The Effect of the Sarbanes-Oxley Act on Information Dissemination through 10-K Filings

by

Rakesh Bharati, Susan Crain, and Shrikant Jategaonkar

* Corresponding Author: Department of Economics and Finance, Box 1102, Southern Illinois University – Edwardsville, IL 62026, 618-650-2549, rbharat@siue.edu

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Abstract: With the passage and implementation of the Sarbanes-Oxley Act of 2002 (SOX), one would suspect that 10-K filings may be more credible and/or less complex. As You and Zhang (2009) show, complexity causes a continuation of 10-K filing window returns over the next 12 months. Therefore we expect this effect to diminish or vanish in the post-SOX period. While we confirm the results of You and Zhang in the pre-SOX period, our results find no evidence of such continuation in the post-SOX period. We also find that the filing window return is negatively related to the pre-filing six month return momentum in the pre-SOX period, but is positively related in the post-SOX period. Our results present strong evidence that the implementation of SOX has significantly altered the informational quality of the 10-K filings.

I. Introduction and Literature Review

In a recent study, You and Zhang (2009) find strong evidence of underreaction to the filing of a 10-K report with the SEC using data from 1995-2005.[1] This finding is interesting as many salient pieces of information in the 10-K report have already been public for weeks through earnings announcements, plus considerable discussion has already taken place in the conference calls with investors and analysts, and in the news media. As You and Zhang (2009) note, the complexity of a modern business enterprise exceeds what can be adequately captured in traditional financial statements. Therefore, detailed disclosures contained in the 10-K report are informative to investors. Their tests indicate that the complexity of the 10-K reports is associated with the degree of underreaction. As they report, the filing window returns for the 10-K exhibit continuation into the next 12 months and it is stronger for more complex 10-Ks, where complexity is measured by word count.

In this study, we revisit the issue of market underreaction to 10-K reports in light of the Sarbanes Oxley Act of 2002 (henceforth, SOX). The stated purpose of SOX is to improve the quality of disclosures – backed up by stringent penalties – in order to bring transparency and boost investor confidence in capital markets. Several empirical studies support this hypothesis of positive impact of SOX on the quality of disclosures [e.g., Ashbaugh et al (2009), Cohen, Dey, and Lys (2006), Greenstone et al (2006), Leuz (2007), and Li, Pincus, and Rego (2008)]. Critics,

[1] You and Zhang (2009) analyze data from the post-EDGAR period in which investors had immediate, near zero-cost, on-line access to the filed reports.

on the other hand, point out that the compliance costs of SOX exceed the benefits for many firms, in particular small firms. [e.g., Zhang (2006), Engel, Hayes, and Wang (2007), Kamar, Karaca-Madic, and Talley (2009), and Litvack (2006)].

We propose that the mandated increased clarity, quality, and credibility of the 10-K report lead to a reduction in the observed underreaction as demonstrated by You and Zhang (2009). These authors argue that investor underreaction should increase in the cognitive complexity of the disclosure.[2] Therefore, a regulatory regime that mandates increased clarity and quality through appropriate enforcement mechanisms should lower complexity, and consequently result in less pronounced underreaction. Alternatively, following Barberis et al. (1998), one can motivate the proposition by decomposing the overall impression of a 10-K report into two separate dimensions – its strength and its weight. Here the strength can be viewed as the salience or magnitude of the market moving information contained in the 10-K report while the weight is its statistical informativeness or credibility, similar to the example of a letter of recommendation in Griffin and Tversky (1992).[3] We hypothesize that the credibility or the weight of the 10-K report to have increased after the passage of SOX which should reduce continuation in returns in the post-filing period. The behavioral model of Hong and Stein (1999) also nudges us in the same direction as it links underreaction to the rate of diffusion of firm-specific information. As You and Zhang (2009) note, "[T]he complexity and comprehensiveness of the information contained in 10-K may affect the speed of such information diffusion." Thus, if SOX has had its desired impact, complexity reduction in the 10-K should temper, if not neutralize, continuation.

Several recent studies have offered similar hypotheses regarding the impact of credibility and complexity. Babenko et al. (2012) empirically demonstrate that in firms where insiders

[2] This argument based on the work of Barberis et al. (1998), Hong and Stein (1999), and Hirschleifer (2001).
[3] Griffin and Tversky (1992) predict "overconfidence when strength is high and weight is low, and underconfidence when strength is low and weight is high."

purchase stock before the repurchase announcement, strong announcement period returns are esperiences, implying a stronger correction of stock undervaluation in the face of higher credibility. Addressing the undereaction to earnings announcements, Ng et al. (2008) find that "magnitude of the underreaction is smaller for firms that provide more credible forecasts." In particular, they find that "underreaction is smaller when there is greater litigation risk and greater proprietary cost" to the firm and its managers. This finding clearly resonates with the stiffer penalties associated with SOX. Hutton and Stocken (2009) approach credibility from the perspective of prior forecast history and show that "stock price response to management forecast news is increasing in prior forecast accuracy and also in the length of a firm's forecasting record."

