

Latin American Exchange Rate Dependencies: A Regular Vine Copula Approach

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This study implements a regular vine copula methodology to evaluate the level of contagion among the exchange rates of six Latin American countries (Argentina, Brazil, Chile, Colombia, Mexico and Peru) from June 2005 to April 2012. We measure contagion in terms of tail dependence coefficients, following Fratzscher's (1999) definition of contagion as interdependence. Our results indicate that these countries are divided into two blocs. The first bloc consists of Brazil, Colombia, Chile and Mexico, whose exchange rates exhibit the largest dependence coefficients, and the second bloc consists of Argentina and Peru, whose exchange rate dependence coefficients with other Latin American countries are low. We also found that most of the Latin American exchange rate pairs exhibit asymmetric behaviors characterized by non-significant upper tail dependence and significant lower tail dependence. These results imply that there exists contagion in Latin American exchange rates in periods of large appreciations, while there is no evidence of contagion during periods of currency depreciation. This empirical regularity may reflect the "fear of appreciation" in emerging economies identified by Levy-Yeyati, Sturzenegger, and Gluzmann [2013].

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