THE STOCK PRICE EFFECT OF EMERGING FROM BANKRUPTCY AND THE ASSOCIATED EFFECT OF SWITCHING AUDITORS POST-BANKRUPTCY…AN INDUSTRY ANALYSIS

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ABSTRACT

This study analyzes firms that emerge from Chapter 11 bankruptcy with specific attention given to two groups; those that switch auditors post-bankruptcy, and those who retain previous auditors in a post-bankruptcy environment. In addition, further analysis is made to assess whether or not industry membership, along with pre or post SOX environment play a role in results.

Results indicate that when the pre versus post SOX environment is assessed, a significant difference is noted in the sample firms. Post SOX firms emerging from Chapter 11 that switch auditors carry positive information content, therefore, investors tend to bid up the price of stock of these firms. Firms emerging from Chapter 11 in a post SOX environment that do not change auditors tend to convey negative information content as their stock price is bid down by investors. With respect to a pre SOX environment, results indicate that investors do not behave significantly different whether the firms change auditors or not after emerging from Chapter 11. In both cases, there is a positive correlation between earnings response and stock price.

When attention turns to assessing individual industries in a post SOX environment, a positive correlation between earnings response and stock price is seen across all industries evaluated when the firm emerging from Chapter 11 switches auditors. Growth industry firms show the greatest stock price reaction to earnings. With respect to firms that do not switch auditors post-bankruptcy, results are mixed across industries. Most industries show a negative stock price reaction but certain growth industries reflect a positive reaction. In a pre SOX environment, no significant industry difference is noted, either by firms that switch auditors or those that do not switch. All pre SOX industry firms, on average, have a positive correlation between earnings response and stock price.

INTRODUCTION

Bankruptcy has the potential to be a tremendously traumatic experience for a firm. The primary purpose of the U.S. bankruptcy code, through Chapter 11 filing, is to provide temporary respite from financial obligations to companies with sufficiently high probability of reorganizing obligations successfully. A successful reorganization would allow the company to ultimately emerge from bankruptcy as a much more financially healthy organization.

The news of a successful emergence from Chapter 11 is then viewed as good market news relative to other firms in the industry. Ferris et al (1997) separate firms in comparable industries by those that file for bankruptcy and those that do not. An analysis is then made three years prior to the bankruptcy and three years after emerging from bankruptcy. They find that when the bankruptcy announcement is made, the firms declaring Chapter 11 filings see a decline in stock prices, but so do rivals firms in the same industry. When the firms emerge from Chapter 11, they see an even greater increase in stock price than stock prices of rival firms.

Client firms switch auditors for many different reasons. One reason is that a firm may change to a better quality auditor to supply more credible information to creditors, investors, and regulators (Schwartz and Menon 1985). Another reason is that a client firm may be engaged in opinion shopping. A firm may seek a new auditor to conceal or downplay "bad news" or to avoid a qualified or going concern opinion (Fried and Schiff 1981; Chow and Rice 1982). A third reason for an auditor change is a disagreement between the auditor and client (Davidson et al. 2006). With the advent of Sarbanes Oxley (SOX), the Public Company Accounting Oversight Board (PCAOB) was created and empowered to promulgate new auditing standards for public company audits. One change the PCAOB has made is a modification to the second paragraph of Statement on Auditing Standards (SAS) No. 59. This change directs auditors to use their knowledge of subsequent events following the financial statement date but before the audit opinion date when considering whether to issue a going concern opinion [PCAOB, 2 010, p. 538]. Before this change, SAS No. 59 instructed auditors to consider subsequent events at the completion of fieldwork [AICPA, 1988]. Geiger et al, (2005) find that this change may also result in a self-fulfilling prophecy regarding issuance of going concern opinions and resultant bankruptcy declarations.

This paper attempts to merge much of the past literature regarding bankruptcy and auditor switches to assess the stock price impact of firms emerging from bankruptcy, and the extent to which those firms switch auditors. Another aspect of

this study, which is beginning to receive greater interest, is the impact of these two issues from an industry-specific basis. The goal of this study is to help provide a clearer picture of the relationship between post-bankruptcy performance and auditor retention by specific industry. The rationale for inclusion of this metric in the study is because any industry-specific findings could have relevance and significance to managers, investors and creditors of those industries.