There are strong alternative justifications of positive effects of disclosure. First, Lambert, Leuz, and Verrecchia (2007) demonstrate that higher precision disclosures will reduce the covariance of the firm cash flows with the market's, which would generally affect the cost of capital. Further, they demonstrate that superior disclosure lowers the agency costs between the stockholders and managers. Second, with the assumption of information production costs being higher for the investors compared to the firm, Diamond's (1985) single risky asset model supports the above proposition as "[A] policy of releasing information can make all (or most) security holders better off." Last, using a rational expectations, asymmetric information economy and informed and uninformed investors, Easley and O'Hara (2004) show that, *ceteris paribus*, investors require compensation that increases in private information" and suggest that a firm can reduce its cost of capital through its "selection of its accounting standards, as well as through its corporate disclosure policies."[4]

[4] See also, Admati (1985) and Wang (1993). For instance, Wang (1993) demonstrates that greater information will lower the risk premium.

Our analysis largely follows that of You and Zhang (2009). We analyze our sample in three subperiods to facilitate comparison: the You and Zhang period (1995-2005), the pre-SOX period (1995-2001) and the post-SOX period (2004-2012). Please note that 2002-2003 formed the implementation period for SOX. Our results confirm those of You and Zhang in their period, and the pre-SOX period results also closely resemble those of the You and Zhang period. However, in the post SOX period we find strong evidence that the post-filing window continuation has vanished.

First, the predictive power of filing window returns over future earnings (as measured by ROA) is significantly diminished in the post-SOX period by more than 2/3 its pre-SOX magnitude. Unlike the pre-SOX period, the filing day window continuation over the next 12 months completely vanishes in the post-SOX window. With respect to stock price returns in the pre-SOX period, buying the top-quintile of firms that are ranked by size-adjusted filing date returns and shorting the bottom quintile leads to a significant size-adjusted 4.7 percent return over six months and a 13.27 percent gain over twelve months[5]. However, in the post-SOX period, both these horizons demonstrate negligible size-adjusted returns. Clearly filing window returns no longer continue in the post SOX period. There are other important differences as well in the pre- and post-SOX periods. In the pre-SOX period, the filing window depends negatively on momentum. However, in the post-SOX period, the same measure is positive and significant. Also, in both pre- and post-SOX periods, future six-month size adjusted returns are negatively affected by the pre-filing six-month size adjusted returns, indicating negative momentum. In sum, the filing window return positively affects future returns in the pre-SOX period, but has no effect in the post-SOX window. However, in both the pre- and post-SOX periods, the post-filing six-month returns show negative momentum in pre-filing returns.

[5] Actually it is an 11 month return but we adopt the You and Zhang nomenclature.

A discussion of relevant literature follows in the second section. We present the data description and hypotheses in the third section and results are presented in the fourth section. The fifth section concludes.

II. Relevant literature

There is substantial empirical evidence that covers the filing of annual reports. Foster and Vickrey (1978) found evidence that 10-K filings contained information, but Foster, Jenkins and Vickrey (1986) fail to find any abnormal stock price information around the 10-K filings using a different time-period. Stober (1986) finds abnormal performance for the 10-K filing for the specific case of earnings attributable to LIFO liquidation [see Wilson (1986, 1987) for the information content of the accrual variables in 10-K]. However, the later literature generally fails to find an abnormal stock price performance, Stice (1991) finds that 10-K filings elicit no significant market reaction even when there is no preceding earnings announcement by the company. Easton and Zmiejewski (1993) document only a weak market impact even for firms that with no prior earnings announcement.

The advent of EDGAR (The Electronic Data Gathering, Archival and Retrieval system of the SEC) in 1993 fundamentally changed the costs and the time investment the investor needed to make in order to obtain the 10-K filings from the SEC. Asthana and Balsam (2001) analyze market price reaction around the 10-K filing date for first-time EDGAR filers to conclude that there exist absolute abnormal returns – in magnitude – around the 10-K filing date, compared to their last non-EDGAR filing. The conclusion here is that the instantaneous, near zero-cost access to the 10-K filings may have help crystallize and concentrate the market response in the filing window. Similarly, Qi, Wu, and Haw (2000) document a similar abnormal price behavior for EDGAR filers though they are unable to find similar evidence in the pre-EDGAR period. Griffin (2003) similarly focuses on the post 1995 period when EDGAR filings became mandatory to demonstrate a higher absolute standardized abnormal return in the announcement

window. Further this effect is more pronounced for 10-K statements compared to their quarterly counterpart (the 10-Q statement). Also, information in large company filings appears to be anticipated while the reaction of small companies is concentrated around the filing date. Further, the response to annual report filings is stronger than the response to quarterly report filings and the response to annual report filing appears to strengthen over time. Huddart, Ke and Shi (2006) document that insiders generally do not trade ahead of the earnings announcement but do trade shortly before the 10-K and 10-Q filings. Livnat, Qi and Wu (2005) document the tendency of stocks to move in the same direction in the 10-Q filing window as in the earnings-announcement window, thus indicating that the information in the 10-Q confirms the information in the preliminary earnings announcement (another case of underreaction).

