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Market Reactions to Non-Reliance on Financial Statements

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Abstract

This study analyzes the effect of restatement announcements in 8-K reports on stock returns. Using a sample of 274 financial misstatement announcement observations from 8-K reports, we find an average stock return of -10.38% in the quarter following the filing. Additionally, more pronounced negative returns are attributed to the misstatement of operating cash flow, cost of goods sold, and operating expenses. The results imply that the market reacts negatively to non-reliance on financial statements, and particularly the restatements of accounts that are related to the primary operations of the firm.

Introduction

8-K reports and Item 4.02

Publicly traded companies are required to release 8-K (or current) reports when there is important information that must be disclosed to stakeholders. These reports consist of sections that describe the content of each report and are referenced by an item number. Item 4.02, which is examined in this paper, is defined by the Securities and Exchange Commission (SEC) as "Non-Reliance on Previously Issued Financial Statements or a Related Audit Report or Completed Interim Review" (SEC). Ultimately, this filing tells stakeholders that a firm has filed financial statements that due to one or more material restatement can no longer be used to make decisions. These misstatements can arise from fraud or error and result in significant shift of investors' perceptions on the financial health and reliability of the firm.

An example of an 8-K report is demonstrated through a filing on May 6, 2019 from Kraft Heinz. This report stated that the financial statements issued in 2016, 2017, and 2018 could no longer be relied upon. During those three years, the company had filed financial statements with misstatements primarily related to the recognition of cost of goods sold, impairment of goodwill, and classification of capital leases (Hirsch, 2019). The correction of these misstatements decreased net income by a total of $62 million and earnings before interest, tax, depreciation, and amortization in the amount of $104 million. Other necessary corrections bring the total of restatements for 2016, 2017, and 2018 to $208 million (Kraft-Heinz Company). As shown in *Figure 1*, within a month of the filing date of the 8-K report, Kraft Heinz's stock price, which was just above $31 at the beginning of the month, dropped to about $26 at the end of May. This is a negative percent change of about 16%.

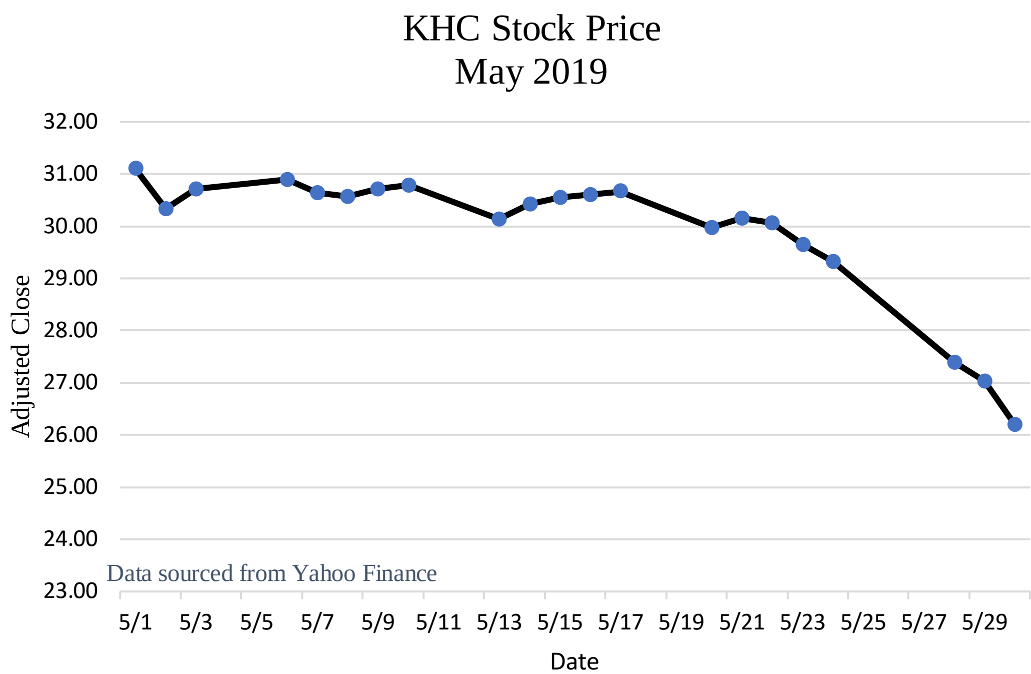


Figure 1 – Kraft Heinz Stock Price

Similarly, on February 8, 2019, Coors filed an 8-K report announcing a need to restate deferred tax expense and net income for years ending December 31, 2017 and December 31, 2016 in the amount of $247.7 million. The 2016 deferred tax expense was understated by $399 million, which resulted in an overstatement of net income in the same amount. In the year ending December 31, 2017, Coors overstated deferred tax expense in the amount of $151.4 million, which resulted in an understatement of net income in the same amount. The correction of these misstatements resulted in a decrease to net income in the aggregate amount of $247.7 million (Molson Coors Beverage Company). As shown in *Figure 2*, shortly following the filing of the 8-K report, the stock price fell from about $25 to $22, or a negative percent change of about 9%. The examples of Kraft Heinz and Molson Coors show that both understated and overstated announcements in 8-K reports result in significant negative market reactions.