LITERATURE REVIEW

Truman and Weinstein (1983) posit that most corporate bankruptcies are fully anticipated to the point that no new information is released when bankruptcies are filed. The authors find that greater information follows the emergence from bankruptcy. They find that primary events ocurring around post-bankruptcy include; new management, new corporate form, and new auditors. None of these events are explored by the authors. Aharony, Jones and Swary (2010) find that corporate failure is an indication of resource misallocation and can be industry-specific, although there is no attempt to measure industry differences. Lang and Stulz (1992) explore a premise that when more than one firm in the same industry announces a Chapter 11 filing there exists a tendency for other firms in the same industry to follow. They refer to this as an intra-industry contagion effect. Smith and Nichols (1992) document a significantly positive share price reaction within 60 days after emerging from bankruptcy. Whereas Eberhart et al. (1999) find an abnormal positive price change in days following bankruptcy emergence, Klock (2004) documents that firms in heavy industry have a significant drop in stock price upon emergence from Chapter 11. Eberhart et al. (1999) study the stock market performance of firms emerging from Chapter 11 bankruptcy. They find that in the first 200 days after shedding the Chapter 11 cover, abnormal stock returns average from +24.6% to +138.8%. This result is similar to the findings of Bradley and Rosenzweig (1992). Lang and Stulz (1992) extend the analysis and find that this market reaction can exert a positive competitive effect, particularly since the Chapter 11 bankruptcy can be an indication of a general negative contagion in the industry in which the Chapter 11 emerging company competes. In several of these studies, post-bankruptcy firms have either changed auditors or retained previous ones. There has been no control for assessing either.

Regarding auditor switches, prior research shows that a reduction in audit fees motivates auditor changes (Johnson and Lys 1990). Lower audit fees may improve company financial performance through lower costs but may also diminish

audit quality (Ettredge et al. 2007). Auditor changes may be related to higher auditor litigation risk (Krishnan and Krishnan 2007), auditor industry specialization, Carcello and Neal 2003), management desire to manage or manipulate earnings (Davidson et al. 2006), and better service provided by auditors (Johnson and Lys 1990; Chang et al 2010).

Asthana, Balsam, and Krishnan (2010) posit that corporate governance is a factor in switching auditors and that this is especially true after the Enron debacle and creation of Sarbanes Oxley (SOX) in 2002. They also find that governance varies from industry to industry, and a multivariate analysis assessing multiple industry firms in a five year study period indicates differing market reaction to the auditor switch within 120 days of the switch. Stunda (2012) provides evidence of stock prices changes triggered by new regulation may vary among industries. Evidence is found within 90 days of the new regulation taking effect. Mackay and Phillips (2015) find that industry dictates financial structure. In some cases, financial leverage can be higher or lower depending upon the industry. The study assesses various equilibrium models and discovers that industry firms with higher leverage and risk are more apt to ultimately switch auditors. Fries, Miller and Perraudin (2015) have similar findings of Mackay and Phillips (2015). In assessing debt in industry equilibrium, the study shows that over-leverage in certain industries can lead to a host of reactions including bankruptcy, and certainly in a post SOX environment, a change in auditors.

This study attempts to provide a nexus between the extant bankruptcy and auditor switch literature. It also attempts to assess this linkage in a pre and post Sox environment, and from an industry perspective. This issue has become more relevant today in light of recent studies highlighting industry differences, particularly as industries continue to evolve in their governance and capital structure. In addition, it is important to place this linkage in perspective to points in time. Therefore, the study compares and contrasts findings in order to analyze results in a pre versus post SOX environment, and by industry.

DATA AND METHODOLOGY

The sample consists of quarterly earnings and security prices during the two sample period years 1992-2001 (pre Sox) and 2007-2016 (post SOX), for the first quarter after a firm emerges from Chapter 11. The rationale for using the first quarter after emergence is to stay as close to the methodology of Smith and Nichols (1992), who utilize 60 days after the event, Asthana, Balsam, and Krishnan (2010) who

utilize 120 days after the event, and Stunda (2012) who utilizes 90 days after the event. Since quarterly data is used in the study, the first quarter after the event is considered to be the most significant. Earnings data are obtained from Compustat and security price information is derived from the Center for Research on Security Prices (CRSP). The analysts' forecast of earnings is obtained from the Investment Brokers Estimate Service (IBES), and consists of quarterly point forecasts for the periods mirroring firms' earnings releases.

