Economic Perspectives and Trends, 2025, 2(1), 10-14
https://www.hillpublisher.com/Journals/ept/
ISSN Online: 3066-3180

Opportunistic Special Items of Financial Report and Stock Price Crash Risk

Qiaohua Li

University of Strathclyde, Glasgow G1 1XQ, Scotland, UK.

How to cite this paper: Qiaohua Li. (2025) Opportunistic Special Items of Financial Report and Stock Price Crash Risk. *Economic Perspectives and Trends*, 2(1), 10-14.
DOI: 10.26855/ept.2025.06.002

Received: July 8, 2025
Accepted: July 25, 2025
Published: August 20, 2025

***Corresponding author:** Qiaohua Li, University of Strathclyde, Glasgow G1 1XQ, Scotland, UK.

Abstract

This project is to make research on the potential factors that may have influence on the stock price crash risk which it is a sudden and large-scale stock price collapse that caused by the release of the accumulated bad news. The special items like Ncskew, Duvol, Crash, Composite may have closed relationship with the stock price crash risk. Using the methods of descriptive analysis, correlation analysis and regression linear analysis to analyse the relationship between income-decreasing special items and stock price crash risk. Including the univariate and multivariate evaluation methods. It will also test about the hypotheses and illustrate the limitation and further development of the research. The disclosure of the corporation managers' behaviour that tend to hide bad news will be given further explanation. The total articles will give a clear clarification of the research topic through the way of deeper exploration which clarifies the importance of financial report information and its relationship with stock price crash.

Keywords

Financial report information; Stock price crash; Economic influence

1. Introduction

The stock market provides a strong support for the corporation development. Sometimes the stock price cannot reflect the value of the corporation completely because of some management reasons. The economic development is connected closely with the stock market, and the stock price crash will also trigger the bubble of the stock market. Investors may also keep closed eyes on the financial statements which show the previous financial condition of the corporations.

1.1 Motivation

In global economy, investing is a necessary part of the financial market. Investing can bring return or profits to the investor but also can damage their profits as well. Some investors may lose their money without getting back the principal money of the original amounts. Stock price crash is a key aspect of the investing market which will induce serious consequence in the financial world and make investors lose their money. The nearest stock price crash happened in 2008, which we also called it Financial Crisis or the Great Depression (Helleiner, 2010). It happened in the United States (US) and caused the global financial crisis laterally.

1.2 Methods, Contribution, and Limitation

The research question is to clarify the relationship of opportunistic financial reporting data and stock price crash risk. It may concentrate more on the abnormal componence of the reported special items. The paper here will use the data analysis methodology to solve the research question. Although the statistic method is very effective, it cannot 100 percent sure that the result is accurate enough. Thinking of this aspect, it may still need further promotion and development. Previous research has some quantitative indicators to observe how the stock price crash risk fluctuates with the variable factors. Under the guidance of International Financial Reporting Standards (IFRS) and International Accounting Standard Board (IASB), this research will detect further about the relevant variables of the stock price crash risk in a statistic and scientific way.

2. Literature Review

Looking up previous and current research, it can be founded that considerable theories and estimated indexes are set up to quantify the expression of crash risks measurement. Financial reporting is so important that not only in accounting area but also in financial field such as the stock market. Special items are the unusual and infrequent items that may reflect on the income statement. Fairfield et al., (1996) mentioned about special items and regarded it as the loss or gain factors on Return on Earnings (ROE). In the research of (Riedl,2004; Francis et al.,1996), it gave an example of long-lived asset which can be regarded as one of the special items and long-lived asset is written off under the regulation of Statement of Financial Accounting Standards (SFAS) No.121. Fairfield et al., (2009) described more detailed information of special items and explain its relevant period.

3. Design of the Investigation

The investigation will mainly focus on the quantitative method and will use the econometric and mathematic theory to analyze the value and relationship. In the statistical analysis part of the research, it will set up the core index equations and explain the relevant factors that may affect the main independent index. The data that are used in the research can be disclosed in the relevant financial statements. As in this research, it aims at figuring out how does the financial statements data, especially opportunistic special items, relate to the stock price crash risk. Several previous research have used the formulas to explain the variables but, in this research, it will try to synthesize them together.

3.1 Hypotheses

Hypothesis 1: The opportunistic financial reporting data will affect the stock price crash risk.

Besides, according to the question of investigation, there may be other sub hypotheses can be proposed.

Hypothesis 1a: The reported special items will increase the probability and intensity of stock price crash.

Reported special items can be divided into opportunistic and normal special items. Opportunistic special items which may be also known as abnormal special items.

Hypothesis 1b: The opportunistic and normal special items will increase the probability and intensity of stock price crash.

In macroeconomic environment, different groups of investors may hold different information and the exchange of the information is not equal.

Hypothesis 1c: In strong information environment, special items may have more significant influence on stock price crash risk. Ceteris paribus, in weak information environment, the influence will be weaker.