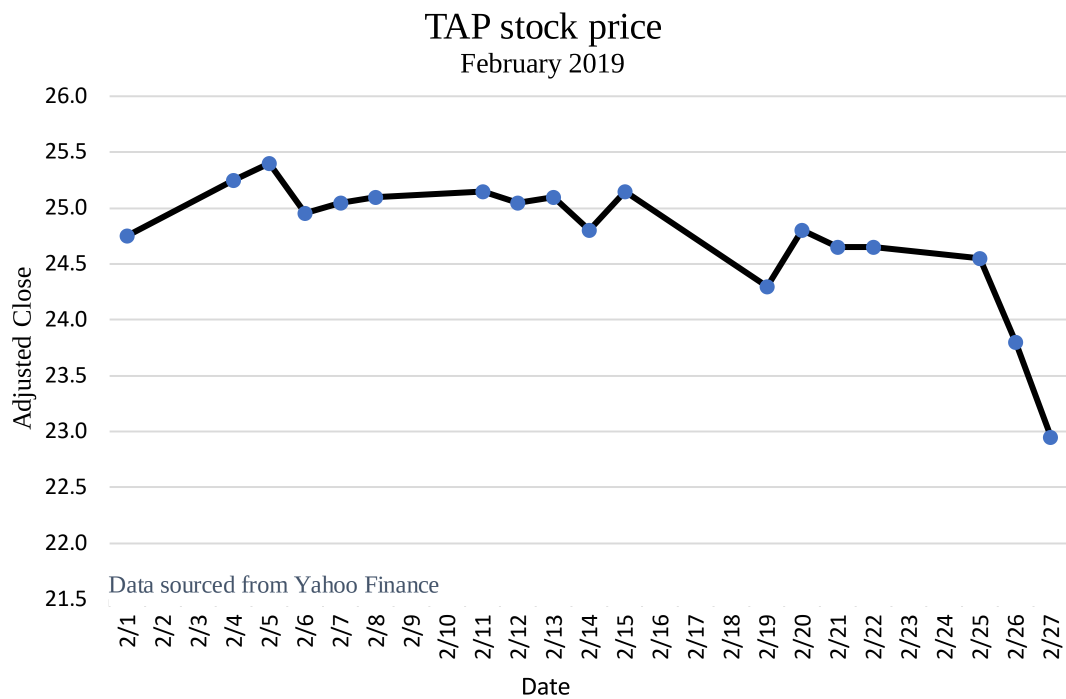


Figure 2 – Molson Coors Stock Price

In this paper, we examine the market reactions to misstatement announcements in 8-K reports. To capture the market reactions, we adopt stock returns. Stock returns can be difficult to predict due to constant changes in the market and economy. There are many determining factors as to what influences stock prices. While general economic conditions will determine how stocks are priced, a company's performance will also have an impact on the stock price. The image associated with a company is based on public perception and can either positively or negatively impact stock price. Investor perception is subject to change and can be altered by press releases, product recalls, new product releases, internal changes, or financial performance. In the case of both Kraft Heinz and Molson Coors, after the disclosure of fraudulent reporting, the stock price declined and the companies' market capitalization decreased.

Based on our sample of 274 misstatement observations from 8-K reports between 2016-2019, our findings show that restatement announcements have a significant, negative impact on stock returns. The results of the regression show an adjusted stock return of -10.38% in the quarter following a misstatement announced in an 8-K report. We also find that restatements related to the primary operations of the firm have greater, negative impacts on stock returns. Companies that announced a restatement of operating cash flow, cost of goods sold, and operating expense have average negative stock returns 18% in the quarter following the announcement.

Our study provides practical implications to misstatement monitoring. Financial statements are relied on by the public to both assess a company's current and past performance and predict future performance. In order to reduce the likelihood of fraudulent reporting or misstatements, SOX section 404, Management Assessment of Internal Controls, requires every annual report to include a section containing management's tests of internal controls. It states that management is responsible for establishing and maintaining an adequate internal control system and requires management to provide a yearly assessment of the adequacy and effectiveness of this system. It also requires many auditors to report on and attest to the assessment made by management regarding the control system (Sarbanes Oxley). SOX section 404 is often contested for being the most difficult and costly section to implement. Our study implies that investors impose extra costs on firms that commit fraud, particularly for the firms that misstated the accounts that are related to the primary operations of the firm. These costs average 10.38% of the market value. In this respect, the monitoring role of investors may be a supplement of the SOX act in mitigating fraudulent reporting or misstatements.

