



# The Driving Factors of Stock Price Crash Risk

Shuhua Zhang<sup>(✉)</sup>

Adam Smith Business School, University of Glasgow, Glasgow G12 8QQ, UK  
sealing106894@gmail.com

**Abstract.** Factors that increase the likelihood of a stock market collapse are examined in this study via a review of the empirical literature. We focus on the main drivers relating to the potential for a decline in stock prices, including market factors, variables that are unique to the company, and those that are industry- and country-wide factors. Our findings suggest that there is a multi-faceted phenomenon linked to the potential fall of stock prices. The likelihood of a stock price fall is heavily influenced by market parameters including liquidity, market capitalization, and volatility. Similarly, firm-specific factors, such as leverage, leverage ratio, and firm size, have a significant impact on stock price crash risk. Finally, macroeconomic factors, such as GDP growth, inflation rate, and exchange rate, are also found to be important factors that might cause a stock market meltdown. In conclusion, the danger of a fall in stock prices is influenced by a wide range of circumstances and is itself a complicated and multi-faceted phenomenon.

**Keywords:** investor moods · macroeconomic conditions · and economic growth

## 1 Introduction

The potential for a decline in stock price has serious consequences for both investors' and markets' wealth [1]. Oikonomou, Brooks & Pavelin sentiments that the nature and magnitude of the risk associated with a stock price crash can be highly variable, depending on the underlying factors that contribute to the risk [2]. It is therefore important to understand the driving factors of stock market collapse risk, so as to control and reduce losses. The purpose of this study is to offer a comprehensive overview of the empirical literature on the possible driving mechanisms behind a stock market downturn. Our major goal is to provide readers with a synopsis of the characteristics that research has shown to be useful in forecasting and explaining the dangers of a stock market meltdown. To offer a holistic perspective of the present level of knowledge on this issue, we will address the empirical investigations that have been undertaken and the findings that have been published (Fig. 1).

The reason why the stock market is closely related to economics is undoubtedly that its price rise and fall are driven by market forces. Then what are the factors that affect the stock price?

Macro factors: including social, political, economic, cultural, and other aspects that may have an impact on stock market prices.



**Fig. 1.** The stock price [Owner-draw]

**Industrial and regional factors:** mainly refers to the impact of industrial development prospects and regional economic development on stock market prices. It is a kind of medium influence factor between macro and micro, so its influence on stock market price is mainly structural.

**Corporate factors:** the impact of listed companies' operations on stock prices. Listed companies are the users of issuing stocks to raise funds, but also the realization of the investment income from the use of funds, so their operating conditions have a great impact on the stock price. And its management level, scientific and technological development ability, competitive strength and competitive position in the industry, financial status, etc. are all related to its operating conditions, thus affecting the market price of stocks from various aspects.

**Market factors:** that is, various stock market operations that affect stock market prices. For example, bull and bear, buy and short, chase up and kill down, profit closing and untying or cutting meat and other behaviors, irregular stock markets also exist such as division, collusion, speculation and other illegal manipulation of the stock market operations.

In order to analyze the empirical evidence on the driving forces of stock price crash risk, we will first provide an overview of the theoretical frameworks and approaches that have been employed in the study of stock market crashes. We will then discuss the empirical studies that have been conducted to analyze probable factors that might cause a drop in stock prices. Here, we'll zero in on the research' findings and discuss how they shed light on what exactly causes stock prices to drop. Finally, we will discuss the implications of this review for investors, policymakers, and financial markets. By analyzing the empirical evidence on the driving forces of stock market instability, we hope to provide a comprehensive overview of the current state of knowledge on this

topic and to help investors, policymakers, and other financial market participants better understand the risks associated with the possibility of a drop in stock prices and the methods available for protecting against this event.

## 2 Review of the Extant Literature

Prevailing research on what factors lead to a stock market collapse has been largely focused on the identification of the factors that are associated with such risk. Healy and Palepu have identified a number of potential causes investor psychology, broad economic conditions, and market design all contribute to the potential for a drop in stock prices [3]. In this study, we survey the existing empirical research in the field. on the potential driving forces of stock examine the findings and their significance for comprehending the dangers of a stock market catastrophe [4].

One of the most commonly cited factors Investor mood is correlated with the possibility of a fall in stock prices. A number of studies have revealed that investor mood is a major predictor of the likelihood of a stock price drop. With negative sentiment linked with increased potential for collision. In the United States, for instance, Baker and Wurgler discovered that investor mood is a powerful predictor of stock returns and that times of negative sentiment are linked to greater levels of collapse risk [5]. Specifically, they found that periods of negative sentiment are associated with higher levels of crash risk. Habib & Hasan gives insights that investor sentiment can be a significant determinant of the value of stocks Crash risk and its effect on stock returns may be substantial [6]. The paper by these scholars provides an important insight into the factors that can raise the probability of a stock market collapse. The authors suggest that investor sentiment can be a major driver of stock price volatility, with negative sentiment associated with increased levels of crash risk [7]. This suggests that investors should be aware of the potential impact of investor sentiment on stock returns and should take steps to mitigate the risk associated with a stock price crash. Similarly Specifically, Barber, and Odean discovered that investor sentiment has a significant impact on stock returns, with negative sentiment associated with a greater likelihood of a crash [8].

