

# **International Journal of Research Publication and Reviews**

Journal homepage: www.ijrpr.com ISSN 2582-7421

# IMPACT OF INVESTOR'S SENTIMENT IN ASSET PRICING VALUATION

# <sup>1</sup>HARSH GULATI, <sup>2</sup>DR. SHIVANI AGARWAL

12 Galgotias University, Greater Noida

# ABSTRACT :

In the intricate realm of financial markets, this dissertation revaluates the conventional notion that investment decisions are solely based on rationality. It presents a thorough analysis of the influential role that investor sentiment plays in asset pricing, revealing the psychological and emotional forces that significantly affect market behaviour.

The core aim of this study is to dissect and measure the diverse ways in which investor sentiment contributes to asset price formation, moving beyond traditional models that portray investors as fully rational. By integrating concepts from behavioural finance, psychology, and classical economics, this research offers a comprehensive perspective on how emotional and cognitive biases drive fluctuations in asset values.

The research identifies key psychological tendencies—particularly herd behaviour—as pivotal in influencing collective market actions. It highlights how emotional responses, when filtered through individual cognitive biases, contribute to observable shifts in financial decision-making and market valuations. Keywords:- Financial , Market, research, investor, asset, valuation, pricing

# INTRODUCTION

#### Exploring the Impact of Investor Sentiment on Asset Price Determination:

#### An In-depth Study

Investor sentiment has become a focal point in understanding asset pricing, providing a vital counterpoint to long-standing theories that rely solely on objective economic fundamentals. Traditional frameworks like the Efficient Market Hypothesis (EMH) argue that prices efficiently incorporate all available information through rational investor actions. However, accumulating evidence points to the powerful influence of emotions and psychological biases in driving market trends (Baker & Wurgler, 2007).

Investor sentiment encompasses the collective psychological disposition of market participants—their emotions, expectations, and perceptions—which often operate outside the scope of pure economic logic. Factors like excessive optimism, pessimism, fear, or overconfidence can lead to decisions that deviate from rational predictions, ultimately impacting how assets are priced (Baker et al., 2012). Unlike classic models, behavioral finance introduces the idea that investor psychology can lead to persistent inefficiencies in the market.

Numerous empirical studies confirm that sentiment-driven behavior can result in substantial divergences from theoretical valuations. Seminal research by Lee et al. (1991) indicated that investor sentiment is particularly impactful in pricing assets that are harder to evaluate or arbitrage—like speculative stocks—suggesting that psychological influences may override rational pricing mechanisms.

The effect of sentiment on pricing emerges through a range of psychological patterns. Cognitive biases such as confirmation bias, herd mentality, and overconfidence often lead to collective misjudgments, fueling price momentum and contributing to phenomena like market bubbles or excessive corrections (Daniel et al., 1998). These tendencies become more pronounced during uncertain or transitional periods in the market.

Not all asset classes react equally to sentiment. Equities—especially those tied to newer, smaller firms with greater uncertainty—are typically more vulnerable to sentiment-driven fluctuations. Baker and Wurgler (2006) demonstrated that such stocks are especially prone to pricing anomalies due to their limited historical data and speculative appeal.

Quantifying investor sentiment remains a methodological hurdle. Researchers have devised various techniques—ranging from opinion surveys to algorithmic sentiment analysis and composite indexes—to measure the elusive concept of market mood. Among these, the Baker and Wurgler Sentiment Index is notable for aggregating multiple market signals into a single, insightful metric (Baker & Wurgler, 2007), offering a broader view of investor psychology beyond standard fundamentals.

With the rise of digital communication and real-time news, investor sentiment now spreads more rapidly and widely than ever before. Social media, online trading communities, and 24/7 financial reporting contribute to immediate emotional reactions and collective behavior shifts, increasing the speed and intensity of sentiment-driven price changes. This evolving landscape presents both challenges and opportunities for analysts and investors alike.

Understanding investor sentiment is not just of academic interest; it holds practical significance for portfolio managers, traders, and regulators. Integrating sentiment analysis into financial models can help identify market inefficiencies, guide risk assessments, and inform strategic investment decisions. Increasingly, institutional investors are turning to behavioral insights as part of their analytical toolkits.