Also, the Electronic Data Gathering and Retrieval System (EDGAR), and the Wall Street Journal (WSJ) are used to analyze financial notes and other associated firm information in order to control for such things as change of corporate form, change in ownership, or change in management. If any of these could be documented during the test period, the firm is subsequently eliminated from the study. In addition, EDGAR is also utilized to identify pre- Chapter 11 versus post-Chapter 11auditor changes in the test period firms.

In their analysis of earnings forecast accuracy, Sinha, Brown, and Das (2015) conduct a detailed study of industries incorporating such things as corporate governance, average industry revenues, average industry assets, capital structure, regulatory constraints, and long term investment. The study finds that certain industries have experienced above average growth in the last ten years, while other industries have experienced below average growth during this same period. This study incorporates industry analysis from that study to highlight similar above average growth industries, namely; Technology, Healthcare, Oil/Gas, and Banking/ Finance. In addition, the same below average growth industries are also analyzed, they are; Utilities, Real Estate, Transportation, and Industrials.

Tables 1 and 2 below provide the full sample of firms in the test period samples.

Table 1

Firms Emerging from Chapter 11 2007-2016 (Post SOX)

Firms Emerging from Chapter 11		
Industry	**Firms Switching Auditors**	**Firms Retaining Auditors**
Above Average Growth Industries		
Technology	6	8
Healthcare	9	7
Oil/Gas	11	9
Banking/Finance	15	11
Total	41	35
Below Average Growth Industries		
Utilities	17	13
Real Estate	16	8
Transportation	14	9
Industrials	27	18
Total	74	48
Grand Total	115	83

Table 2

Firms Emerging from Chapter 11 1992-2001 (Pre SOX)

Firms Emerging from Chapter 11		
Industry	**Firms Switching Auditors**	**Firms Retaining Auditors**
Above Average Growth Industries		
Technology	2	4
Healthcare	3	5
Oil/Gas	5	6
Banking/Finance	7	5
Total	17	20
Below Average Growth Industries		
Utilities	5	7

Real Estate	4	6
Transportation	9	7
Industrials	15	14
Total	33	34
Grand Total	50	54

HYPOTHESIS DEVELOPMENT

Difference between firms that switch auditors versus firms that do not switch auditors post SOX

Geiger et al. (2005), notes that firms going through Chapter 11 may switch auditors to shed association with a past bad experience, while Smith and Nichols (1992) finds that auditor switches when emerging from bankruptcy provides a signal that in turn generates a significant share price response. The first question to ask is, does a significant difference exist in price between firms switching auditors versus those retaining the same auditor, after emerging from Chapter 11? This leads to the first hypothesis, stated in the null form:

H1: In a post SOX environment, there is no significant difference in the security price of firms, within the first quarter of emerging from Chapter 11, regardless of whether or not the same auditor is retained or changed to a new auditor.

The association between accounting earnings and security returns was first propounded by Ball and Brown (1968). The premise of the Ball and Brown study was to see whether the magnitude of unexpected earnings (as opposed to merely the sign of unexpected earnings) was related to the magnitude of the stock price response. Beaver, Clarke and Wright (1979) addressed the issue and discovered, in fact, that the magnitude of unexpected earnings was related to the magnitude of the stock price response. Again, they focused on market-adjusted stock returns to facilitate across-firm comparisons and to control for market-wide movements in stock prices. Ball and Brown (1968) and Beaver, Clarke and Wright (1979) show that despite the deficiencies of historical cost accounting, accounting earnings are potentially useful to investors. They also ushered in the so-called information perspective on the decision usefulness of accounting. The information perspective

implies that investors' response to accounting information can provide a guide as to what type of information is or is not valued by investors.

