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Reprint of: Stock salience and the asymmetric market effect of consumer sentiment news ☆

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ABSTRACT

We document asymmetric announcement effects of consumer sentiment news on United States stock and stock futures markets. While a negative market effect occurs upon the release of bad sentiment news, there is no market reaction for the counterpart good news. This supports the "negativity effect" hypothesis. Notably, this effect seems most likely to occur in salient stocks, which is consistent with the availability heuristic.

1. Introduction

In this article, we document and explain the asymmetric reaction of United States (US) stock and futures market returns to the preliminary announcement of the monthly consumer sentiment index provided by Thomson Reuters/University of Michigan. Specifically, our goal is twofold. First, we assess the relationship between the surprise in consumer sentiment announcements and stock and futures market behavior, and second, we assess whether this result can be explained in terms of salience ("market prominence") motivated by the availability heuristic (Tversky and Kahneman, 1973).

We take the view that sentiment is a general indicator of the degree to which individuals, in aggregate, are optimistic or pessimistic about the near-term future prospects of the particular setting that they are considering. Notably, this is an assessment that has no necessary linkage to fundamentals or to real economic information. Indeed, Shefrin (2005, p. 203) states that sentiment "is synonymous with error". Two popular types of sentiment discussed in the literature are consumer sentiment and investor sentiment. While inevitably linked, these two alternative concepts of sentiment seek to capture distinct dimensions of correlated behavioral attributes. In the case of consumer sentiment, the relevant frame is of being a household consumer of goods and services. Thus, this is more a reflection of general economic optimism. Alternatively, investor sentiment focuses on the optimism or pessimism that individuals have about financial markets, and how this might affect these individuals' behavior when acting as investors. Investor sentiment is commonly expressed as the degree of "bullishness" versus "bearishness" that is manifest in stock markets. However, again, this is in a way that is devoid of links to the fundamental value of stocks (see, for example, De Long et al., 1990; Shleifer and Vishny, 1997; Baker and Wurgler, 2007).

Sentiment can be important for (at least) two reasons. First, stocks can be sensitive to sentiment announcements (Akhtar et al., 2011), and second, stocks can be sentiment prone (Baker and Wurgler, 2007). However, it does not necessarily follow that sentiment-prone stocks are sensitive to sentiment announcements, nor does it necessarily follow that stocks that are sensitive to sentiment announcements are sentiment prone. Sentiment-prone stocks are those stocks that are relatively difficult to arbitrage. In particular, they are stocks that are low in capitalization, are younger, are unprofitable, have higher volatility, are non-dividend paying, have higher growth, or are from firms in financial distress (Baker and Wurgler, 2006, 2007).

We argue that firms that are sensitive to sentiment announcements are stocks that are more "salient" to investors, but are not

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necessarily sentiment-prone stocks.[1] Salient firms are those firms and securities that are more prominent, or even "iconic", in the market. Market prominence can be linked to those firms that have a greater presence in the minds of investors—because of having, for example, high analyst coverage or high media exposure. For example, if an investor or fund manager has 100 stocks in their portfolio and they have to select 20 that they can remember the quickest, those remembered would be deemed the set of stocks most salient.[2]

To appreciate better what appears to be a subtle distinction, the influence of market sentiment on market prices can have a short-term effect and a longer-term effect. We argue that most previous studies consider the effect of sentiment on longer-term relationships. That is, most work considers the relation sentiment has on stock returns on a monthly basis over periods of many years (Otoo, 1999; Jansen and Nahuis, 2003; Baker and Wurgler, 2006, 2007; among others). These studies attempt to identify underlying relations between sentiment and market prices—very much in the sense of asset pricing research. The evidence regarding this relationship is inconsistent. For example, Baker and Wurgler (2006) find that the cross-section of future stock returns is conditional on beginning of period proxies for sentiment, while Fisher and Statman (2000) and Brown and Cliff (2004) find that sentiment follows stock returns more than it leads them. Jansen and Nahuis (2003) find that stock returns and changes in sentiment are positively related in nine European countries, but not in Germany. Furthermore, they find that stock returns generally Granger-cause consumer confidence at short horizons (2 weeks–1 month), but not vice versa.

