AUTORITÉ DES MARCHÉS FINANCIERS

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The AMF Scientific Advisory Board dedicated its meeting of 5 October to the impact of news announcements and social media on the valuation of financial assets

At the meeting of the AMF Scientific Advisory Board on 5 October 2018 Thierry Foucault presented an article on the possible impact of the uncertainty surrounding American employment announcements (uncertainty being measured by the corresponding demand for information) on the price of United States sovereign debt securities. Gunther Capelle-Blancard, meanwhile, presented a working document drafted by one of his colleagues (Thomas Renault) on market manipulation, social media and fake news, along with the preliminary findings from a joint study extending from that initial article.

Impact of uncertainty and demand for information on the valuation of Treasuries

Thierry Foucault (HEC Paris, member of the AMF Scientific Advisory Board) and his co-authors (Heidi Benamar and Clara Vega, US Fed) studied the impact of business news on changes in the prices of assets.

The academic literature takes the view that the impact of news announcements differs according to the degree of uncertainty surrounding them. The impact of an announcement is greater in a situation of marked uncertainty. The authors showed that in the event of high economic uncertainty, investors strive to enhance their anticipations by seeking information more actively. According to them, demand for information may therefore be viewed as a predictor of changes in the price of assets subsequently to the publication of a business news announcement. This idea was tested for the case of macro-economic announcements. More specifically, the authors investigated the impact of the publication of US unemployment figures (nonfarm payroll) on the price of Treasuries. In the case in point, positive surprises regarding job creation appreciably decrease the price of US government debt, since the market operators then anticipate a tightening of monetary policy and hence an increase in rates.

The authors measured information demand by counting the number of clicks on press articles containing the word “payroll” in their title within the two hours preceding the announcement of the official figures (source: Bitly). The main advantages of this measurement are 1) the precise timing of the information, specifically distinguishing the period preceding the announcement; 2) the characterisation of a request for information as distinct from an offer; and 3) the fact that such demand stems from institutional stakeholders who are active on the markets under study (and not from private individuals seeking information out of mere curiosity).

Studying observations for 66 days of announcements over the period from 2011 to 2016, the authors showed that the securities’ price response is significantly amplified when the number of clicks is higher than normal. More specifically, on the days when information demand is abnormally high (and controlling for the various conventional explanatory variables for bond yields), the reaction of securities prices to the announcements increases by 6 basis points for a 2-year issue, 20 bp for a 5-year issue and 25 bp for a 10-year bond.

During the discussion, the members of the Board pointed out the originality and relevance of measuring information demand as proposed by the authors, while observing that the indicator reflects the quantity of information consumed and not its quality. They noted that the period under review included the quantitative easing period, which may well imply lowered attention to unemployment figures, and suggested analysing more specifically the tapering period (2013) and extending the study to 2018 so as to include the February 2018 shock. Extension to the equity markets could also be considered.

Market manipulation, social media and fake news

The works of Gunther Capelle-Blancard (Paris 1 University, member of the AMF Scientific Advisory Board) and Thomas Renault (Paris 1 University) focus on stock price manipulation. After recalling the main order book manipulation techniques (pump-and-dump schemes, corner-and-squeeze, etc.) Gunther Capelle Blancard considers the case of price manipulation based on fake news. The development of the internet and social media has enabled a resurgence of these practices, as they can now reach a larger investor target audience anonymously and inexpensively. It should be noted that these practices particularly affect small capitalisations with low liquidity.

Thomas Renault analysed Twitter messages concerning listed American equities in order to assess the impact on prices and showed attempts of price manipulation: some shares suddenly attract tweets with positive content, which are linked with soaring prices followed by sizeable falls in the ensuing days. Price movements were found to be larger when the tweets are issued by persons who are paid to promote certain stocks (stock promoters). However, the effect is dampened when these manipulations are denounced by pump-trackers.

Gunther Capelle-Blancard and Thomas Renault recommended real-time checking of information published on social media. They advocated better investor education on the use of the internet for stock market investment purposes, particularly in small capitalisations, and most importantly called for a limitation of the order-to-trade ratio (OTR) in order to avoid fostering trading conditions that are likely to disrupt market operation.

The members of the Board stressed the value of these studies for the regulator. However, they did point to the low explained variance and questioned whether other factors might explain the abnormal yields observed. They emphasised the difficulty in legally ascertaining price manipulations, and the blurred borderline with advertising. The notion of stock promoter warranted further study, and the corresponding legal framework was worth recalling. Gunther Capelle-Blancard suggested rewarding whistleblowers, as practised by the SEC. He also mentioned the possibility of the AMF using its Twitter account to keep an active watch on information published by unidentified accounts could also be examined. Moreover, circuit breakers (temporarily suspending quotation when the price of a stock varies too widely) could prove effective in limiting the impact of new information on the markets, by affording the necessary time to check sources. Price manipulations and the propagation of fake news are manifestly liable to impair the attractiveness of the markets. And finally, it would be worth replicating Thomas Renault’s study using European data.

Read more

- ↘ Demand for Information, Macroeconomic Uncertainty, and the response of US Treasury Securites to News - H. Benamar, T. Foucault, C. Vega
- ↘ Demand for Information, Macroeconomic Uncertainty, and the response of US Treasury Securites to News - T. Foucault

- Demand for Information, Macroeconomic Uncertainty, and the response of US Treasury Securites to News - Discussion MH. Broihanne
- Market manipulation 3.0 - G. Capelle-Blancard et T. Renault - Slides
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