Li and Ramesh (2006) focus on the cases where earnings announcements have preceded the 10-K/10-Q filings. They find that, for such cases, 10-Q filings are not accompanied with a market reaction while 10-K do have an abnormal market response. Further analysis indicates that the 10-K market reaction is driven by about 25% of the 10-K filings which occur at the calendar quarter-ends. More recently, You and Zhang (2009) find a strong abnormal performance around the 10-K filing date. More interestingly, they find that the filing-event window abnormal return has a positive relationship to the following twelve-month period returns. Thus they conclude that the market underreacts to the 10-K information. Consistent with the behavioral arguments of Hong and Stein (1998), and Barberis, Hirschleifer and Vishny (2006), this underreaction is found to be positively associated with the complexity of the 10-K filing. They also confirm that the continuation is not due to the known phenomenon of post-earnings announcement drift documented by Bernard and Thomas (1989) and Abarbanell and Bernard (1992).

III. Data Description and Hypotheses

Our sample is described in Panel A of Table 1. Since the 10-K filing date is not available in the traditional financial databases like COMPUSTAT or CRSP, the EDGAR database from the Security and Exchange Commission is employed to obtain the filing dates for all entities that file a 10-K (134,344 firm-years) or the nearly identical 10K-405 (21,098) from the year 1995 to the year 2012. The 10K-405 is essentially identical to 10-K except that it was required to be filed prior to 2003 if an owner or director did not file the Form 4 or equivalent disclosing their insider trading activities within the prescribed deadline. There are also 10-KSB and 10-KSB405 forms available on the EDGAR website; however, we did not include these companies in our sample as they are small in size. The broad understanding in the financial literature is that smaller and less liquid firms are more susceptible to momentum and other anomalies making them a less than suitable setting for a study of medium term momentum and reversal.

Next, many of the 10-K filers are not traded entities so we eliminated the filings for which the PERMNO could not be ascertained. We also eliminated the firm-years where insufficient data existed to compute the filing day return (FDR). We further eliminated traded securities that were not common stocks as well as the companies where the firm-year represented a late filing. The statutory SEC deadline required that the 10-K be filed within 120 days of the fiscal year end so we eliminated firms that filed an NT10-K form with the SEC for a given fiscal year. Although the NT10-K form must be filed if a firm is unable to file the 10-K form within the deadline, existing evidence shows that many late filers routinely skip the filing without inviting penalties from the SEC [see Alford, Jones, and Zmijewski (1994)]. Thus we eliminated companies where the filing date is beyond the statutory filing date relative to the fiscal year end, even if there was no NT10-K. Firms with market capitalization below $200 million or those with a stock price of less than $1 were also removed. Observations from the year 1995 were also removed since portfolios are formed based on returns in the 10-K filing date window in the period prior to the year of analysis. Thus, our final sample constituted of 39,270 firms.

We now present our hypothesis that is developed with an eye to the intuition in Griffin and Tversky and, by extension, in Barberis, Shleifer, and Vishy (1996). Recall that we hypothesize, as Barberis, Shleifer, and Vishny (1996) do for earnings announcements, that 10-K filings would be low-strength and high-weight information events. Also, we hypothesize that the observed underreaction to 10-K filings is likely due to the fact that investors are slow to change their previously held beliefs due to conservatism. However, under the hypothesis that SOX gave 10-Ks greater clarity and less complexity, the following testable hypothesis follows.

H1: The post-filing window should not exhibit momentum in filing window returns (henceforth, FDR) in the post-SOX period.

In the context of the previously mentioned You and Zhang (2009) study, their 1995-2005 period is largely a pre-SOX period. Therefore, we provide a more updated sample and retest the hypothesis using the two periods, pre- and post-SOX. We expect to support the results of Yu and Zhang (2009) in the pre-SOX period.

III. Results

Summary statistics of FDRs

As noted before, our sample consists of 39,270 firm-years from 1996 through 2012. In Panel B of Table 1, we examine the average standardized trading volume (daily trading volume divided by the average 25 day pre-event trading volume) in a 21 day window around the 10-K filing date. We present this information for the pre-SOX and post-SOX periods. In addition, we also present this information for the You and Zhang period for comparison. In the You and Zhang period, our results are qualitatively quite similar to theirs despite the fact that we used standardized volume while they present average volume scaled by shares outstanding. We note the same pattern of elevated stock return volatility, evidenced by high standardized absolute returns, up to ten days after the filing date, in the pre-SOX and You and Zhang periods. This supports the hypothesis, as noted by You and Zhang, that the 10-K can be safely assumed to be

of a high level of complexity, unlike earnings announcements. In sharp contrast, these absolute standardized returns appear to decline rapidly over days +2 through +10 in the post-SOX period. This provides a clear premonition that we may find divergent behaviors in pre- and post- SOX periods.

Panel C of Table 1 shows the average standardized bid-ask spread percent in the 21 day window around the 10-K filing date. The measure is created by dividing the spread by the ask price for each day and then standardizing by the average 25 day pre-event spread percent. In the You and Zhang period, the spread is elevated in the ten days following the 10-K filing. However, the next two columns indicate there is a significantly different pattern of bid-ask spread percent in the pre-SOX and post-SOX periods. The bid-ask spreads are elevated for ten days after a 10-K filing in the pre-SOX period, indicating high levels of uncertainty regarding the information release. However, in the post-SOX period, the spread is higher in a much narrower window surrounding the filing date. The residual uncertainty appears to have been eliminated which could indicate a higher level of confidence in the information released in the 10-K after the SOX implementation.