The next logical question to ask was whether the market responded more strongly to unexpected earnings in some firms, and less strongly in other firms. This question is quite pertinent to accountants because accountants potentially would be better able to design financial statements if we knew the factors that predict when and why investors respond more strongly (less strongly) to financial statement information. Consistent with the literature, the term "Earnings Response Coefficient," or "ERC" is used to describe the strength of the market response to unexpected earnings. To understand this line of research, one needs to have an intuitive understanding of how investors might respond to accounting information in light of single person decision theory, portfolio theory, and efficient market theory. Here is the basic idea: Let's say that last period's earnings were $1 and, accordingly, that is the level of earnings an investor expects this year. When this year earnings are announced, the level of earnings are, say, $1.25, implying a $0.25 earnings surprise. If the investor believes this $0.25 level of unexpected earnings is a one-time shot that will not recur into the future, the investor will increase his assessment of stock value by $0.25. However, if the investor believes this $0.25 unexpected increase in earnings is a permanent boost to earnings that will recur in future years, then the investor's increase in stock price is $0.25 + the present value of receiving $0.25 into perpetuity. Given this framework for thinking about how investors should respond to unexpected earnings, it can be predicted that investors will respond more strongly to unexpected earnings when those earnings are expected to persist into the future. It can also be predicted that investors' response to unexpected earnings will be smaller the higher the discount rate they use in discounting those unexpected earnings that are expected to be received into perpetuity.

Subsequent numerous studies have tested these predictions, and find:

(1) ERC are increasing in the persistence of earnings. This has implications for accountants because it suggests the importance of clearly identifying on the income statement those transactions that are nonrecurring transactions (Baginski and Hassell, 1990).

(2) ERC are decreasing in the riskiness of the firm and the leverage of the firm because both imply that investors demand higher expected returns and thus will use a higher discount rate in discounting the unexpected earnings expected to persist into the future. Thus, accountants should minimize the opportunities for off-balance sheet financing (or make sure the off-balance sheet financing is transparent) (Ajinkya, Atiase, and Gift, 1991).

(3) ERC are increasing in the growth opportunities of the firm because unexpected earnings reported by growth firms are expected to persist into the future. Thus, the forward-looking Management Discussion and Analysis (MD&A) disclosures are particularly important because they provide information about growth opportunities (Collins and Kothari, 1994).

(4) ERC are increasing in the quality of accounting accruals. Thus, detailed information about the components of accounting accruals might be useful to investors (Lev, 1989).

Using the previously explained Ball and Brown (1968) model to determine the ERC, the following model is established for determining information content:

$$CARit=a+b1UESit+b2UERit+b3MBit+b4Bit+b5MVit+b6Eit+b7Dit+eit \quad (1)$$

Where: CARit = Cumulative abnormal return firm i, time t
a = Intercept term
UESit = ERC for all firms switching auditors
UERit = ERC for all firms retaining auditors
MBit = Market to book value of equity as proxy for growth and persistence
Bit = Market model slope coefficient as proxy for systematic risk
MVit = Market value of equity as proxy for firm size
Eit = Number of audit committee member as proxy for expertise
Dit = Number of years with current auditor as proxy for tenure
eit = Error term for firm i, time t

The above regression is run for all firms in each of the test samples (i.e., firms switching auditors and firms retaining the same auditors). The coefficient "a" measures the intercept. The coefficient b1 is the ERC associated with firms switching auditors. The coefficient b2 is the ERC associated with firms retaining the same auditors. The ERC is measured by determining unexpected earnings. Unexpected earnings (UEi) is measured as the difference between the management earnings forecast (MFi) and security market participants' expectations for earnings proxied by consensus analyst following as per Investment Brokers Estimate Service (IBES) (EXi). The unexpected earnings are scaled by the firm's stock price (Pi) 180 days prior to the forecast:

$$UEi=[MFi-(EXi)]/Pi \quad (2)$$

Unexpected earnings are measured for each of the sample firms in the first quarter after emerging from Chapter 11. The coefficients b3 through b7, are contributions to the ERC for all firms in the sample. To investigate the effects of the information content of earnings on security returns, there must be some control for variables shown by prior studies to be determinants of ERC. For this reason, the variables represented by coefficients b3 through b7 are included in the study.

For each firm sample, an abnormal return (ARit) is generated around the event dates of -1, 0, +1 (day 0 representing the day that the firm's financials were available per DJNRS). The market model is utilized along with the CRSP equally-weighted market index and regression parameters are established between -290 and -91 days. Abnormal returns are then summed to calculate a cross-sectional cumulative abnormal return (CARit).