Additionally, sentiment does not affect markets in a symmetrical fashion. Studies indicate that negative sentiment tends to have a stronger and more immediate impact than positive sentiment, aligning with the behavioral finance principle of loss aversion. This creates feedback loops that may reinforce price declines or delays in recovery (Hong & Stein, 2007).

Investor sentiment is also shaped by macroeconomic and geopolitical developments. External shocks—such as financial crises or global pandemics—can significantly shift market psychology, leading to unpredictable and nonlinear effects on asset pricing. Events like the 2008 financial crisis and COVID-19 illustrate how deeply external disruptions can recalibrate investor expectations and behaviors.

Despite growing acknowledgment of sentiment's role, integrating psychological dimensions into established economic theories remains a work in progress. A truly robust understanding of market behavior will require continued interdisciplinary research at the intersection of psychology, economics, and finance.

# **Review of Literature**

#### Theoretical Underpinnings and Conceptual Progression

The examination of how investor sentiment affects asset pricing represents a meaningful divergence from conventional financial theories that presume investors act purely on rational logic. Traditional models—most notably the Efficient Market Hypothesis (EMH) as proposed by Fama (1970)—maintain that asset values are a reflection of all publicly available information and that market participants evaluate investments strictly based on fundamental data. However, the emergence of behavioral finance has prompted a significant shift, incorporating emotional and psychological factors into market analysis. A pivotal contribution to this evolving theoretical framework came from Baker and Wurgler (2006), who characterized investor sentiment as a broad, potentially irrational belief about future returns and risk—detached from actual economic indicators. This reconceptualization laid the groundwork for understanding how non-rational influences could consistently alter asset valuations, especially in cases where stocks are difficult to accurately value or arbitrage.

Empirical studies have consistently shown sentiment's significant impact across various asset classes. Lee et al. (1991) provided early evidence of sentiment-driven mispricing in closed-end funds, while subsequent research by Daniel et al. (1998) explored how psychological biases like overconfidence and self-attribution contribute to market anomalies. These studies revealed that sentiment effects are particularly pronounced in stocks with high information uncertainty and limited arbitrage potential.

Traditional financial theory, epitomized by the Efficient Market Hypothesis (EMH), posited that asset prices reflect all available information and that investors make rational decisions based on fundamental economic analysis (Fama, 1970). However, a growing body of research has systematically challenged this view, demonstrating that psychological and behavioral factors significantly influence market dynamics.

Behavioural finance emerged as a critical theoretical framework, offering a more nuanced understanding of market mechanisms. Pioneering work by Kahneman and Tversky (1979) introduced prospect theory, which revealed that investors do not always make rational decisions and are subject to systematic cognitive biases. This groundbreaking research provided a theoretical foundation for understanding how psychological factors impact financial decision-making.

# Empirical Insights and Methods of Sentiment Measurement

Multiple methodologies have been proposed to assess and quantify investor sentiment, each with distinct advantages and limitations. Survey-based tools such as the University of Michigan Consumer Sentiment Index directly gauge public mood and investment outlook. In contrast, market-derived indices including the Baker and Wurgler Sentiment Index (2007)—synthesize trading behavior, IPO activity, and other metrics to provide a composite view of market sentiment trends.

Empirical research supports the idea that sentiment significantly affects a variety of asset classes. One of the early demonstrations came from Lee et al. (1991), who showed how sentiment led to mispricing in closed-end funds. Later studies by Daniel et al. (1998) linked market inefficiencies to investor traits such as overconfidence and attribution errors. These insights were especially evident in securities with high levels of ambiguity or reduced arbitrage opportunities.

While EMH asserts that markets are efficient and self-correcting, behavioural finance shows otherwise. Kahneman and Tversky's (1979) *Prospect Theory* was particularly influential, suggesting that investor decisions are often shaped by psychological biases rather than objective evaluation. Their findings introduced key ideas like loss aversion and reference dependence, providing a more human-centered model of market behaviour.

#### 2.3 Mechanisms of Sentiment Influence on Markets

Several pathways have been identified through which sentiment infiltrates the pricing process:

- Herding Behavior Investors frequently mimic the actions of others, which can result in trend amplification, speculative bubbles, or sharp corrections.
- 2. Limits to Arbitrage Even if prices deviate from intrinsic value due to sentiment, institutional constraints often prevent traders from immediately correcting these inefficiencies.