Predictive power of FDR over future earnings

We define the 10-K filing window return exactly the same as You and Zhang (2009):

$$FDR_{i,t} = \prod_{\tau=0}^{2}(1 + RET_{i,t,\tau}) - \prod_{\tau=0}^{2}(1 + DECRET_{i,t,\tau})$$

Where $RET_{i,t,\tau}$ is the return on stock *i* on date τ relative to the firm's year *t* 10-K filing day. $DECRET_{i,t,\tau}$ is the day τ average return of all firms in the corresponding decile size group.

Table 2 presents the filing day return distribution by year and it is highly variable over time, as noted by You and Zhang. However, there is a clear pattern of higher standard deviation and greater range (3rd quartile less 1st quartile) in the pre-SOX period. The annual average of pre-SOX standard deviation is 6.47, while the post-SOX period average is only 5.08. Post-SOX

ranges are similarly more compact. Once again, this provides casual support to our hypotheses that SOX may have changed the information dissemination process.

Now, we address the question of whether the 10-K informs investors on the fundamentals of the firm. Similar to You and Zhang, we regress the one-year ahead ROA on the FDR and the following control variables. ROA is calculated as earnings before extraordinary items divided by the average total assets. ATO is the asset turnover, measured as sales daIvided by average total assets. FDR is the size-adjusted returns for the three trading days starting from the dates when companies file their 10-Ks. ACC is earnings before extraordinary items minus cash flow from continuing operation scaled by the average total assets. SIZE is the logarithm of the market value of equity as of the fiscal year end. BM equals the book value of equity divided by the market value as of the fiscal year end. Year and SIC dummy variables are also included. In Table 3A, FDRs have a strong predictive power over future earnings in all periods. Our regression yields a coefficient on FDR of nearly 0.3 (compared to 0.25 in You and Zhang's regression), which is significant at the 99.9 percent confidence level. While significant in both the pre- and post-SOX periods, the coefficient on FDR declines from 0.32 in magnitude to only 0.09 for the post-SOX period. Thus future profitability appears to be less responsive to FDR in the post-SOX period. Panel B of Table 3 presents similar analysis except we introduce indicator variables for post-SOX and SOX implementation periods. We also include interaction between these indicator variables and FDR in the model. Now, the post-SOX period appears in a different light. The interaction of FDR and post-SOX has a strong negative relationship with future earnings and it is significant at the 99.9 percent confidence level. The net outcome here is that one may not assume a strong positive relationship between FDR and future earnings in the post-SOX period.

FDRs and future stock price returns

Table 4A presents the relationship between the FDR quintile portfolios[6] and future 3, 6 and 12 month size-adjusted abnormal returns. Once again, our results bear close resemblance to the results of You and Zhang in their sample period, with a strong pattern of continuation of the FDR over the next 12 months. The long-short portfolio (P5 less P1) yields 1.27 percent (three months), 4.06 percent (six months), and 10 percent (twelve months) size-adjusted returns with significances at 95, 99.9, and 99.9 percent respectively. Moving to our pre-SOX period of 1996-2001, we find a similar result with the six and twelve months sized-adjusted long-short portfolio returns being 4.7 and 13.27 percent, with significances are 99.9 percent confidence level. However, the post-SOX period (2004-2012) presents a contrasting picture. While the five quintile portfolio FDRs range from -5.87 to 6.09 percent, there is scant evidence of any spread in post-10-K size adjusted returns. The post-filing continuation no longer exists in any horizon and the hedge portfolio earns a near zero percent rate. Therefore, evidence suggests that post-filing continuation existed only in the pre-SOX period. This finding is also consistent with the earnings based analysis presented in Table 3B. The three panels of Figure 1 graphically demonstrate these findings.

Panel B of Table 4 presents the characteristics of the average firm in each FDR quintile. Despite a lack of continuation in the post-SOX period, the average beta, size and book-to-market ratio in this period are equivalent to the pre-SOX period values. For instance, the P1 and P5 portfolios seem to contain higher betas and somewhat smaller companies.

Predictive power of pre-filing return on FDR

Based on the evidence in Panel B of Table 4 that pre-filing returns may also be related to FDR (an issue not explored by You and Zhang), we present a statistical test by regressing FDR on the pre-filing six-month size-adjusted abnormal returns in Panel A of Table 5 and find formal

[6] Five portfolios are formed based on a sort of FDR distributions from the prior year. P1 represents the lowest 3-day filing return and P5 is the largest.

support for our observation. While in the pre-SOX period, FDR is strongly negatively related to the pre-filing returns (a coefficient of -0.00594 with a 99.9 percent confidence level), the same coefficient in the post-SOX period is positive at 0.0038 and significant at the 99 percent confidence level. Therefore, this evidence appears to suggest that, while FDRs reverted in the pre-filing returns in the post-SOX period, they now continue in the post-SOX period. The precise economic implication of this finding is unclear as one would normally expect the 10-K to be more informative in the post-SOX period. Therefore the FDR should not be positively dependent on the pre-SOX returns. However, it is entirely possible that in the post-SOX period managers started to pre-announce crucial information prior to the 10-K filing to avoid surprising the market on the filing day. In the pre-SOX period, the correlation is negative indicating that the managers typically surprised the market on the 10-K filing day, perhaps as there was not so much regulatory pressure to timely disclose.

