

Price Jumps in Visegrad Country Stock Markets: An Empirical Analysis

Jan Novotny*

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Abstract

I empirically study price jumps using high frequency data comprising 5-, 10-, 15- and 30-minute market data on the main indices from the Prague, Warsaw, Budapest and Frankfurt Stock Exchanges for June 2003 to the end of 2008. I use two definitions of price jumps: the price jump index and normalized returns. First, I analyze the distribution of returns to support the presence of jumps. Second, I find that the distributions of the price jump indicators employed are significantly different for positive moves compared with negative moves in all the markets studied. In addition, the comparison of jump distributions across different frequencies and markets suggests a possible relationship with market micro-structure as well as with the composition of investors. In particular, at the Prague Stock Exchange, the lower the frequency, the lower the number of extreme jumps, but this is not so at the other markets. Last but not least, I show that the recent financial crisis caused an overall increase in volatility. However, this was not translated into an increase in the absolute number of jumps.

Abstrakt

V tomto článku studuji skoky na cenách za použití vysokofrekvenčních dat (5, 10, 15 a 30 minutová frekvence) pro hlavní akciové indexy z burz v Praze, Varšavě, Budapešti a Frankfurtu v období od června 2003 do konce roku 2008. Používám dvě definice skoků: index skoku cen a normalizované returny. Nejprve analyzuji distribuci returnů pro ukázání přítomnosti skoků. Poté ukazují, že distribuce indikátorů jsou rozdílné pro pohyby nahoru a dolů pro všechna data. Porovnání distribuce skoků pro různé frekvence a trhy naznačuje možný vztah s mikrostrukturou trhu stejně jako se složením investorů. Jmenovitě, Pražská burza vykazuje vztah: čím menší frekvence, tím méně extrémních pohybů, což není na jiných trzích. Nakonec ukazují, že současná finanční krize způsobila celkový růst volatility, ale ne růst počtu skoků.

Keywords: financial markets, Visegrad region, price jumps.

JEL Classification Codes: G15, P59.

* CERGE-EI, Center for Economic Research and Graduate Education - Economic Institute, a joint workplace of Charles University in Prague and the Academy of Science of the Czech Republic; Address: CERGE-EI, Politických veznu 7, P.O. Box 882, 111 21 Prague, Czech Republic. Phone (+420) 224005187; e-mail: jan.novotny@cerge-ei.cz.

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