In contrast, few studies have considered what effect announcements of market sentiment have on security prices in the shorter term. Generally, a major problem with this research is that the measure of sentiment cannot be related in a temporal sense to market movements. For example, a sentiment survey conducted in 1 month with results reported in the next month suffers from endogeneity. Accordingly, the objective of this current research is to consider the value that market participants afford to announcements of market sentiment, and the influence that these announcements have on market prices in the shorter term, while minimizing the effect of endogeneity. This requires a short period between measuring market sentiment, the release of the information to the market, and the resulting market response. If the period between the observation of sentiment and its release to the market is not long, then it could be assumed that any movement of market prices upon the sentiment announcement is attributable to that announcement, *ceteris paribus*. If the market is itself a measure of sentiment, then the release of the sentiment information is expected to have no information value, and no market effect should be observed. How markets should react to the announcement of sentiment information is a theoretical question, while how markets do react is an empirical question. On a theoretical level, we draw on the psychology literature to develop a hypothesis of asymmetric response (the so-called "negativity effect"), and then empirically test this hypothesis on stocks that are relatively more salient to investors.

Earlier studies argue and document that volatility rises more after bad news than good news (see, for example, Black, 1976; and Glosten et al., 1993). Our study documents another type of asymmetry—not in the second moment of returns, but in the first moment. That is, there is a directional effect for returns, themselves. Specifically, the negativity effect predicts that bad news has a more negative effect on prices than any positive effect induced by a similar quantum of good news. Thus, our work complements the research relating to volatility.

This study is also complementary to the literature that documents an asymmetric price response for firms added to and deleted from key indexes, such as the S&P500 (see, for example, Chen et al., 2004). The results of Chen et al. (2004) are interesting in that firms added to the S&P500 experience a positive price return, while firms that are removed do not experience a negative price return. Chen et al. (2004) attribute their asymmetric finding to changes in investor awareness. However, it is worth highlighting that their asymmetry is in the opposite direction to the one we propose—in essence, Chen et al. (2004) document a "positivity effect". Notably, we have an exogenous (sentiment) proxy—an information event that is less susceptible to managerial market timing, and thus allows a cleaner test of the negativity effect.

We find that upon the release of sentiment information, both the US stock and futures markets react asymmetrically. Specifically, we find that when a lower (higher) than previous month consumer sentiment index is announced, equity and futures markets experience a significant negative announcement day (no) effect. This empirical observation can be explained by the negativity effect, and is a similar finding to that documented in the Australian stock market by Akhtar et al. (2011). The negativity effect gives value to negative information, but not to positive information. It is a behavioral phenomenon that favors negative decisions over positive decisions. The effect embraces a wide range of empirical phenomena, as well as the theoretical concepts that are advanced in order to explain them (Lewicka et al., 1992).

Moreover, it is particularly noteworthy that we document that the negativity effect is most evident in stocks that are more salient to investors. This finding is new to the literature, and it supports the availability heuristic. Indeed, to the best of our knowledge, ours is the first paper to document the negativity effect of sentiment announcements in US stock and futures markets. On a more general level, the results have important implications for studies that assume symmetry in the effect of information on stock returns. It is an avenue of research that draws from psychology and that which is not commonly applied to an empirical finance setting.

The remainder of this paper is structured as follows. The next section reviews the background literature and develops the hypotheses that will be tested. Section 3 overviews the data collection process and the characteristics of that data. The method and results of the tests are documented in Section 4. Section 5 concludes the paper.

2. Developing the negativity hypothesis for salient stocks

2.1. General background to the negativity effect

The negativity effect is a psychological phenomenon that induces people to take a greater interest in things that are of a negative nature, relative to things that are of a positive nature. Negative phenomena have been found to attract more attention (Fiske, 1980), stimulate more attributional questions (Wong and Weiner, 1981), more often trigger counterfactual thought (Gleicher et al., 1990), and more frequently stimulate the curiosity of scientists (Czapinski, 1985).[3] Generally, the psychological literature provides evidence that, all other things being equal, negative events appear to elicit more physiological, affective, cognitive, and

[1] A range of heuristics may be employed by investors in making decisions based on sentiment (see Gilovich et al., 2002).

[2] We provide a more in-depth discussion of the salience concept in Section 2.3.

[3] Baumeister et al. (2001), among others, consider the negativity effect an adaptive response to physical and social environments. The negativity effect has been documented in everyday events; major life events, such as trauma; close relationship outcomes; social network patterns; interpersonal interactions; and learning processes.