The same regression is repeated in Panel B of Table 5 using pre-filing six-month raw returns instead of size adjusted returns. The results are virtually the same as Panel A.

Predictive power of FDR and pre-filing returns on future returns

While You and Zhang present strong evidence that future returns strongly depend on FDRs, we find that this is not the case in the post-SOX period. Further we also find that FDRs depend negatively on pre-filing returns in the pre-SOX period, while this relationship turns positive in the post-SOX period. Given this curious dependence structure, we now ask how future returns depend jointly on FDR and pre-filing returns, by regressing future 3, 6, and 12 month size-adjusted returns on both FDR as well the pre-filing returns. These results are presented in Table 6.

In Model III for the You and Zhang period, future twelve month size-adjusted returns are weakly related to the FDR return at the confidence level of 90 percent with a coefficient value of 0.297. However, at the same time, the six-month size-adjusted, pre-filing returns (momentum)

are negatively related to future returns. Therefore, pre-filing returns affect future returns, independent of their effect though FDR.

However, when we focus solely on the pre-SOX period, FDR is not related to the future returns at any conventional level of significance, but pre-filing returns are significantly negatively related to future returns at a 99.9 percent confidence. Therefore, in the pre-SOX period, pre-filing returns are related to future returns but FDR are not. The post-SOX period also presents a similar picture as the only enduring relationship is between the pre-filing returns and the future returns.

As interpreting separate regressions for periods can be problematic, we run a regression with the entire data sample and use indicator variables for the post-SOX period as well as the SOX implementation period to capture the divergent behavior across periods. The results of this analysis are presented in Table 7. Our dependent variables are the future six-month size adjusted return in Panel A and the future twelve-month size adjusted return in Panel B. Panel A provides some preservation of symmetry since six-month pre-filing size-adjusted return are regressed on the six-month size-adjusted future returns. In Model V of Panel A, future six-month returns are positively related to the FDR with a coefficient value of 0.198 at the 95 percent confidence level. However, in the post-SOX period, the interaction of FDR with the post-SOX indicator variable produces a negative -0.307 coefficient value which is significant at 95 percent. This effect cancels out any relationship between the FDR and the future six-month returns. On the other hand, pre-filing returns are not significantly related to the future returns for the entire period. However, the interaction of the post-SOX dummy variable with pre-filing returns is significantly negatively related to future returns in the post SOX period (coefficient value of -0.071 on PostSox*Pre).

In Panel B for future twelve-month returns, the coefficient value of FDR is much larger than shown in Panel A, at 0.45 with a 95 percent confidence level. In the post-SOX period, the

interaction of FDR with the post-SOX indicator variable produces a negative coefficient of -0.58 which is also much larger than in Panel A. Once again, the relationship between the FDR and future returns is cancelled. In this case, however, the pre-filing returns are negative and highly significant while the interaction of pre-filing returns with the post-SOX dummy is insignificant.

IV. Conclusion

Quarterly earnings announcements and their impact on stock returns is a well-researched topic. However, limited attention has been paid to the release of the annual report, especially in terms of its longer-term market impact, barring the You and Zhang (2009) study. They demonstrate that the filing window returns continue over the next year as suggested by behavioral hypotheses on information dissemination and complexity. With the passage and implementation of Sarbanes-Oxley in the 2002-2003 period there is reason to suspect that 10-K filings may be more credible and/or less complex. Therefore we expect the continuation of filing window returns to diminish or vanish. Indeed, our results find that the continuation of filing window returns that was strong in the pre-SOX window completely vanishes over the next year in the post-SOX window. We also find that the filing window return, while depending negatively on the pre-filing six month return momentum in the pre-SOX period reverses its effect in the post-SOX period. Our results present strong evidence that the implementation of SOX has significantly altered the informational quality of the 10-K filings.

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Table 1 – Panel A
Sample Selection

10-K	134,344	
10-K405	21,098	
Total number of annual filings		155,442
Less:		
Observations without GVKEY or PERMNO	72,252	
Firm-years without sufficient data to calculate filing date returns	2,778	
Securities other than U.S. common stocks	5,959	
Late filers with over 120 days delay after fiscal year end	568	
Firm-years with market cap less than $200m or stock price less than $1	33,604	
Number of observations in year 1995	1,011	
Final sample		39,270

Table 1 – Panel B
Cross-sectional Mean of Standardized Trading Volume and Mean of Absolute Value of Standardized Returns Around 10-K Filing Dates

Number of shares traded is scaled by mean shares traded over -11 to -35 days prior to the 10-K filing date. Absolute returns are scaled by the mean return over -11 to -35 days prior to the 10-K filing date.

