between volatility and average returns across asset markets. These additional contagion channels have nontrivial implications for the pricing of options through changes in the payoff probability structure and more generally, in the management of financial risks. The effects of incorrectly pricing risk has proved to be significant during many financial crises, including the subprime crisis from mid 2007 to mid 2008, the Great Recession beginning 2008 and the European debt crisis from 2010. Using an exchange options model, the effects of changes in the comoments of asset returns across asset markets are investigated with special emphasis given to understanding the effects on hedging risk during financial crises. The results reveal that by not correctly pricing the risks arising from higher order moments during financial crises, there is significant mispricing of options, while hedged portfolios during noncrisis periods become exposed to price movements in times of crises.

Keywords: Financial crises, Contagion, Exchange Options, Delta Hedging

JEL Classification: C51, G15

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