3.2 Sample Selection

The firm samples are all US corporations that chosen from the Compustat database which is a global statistic database. And the financial and accounting data that used in the analysis come from Compustat as well. Besides, the market data are selected from the Centre for Research in Security Prices (CRSP) which is a US stock database.

3.3 Variable Definition

In this research, I will use the dependent variables like Negative Coefficient Skewness (NCSKEW), Down-to-Up Volatility (DUVOL), Crash Risk, and Composite of the stock price crash risk and other control variables on the financial statement as well. The following analysis will also compare and analyse the control variables of size, leverage, sigma, capex, ROA, cashassets, RnD and lagNCSKEW. After a series of scientific investigation, the relationship between special items and stock price crash risk will be clearer.

4. Empirical Analysis

To reduce or prevent stock price crash from happening, the predicted data may be also mattered. Futural data are the predicted information that analysts calculate from the current and past data. Through the way of statistical analysis, it can come out with the result of whether the opportunistic financial reports will affect stock price crash risk or not.

4.1 Descriptive Analysis

Table 1. Descriptive Statistics

	Mean	Median	Standard Deviation	Minimum	Maximum	Sample Variance	Skewness	Confidence Level(95.0%)
Special_Items	0.017	0.001	0.058	0.000	1.049	0.003	9.440	0.002
PredSI	-0.044	-0.026	0.106	-2.161	0.421	0.011	-6.847	0.003
OppSI	0.012	0.000	0.049	0.000	1.048	0.002	10.888	0.001
NCSKEW	0.029	0.029	0.760	-2.453	3.252	0.577	0.068	0.023
DUVOL	0.069	0.054	0.338	-1.213	1.958	0.114	0.436	0.010
CRASH	0.270	0.000	0.444	0.000	1.000	0.197	1.034	0.013
COMPOSITE	-0.015	-0.378	1.175	-2.942	4.788	1.380	0.810	0.035
size	7.419	7.309	1.571	1.926	12.764	2.469	0.438	0.047
leverage	0.240	0.233	0.170	0.000	1.185	0.029	0.656	0.005
sigma	0.053	0.047	0.028	0.009	0.267	0.001	2.012	0.001
capex	0.103	0.040	0.683	0.000	37.080	0.467	43.797	0.021
ROA	0.053	0.056	0.102	-2.453	0.610	0.010	-5.636	0.003
cashassets	0.112	0.060	0.137	0.000	0.973	0.019	2.181	0.004
RnD	0.055	0.001	0.905	0.000	53.418	0.819	50.414	0.027
lagNCSKEW	0.021	0.013	0.756	-2.348	3.252	0.572	0.084	0.023

Note:The numbers are remained three decimals.

Table 2. Correlation Matrix

	Special_Items	*PredSI*	*OppSI*	*NCSKEW*	*DUVOL*	*CRASH*	*COMPOSITE*	*size*	*leverage*	*sigma*	*capex*	*ROA*	*cashassets*	*RnD*	*lagNCSKEW*
Special_Items	1														
PredSI	0.196	1													
OppSI	0.952	0.102	1												
NCSKEW	0.074	0.040	0.054	1											
DUVOL	0.101	0.037	0.073	0.387	1										
CRASH	0.059	0.036	0.049	-0.007	0.516	1									
COMPOSITE	0.092	0.042	0.070	0.221	0.863	0.878	1								
size	0.006	0.093	-0.016	-0.021	-0.050	-0.112	-0.095	1							
leverage	0.091	0.073	0.064	0.089	0.066	-0.009	0.032	0.310	1						
sigma	0.165	0.064	0.118	0.079	0.159	0.095	0.145	-0.299	0.031	1					
capex	0.027	0.005	0.005	-0.004	-0.015	-0.019	-0.019	-0.011	0.045	0.030	1				
ROA	-0.083	-0.092	-0.048	-0.148	-0.157	-0.041	-0.113	0.063	-0.214	-0.277	-0.069	1			
cashassets	0.073	-0.003	0.078	-0.050	-0.025	0.030	0.004	-0.291	-0.357	0.154	0.018	0.052	1		
RnD	0.008	-0.001	0.007	0.004	-0.028	-0.012	-0.022	-0.056	0.015	0.049	0.425	-0.203	0.165	1	
lagNCSKEW	0.017	-0.026	0.016	0.087	-0.013	-0.020	-0.018	-0.049	0.058	0.103	-0.003	-0.151	-0.043	0.018	1

Note: The value of the correlation matrix is the comparing outcome between two variables. When two variables are the same one like special items to special items, the value of correlation will be 1. Since the correlation of XY is the same as the correlation of Yx. The blank areas in the table are allowable which aim at avoiding the repeated numbers. The table can be simplified as above. The numbers are remained three decimals.