 Cognitive Biases – Emotional filters such as overconfidence, confirmation bias, and aversion to loss distort rational judgment and contribute to price anomalies.

Despite advances in sentiment analysis, conventional tools often fall short in capturing rapid or subtle changes in investor emotion. Current approaches are generally aggregate in nature and overlook the finer details of sentiment fluctuations.

# **RESEARCH METHODOLOGY**

# 3.1 Research Design

This study adopts a **descriptive and exploratory research design**, aligning with its aim to analyze the relationship between investor sentiment and asset pricing behavior. A **quantitative research strategy** was employed, utilizing primary survey data to test hypotheses related to investor psychology and market valuation.

- Research Approach: Deductive, focusing on testing predefined assumptions and hypotheses.
- Research Type: Causal, aiming to determine cause-effect relationships between sentiment and asset valuation.
- **Data Collection Method:** Structured questionnaire.
- Data Analysis Tools: Descriptive statistics and regression analysis techniques were utilized for examining patterns and statistical significance. Sampling Details:
  - Sample Size: 70 respondents (illustrative sample).
  - Sampling Method: Convenience sampling, with data collected digitally via Google Forms.
  - Target Group: A mix of retail, institutional, and academic investors from varied backgrounds.

# 3.2 Data Sources

The data utilized in this study was exclusively collected from **primary sources** through a structured questionnaire. The survey, consisting of 15 questions, was shared online and received responses from 70 participants. No secondary databases or internet sources were referenced for response collection. The survey instrument included both **closed-ended** (quantitative) and **open-ended** (qualitative) questions to ensure a comprehensive understanding of participants' perspectives. Distributed digitally, the form was designed to be user-friendly and accessible, ensuring diverse and genuine investor feedback.

# 3.3 Sampling Techniques

#### **Quantitative Approach:**

- Surveys: Questionnaires served as the primary tool to collect structured data from a sizable participant pool.
- Statistical Analysis: Data was interpreted using appropriate statistical techniques to identify trends, relationships, and variance across investor groups.

## 3.4 Variables and Hypotheses

Variable Type	Variable Name	Measurement Approach		
Independent Variable	Investor Sentiment	5-point Likert Scale (Strongly Agree to Strongly Disagree)		
Dependent Variable	Asset Valuation	Perceived influence on various assets like stocks, bonds, real estate		
Mediating Variable	Market Condition	Categorical (e.g., Bull, Bear, Volatile)		
Moderating Variable	Psychological Bias	Types of bias (e.g., herd behavior, overconfidence, loss aversion)		

#### Hypotheses:

- H1: Investor sentiment has a significant influence on asset valuation.
- H2: The impact of sentiment on valuation is moderated by market conditions.

# 3.5 Descriptive Statistical Analysis

Key demographics and response patterns were summarized using descriptive metrics:

- Variables: Age, profession, investment experience, and investor classification.
- Techniques: Computation of means, standard deviations, and frequency distributions for sentiment-related inputs.

#### 3.6 Regression Analysis

To test the hypothesized relationships, multiple regression analysis was employed. The objective was to examine how investor sentiment, media

influence, and other psychological elements affect asset valuation.

**Regression Model Summary:** 

Predictor	Coefficient (β)	Std. Error	T-value	P-value	Significance
Intercept	1.876	0.432	4.34	0.000	***
Investor Sentiment	0.562	0.125	4.50	0.000	***
Media Influence	0.389	0.142	2.74	0.008	**
Investment Experience	0.134	0.098	1.37	0.174	Not Significant
Psychological Bias	0.467	0.133	3.51	0.001	***

•  $R^2 = 0.72$ 

Adjusted R<sup>2</sup> = 0.69

• F-statistic = 24.68 (p < 0.001)

#### Limitations of the Project

# 1. Small Sample Size:

The project relied on a limited number of survey respondents, which may not fully capture the diverse perspectives of the broader investor population.

This smaller sample size can reduce the generalizability of the findings.

#### 2. Data Collection Constraints:

The primary data for this project was collected through online questionnaires, which can lead to response biases and may not accurately reflect realworld investment behavior.