Difference between firms that switch auditors versus firms that do not switch auditors pre SOX

Utilizing the same approach as in H1, an analysis is made of firms during the pre SOX study period. This leads to the following hypothesis:

H2: In a pre SOX environment, there is no significant difference in the security price of firms, within the first quarter of emerging from Chapter 11, regardless of whether or not the same auditor is retained or changed to a new auditor.

Difference between pre SOX and post SOX results

In order to compare differences between pre and post SOX results, an analysis of variance test (ANOVA) is used. Baron and Kenny (1986) find that an ANOVA test is effective in that it precludes the concept of multicollinearity that sometimes arises in regression results, along with measurement error. This methodology is also used in Asthana, Balsam, and Krishnan (2010) to assess the effect of auditor switches associated with governance issues. This leads to the following hypothesis, stated in the null form:

H3: There is no significant difference in security prices of firms emerging from Chapter 11 between a pre versus post SOX environment regardless of whether or not an auditor switch exists.

Difference across industries post SOX

Aharony, Jones and Swary (2010) find that corporate failure is an indication of resource misallocation and can be industry-specific, while Klock (2004) documents that firms in heavy industry have a significant drop in stock price upon emergence from Chapter 11. An important question unanswered by previous bankruptcy studies is, are post-bankruptcy effect significantly different across industries in a post SOX environment. This leads to the second hypothesis, stated in the null form:

H4: There is no significant post SOX industry difference in the security price of firms, within the first quarter of emerging from Chapter 11, regardless of whether or not the same auditor is retained or changed to a new auditor.

Utilizing a similar approach to that of hypothesis one the following model is presented:

$$\text{CAR}=a+b1UESit+b2UERit+b3MBit+b4Bit+b5MVit+b6Eit+b7Dit+eit \quad (3)$$

Where: CARit = Cumulative abnormal return firm i, time t
a = Intercept term
UESit = ERC for firms switching auditors by specific industry
UERit = ERC for firms retaining auditors by specific industry
MBit = Market to book value of equity as proxy for growth and persistence
Bit = Market model slope coefficient as proxy for systematic risk
MVit = Market value of equity as proxy for firm size
Eit = Number of audit committee member as proxy for expertise
Dit = Number of years with current auditor as proxy for tenure
eit = Error term for firm i, time t

The above regression is run multiple times for each industry in the sample. The coefficient "a" measures the intercept. The coefficient b1 is the ERC associated with firms switching auditors. The coefficient b2 is the ERC associated with firms retaining the same auditors. The ERC is measured by determining unexpected

earnings. Unexpected earnings (UEi) is measured as the difference between the management earnings forecast (MFi) and security market participants' expectations for earnings proxied by consensus analyst following as per Investment Brokers Estimate Service (IBES) (EXi). The unexpected earnings are scaled by the firm's stock price (Pi) 180 days prior to the forecast, similar to the approach used in hypothesis one.

For each firm sample, an abnormal return (ARit) is generated around the event dates of -1, 0, +1 (day 0 representing the day that the firm's financials were available per DJNRS). The market model is utilized along with the CRSP equally-weighted market index and regression parameters are established between -290 and -91 days. Abnormal returns are then summed to calculate a cross-sectional cumulative abnormal return (CARit).

Differences across industries pre SOX

Utilizing the same approach as in H4, an analysis is made of firms during the pre SOX study period. This leads to the following hypothesis:

H5: There is no significant pre SOX industry difference in the security price of firms, within the first quarter of emerging from Chapter 11, regardless of whether or not the same auditor is retained or changed to a new auditor.

RESULTS

Table 3 provides results of assessing all post SOX firms in the sample that switch auditors subsequent to emerging from Chapter 11 versus those which retain the same auditor prior to Chapter 11 filing. The ERC associated with the firms switching auditors, represented by variable b1, is positive .13 and is significant at the .01 level. The ERC associated with firms retaining the same auditor, represented by variable b2, is negative .03 and is significant at the .05 level. All other variables in the model are not significant at conventional levels.

