Business

Query paper:
Title: Does the Stock Market Overreact?
Abstract: Research in experimental psychology suggests that, in violation of Bayes' rule, most people tend to “overreact” to unexpected and dramatic news events. This study of market efficiency investigates whether such behavior affects stock prices. The empirical evidence, based on CRSP monthly return data, is consistent with the overreaction hypothesis. Substantial weak form market inefficiencies are discovered. The results also shed new light on the January returns earned by prior “winners” and “losers.” Portfolios of losers experience exceptionally large January returns as late as five years after portfolio formation.

Candidate papers:

1. **Title:** Bayes rule as a descriptive model: The representativeness heuristic
   Abstract: Results of experiments designed to test the claim of psychologists that expected utility theory does not provide a good descriptive model are reported. The deviation from tested theory is that, in revising beliefs, individuals ignore prior or base-rate information contrary to Bayes rule. Flaws in the evidence in the psychological literature are noted, an experiment avoiding these difficulties is designed and carried out, and the psychologists' predictions are stated in terms of a more general model. The psychologists' predictions are confirmed for inexperienced or financially unmotivated subjects, but for others the evidence is less clear.
2. **Title:** Note on the behavior of residual security returns for winner and loser portfolios
   Abstract: Portfolios are formed directly and exclusively upon residual return behavior in the months prior to portfolio formation. The empirical behavior of residual return in the post-formation period is then examined. Based upon the overall time period studied (1932 through 1977), the average residual return is essentially zero in the months subsequent to the portfolio formation. However, systematic (i.e., non-zero) residual behavior is observed in particular years. Moreover, the results suggest the possibility that ‘abnormal’ returns observed after certain events (e.g., earnings announcements) may at least in part reflect more general phenomena associated with being ‘winners’ and ‘losers’ in terms of residual returns in the months previous to the event.
3. **Title:** Anomalies in relationships between securities' yields and yield-surrogates
   Abstract: A literature survey reveals consistent excess returns after public announcements of firms' earnings. If the information in publicly-announced earnings is a public good, then these results seem inconsistent with equilibrium in the securities market: public goods, being without private cost, should earn no private return. Alternative explanations of this anomaly are considered. The most likely explanation is that earnings variables proxy for omitted variables or other misspecification effects in the two-parameter model: that the measured market portfolio is not mean-variance efficient. Similar anomalies and explanations apply to other ‘yield-surrogates’, including dividend yields and Value Line ratings.

4. **Title:** Volatility increases subsequent to stock splits: An empirical aberration
   Abstract: This paper analyzes the empirical behavior of stock-return volatilities prior to and subsequent to the ex-dates of stock splits. The evidence demonstrates rather unambiguously that there is, on the average, an approximately 30% 'arbitrary' increase in the return standard deviations following the ex-date. The increase holds for both daily and weekly data, and it is not temporary. No explanatory confounding variables, such as institutional frictions affecting price observations, have been identified. We view the findings as being essentially inconsistent with the notion of 'rational pricing'.
5. **Title:** Stock Market Math
   Abstract: This chapter examines sources of stocks' total return. Stock investors receive returns from two sources: capital appreciation and dividends. Range-bound markets follow bull markets because excess optimism feeds on itself and drives stock market valuation to one extreme, and then unmet expectations turn into disappointment, driving stock valuations to the opposite extreme. It is pointed out that if market prices are at exactly the same level at the end of the range-bound market, then net earnings growth and nominal earnings growth would be the same thing. However, cyclical markets may drive the market price significantly up or down. This chapter concludes that earnings growth and economic vitality are not responsible for creating bull and range-bound markets.
6. **Title:** The Cross-Section of Expected Stock Returns
   Abstract: Two easily measured variables, size and book-to-market equity, combine to capture the cross-sectional variation in average stock returns associated with market β, size, leverage, book-to-market equity, and earnings-price ratios. Moreover, when the tests allow for variation in β that is unrelated to size, the relation between market β and average return is flat, even when β is the only explanatory variable.