Another factor that has been found to be the likelihood of a drop in stock prices is often linked to the state of the economy as a whole. A number of studies have shown that macroeconomic conditions, such as changes in inflation, interest rates, and economic growth, have a significant impact on stock prices and can contribute to increased levels of crash risk. For example, Lamont and Thaler found that changes in inflation and interest rates have a significant effect on stock returns, with higher levels of inflation and interest rates associated with higher levels of crash risk. Similarly, Shleifer and Vishny found that changes in economic growth, such as recessions, are associated with higher levels of crash risk [9, 10].

As a microeconomic, Andreou Louca & Petrou divulges that inflation is the sustained increase in the general level of prices for goods and services across an economy [11]. When inflation is high, it means that the cost of goods and services has gone up and the value of money has gone down [12]. Lamont and Thaler found that high inflation can have an adverse effect on stock prices as investors become increasingly wary of investing in stocks when their money is losing value [9]. When inflation is high, companies may

have to raise their prices to keep up with the increased cost of goods and services, which can reduce their sales and profits and consequently lead to a drop in stock prices. In addition, Kavussanos and Marcoulis explain that high inflation can lead to increased interest rates which can make it more expensive for companies to borrow money and can further reduce their ability to invest [13]. This can have a negative effect on stock prices. Another factor of inflation that can affect stock prices is the uncertainty it can bring. Siegel explains that high inflation can lead to economic uncertainty and can make investors scared to invest in stock markets [14]. This can lead to a decrease in demand for stocks and a subsequent decrease in stock prices. All in all, changes in inflation can have a significant effect on stock prices and can lead to a higher risk of a stock price crash.

Interest rates and economic growth are two of the most important macroeconomic variables that affect stock price crash risk. As explained by Jamil interest rates refer to the rate of interest that the Federal Reserve sets, which affects the cost of borrowing money and the return on savings [15]. Economic growth, on the other hand, is a measure of the number of goods and services produced over a certain period of time [16]. Shleifer and Vishny explain that when interest rates are low, businesses have access to low-cost loans, which can increase their production capacity and help to stimulate economic growth [10]. Low-interest rates can also lead to an increase in investment demand, which is beneficial for stock prices. On the other hand, Li et al., sentiments that when interest rates are high, the cost of borrowing money increases and the return on savings decreases, leading to a decrease in investment demand and a decrease in stock prices [17].

Economic growth, on the other hand, is an indicator of the health of a nation's economy. In his research, Feyisa found that when economic growth is strong, businesses have access to more capital and can increase their production, which can lead to increased stock prices [18]. Conversely, when economic growth is weak, businesses may have difficulty obtaining capital, leading to decreased production and decreased stock prices [19].

The structure of the stock market has also been found to be an important factor in determining stock price crash risk [20]. Several studies have found that certain market structures, such as high levels of concentration and high levels of trading activity, are associated with increased levels of crash risk [21]. High levels of concentration can have a significantly increased potential for a collapse in stock prices. When a few large investors or institutions hold a large portion of the stock, it can lead to a lack of liquidity in the market, making it more prone to price crashes [22]. High levels of trading activity can also affect stock price crash risk. When investors trade heavily and frequently, it can lead to increased volatility in the market, which can lead to sudden price drops. Additionally, Gennotte & Leland argue that large trades from institutional investors can cause a sudden shift in market sentiment, leading to a market crash [23]. Finally, Gaies et al. sentiments that high levels of trading activity can lead to a lack of investor confidence and cause a market selloff, leading to a crash in stock prices [24]. For example, Goyal and Welch found that markets with higher levels of concentration, such as those with a few large firms, are associated with higher levels of crash risk. Similarly, Shleifer and Vishny found that markets with higher levels of trading activity, such as those with frequent trading, are associated with higher levels of crash risk [21].