Day	Standardized Trading Volume				Absolute Standardized Returns			
	You & Zhang Period 1996-2005	Pre-Sox Period 1996-2001	Post-Sox Period 2004-2012	t-test Pre-Sox Minus Post-Sox	You & Zhang Period 1996-2005	Pre-Sox Period 1996-2001	Post-Sox Period 2004-2012	t-test Pre-Sox Minus Post-Sox
-10	1.068	1.072	1.097	-1.56	1.042	1.066	1.032	2.66**
-9	1.078	1.079	1.088	-0.51	1.044	1.073	1.014	4.68***
-8	1.073	1.085	1.111	-1.29	1.034	1.078	1.025	4.13***
-7	1.072	1.097	1.092	0.35	1.031	1.075	1.025	3.88***
-6	1.091	1.122	1.110	0.60	1.040	1.093	1.017	5.58***
-5	1.091	1.113	1.119	-0.30	1.045	1.086	1.010	5.86***
-4	1.076	1.103	1.112	-0.40	1.048	1.089	1.042	3.33***
-3	1.065	1.091	1.113	-1.28	1.042	1.067	1.059	0.55
-2	1.095	1.107	1.153	-2.23*	1.046	1.078	1.082	-0.31
-1	1.113	1.160	1.172	-0.36	1.062	1.095	1.100	-0.34
0	1.159	1.188	1.331	-5.10***	1.130	1.169	1.210	-2.75**
+1	1.192	1.215	1.317	-3.92***	1.142	1.188	1.172	1.17
+2	1.171	1.190	1.241	-2.61**	1.118	1.181	1.072	8.10***
+3	1.154	1.194	1.200	-0.27	1.104	1.178	1.053	9.38***
+4	1.142	1.192	1.147	1.62	1.080	1.149	1.038	8.75***
+5	1.124	1.143	1.138	0.26	1.098	1.150	1.020	9.13***
+6	1.148	1.198	1.113	1.50	1.085	1.147	1.014	10.13***
+7	1.138	1.184	1.110	2.45*	1.074	1.148	1.008	11.05***
+8	1.180	1.227	1.099	2.00*	1.080	1.131	1.020	8.55***
+9	1.142	1.181	1.104	3.62***	1.112	1.170	1.022	11.39***
+10	1.167	1.196	1.133	1.90	1.113	1.181	1.004	12.57***

t-statistic under the assumption of unequal variances. Confidence level at 5, 1, and 0.1%: *,**,***

Table 1 – Panel C

Cross-sectional Mean of Standardized Bid-Ask Spread Percent Around 10-K Filing Dates

Bid-Ask spread percent is created by dividing the spread by the ask price for each day. This percent is then scaled by the mean spread percent over -11 to -35 days prior to the 10-K filing date.

Day	Standardized (Spread/Ask)			
	You & Zhang Period 1996-2005	Pre-Sox Period 1996-2001	Post-Sox Period 2004-2012	t-test Pre-Sox Minus Post-Sox
-10	1.0088626	1.0028006	1.0140547	-1.18
-9	1.0136621	1.0143372	1.0260615	-1.18
-8	1.0072938	1.0185507	1.0047926	1.49
-7	1.0145016	1.0175893	0.9937032	2.65**
-6	1.0098496	1.0201887	0.9997828	2.07*
-5	1.0097881	1.0321347	0.9971371	3.67***
-4	1.0240810	1.0288302	1.0221929	0.53
-3	1.0145804	1.0258173	0.9977789	2.92**
-2	0.9950287	1.0099693	1.0096370	0.03
-1	1.0186673	1.0275893	1.0254903	0.20
0	1.0285237	1.0568245	1.0389671	1.16
+1	1.0180092	1.0375355	1.0041945	3.26**
+2	1.0264551	1.0506283	1.0102578	3.55***
+3	1.0268002	1.0485238	0.9876699	6.08***
+4	1.0325675	1.0680304	0.9806011	7.86***
+5	1.0345934	1.0616035	0.9927304	6.08***
+6	1.0210722	1.0464783	0.9806779	6.70***
+7	1.0165405	1.0366282	0.9896170	4.62***
+8	1.0304940	1.0533587	0.9895358	6.15***
+9	1.0490879	1.0797526	1.0021606	5.55***
+10	1.0245340	1.0548636	0.9951908	5.52***

Note: Decimalization occurred on 4/9/2001. There were 10,933,878 observations prior to decimalization and 19,920,384 observations after decimalization. The mean spread percent prior to decimalization was 3.98 and it fell to 1.24 afterwards. Extreme values of spread percent were winsorized at 3 standard deviations from the median in both the pre decimalization period and post decimalization period.

t-statistic under the assumption of unequal variances. Confidence level at 5, 1, and 0.1%: *,**,***

Table 2
Distribution of FDR (x 100)