Literature Review

8-K disclosures and market reactions

Looking generally at 8-K reports, a study by Lerman and Livnat (2010) was conducted to analyze the effects disclosures in 8-K reports have on stock returns. This study was conducted in 2008 to examine the new disclosure requirements the SEC implemented in 2004. These requirements altered the list of events that must be immediately disclosed in 8-K reports and increased the timeliness of these reports. This study uses a sample of all 8-K reports filed with the SEC between 1994 and 2007 combined with relevant data from Compustat, CRSP, and the S&P Filing Database. These 346,646 8-K reports are compared with a sample of 275,822 periodic 10-K and 10-Q reports. The results of this study show that following the filing of an 8-K report, stock returns are more volatile. The direction of the stock return change is based on specific item numbers, or event disclosure within the 8-K report. Lastly, the results show that a positive announcement in an 8-K report elicits a greater positive market reaction than that of the negative reaction from a report announcing bad news.(Lerman and Livnat, 2010) The results of the study are relevant and interesting to this paper as they begin to prove the existence of a market reactions due to the filing of an 8-K report.

In a study performed by Lee (2010), textual evidence from 8-K reports are used to measure stock price volatility. This refers to any data in 8-K reports other than a financial statement. Many 8-K reports will alert stakeholders of a need to restate financials, but do not include the amounts needing adjustments. Some will simply state a particular financial statement can no longer be relied upon while other reports will give an account and the amount to be restated. This research shows that using 8-K and text evidence rather than purely financial information raises the accuracy of stock prediction. Upon running tests, the accuracy of predictions increased by 10% when incorporating information from 8-K reports. It shows that textual evidence is most beneficial in predicting the immediate rise or drop in the stock price, mainly the next day up to the next five days after the report was filed (Lee, 2013).

In another study, by Schumaker, news articles as instead of 8-K reports were used to analyze stock return fluctuations. They use the Sharpe Ratio:

$$Sharpe\ Ratio = \frac{R_p - R_f}{\sigma_p}\text{Ratio:}$$

Within this ratio, R_p refers to the average stock return, R_f refers to the risk-free rate, and σ_p is the standard deviation of the portfolios excess return. This ratio measures the risk-adjusted return of a portfolio, and an ideal ratio is higher than 1 (Hargrave). The results of the study show that the news sources themselves affect stock return, where some sources tend to cause positive stock return while others cause a negative impact on stock return. The time of day an article is released also has an impact on stock returns, where disclosures earlier in the morning generate stronger stock return impacts (Schumaker, 2018). This study is important to this paper as it demonstrates that stock return can be impacted by external factors other than 8-K announcements. It also suggests that the timing of an 8-K filing could be a variable to consider when analyzing stock returns

In another study performed by Palmrose, Richardson, and Scholz (2004) that examined market reactions following misstatements, a sample of 403 restatements between 1995 and 1999 were used to observe an average -9% stock return in the two days following the announcement. This study used the free cash flow valuation method to create a regression line that determined the influence of restatements to market reactions. It was found that more negative returns are associated when restatements are concerned with fraud, multiple accounts, decreasing reported income, and those attributed to auditors or management (Palmrose, et al. 2004).

In a similar study from by Cox and Weirich (2002), a sample of 31 public firms that announced fraudulent reporting between 1992 and 1999 was used to examine market reaction, overreaction, and risk. Using a CAPM model, the results showed that there was a significant, negative market reaction to fraudulent reporting and restatements. This study looked at the combined market capitalization of the sample firms, which resulted in a 23.6% decline in the two days after the fraudulent reporting disclosure. The results showed weak evidence for market overreaction to fraud, which implies stock returns do not quickly rebound as an adjustment to the sharp drop caused by the disclosure of fraudulent reporting. This weak response can be credited to the increased levels of uncertainty regarding the news of the fraudulent reporting disclosure that has not yet been resolved. The last test, which tested the riskiness of each firm increasing in the period after fraudulent reporting and then subsiding in subsequent periods showed inconclusive results. The sample size was narrowed to 16 stocks in the first period after disclosure and 14 stocks for the second period post disclosure. Among these, 13 stocks in the first period and 12 stocks in the second period were shown to have an increased variance of error terms which then levels off over time. This suggests that the firm’s riskiness increased shortly following the restatement and then lowers in future periods. After a restatement, however, the betas of the sample firms showed insignificant fluctuations. While there is no evidence of the betas increasing after a restatement, there is evidence of a decrease in later periods following fraudulent reporting. Overall, this study shows significant market reactions to financial restatements and fraudulent reporting, but the small sample size proved to be a limitation in determining conclusive evidence regarding risk (Cox, Weirich 2002).

Misstatements and firm reputation

In a study by Hirschey, Smith, and Wilson (2015) that investigated the impact of timeliness of misstatement announcements, it was discovered that promptness impacts restating firms' credibility. This study used a sample of restatement announcements existing primarily in 8-K reports between the years of 1997 and 2006, which lent a data set of 614 accounting irregularities when combined with data from CRSP and Compustat. This data was analyzed using a regression model. The results of this study showed that firms with longer periods between the filing of financial statement with a misstatement and the announcement of the misstatement have a greater negative perception from investors as opposed to firms with a shorter period between the initial filing and the announcement. Further analysis shows that investors have greater expectations for larger firms in terms of promptness of restatement announcements. This study is useful to the development of this paper as it poses interesting external timeliness variables relating to the announcements (Hirschey, et al 2015).

