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The Role of Exchange Rate Fluctuations in the Volatility and Correlations in Emerging Markets

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Abstract

The recent episodes of sanctions on Russia by international communities and the quantitative easing by Japanese and European central banks highlight the importance of foreign exchange risk for international investors. This paper examines how and to what extent the volatility of exchange rate affect the volatility of local equity market for Latin American countries and transition economies. Compared to Mun [15], we find that the proportions of volatility of local equity market attributable to exchange rate fluctuations for Latin American countries and transition economies are much larger than those for more developed economies. Besides, an increase in exchange rate volatility is associated with an increase in the correlation between the local and the US equity markets for Latin American countries but with a decrease in the correlation for transition economies, both to a larger extend than developed countries. In particular, our study indicates that the sign of the conditional correlation coefficient between exchange rate and local equity market varies across countries and time, inconsistent with the prediction by the so called "equity parity condition" in Hau and Rey [8].

Keywords: Stock index, exchange rate, LACs, TEs, GARCH.

1. Introduction

Latin American countries (LACs) and transition economies (TEs) has become important markets for international investment since the past decade. For example, the annual net private capital flows in central and Eastern Europe areas are 140.54 billion US dollars in 2007 from 53.76 billion US dollars in 2002, and the net direct investment in these areas is 68.59 billion US dollars in 2007 from 24.08 billion US dollars in 2002 (IMF[9]). It is argued that the stabilization policies and structural reforms such as privatizations in LACs and TEs contribute to growth recoveries.

It is well known that international investment beyond domestic market will gain from global diversification, as long as the set of domestic investment opportunities does not span the set of foreign investment opportunities. From the perspective of US investors,