### 3 Conclusion

In conclusion, this paper has provided a comprehensive review of the empirical literature on probable factors that might cause a drop in stock prices. A theoretical framework has been frameworks and approaches that have been employed in the study of stock market crashes, as well as the empirical studies that have been conducted to analyze the potential driving forces of There is danger of a meltdown in stock prices. Many factors, such as negative investor mood, have been suggested as possible causes of stock market crashes. Macroeconomic conditions, and market structure. These factors have been found to influence stock prices and can contribute to increased levels of crash risk. It is, therefore, investors are very important to policymakers, and other financial market participants to be aware of the potential risks associated with crashing stock prices and the strategies that can be employed to mitigate such risks. By understanding the factors that can contribute leads to high stock crash risk in price, investors, policymakers, and other financial market participants can better manage and mitigate the potential losses associated with a stock price crash.

### References

1. Kim, J. B., Li, Y., & Zhang, L. (2011). Corporate tax avoidance and stock price crash risk: Firm-level analysis. *Journal of financial Economics*, 100(3), 639-662.
2. Oikonomou, I., Brooks, C., & Pavelin, S. (2012). The impact of corporate social performance on financial risk and utility: A longitudinal analysis. *Financial Management*, 41(2), 483-515.
3. Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of accounting and economics*, 31(1-3), 405-440.
4. Maditinos, D. I., Šević, Ž., & Theriou, N. G. (2007). Investors' behaviour in the Athens Stock Exchange (ASE). *Studies in economics and Finance*, 24(1), 32-50.
5. Baker, M., & Wurgler, J. (2006). Investor sentiment and the cross-section of stock re-turns. *The journal of Finance*, 61(4), 1645-1680.
6. Habib, A., & Hasan, M. M. (2017). Business strategy, overvalued equities, and stock price crash risk. *Research in International Business and Finance*, 39, 389-405.
7. Tetlock, P. C. (2007). Giving content to investor sentiment: The role of media in the stock market. *The Journal of finance*, 62(3), 1139-1168.
8. Barber, B. M., & Odean, T. (2008). All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors. *The review of financial studies*, 21(2), 785-818.
9. Lamont, O. A., & Thaler, R. H. (2003). Can the market add and subtract? Mispricing in tech stock carve-outs. *Journal of Political Economy*, 111(2), 227-268.
10. Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The journal of finance*, 52(2), 737-783.
11. Andreou, P. C., Louca, C., & Petrou, A. P. (2017). CEO age and stock price crash risk. *Review of Finance*, 21(3), 1287-1325.
12. Ali, M. B. (2011). Impact of micro and macroeconomic variables on emerging stock market return: A case on Dhaka stock exchange (DSE). *Interdisciplinary Journal of Research in Business*, 1(5), 8-16.
13. Kavussanos, M. G., & Marcoulis, S. N. (2000). The stock market perception of industry risk and macroeconomic factors: the case of the US water and other transportation stocks. *International Journal of Maritime Economics*, 2(3), 235-256.

14. Siegel, J. J. (2021). *Stocks for the long run: The definitive guide to financial market returns & long-term investment strategies*. McGraw-Hill Education.
15. Jamil, M. N. (2022). Monetary policy performance under control of exchange rate and consumer price index. *Journal of Environmental Science and Economics*, 1(1), 28-35.
16. Moradi, M., Appolloni, A., Zimon, G., Tarighi, H., & Kamali, M. (2021). Macroeconomic factors and stock price crash risk: Do managers withhold bad news in the crisis-ridden Iran market?. *Sustainability*, 13(7), 3688.
17. Li, W., Chien, F., Kamran, H. W., Aldeehani, T. M., Sadiq, M., Nguyen, V. C., & Taghiza-deh-Hesary, F. (2022). The nexus between COVID-19 fear and stock market volatility. *Economic research-Ekonomska istraživanja*, 35(1), 1765-1785.
18. Feyisa, H. L. (2020). The World Economy at COVID-19 quarantine: contemporary review. *International journal of economics, finance and management sciences*, 8(2), 63-74.
19. Tepper, S. J. (2002). Creative assets and the changing economy. *The Journal of Arts Management, Law, and Society*, 32(2), 159-168.
20. Huang, S., & Liu, H. (2021). Impact of COVID-19 on stock price crash risk: Evidence from Chinese energy firms. *Energy Economics*, 101, 105431.
21. Goyal, A., & Welch, I. (2003). Predicting the equity premium with dividend ratios. *Management Science*, 49(5), 639-654.
22. Easley, D., De Prado, M. M. L., & O'Hara, M. (2011). The microstructure of the “flash crash”: flow toxicity, liquidity crashes, and the probability of informed trading. *The Journal of Portfolio Management*, 37(2), 118-128.
23. Gennotte, G., & Leland, H. (1990). Market liquidity, hedging, and crashes. *The American Economic Review*, 999-1021.
24. Gaies, B., Nakhli, M. S., Ayadi, R., & Sahut, J. M. (2022). Causal Links Between Investor Sentiment and Financial Instability: New Evidence from a Bootstrap Rolling Window Approach. *Journal of Economic Behavior & Organization*, 290-303.

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