Results indicate that for both variables, b1, and b2, significant information content is present when correlating to stock prices. However, investors perceive the two scenarios differently. For those firms emerging from Chapter 11 with different auditors, a positive relationship exists between the earnings response coefficient and security prices, potentially signaling a positive change in direction of the firm, thus supporting the findings of Smith and Nichols (1992). For firms emerging from

Chapter 11 with the same auditor, a negative relationship exists between earnings response coefficient and security prices. An interpretation may be that the firm has been perceived as not moving past status quo. Regardless of the reason, the first hypothesis which states that there is no significant difference in the security price of firms, within the first quarter of emerging from Chapter 11, regardless of whether or not the same auditor is retained or changed to a new auditor, must be rejected.

In addition, whenever regression variables are employed, there is a probability of the presence of multicollinearity within the set of independent variables which may be problematic from an interpretive perspective. To assess the presence of multicollinearity, the Variance Inflation Factor (VIF) is utilized. Values of VIF exceeding 10 are often regarded as indicating multicollinearity. In the test of hypothesis 2, a VIF of 2.5 is observed, thus indicating a non-presence of significant multicollinearity.

Table 3
Test of Hypothesis One-Post SOX Analysis of Emerging from Chapter 11

Model: $CARit{=}a{+}b1UESit{+}b2UERit{+}b3MBit{+}b4Bit{+}b5MVit{+}b6Eit{+}\ b7Diteit\ +$ eit

a	b1	b2	b3	b4	b5	b6	b7	Adjusted R2
.06	.13	-.03	.29	.11	.09	.11	.23	.238
(.58)	(2.27)***	(1.68)**	(.48)	(.33)	(.29)	(.31)	(.45)	

b1 = all post SOX firms in sample switching auditors after emerging from Chapter 11 (n=115)

b2 = all post SOX firms in sample retaining auditors after emerging from Chapter 11 (n=83)

***Significant at the .01 level

**Significant at the .05 level

Table 4 provides results of assessing all pre SOX firms in the sample that switch auditors subsequent to emerging from Chapter 11 versus those which retain the same auditor prior to Chapter 11 filing. The ERC associated with the firms switching auditors, represented by variable b1, is positive .08 and is significant at the .01 level. The ERC associated with firms retaining the same auditor, represented by variable b2, is positive .04 and also is significant at the .01 level. All other variables in the model are not significant at conventional levels.

Results indicate that for both variables, b1, and b2, significant information content is present when correlating to stock prices. In addition, investors perceive the two scenarios as not being significantly different. Unlike the results in the post

SOX environment, investors seem to place little significance associated with auditor changes after emerging from Chapter 11 in a pre SOX environment. Hypothesis two, that states that there is no significant difference between these two periods, cannot, therefore be rejected.

To assess the presence of multicollinearity, the Variance Inflation Factor (VIF) is utilized. Values of VIF exceeding 10 are often regarded as indicating multicollinearity. In the test of hypothesis 2, a VIF of 2.7 is observed, thus indicating a non-presence of significant multicollinearity

Table 4
Test of Hypothesis Two-Pre SOX Analysis of Emerging from Chapter 11

Model: $CARit=a+b1UESit+b2UERit+b3MBit+b4Bit+b5MVit+b6Eit+b7Diteit$ + eit

a	b1	b2	b3	b4	b5	b6	b7	Adjusted R2
.09	.08	.04	17	.19	.05	.07	.18	.214
(.32)	(2.19)***	(2.29)***	(.27)	(.41)	(.22)	(.24)	(.40)	

b1 = all pre SOX firms in sample switching auditors after emerging from Chapter 11 (n=50)

b2 = all pre SOX firms in sample retaining auditors after emerging from Chapter 11 (n=54)

*** Significant at the .01 level

Table 5 indicates the one-way ANOVA results for the two groups analyzed (i.e. pre and post SOX samples). The one-way ANOVA test indicates an F-ratio of 23.614 with an associated p-value of .0000. When the Levene test is performed to assess for homogeneity of variance, a Levene statistic of 6.7719 is obtained with a significance level of .001. This test indicates significant differences in the variances of the groups.

Because the variances of the groups are not equal, there exists violation of the assumption of homogeneity across the samples. In order to account for this, The Welch's test is performed. This test assesses significance between groups when variances do not equal. Based on the Welch's test, and as indicated in Table 5, a t-statistic of 1.750 is computed with a p-value of less than .025. This indicates that the means of the sample groups are significantly different, and thus the null hypothesis of similarity between the groups is rejected.

