Information processing in the presence of limited investor attention[1]

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Conference abstract

Recent studies show that fluctuations in investor attention affect trading activity and prices in financial markets. For instance, DellaVigna and Pollet (*Journal of Finance*, 2009) show that on Fridays the upcoming weekend is already distracting investors, thus muting the response to news. Hirshleifer, Lim, and Teoh (*Journal of Finance*, 2009) find that volume and prices react less to earnings surprises when a greater number of other firms release similar information. Peress and Schmidt (working paper, 2016) find that, for stocks held by retail investors, trading activity, liquidity, and volatility all decline on days with sensational news. Ehrmann and Jansen (*Journal of Money, Credit and Banking*, 2016) show that stock market trading can decline by up to 48% during FIFA World Cup soccer matches, while prices on national stock exchanges can decouple from global price formation.

In this paper, we tackle the question which type of information gets incorporated into asset prices when investor attention is limited. To get at this question, we build on our earlier work and use the fact that during the 2010 soccer World Cup in South Africa and the 2014 soccer World Cup in Brazil, a substantial number of matches were played while stock markets were open in a wide range of countries in Africa, the Americas, and Europe. In total, our data set includes fifteen countries for the 2010 edition and five countries for the 2014 edition. We analyse minute-by-minute stock prices of all stocks included in a country's main stock index, such as the MERVAL, BOVESPA, DAX, CAC40, or FTSE100, covering nearly 600 stocks in total. Following Bekaert et al. (*Journal of Finance*, 2014), we formulate an international factor model with a global market factor and a national market factor. The factors are value-weighted market indexes, so that the model potentially embeds different CAPMs as special cases.

[1] This abstract presents the authors' personal opinions and does not necessarily reflect the views of the European Central Bank, de Nederlandsche Bank, or the Eurosystem.

We show that during matches of the national team (i.e. when national investors are disproportionately distracted) the prices of individual stocks co-move *more* with the national factor. This finding supports the notion that markets keep pricing national news (in line with Peng and Xiong (*Journal of Financial Economics*, 2006)), but divert their attention away from asset-specific information. In addition, we find that stock prices co-move *less* with the global factor, suggesting that investors also divert their attention away from information on other economies. We conclude that the salience of information is a major factor that determines the attention of distracted investors.

We document these findings by comparing national team matches with matches of other teams, but show that they equally apply when comparing national team matches with a benchmark period outside the soccer world cup.

In addition, we test for the effect of investor sentiment by separating out the effects of lost matches (which have been shown to affect investor sentiment and asset pricing, inter alia by Edmans, García and Norli (Journal of Finance, 2007) and Ehrmann and Jansen (Review of Finance, 2016)).