After a firm intentionally misstates financial statements, its reputation is tarnished. Credit ratings are a way that investors assess value before making an investment, and misstatements will adversely impact the credit ratings of a firm. In a study by Bierey (2017), it was found that credit ratings remain affected for up to seven years after a firm discloses a restatement. The ratings are most severely adversely impacted when the misstatement involves a violation of a covenant (Bierey 2017). This study helps support the assertion that misstatements harm firms' reputations and in turn investors' perceptions of firm value.

The period following a financial misstatement is undoubtedly important for a company. The handling of fraudulent reporting directly impacts the firm's perceived reputation among existing and potential shareholders. A study by Gomulya and Boeker (2014) on reputation damage of companies after restating financial statements was conducted to test the impact of CEO changes after the fraudulent report. This study tested the likelihood of CEO replacement based on severity of misstatement. It also tested the likelihood of the new CEO having turnaround experience, an elite educational background, and a background in accounting or finance based on the severity of misstatement. Using a sample of 704 firms that misstated financials between 2003-2006, tests were run to examine each hypothesis. The results stated that a more severe financial misstatements will increase the likelihood of a new CEO being brought in, especially one with turnaround experience and an elite education. The results, however, also showed that after a more severe financial restatement, the new CEO is less likely to have a background in finance or accounting (Gomulya and Boeker, 2014).

Predictability of misstatements

Auditors are tasked with providing reasonable assurance that financial statements accurately represent the performance and financial condition of a company and are free of material misstatements. Predicting misstatements is not the job of the auditor, but it is their job to detect them. The predictability of misstatements was addressed in a study performed by researchers Dechow, Ge, Larson, and Sloan. This study compiled Accounting and Auditing Enforcement Releases (AAERs) from the SEC between the years 1982 and 2005. Overall, this dataset consisted of 2,190 AAERs and 676 firms that had misstated their financial statements. The goal of this study was to determine and analyze characteristics of misstating firms and the misstatements themselves to better improve predictability of future misstatements. The results of this study showed the most common types of misstatements are found in the overstatement of revenues and misstatement of both expenses and capitalization of costs. At the time of misstatement, it is found that earnings quality is low, and firms tend to have significant off-balance sheet financing and highly leveraged balance sheets. Managers of firms that fraudulently report financial statements are sensitive to stock price changes, and often the stock has been trading at a higher than expected level (Dechow, et al. 2011).

Lerman and Livnat (2010) show that 8-K reports can generate market reactions in both positive and negative directions. Expanding on this, the results of the study by Palmrose Richardson and Scholz (2014) demonstrate a significant, negative market reaction to financial restatements in an average 9% stock return following the disclosure. Cox and Weirich (2002) also show a significant, negative market reaction to financial restatements. These studies bring evidence to formulate the first hypothesis examined in this paper:

Hypothesis 1: Ceteris Paribus, financial restatements will cause stock returns to decrease.

Based on the above studies, specifically those by Palmrose, et al (2014), and Dechow (2011), the misstatement of certain accounts appears to have a greater market reaction. These accounts often affect net earnings. Because of this, accounts that are related to the primary operations of the business may have a greater effect on stock returns when restated. This assumption brings the second hypothesis:

Hypothesis 2: Ceteris Paribus, the magnitude of the market reaction is determined by the account that was misstated

Methodology

Data Sources and Sample Construction

The data collection process began with the manual analysis of all 8-K reports containing item 4.02 that were filed with the SEC between the first quarter of 2016 and the third quarter of 2019. Due to multiple misstatements per 8-K report, this data set consisted of 101 companies and 500 observations. (Define observation) In order to filter this data, Global Company Keys (GVKEY) were manually searched for and connected with each company so they could be further merged with Compustat data. Those without GVKEYs were excluded for a sample of 81 firms with 416 observations across 22 accounts. This list of firms collected including each GVKEY, date of filing, and misstated accounts is reported in Internet Appendix Table IA1. Using Compustat, data on firm size, profitability, and leverage were gathered to use as controls. The companies were then connected with corresponding Committee on Uniform Securities Identification Procedures (CUSIP) numbers assigned to individual companies to merge the data with the Center for

Research in Security Prices (CRSP). Information on the stock returns of each company is available through CRSP. After the data were filtered for duplicates and firms missing aspects from CRSP or Compustat, a total of 73 firms, 274 observations, and 22 accounts remained as a sample.

At this point, the term restated will be used to describe a firm that has filed an 8-K report containing item 4.02. Firms that filed 8-K reports containing item 4.02 will be defined as restated and those that did not will be defined as non-restated. In order to construct a full sample, the 73 restated firms had to be compared to similar non-restated firms. This comparison gives a basis to examine the stock returns between the two type of companies. The 73 firms and 274 observations were matched with non-restated firms using a propensity score matching approach. This matching gave a sample of 207 non-restated firms which was then combined for a total data set of 481 firms.