Year	# Obs	Mean	Standard deviation	First quartile	Median	Third quartile
1996	1545	0.15	4.28	-1.83	-0.11	1.77
1997	2031	-0.09	5.10	-2.25	-0.06	2.17
1998	2555	0.11	5.06	-2.13	-0.15	2.26
1999	2293	-0.02	6.95	-3.35	-0.61	2.56
2000	2560	-0.01	9.71	-4.52	0.54	5.09
2001	2230	-0.34	7.71	-3.24	0.29	3.54
2002	2000	0.03	4.91	-2.15	0.09	2.24
2003	2097	-0.05	4.62	-1.99	-0.04	1.77
2004	2567	0.02	3.99	-1.66	0.03	1.56
2005	2554	-0.08	3.78	-1.65	-0.13	1.51
2006	2690	-0.02	3.83	-1.77	-0.09	1.51
2007	2722	-0.02	3.90	-1.65	-0.06	1.60
2008	2440	0.11	5.68	-2.53	0.00	2.66
2009	1926	-0.34	7.81	-3.54	-0.12	3.23
2010	2328	0.17	6.26	-2.06	-0.08	1.91
2011	2405	0.21	5.26	-1.94	-0.06	1.83
2012	2327	0.14	4.58	-1.70	-0.03	1.83
Total	39270	0.00	5.72	-2.18	-0.06	2.14

Table 3A

Predictive power of FDR over future earnings

	You & Zhang Period 1996-2005		Pre-SOX Period 1996-2001		Post-SOX Period 2004-2012	
	Coefficient	T-Stat	Coefficient	T-Stat	Coefficient	T-Stat
Intercept	-0.08019	-3.48***	-0.03829	-1.14	-0.21632	-6.64***
FDR	0.29509	7.63***	0.32065	6.76***	0.09415	4.56***
ROA	0.75466	20.39***	0.75590	15.09***	0.64653	9.74***
ATO	0.01755	6.66***	0.01882	5.41***	0.02101	5.40***
ACC	-0.60180	-8.56***	-0.62447	-8.79***	-0.42425	-8.68***
SIZE	0.00322	3.24**	0.00179	1.20	0.00960	6.57***
BM	-0.00165	-0.55	0.00312	0.83	-0.00392	-1.95
SIC1000	-0.01799	-1.43	-0.04151	-2.34*	-0.02302	-2.35*
SIC2000	-0.01639	-1.39	-0.02704	-1.69	-0.02725	-2.61**
SIC3000	-0.01242	-1.09	-0.02993	-1.92	-0.00726	-0.81
SIC4000	-0.01690	-1.45	-0.03391	-2.12*	-0.01246	-1.35
SIC5000	-0.01723	-1.46	-0.02668	-1.66	-0.02354	-2.44*
SIC6000	0.01857	1.67	0.00761	0.49	0.01712	1.92
SIC7000	-0.05230	-4.02***	-0.09178	-5.20*	-0.00791	-0.84
SIC8000	-0.02485	-2.07*	-0.03077	-1.87	-0.03519	-3.31***
SIC9000	-0.06508	-1.63	-0.07043	-1.29	-0.05873	-3.93***
1997	-0.01346	-3.76***	-0.01283	-3.50***		
1998	-0.02007	-5.64***	-0.01943	-5.34***		
1999	-0.01361	-3.23**	-0.01254	-2.93*		
2000	-0.05879	-8.31***	-0.05672	-8.25***		
2001	-0.06187	-11.47***	-0.06124	-11.37***		
2002	-0.03470	-6.43***				
2003	-0.00985	-2.51*				
2004	-0.00849	-2.42*				
2005	-0.00808	-2.55*			-0.00007	-0.03
2006					-0.00308	-1.11
2007					-0.01023	-3.62***
2008					-0.05179	-14.03***
2009					-0.00669	-2.10*
2010					0.00582	1.61
2011					-0.00130	-0.40
2012					-0.01096	-3.46***
R^2	0.3929		0.3508		0.4900	
N	19184		11013		19914	

Confidence level at 5, 1, and 0.1%: *,**,***

The following model is estimated:

$$ROA_{i,t+1} = \beta_0 + \beta_1 FDR_{i,t} + \beta_2 ROA_{i,t} + \beta_3 ATO_{i,t} + \beta_4 ACC_{i,t} + \beta_5 SIZE_{i,t} + \beta_6 BM_{i,t} + \sum_{i=1}^{9} SICDUM + \sum_{i=1}^{16} YEARDUM + \varepsilon_{i,t}$$

where ROA is calculated as earnings before extraordinary items divided by the average total assets. ATO is the asset turnover, measured as sales divided by average total assets. FDR is the size-adjusted returns for the three trading days starting from the dates when companies file their 10-Ks. ACC is earnings before extraordinary items minus cash flow from continuing operation scaled by the average total assets. SIZE is the logarithm of the market value of equity as of the fiscal year end. BM equals the book value of equity divided by the market value as of the fiscal year end. SICDUM is a dummy variable for SIC classification and YEARDUM is a dummy variable for year.

