

ISSN 2090-3359 (Print)
ISSN 2090-3367 (Online)



Advances in Decision Sciences

Volume 28
Issue 2
June 2024

Michael McAleer (Editor-in-Chief)

Chia-Lin Chang (Senior Co-Editor-in-Chief)

Alan Wing-Keung Wong (Senior Co-Editor-in-Chief and Managing Editor)

Aviral Kumar Tiwari (Co-Editor-in-Chief)

Montgomery Van Wart (Associate Editor-in-Chief)

Vincent Shin-Hung Pan (Managing Editor)



亞洲大學
ASIA UNIVERSITY



SCIENTIFIC &
BUSINESS
WORLD

Published by Asia University, Taiwan and Scientific and Business World

An Empirical Validation of a Behavioral Finance Model: The 52-week High as a Benchmark for an Index

Islem BOUTABBA

Shaqra University, KSA

Univ. Manouba, ESCT, LARIMRAF LR21Es29

Campus Universitaire Manouba, 2010, Tunisia

Email: islemboutabba@hotmail.com, i.boutabba@su.edu.sa

Shin-Hung Pan

Department of Information Management,

Chaoyang University of Technology, Taiwan

Email: vincentpan@cyut.edu.tw

Wing-Keung Wong

Department of Finance, Fintech Center, and Big Data Research Center,
Asia University, Taiwan, and

Department of Medical Research, China Medical University Hospital, Taiwan, and
Business, Economic and Public Policy Research Centre, Hong Kong Shue Yan
University

The Economic Growth Centre, Nanyang Technological University, Singapore

***Corresponding author Email:** wong@asia.edu.tw

Received: March 5, 2022; First Revision: May 27, 2022;

Last Revision: January 2, 2025; Accepted: xxx, 2025;

Published: xxxxxxxxxxxxxxxxx

Abstract

Purpose: This study investigates the impact of a stock's 52-week high price on investor behavior and subsequent stock returns, specifically examining how varying levels of the market index influence this relationship. The research challenges the weak-form efficient market hypothesis.

Design/Methodology/Approach: A panel data analysis is employed, using data from the NASDAQ National Market. The study follows the methodology of Chang (2011), extending it with the inclusion of market index conditions. The analysis includes firm characteristics (size, book-to-market, price-to-earnings ratios) and trade volume and examines the effects of past high prices over different time horizons (5, 20, and 60 days).

Findings: The study confirms a significant positive relationship between a stock's 52-week high and its return. Importantly, this effect is amplified when the market index is relatively lower than its average, contrasting previous studies. Firm characteristics also significantly influence investors' decisions.

Research Limitations/Implications: The study is limited to the NASDAQ market. Thus, generalizability to other markets should be done cautiously. Further studies can explore different markets and additional behavioral factors influencing investment decisions.

Practical Implications: The results suggest that investors can potentially generate abnormal returns by considering the 52-week high benchmark within different market conditions, contradicting the weak form of the efficient market hypothesis.

Originality/Value: This study uniquely highlights the moderating effect of the market index level on the relationship between a stock's 52-week high and its return, providing evidence that the relationship is amplified during periods of lower index values, which contradicts previous findings in different markets.

Keywords: 52-Week High, Behavioral Finance, Market Index, Momentum Trading, Efficient Market Hypothesis (EMH)

JEL Classifications: G11, G12, G14

References

- Bai, Z., Li, H., Liu, H., & Wong, W. K. (2011). Test statistics for prospect and Markowitz stochastic dominances with applications. *The Econometrics Journal*, 14(2), 278-303.
- Bai, Z., Li, H., McAleer, M., & Wong, W. K. (2015). Stochastic dominance statistics for risk averters and risk seekers: An analysis of stock preferences for USA and China. *Quantitative Finance*, 15(5), 889-900.
- Barberis, N., Shleifer, A., & Vishny, R. (1998). A model of investor sentiment. *Journal of Financial Economics*, 49(3), 307-343.
- Brown, G. W., & Cliff, M. T. (2004). Investor sentiment and the near-term stock market. *Journal of Empirical Finance*, 11(1), 1-27.
- Chan, C. Y., De Peretti, C., Qiao, Z., & Wong, W. K. (2012). Empirical test of the efficiency of the UK covered warrants market: Stochastic dominance and likelihood ratio test approach. *Journal of Empirical Finance*, 19(1), 162-174.
- Chan, R. H. F., Wong, A. W. K., & Lee, S. T. H. (2014). *Technical analysis and financial asset forecasting: From simple tools to advanced techniques*. World Scientific Publishing Company.
- Chang, C.-Y. (2011). The relationship between the 52-week high of an individual stock and stock market index level: Evidence from Taiwan. *International Financial Markets, Institutions and Money*, 21(1), 14-27.
- Daniel, K., Hirshleifer, D., & Subrahmanyam, A. (1998). Investor psychology and security market under- and overreactions. *The Journal of Finance*, 53(6), 1839-1885.
- DeBondt, W., & Thaler, R. (1985). Does the stock market overreact? *The Journal of Finance*, 40(3), 793-805.
- DeBondt, W. F. M. (1993). Betting on trends: Intuitive forecasts of financial risk and return. *International Journal of Forecasting*, 9(3), 355-371.
- Du, D. (2008). The 52-week high and momentum investing in international stock indexes. *The Quarterly Review of Economics and Finance*, 48(1), 61-77.
- Fabozzi, F. J., Fung, C. Y., Lam, K., & Wong, W. K. (2013). Market overreaction and underreaction: Tests of the directional and magnitude effects. *Applied Financial Economics*, 23(18), 1469-1482.
- Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, 25(2), 383-417.
- Fung, E. S., Lam, K., Siu, T. K., & Wong, W. K. (2011). A pseudo-Bayesian model for stock returns in financial crises. *Journal of Risk and Financial Management*, 4(1), 43-73.
- George, T. J., & Hwang, C.-Y. (2004). The 52-week high and momentum investing. *The Journal of Finance*, 59(5), 2145-2176.
- Guo, X., Jiang, X., & Wong, W. K. (2017). Stochastic dominance and omega ratio: Measures to examine market efficiency, arbitrage opportunity, and anomaly. *Economies*, 5(4), 38.
- Guo, X., McAleer, M., Wong, W. K., & Zhu, L. (2017a). A Bayesian approach to excess volatility, short-term underreaction and long-term overreaction during financial crises. *The North American Journal of Economics and Finance*, 42, 346-358.
- Hong, H., & Stein, J. C. (1999). A unified theory of underreaction, momentum trading, and overreaction in asset markets. *The Journal of Finance*, 54(6), 2143-2184.