OLS Model:

An ordinary least squares (OLS) regression model is used. Within this model, the dependent variable is stock return, which reflects investor's reaction to the independent variable of *Restated*. Again, restated is used to define a firm that filed an 8-K report containing item 4.02. In order to mitigate the influence from other external variables, controls of size, profitability, leverage, and research and development expense are added in the model. The main focus is on λ_1, which is the coefficient of restated.

The following model is constructed to test stock return given the controls.

$$
\begin{aligned}
&Stock\ Return_{i,t+1} \\
&\qquad = a_t + \lambda_1 Restated_t + \lambda_2 Size_t + \lambda_3 Profitability_t + \lambda_4 Leverage_t \\
&\qquad + \lambda_5 Research\ and\ Development\ expense_t + \varepsilon_{i,t}
\end{aligned}
$$

Within this model the subscripts *i* and *t* index firms and quarters.

Control variables are established to rule out influences from other external factors. The four control variables used are size, profitability, leverage, and research and development expense. These controls can be defined as follows:

Size: based on capital

$$Log\{Total\ Capital\}$$

Profitability: the degree in which a firm can generate earnings

$$Profitability = \frac{Net\ Income}{Total\ Capital}$$

Leverage: the amount of debt a company uses to generate profit

$$Leverage = \frac{Total\ Liabilities}{Total\ Assets}$$

Research and Development Expense: a metric to define the innovation of a company

$$Research\ and\ Development = \frac{Research\ and\ development\ expense}{Total\ Sales}$$

Results

Industry Distribution of Misstatements

In order to determine if the results of the regression model are that of a biased representation of the population of publicly traded companies, we examine the industry distribution of misstatements. As shown in Figure 3, the distribution of misstatements by industry shows a majority attributable to the manufacturing industry (65.5%) followed by the services industry (16%). While this was initially alarming as it could signal an industry biased sample, it was found that this distribution is representative of the entire population of non-restated firms. Based on data from Compustat, there are a total of 13,455 public firms that are not restated, and 8,813, or 66% are in the manufacturing industry. This is a signal that the sample of 73 firms used in the model is representative of the overall population and does not have an industry bias.

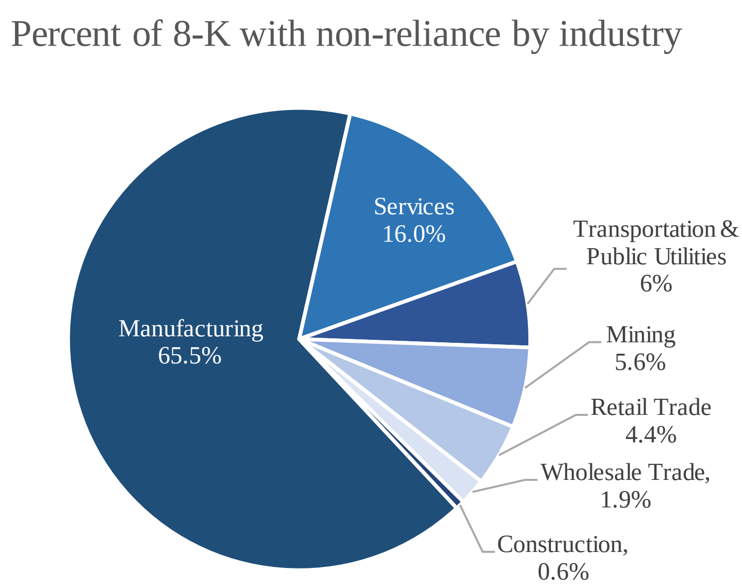


Figure 3 – Industry Distribution of Restatements

Summary Statistics

Continuing with a sample of 274 restated firms to be compared with all non-restated firms, an additional sample of 207 firms is created using a propensity score matching approach. The summary statistics show that stock return varies between restated firms, non-restated firms, and non-restated firms with matching characteristics. The results show a negative stock return of 9% for restated firms, while firms that did not restate see a positive 2-3% return. This result signals that investors have a significant, negative market reaction to misstatements and a mild positive reaction to firms without restatements. By analyzing the adjusted stock return, we capture the difference of the stock return compared to the average return of the market. Similarly, the results show that investors have a negative reaction to the restated firms with a negative adjusted stock return of 11%. Close numbers of the two samples demonstrate a successful propensity score match.

Table 1 - Summary Statistics

Variable			Restated Firms			Non-restated Firms				n-restated Firms (match		
	N	Mean	Median	Sd	N	Mean	Median	Sd	N	Mean	Median	Sd
Stock Return	274	-0.09	-0.13	0.25	98,560	0.02	0.01	0.25	207	0.03	0.01	0.26
Adjusted Stock Return	274	-0.11	-0.12	0.24	98,560	-0.01	-0.02	0.24	207	0	-0.02	0.25
Size	274	6.58	6.52	1.47	109,810	6.46	6.65	2.76	207	6.92	7.15	1.75
Profitability	274	-0.01	0	0.04	109,581	-0.01	0	0.05	207	-0.01	0	0.05
Leverage	274	0.45	0.44	0.29	109,810	0.4	0.35	0.29	207	0.38	0.34	0.24
Research & Development	274	0.07	0	0.15	102,159	0.57	0	3.24	207	0.07	0	0.21

Main Regression

The main results of the model show that the restated variable loads significantly negative on stock returns. This result again suggests that investors negatively perceive the restatement of financial statements. The univariates result of the first column shows a negative stock return of 12.47% for restated firms. The controls implemented in the main regression, however, do not prove to be significant to the results, suggesting that these additional characteristics do not significantly impact investor’s perspective. The results of the regression support hypothesis 1: the announcement of financial restatements will have a significant negative impact on stock return.