In addition, close analysis of Table 5 indicates that the average composite change in stock price for the pre SOX sample is +10.669, the respective change for

the post SOX sample is +5.115. This indicates that stock price swings are nearly double in a pre SOX environment. In addition, the variance in the stock movements for pre SOX firms is approximately half of that for the post SOX firms studied, indicating the potential for less risk in the pre SOX environment.

Table 5
Test of Hypothesis Three- One Way ANOVA Test Pre Versus Post SOX Samples

Groups	Count	Sum	Average	Variance	
Pre SOX Firms	104	1109.5	10.669	6.228719	
Post SOX Firms	198	1012.9	5.115	13.289172	
Source of Variation	SS	*df*	MS	F-ratio	P-value
Between Groups	2517.158	1	426.691	23.614	.0000
Within Groups	988.621	301	3.327		
Total	3507.881	302			
Levene Statistic	*df*1	*df*2	Two-tail Significance		
6.7719	1	301	.001		
	t-stat	df	p-value		
Welch's t-test	1.750	1<.025			

Tables 6 and 7 provide results of assessing post SOX firms in the sample by industry membership. Table 6 presents results, by industry, of variable b1-firms switching auditors subsequent to emergence from Chapter 11. Results indicate that the ERCs associated with each industry sample are positively related to security prices and are significant at conventional levels. The association between earnings response and security price seems to be stronger for growth industry firms (i.e. Technology, Healthcare, Oil/Gas and Banking/Finance).

With respect to firms retaining the same auditor after emergence from Chapter 11 (b2 variable), Table 7 indicates that the ERCs are predominantly negative. The exceptions are the growth industry firms in Technology, Healthcare, and Oil/Gas. These results further detail the findings of hypothesis one and pinpoint those industries which are more likely to be perceived from a negative security price perspective after recovering from Chapter 11. Table 7 indicates that there is no real consistency among industry firms when the auditor is retained after Chapter 11 emergence, except that high growth industry firms may possess a greater advantage

over low growth industry firms, most likely as a result of their inherent growth component. As a result, hypothesis four which states that there is no significant post SOX industry difference in the security price of firms, within the first quarter of emerging from Chapter 11, regardless of whether or not the same auditor is retained or changed to a new auditor, must be rejected.

In addition, The Variance Inflation Factor (VIF) is assessed in each of the regressions run for this hypothesis test. In each case, the VIF is found to be below 3, indicating a non-presence of significant multicollinearity.

Table 6
Test of Hypothesis Four
Auditor Switching Firms by Industry, b1 Variable-Post SOX

Model: CAR=$a+b1UESit+b2UERit+b3MBit+b4Bit+b5MVit+b6Eit+b7Dit+$eit			
Industry	n	ERC	p-value
Technology	6	.25	1.62***
Healthcare	9	.19	1.59***
Oil/Gas	11	.38	1.67***
Banking/Finance	15	.17	1.89**
Utilities	17	.08	1.78**
Real Estate	16	.05	2.19*
Transportation	14	.12	2.25*
Industrials	27	.03	2.38*

*** Significant at the .01 level

** Significant at the .05 level

* Significant at the .10 level

Table 7
Test of Hypothesis Four
Auditor Retaining Firms by Industry, b2 Variable-Post SOX

Model: $CAR=a+b1UESit+b2UERit+b3MBit+b4Bit+b5MVit+b6Eit+b7Dit$ + eit			
Industry	n	ERC	p-value
Technology	8	.06	1.67***
Healthcare	7	.03	1.85**
Oil/Gas	9	.02	1.91**
Banking/Finance	11	-.01	2.32*
Utilities	13	-.02	1.82**
Real Estate	8	-.04	2.02*
Transportation	9	-.01	1.76**
Industrials	18	-.10	1.66***

*** Significant at the .01 level
** Significant at the .05 level
* Significant at the .10 level

Tables 8 and 9 provide results of assessing pre SOX firms in the sample by industry membership. Table 8 presents results, by industry, of variable b1-firms switching auditors subsequent to emergence from Chapter 11. Results indicate that the ERCs associated with each industry sample are positively related to security prices and are significant at conventional levels. Results appear consistent, regardless of industry membership.