- Huddart, S., Lang, M., & Yetman, M. H. (2009). Volume and price patterns around a stock's 52-week highs and lows: Theory and evidence. *Management Science*, 55(1), 16-31.
- Jegadeesh, N., & Titman, S. (1993). Returns to buying winners and selling losers: Implications for stock market efficiency. *The Journal of Finance*, 48(1), 65-91.
- Jegadeesh, N., & Titman, S. (2001). Profitability of momentum strategies: An evaluation of alternative explanations. *The Journal of Finance*, 56(2), 699-718.
- Kung, J. J., & Wong, W. K. (2009). Profitability of technical analysis in the Singapore stock market: Before and after the Asian financial crisis. *Journal of economic integration*, 135-150.
- Kung, J. J., & Wong, W. K. (2009a). Efficiency of the Taiwan stock market. *The Japanese Economic Review*, 60(3), 389-394.
- Lam, K., Liu, T., & Wong, W. K. (2010). A pseudo-Bayesian model in financial decision making with implications to market volatility, under-and overreaction. *European Journal of Operational Research*, 203(1), 166-175.
- Lam, K., Liu, T., & Wong, W. K. (2012). A new pseudo-Bayesian model with implications for financial anomalies and investors' behavior. *Journal of Behavioral Finance*, 13(2), 93-107.
- Lean, H. H., McAleer, M., & Wong, W. K. (2010). Market efficiency of oil spot and futures: A mean-variance and stochastic dominance approach. *Energy Economics*, 32(5), 979-986.
- Lee, C. M. C., & Swaminathan, B. (2000). Price momentum and trading volume. *The Journal of Finance*, 55(5), 2017-2069.
- Lv, Z., Tsang, C. K., Wagner, N. F., & Wong, W. K. (2023). What is an optimal allocation in Hong Kong stock, real estate, and money markets: An individual asset, efficient frontier portfolios, or a Naive portfolio? Is this a new financial anomaly?. *Emerging Markets Finance and Trade*, 59(5), 1554-1571.
- Marshall, B. R., & Cahan, R. M. (2005). Is the 52-week high momentum strategy profitable outside the US? *Applied Financial Economics*, 15(17), 1259-1267.
- Ng, P., Wong, W. K., & Xiao, Z. (2017). Stochastic dominance via quantile regression with applications to investigate arbitrage opportunity and market efficiency. *European Journal of Operational Research*, 261(2), 666-678.
- Sriboonchita, S., Wong, W. K., Dhompongsa, S., & Nguyen, H. T. (2009). *Stochastic dominance and applications to finance, risk and economics*. Chapman and Hall/CRC.
- Tsang, C. K., Wong, W. K., & Horowitz, I. (2016). Arbitrage opportunities, efficiency, and the role of risk preferences in the Hong Kong property market. *Studies in Economics and Finance*, 33(4), 735-754.
- Wing-Shing Lam, V., Chong, T. T. L., & Wong, W. K. (2007). Profitability of intraday and interday momentum strategies. *Applied Economics Letters*, 14(15), 1103-1108.
- Wong, W. K. (2021). Editorial statement and research ideas for behavioral financial economics in the emerging market. *International Journal of Emerging Markets*, 16(5), 946-951.
- Wong, W. K., Chew, B. K., & Sikorski, D. (2001). Can the forecasts generated from E/P ratio and bond yield be used to beat stock markets?. *Multinational Finance Journal*, 5(1), 59-86.
- Wong, W. K., Chow, S. C., Hon, T. Y., & Woo, K. Y. (2018). Empirical study on conservative and representative heuristics of Hong Kong small investors adopting momentum and contrarian trading strategies. *International Journal of Revenue Management*, 10(2), 146-167.
- Wong, W. K., Du, J., & Chong, T. T. L. (2005). Do the technical indicators reward chartists in Greater China stock exchanges. *Review of Applied Economics*, 1(2), 183-205.

- Wong, W. K., Manzur, M., & Chew, B. K. (2003). How rewarding is technical analysis? Evidence from Singapore stock market. *Applied Financial Economics*, 13(7), 543-551.
- Woo, K. Y., Mai, C., McAleer, M., & Wong, W. K. (2020). Review on efficiency and anomalies in stock markets. *Economies*, 8(1), 20.
- Zhu, Z., Bai, Z., Vieito, J. P., & Wong, W. K. (2019). The impact of the global financial crisis on the efficiency and performance of Latin American stock markets. *Estudios de Economía*, 46(1).