Table 2 - Main Regression

	(1)	(2)	(3)
	Stock Return	Stock Return	Adjusted Stock Return
8-K with 4.02	**-0.1247*** **	**-0.1200** **	**-0.1038** **
	(0.006)	**(0.014)**	**(0.017)**
Size		-0.0096	-0.0084
		(0.439)	(0.485)
Profitability		0.4896	0.5761
		(0.500)	(0.435)
leverage		-0.0731	-0.0692
		(0.552)	(0.517)
Research & Development		0.0140	-0.0139
		(0.935)	(0.933)
Constant	0.0341*	0.1323	0.0869
	(0.059)	(0.194)	(0.377)
Observations	481	481	481
R-squared	0.0545	0.0731	0.0687

Misstatements by account

Examining the results further to determine if specific accounts have a greater effect on stock return than others, certain accounts prove to be more impactful. The sample of misstatements came from a variety of accounts based on operating, financing, and investing activities. Based on a distribution of accounts, net income and revenue misstatements make up almost 50% of the misstatements in the sample. This distribution is shown in Table IA2.

Despite the majority of misstatements coming from these two accounts, the most significant effects on stock return come from the misstatements of operating cash flow, cost of goods sold, and operating expense. Firms with misstatements related to operating cash flows, cost of goods sold, and operating expense saw negative stock return in the amount of 14%, 19%, and 20% respectively. These impacts are 1.5 to 2 times of that for average accounts. These three accounts are related to the primary operating activities of the firm, and suggests that investors place the greatest importance on these types of accounts. These operating accounts affect net income, which gives a reason why stock returns are most affected by these misstatements. The results support hypothesis 2: the magnitude of the market reaction is determined by the account that was misstated.

Table 3 - Additional Analysis

	(1)	(2)	(3)
	Cash from Operating Activities	Cost of Goods Sold	Operating Expense
Account	-0.1439**	-0.1895***	-0.2084***
	(0.039)	(0.002)	(0.009)
Size	-0.0045	-0.0069	-0.0082
	(0.701)	(0.559)	(0.486)
Profitability	0.5176	0.5257	0.4759
	(0.509)	(0.494)	(0.533)
Leverage	-0.0948	-0.1071	-0.1495
	(0.415)	(0.333)	(0.205)
Research and Development	-0.0123	-0.0227	0.0036
	(0.945)	(0.897)	(0.984)
Constant	0.0132	0.0403	0.0992
	(0.904)	(0.700)	(0.343)
Observations	481	481	481
R-squared	0.0309	0.0472	0.0559

In cases of misstatements of accounts not primarily related to the main operations of the firm, there is not always a negative effect on the stock return.[1] The misstatement of other comprehensive income, for example, showed a positive stock return in this sample. This shows us that the surprise of restating accounts that are not related to the primary operations of the firm can be positive. Restating accounts related to operating activities, however, regardless of whether the restatement is positive for the firm or not, causes the stock return to decrease.

Conclusion and discussion

Our study suggests significantly negative market reactions to financial restatements disclosed in 8-K reports. On average, firms that filed 8-K reports with item 4.02 showed significant, negative stock returns in the quarter following the release of the report. The results of this study can be used to further the existing body of knowledge surrounding market reactions to financial misstatements with this updated analysis. Additional research can be developed in the direction of firm reputation and recovery following the release of a misstatement announcement in an 8-K report. Our study provides practical implications to misstatement monitoring. Particularly, the substantial costs imposed on misstated firms imply that investor monitoring may be a supplement of the SOX act in mitigating fraudulent reporting or misstatements.

[1] The results are not reported for brevity, but are available upon request.

Appendices

Appendix A – complete list of restated companies

GVKEY	**Company Name**	**Report Date**	**Misstated Account**
175595	Gulfslope Energy, Inc.	9/24/19	Operating Expense
30220	Sypris Solutions, Inc.	9/5/2019 6/21/19	Payable, Cost of Goods Sold
30870	Aspen Technology, Inc	8/20/19	Assets, Liabilities, Retained Earnings, Receivable
63099	Broadvision, Inc.	7/31/19	Assets. Net Income, Shareholder’s Equity, Basic Earnings Per Share. Diluted Earnings Per Share
63332	Dynaresource, Inc.	6/21/19	Expense, Assets
33446	Pluralsight, Inc.	6/13/19	Net Income
184717	Amyris, Inc.	4/5/19	Revenue, Net Income
178698	Aac Holdings, Inc	3/29/19	Net Income, Shareholder’s Equity
26126	American Renal Associates Holdings, Inc.	3/21/19	Operating Income
65247	Helios & Matheson Analytics Inc.	3/12/19	Revenue, Net Income
25726	Cpi Aerostructures, Inc	2/7/19	Revenue, Net Income
184957	Workhorse Group Inc.	10/28/10	Expense, Shareholder’s Equity
108348	Pareteum Corporation	10/21/19	Revenue
166789	General Finance Corporation	5/6/19	Revenue
190455	Guidewire Software, Inc.	4/25/19	Revenue, Net Income
22879	Greenpro Capital Corp.	3/30/19	Receivable, Shareholder’s Equity, Net Income
62592	Protalix Biotherapeutics, Inc.	3/18/19	Revenue
29129	Empire Resorts, Inc.	3/12/19	Net Income
19602	Turtle Beach Corporation	3/13/19	Net Income