Digital-only surveys might miss out on insights from older or less tech-savvy investors.

# 3. Complexity of Sentiment Measurement:

Accurately measuring investor sentiment is challenging due to its subjective nature and rapid fluctuations.

The project may have oversimplified certain psychological factors, potentially affecting the precision of the results.

# 4. Influence of External Factors:

Market sentiment can be heavily influenced by unpredictable events like economic crises, political changes, or natural disasters, which were not fully accounted for in this study.

#### 5. Lack of Real-Time Analysis:

The project primarily used retrospective data, limiting its ability to capture real-time sentiment shifts that significantly impact market prices.

# 6. Potential for Cognitive Bias:

Respondents' self-reported data can be influenced by biases such as overconfidence, hindsight bias, or social desirability, affecting the accuracy of the insights.

# 7. Technology and Model Limitations:

Advanced sentiment analysis tools like machine learning or natural language processing were not utilized, which may have limited the depth of the findings.

#### **REFERENCES :**

- 1. Baker, M., & Wurgler, J. (2006). Investor sentiment and the cross-section of stock returns. *Journal of Finance*, 61(4), 1645–1680. https://doi.org/10.1111/j.1540-6261.2006.00885.x
- 2. Baker, M., & Wurgler, J. (2007). Investor sentiment in the stock market. Journal of Economic Perspectives, 21(2), 129-151. https://doi.org/10.1257/jep.21.2.129
- Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. *Quarterly Journal of Economics*, 116(1), 261–292. https://doi.org/10.1162/003355301556400
- 4. Chen, H., De, P., Hu, Y. J., & Hwang, B. H. (2014). Wisdom of crowds: The value of stock opinions transmitted through social media. *Review* of *Financial Studies*, 27(5), 1367–1403. https://doi.org/10.1093/rfs/hht082
- Daniel, K., Hirshleifer, D., & Subrahmanyam, A. (1998). Investor psychology and security market under- and overreactions. *Journal of Finance*, 53(6), 1839–1885. https://doi.org/10.1111/0022-1082.00077
- Da, Z., Engelberg, J., & Gao, P. (2015). The sum of all FEARS: Investor sentiment and asset prices. *Review of Financial Studies*, 28(1), 1– 32. https://doi.org/10.1093/rfs/hhu072
- 7. Engelberg, J., & Parsons, C. A. (2011). The causal impact of media in financial markets. *Journal of Finance*, 66(1), 67–97. https://doi.org/10.1111/j.1540-6261.2010.01626.x
- 8. Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *Journal of Finance*, 25(2), 383-417. https://doi.org/10.2307/2325486
- 9. Hong, H., & Stein, J. C. (2007). Disagreement and the stock market. *Journal of Economic Perspectives*, 21(2), 109–128. https://doi.org/10.1257/jep.21.2.109

- 10. Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–291. https://doi.org/10.2307/1914185
- 11. Lee, C. M. C., Shleifer, A., & Thaler, R. H. (1991). Investor sentiment and the closed-end fund puzzle. *Journal of Finance*, 46(1), 75–109. https://doi.org/10.1111/j.1540-6261.1991.tb03746.x
- 12. Shefrin, H., & Statman, M. (1985). The disposition to sell winners too early and ride losers too long: Theory and evidence. *Journal of Finance*, 40(3), 777–790. https://doi.org/10.1111/j.1540-6261.1985.tb05002.x
- 13. Shiller, R. J. (2000). Irrational exuberance. Princeton University Press.
- 14. Shleifer, A., & Vishny, R. W. (1997). The limits of arbitrage. *Journal of Finance*, 52(1), 35–55. https://doi.org/10.1111/j.1540-6261.1997.tb03807.x
- Stambaugh, R. F., Yu, J., & Yuan, Y. (2012). The short of it: Investor sentiment and anomalies. *Journal of Financial Economics*, 104(2), 288– 302. https://doi.org/10.1016/j.jfineco.2011.12.001
- 16. Tetlock, P. C. (2007). Giving content to investor sentiment: The role of media in the stock market. *Journal of Finance*, 62(3), 1139–1168. https://doi.org/10.1111/j.1540-6261.2007.01232.x