Exemplary analysis:

1. **Relevance:** This is directly relevant to the query paper's exploration of overreaction to unexpected news, as it provides a psychological foundation for why investors might overreact, violating the principles of efficient market hypothesis (EMH) by not incorporating all available information (including prior information) in their decision-making process.
   Reason for Citation: This paper is likely cited because it discusses the deviation from Bayes' rule in how individuals revise their beliefs, ignoring prior information.
2. **Relevance:** The query paper investigates the performance of "winners" and "losers" in the stock market, specifically looking at how portfolios of stocks that have previously performed well or poorly continue to do so.
   Reason for Citation: This cited paper provides empirical evidence on the behavior of residual returns for such portfolios, which is crucial for understanding the mechanics behind the overreaction hypothesis and the potential for systematic mispricing in the market.
3. **Relevance:** By highlighting consistent excess returns following public earnings announcements, it provides evidence against the EMH, suggesting that the market does not always efficiently incorporate public information into stock prices. This is relevant for discussing how overreactions to news (such as earnings announcements) might contribute to these anomalies.

Reason for Citation: This citation likely supports the query paper's discussion on market inefficiencies and anomalies.

4. **Relevance:** The observed increase in volatility following stock splits, despite no fundamental change in the company's value, could be seen as evidence of investor overreaction to perceived, but not economically significant, events. This supports the broader argument that stock prices can be influenced by psychological factors and not just fundamentals.

   Reason for Citation: The query paper might cite this to illustrate another form of market inefficiency and overreaction.
5. **Relevance:** Specifically, it discusses how market cycles and investor sentiment (optimism and disappointment) can drive stock prices away from fundamentals, which aligns with the query paper's investigation into whether the stock market overreacts to news.

   Reason for Citation: This chapter could be cited to provide a theoretical or empirical backdrop against which the query paper's findings are contrasted.
6. **Relevance:** Since the query paper is interested in the empirical evidence of market inefficiency and overreaction, citing a study that identifies variables (like size and book-to-market equity) which capture cross-sectional variation in returns helps to build the case that market prices can deviate from what traditional models would predict due to investor behavior.

   Reason for Citation: This paper is likely cited for its exploration of factors that explain variations in stock returns, beyond the simple capital asset pricing model (CAPM).

Exemplary ranking: Ranked order: paper 6, paper 1, paper 2, paper 3, paper 4, paper 5

1. **Explanation:** Understanding the psychological underpinnings of investor behavior is key to exploring the overreaction hypothesis. This paper provides essential background on why investors might deviate from rational decision-making, making it a critical citation for studies investigating the psychological aspects of market inefficiency.
2. **Explanation:** For research focusing on the empirical aspects of the overreaction hypothesis, especially the dynamics of "winners" and "losers" in the stock market, this paper is a vital reference. It offers direct evidence on the behavior of stock returns that is central to the discussion of market overreactions.
3. **Explanation:** This paper supports the argument against the efficient market hypothesis by highlighting anomalies that cannot be explained by traditional models. It's particularly relevant for studies examining how specific types of news or events (like earnings announcements) can lead to overreactions, contributing to market inefficiency.
4. **Explanation:** While this paper provides interesting evidence on market reactions to non-fundamental events, it might be considered more of a niche citation for research specifically interested in volatility and stock splits. However, it still offers valuable insights into investor overreaction and market inefficiency.
5. **Explanation:** Although this chapter could offer a broad overview of market cycles and investor sentiment, it might be less directly applicable to a focused study on the overreaction hypothesis and market inefficiency. It could serve as supplementary reading or background material rather than a primary citation.
6. **Explanation:** This paper is crucial for a follow-up study as it directly addresses the empirical evidence of market inefficiency and provides a framework for understanding how various factors,

beyond the traditional models, can influence stock returns. It's foundational for any research that aims to further dissect the anomalies in market behavior and investor overreaction.