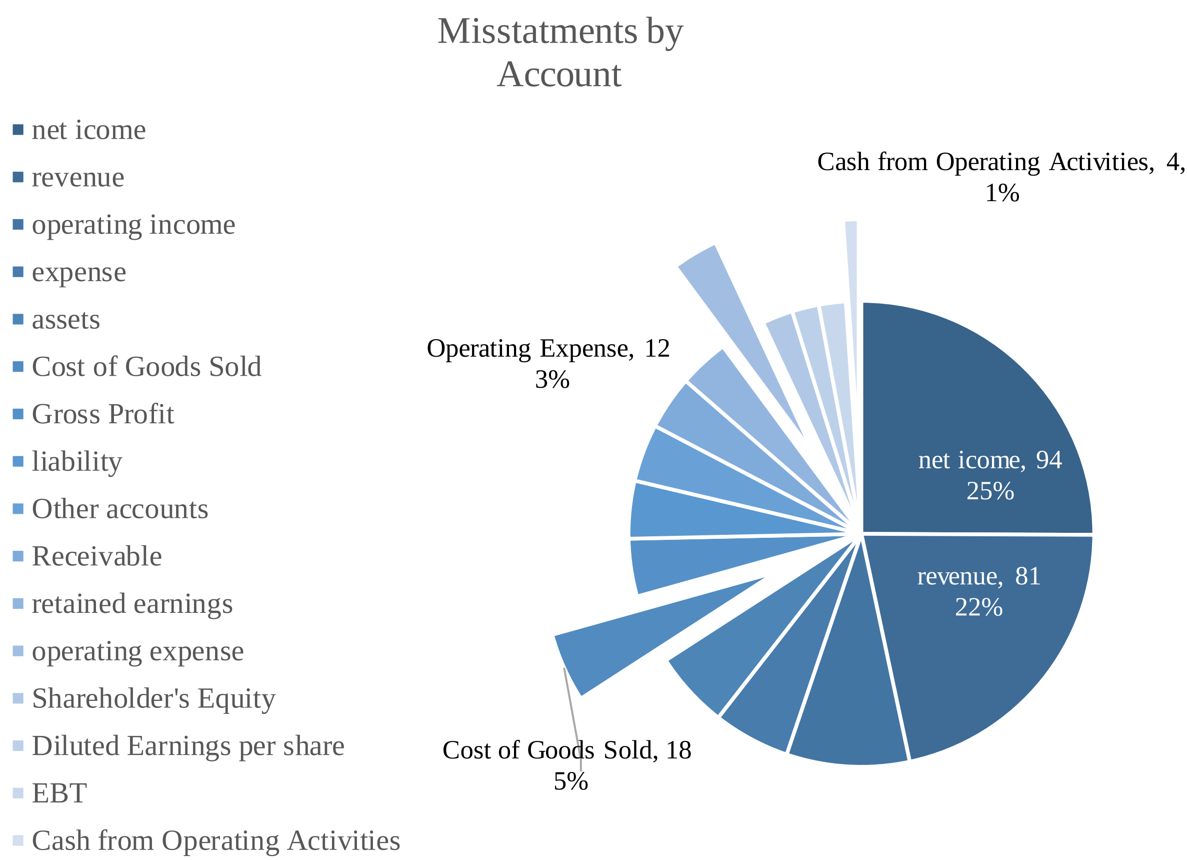
185453	Whitestone Reit	2/26/19	Revenue, Expense, Net Income
62213	Usa Technologies, Inc.	2/1/19	Revenue
27154	Aeon Global Health Corp.	1/23/19	Liability, Net Income
176567	Super Micro Computer, Inc.	11/14/18	Revenue, Net Income, Diluted Earnings Per Share
28087	Everspin Technologies, Inc.	11/7/18	Cost of Goods Sold, Operating Income, Net Income, Retained Earnings, Gross Profit
134464	Chs Inc	10/22/18	Ebt, Assets
14957	Aftermaster, Inc.	10/12/18	Revenue, Cost of Goods Sold
1094	Aceto Corporation	9/24/2018 11/2/17	Net Income, Diluted Earnings Per Share, Revenue, Receivable
8867	Quantum Corporation	9/14/18	Revenue
18315	Intrexon Corporation	8/9/18	Deferred Revenue, Retained Earnings, Revenue
19849	A10 Networks, Inc.	7/2/18	Revenue, Net Income
8582	Seneca Foods Corporation	6/28/18	Revenue, Cost of Goods Sold, Gross Profit, Operating Income, Ebt, Net Income, Basic Earnings Per share, Diluted Earnings Per Share
5681	Homefed Corporation	5/11/18	Revenue, Deferred Revenue
18875	Exp World Holdings, Inc.	4/12/18	Operating Expense, Revenue, Cost of Goods Sold
187357	Izea, Inc.	3/28/18	Revenue
5888	Teligent, Inc.	3/12/18	Revenue, Receivable, Operating Expense, Liability
4460	Esterline Technologies Corporation	2/1/18	Net Income
148151	El Capitan Precious Metals, Inc.	1/24/18	Net Income
177981	Amedica Corporation	12/11/17	Net Income