With respect to firms retaining the same auditor after emergence from Chapter 11 (b2 variable), Table 9 indicates that the ERCs are again positively related to security prices. There also appears to be little variation in significance in this sample, regardless of industry membership. Findings indicate that in a pre SOX environment, industry memebership appears to be discounted when a firm emerges from Chapter 11 regardless of whether or not the firm switches auditor. As a result, hypothesis five which states that there is no significant pre SOX industry difference in the security price of firms, within the first quarter of emerging from Chapter 11, regardless of whether or not the same auditor is retained or changed to a new auditor, cannot be rejected.

In addition, The Variance Inflation Factor (VIF) is assessed in each of the regressions run for this hypothesis test. In each case, the VIF is found to be below 3, indicating a non-presence of significant multicollinearity.

Table 8
Test of Hypothesis Five
Auditor Switching Firms by Industry, b1 Variable-Pre SOX

Model: $CAR=a+b1UESit+b2UERit+b3MBit+b4Bit+b5MVit+b6Eit+b7Dit$ + eit			
Industry	n	ERC	p-value
Technology	2	.10	1.58***
Healthcare	3	.07	1.64***
Oil/Gas	5	.09	1.66***
Banking/Finance	7	.05	1.57***
Utilities	5	.09	1.60***
Real Estate	4	.07	1.69***
Transportation	9	.04	1.55***
Industrials	15	.06	1.61***

*** Significant at the .01 level

** Significant at the .05 level

* Significant at the .10 level

Table 9
Test of Hypothesis Five
Auditor Retaining Firms by Industry, b2 Variable-Post SOX

Model: $CAR=a+b1UESit+b2UERit+b3MBit+b4Bit+b5MVit+b6Eit+b7Dit$ + eit			
Industry	n	ERC	p-value
Technology	4	.05	1.77**
Healthcare	5	.06	1.82**
Oil/Gas	6	.04	1.66***
Banking/Finance	5	.03	1.72**
Utilities	7	.05	1.66***
Real Estate	6	.02	1.69***
Transportation	7	.05	1.71**
Industrials	14	.02	1.78**

a Significant at the .01 level
b Significant at the .05 level
c Significant at the .10 level

CONCLUSIONS

This study analyzes firms that emerge from Chapter 11 bankruptcy with specific attention given to two groups; those that switch auditors post-bankruptcy, and those who retain previous auditors in a post-bankruptcy environment. In addition, further analysis is made to assess whether or not industry membership, along with pre or post SOX environment play a role in results.

Results indicate that when the pre versus post SOX environment is assessed, a significant difference is noted in the sample firms. Post SOX firms emerging from Chapter 11 that switch auditors carry positive information content, therefore, investors tend to bid up the price of stock of these firms. Firms emerging from Chapter 11 in a post SOX environment that do not change auditors tend to convey negative information content as their stock price is bid down by investors. With respect to a pre SOX environment, results indicate that investors do not behave significantly different whether the firms changes auditors or not after emerging from Chapter 11. In both cases, positive information content is inferred by the bidding up of stock price.

When attention turns to assessing individual industries, in a post SOX environment, a positive correlation between earnings response and stock price is seen across all industries evaluated when the firm emerging from Chapter 11 switches auditors. Growth industry firms, namely; Technology, Healthcare, Oil/Gas, and Banking and Finance seem to show the greatest stock price reaction to earnings. With respect to firms that do not switch auditors post-bankruptcy, results are mixed across industries. Most industries show a negative stock price reaction but certain growth industries (i.e. Technology, Healthcare, and Oil/Gas) reflect a positive reaction. In a pre SOX environment, no significant industry difference is noted, either by firms that switch auditors or those that do not. All pre SOX industry firms, on average, have a positive correlation between earnings response and stock price.

This study brings together previous bankruptcy and auditor switching research and interjects the differing environment between the pre and post SOX era. Operating in a post SOX period, greater emphasis is placed on industry distinction when it comes to emerging from chapter 11. Above average growth industry firms, generate greater positive investor reaction when an auditor switch is made while below average growth industry firms generate a greater negative investor reaction when an auditor switch is not made. These results are beneficial to managers, investors, and creditors associated with the affected industries.

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