As the Table 1 shows above, it listed the mean, median, standard deviation (SD), minimum, maximum, sample variance, and skewness value among different variables. The descriptive analysis is set under the confidence level of 95%. Starting the analysis form the left column, the mean and median value of special items (SI) and opportunistic special items (OppSI) are positive while the predicted special items (PredSI) are negative. The effect of the opportunistic and predicted special items that have on the stock price crash risk may be opposite. The mean of PredSI and OppSI are -0.044 and 0.012 respectively which indicate that there is 4.4% the predicted special items will negatively affect the specific-firm weekly return and the opportunistic special items will have 1.2% possibility positively affect the weekly return. Among the main dependent variables, Crash has the most significant mean value whereas Composite mean value is negative.

4.2 Correlation Analysis

In the Correlation Matrix, according to Table 2, different groups of variables will be compared with each other separately. Analysing the data of the table above, opportunistic special items have a high correlation with reported special items. Those two independent variables tend to move in the same direction and may have very strong correlation.

4.3 Regression Analysis

In the regression analysis part, it will get deeper into the area of analyzing the stock price crash factors with the target items like reported SI, predicted SI and opportunistic SI. In the paper of (Cain et al., 2020), it used a regression formula to estimate the income-decreasing reported special items.

5. Data Analysis and Discussion

In the descriptive analysis, it shows different values of the independent, dependent and control variables. Some of them are negative while others are positive. The mean, median, minimum, and maximum values of the samples are very small except some samples of size, capex and RnD. The skewness of the data indicates that it may need to pay attention to the index of predicted special items and ROA as well. There is higher potential for the manager to hide bad news behind those data.

6. Conclusion

In conclusion, there is no doubt that opportunistic special items will affect the stock crashes by indicating the fact that the manager try to hide bad news and disguise the financial reporting to fool the investor. The futural efforts can be made on testing about the information asymmetric environments and control the relevant variables. The analyzing results are supporting the hypothesis and answer the title question in a positive way. For people who tend to invest in stock, it may be beneficial for them to check for the special items value on the financial reports.

Appendix The Calculation Formula of the Dependent Variable

$NCSKEW_{i,T} = -\frac{n(n-1)^{3/2}\sum W_{i,t}^3}{(n-1)(n-2)\left(\sum W_{i,t}^2\right)^{3/2}}$ (Zhou and Huang, 2019)

$DUVOL_{i,T} = log\left[\frac{(n_{up}-1)\sum W_{down,i,t}^2}{(n_{down}-1)\sum W_{up,i,t}^2}\right]$ (Mahdi et al., 2021)

$SI_{i,t}=\eta+\lambda_1 Returns_{i,t-1}+\lambda_2 Returns_{i,t-3,t-1}+\lambda_3 \Delta BM_{i,t-3,t-1}+\lambda_4 \Delta ROA_{i,t-3,t-1}+\lambda_5 Merger_{i,t,t-1}+\lambda_6 EmployeeDecline_{i,t-1,t}+\lambda_7 DiscontinuedOp_{i,t}+\lambda_8 LargeSalesDecline_{i,t}+\lambda_9 \Delta Sales_{i,t-3,t-1}+\lambda_{10} Loss_{i,t}+\lambda_{11} PctLoss_{i,t-3,t-1}+\lambda_{12} \Delta CFO_{i,t}+\lambda_{13} OpCycle_{i,t-1}+\lambda_{14} CapitalIntensity_{i,t-1}+\lambda_{15} IntangibleIntensity_{i,t-1}+\lambda_{16} In(Assets_{i,t-1})+\mu_{i,t}$(Cain et al., 2020)

References

Cain, C. A., Kolev, K. S., & McVay, S. (2020). Detecting opportunistic special items. *Management Science*, *66*(5), 2099-2119.

Fairfield, P. M., Kitching, K. A., & Tang, V. W. (2009). Are special items informative about future profit margins? *Review of Accounting Studies*, *14*(2-3), 204-236.

Fairfield, P. M., Sweeney, R. J., & Yohn, T. L. (1996). Accounting classification and the predictive content of earnings. *The Accounting Review*, *71*(3), 337-355.

Francis, J., Hanna, J. D., & Vincent, L. (1996). Causes and effects of discretionary asset write-offs. *Journal of Accounting Research*, *34*(Suppl.), 117-134.

Helleiner, E. (2010). A Bretton Woods moment? The 2007-2008 crisis and the future of global finance. *International Affairs*, *86*(3), 619-636.

Moradi, M., et al. (2021). Macroeconomic factors and stock price crash risk: Do managers withhold bad news in the crisis-ridden Iran market? *Sustainability*, *13*(7), 3688.

Riedl, E. J. (2004). An examination of long-lived asset impairments. *The Accounting Review*, *79*(3), 823-852.

Zhou, L., & Huang, J. (2019). Investor trading behaviour and stock price crash risk. *International Journal of Finance & Economics*, *24*(1), 227-240.