180109	Malvern Bancorp, Inc.	11/21/17	Net Income
185193	Xtant Medical Holdings, Inc.	11/20/17	Assets, Retained Earnings, Cost of Goods Sold, Net Income, Cash From Operating Activities, Cash From Investing Activities
150159	Ictv Brands Inc.	11/6/17	Assets, Cost of Goods Sold, Net Income
31156	Rosehill Resources Inc.	10/27/17	Net Income
177281	Cavitation Technologies, Inc.	10/24/17	Gross Profit, Revenue
175055	Hill International, Inc.	9/20/17	Operating Expense, Other Comprehensive Income, Retained Earnings
185774	Wonhe High-Tech International, Inc.	8/18/17	Receivable, Assets, Retained Earnings, Shareholder’s Equity, Expense, Net Income, Diluted Earnings Per Share, Basic Earnings Per Share,
30923	Technipfmc Plc	7/24/17	Net Income
166430	Visualant, Incorporated	6/26/17	Net Income, Assets, Operating Income, Shareholder’s Equity
107446	Netsol Technologies, Inc.	5/22/17	Revenue
61285	Ballantyne Strong, Inc.	5/9/17	Revenue, Liability
183831	Bergio International, Inc.	4/17/17	Revenue, Gross Profit, Ebt, Net Income
146156	Alere Inc.	4/12/17	Revenue, Operating Income
187169	Power Solutions International, Inc.	4/5/17	Revenue, Receivable
179731	Insys Therapeutics, Inc.	3/30/17	Operating Expense, Expense, Ebt
28071	Dasan Zhone Solutions, Inc.	3/21/17	Ebt
11440	Westmoreland Coal Company	3/23/17	Revenue, Expense, Depreciation/Amortization, Operating Invome
27154	Authentidate Holding Corp.	2/17/17	Revenue, Operating Income, Receivable, Retained Earnings

180562	Roadrunner Transportation Systems, Inc.	1/27/17	Expense
158563	Cytokinetics, Incorporated	12/9/16	Operating Expense
26873	Moleculin Biotech, Inc.	11/14/16	Net Income, Liability
186159	Supernus Pharmaceuticals, Inc.	11/7/16	Revenue
15087	Lifeway Foods, Inc.	11/4/2016 8/12/16	Cost of Goods Sold, Gross Profit, Operating Expense, Net Income, Assets, Ebt
23220	Orbital Atk, Inc.	2/27/16	Revenue, Operating Income, Net Income
24405	Zebra Technologies Corporation	10/31/16	Ebt
14597	Juniper Pharmaceuticals, Inc.	10/18/16	Revenue
26863	Differential Brands Group Inc.	8/10/16	Operating Income, Liability, Cost of Goods Sold, Operating Expense, Revenue, Gross Profit, Cash From Operating Activities
29241	Viavi Solutions Inc.	8/11/16	Expense
63527	Stericycle, Inc.	7/26/16	Liability, Net Income
187677	Rennova Health, Inc.	5/16/16	Assets, Operating Expense, Net Income, Shareholder’s Equity, Retained Earnings
120824	U.S. Concrete, Inc.	4/21/16	Expense, Assets, Operating Expense, Liability
16884	Five Oaks Investment Corp.	3/21/16	Net Income
22010	Deep Down, Inc.	3/15/16	Revenue, Net Income
18632	Lifelogger Technologies Corp.	2/24/16	Net Income
63952	Hc2 Holdings, Inc.	2/21/16	Net Income
187348	Mojo Organics, Inc.	2/16/16	Operating Expense, Net Income
5018	Aerojet Rocketdyne Holdings, Inc.	1/28/16	Operating Income
179831	Western Gas Partners, Lp	1/27/16	Operating Income, Net Income

64077	Cipherloc Corporation	1/11/16	Revenue, Net Income
157679	Spirit Realty Capital, Inc.	10/17/16	Net Income
180749	Blue Line Protection Group, Inc.	4/8/16	Net Income
28410	Barrett Business Services, Inc.	3/3/16	Gross Profit, Operating Income, Revenue

Appendix B – Distribution of Restated Accounts



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