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The Sign Effect in Emerging Markets: the Inherent Instability of Bad News JOEL TENENBAUM, Boston University Department of Physics, BORIS PODOBNIK, Faculty of Civil En- gineering, University of Rijeka, 51000 Rijeka, Croatia, DAVOR HORVATIC, Faculty of Natural Sciences, University of Zagreb, 10000 Zagreb, Croatia, SLAVICA BAJIC, Electrical Engineering Department, Polytechnic of Zagreb, 10000 Zagreb, Croatia, BECO PEHLIVANOVIC, Faculty of Educational Sciences, University of Bihac, Bihac, Bosnia and Hercegovina, H. EUGENE STANLEY, Boston University Department of Physics — In developed economy market indices, the sign of a term in a series influences the volatility in an asymmetric fashion — bad news results in larger subsequent fluctuations while good news results in smaller fluctuations. We study this phenomenon of volatility asymmetry using a stochastic process, exploring whether this asymmetry manifests in emerging markets, and if so, how such asymmetry changes over time as economies develop, mature, and react to crises such as the present one. We find that while both developed and emerging markets show distinctive behavior with respect to volatility asymmetry during times of economic tumult, they do so in ways that could be viewed either as universal or qualitatively different, posing interesting questions for further research. B. Podobnik et al., Phys. Rev. E **80**, 015101(R) (2009). J. Tenenbaum et al., Phys. Rev. E **82**, 046104 (2010).

Joel Tenenbaum
Boston University Department of Physics

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