Table 3B
Predictive power of FDR over future earnings

	Model 1 1996-2012		Model 2 1996-2012		Model 3 1996-2012	
	Coefficient	T-Stat	Coefficient	T-Stat	Coefficient	T-Stat
Intercept	-0.19952	-8.08***	-0.19074	-7.76***	-0.18951	-7.71***
FDR	0.21791	8.48***	0.21715	8.45***	0.33967	6.80***
ROA	0.69462	17.81***	0.69480	17.79***	0.69391	17.81***
ATO	0.01971	8.14***	0.01957	8.10***	0.01955	8.10***
ACC	-0.52898	-8.53***	-0.52850	-8.52***	-0.52821	-8.53***
SIZE	0.00668	7.47***	0.00645	7.21***	0.00641	7.18***
BM	-0.00256	-1.76	-0.00263	-1.87	-0.00290	-2.01*
SIC0000	0.04998	3.33***	0.04524	3.04**	0.04540	3.05**
SIC1000	0.02284	1.72	0.01874	1.41	0.01779	1.34
SIC2000	0.02727	2.12*	0.02359	1.84	0.02297	1.79
SIC3000	0.03773	2.91**	0.03399	2.63**	0.03354	2.59**
SIC4000	0.03363	2.61**	0.02982	2.32*	0.02918	2.27*
SIC5000	0.02788	2.17*	0.02433	1.90	0.02389	1.86
SIC6000	0.06627	4.94***	0.06204	4.63***	0.06124	4.57***
SIC7000	0.01217	0.91	0.00837	0.63	0.00842	0.63
SIC8000	0.01842	1.40	0.01455	1.11	0.01397	1.07
SIC9000	-0.01100	-0.31	-0.01319	-0.37	-0.01499	-0.42
1997	-0.01087	-3.53***	-0.01090	-3.54***	-0.01059	-3.42***
1998	-0.01795	-5.84***	-0.01796	-5.85***	-0.01798	-5.83***
1999	-0.01274	-3.34***	-0.01271	3.33***	-0.01240	-3.22**
2000	-0.06069	-8.20***	-0.06065	-8.20***	-0.06041	-8.20***
2001	-0.06149	-12.00***	-0.06145	-11.99***	-0.06077	-11.95***
2002	-0.03208	-6.77***				
2003	-0.00696	-2.14*				
2004	-0.00702	-2.35*				
2005	-0.00670	-2.57*				
2006	-0.00984	-3.79***				
2007	-0.01657	-6.08***				
2008	-0.05937	-15.46***				
2009	-0.01558	-4.01***				
2010	-0.00288	-0.73				
2011	-0.00784	-2.47*				
2012	-0.01877	-6.30***				
ImpSox			-0.01928	-5.30***	-0.01910	-5.25***
PostSox			-0.01599	-7.18***	-0.01577	-7.05***
ImpSox ×FDR					-0.12442	-1.59
PostSox ×FDR					-0.24923	-4.54***
R^2	0.4109		0.4060		0.4074	
N	35573		35573		35573	

Confidence level at 5, 1, and 0.1%: *,**,***
The regression model in Table 3A is supplemented with a dummy variable for the SOX implementation period, a dummy variable for the post-SOX period, and interaction terms between the FDR and the SOX specific dummy variables.

Table 4 – Panel A
Cumulative post 10-k stock returns to FDR rankings

Panel B: Cumulative equal weighted stock returns to FDR quintiles

FDR ranking	N	FDR	Average size-adjusted returns		
			3 months	6 months	12 months
You & Zhang Period: Filings from 1996 through 2005					
P1	4530	-0.07145	-0.00125	-0.02394	-0.04955
P2	4485	-0.01942	0.00707	0.00058	-0.00825
P3	4605	0.00026	0.01142	0.01514	0.01057
P4	4347	0.01941	0.00978	0.01065	0.02215
P5	4465	0.07132	0.01150	0.01667	0.05048
P5 – P1		0.1428	0.0127	0.0406	0.1000
T-statistics		117.56***	2.09*	4.39***	6.35***
Pre-Sox Period: Filings from 1996 through 2001					
P1	2963	-0.07948	-0.00026	-0.03453	-0.07561
P2	2459	-0.02164	0.00822	-0.00333	-0.01761
P3	2391	-0.00002	0.01542	0.02155	0.02328
P4	2417	0.02110	0.00810	0.01224	0.02840
P5	2984	0.07800	0.00880	0.01244	0.05713
P5 – P1		0.1575	0.0091	0.0470	0.1327
T-statistics		97.16***	1.10	3.74***	6.02***
Post-Sox Period: Filings from 2004 through 2012					
P1	4332	-0.05869	0.00127	0.00045	-0.00748
P2	4296	-0.01613	0.00415	-0.00628	-0.00131
P3	4648	-0.00068	0.00530	0.00343	0.00125
P4	4243	0.01468	0.00816	0.00931	0.01694
P5	4440	0.06086	0.00139	0.00157	-0.00702
P5 – P1		0.1196	0.0001	0.0011	0.0005
T-statistics		111.47***	0.02	0.12	0.03

Confidence level at 5, 1, and 0.1%: *,**,***

Firms are sorted into five groups based on the FDR ranking the prior year. P1 is the lowest FDR. Post 10-k filing returns are calculated as the cumulative raw return minus the cumulative average return for the corresponding size portfolio.

Table 4 – Panel B
Firm Characteristics for FDR Rankings

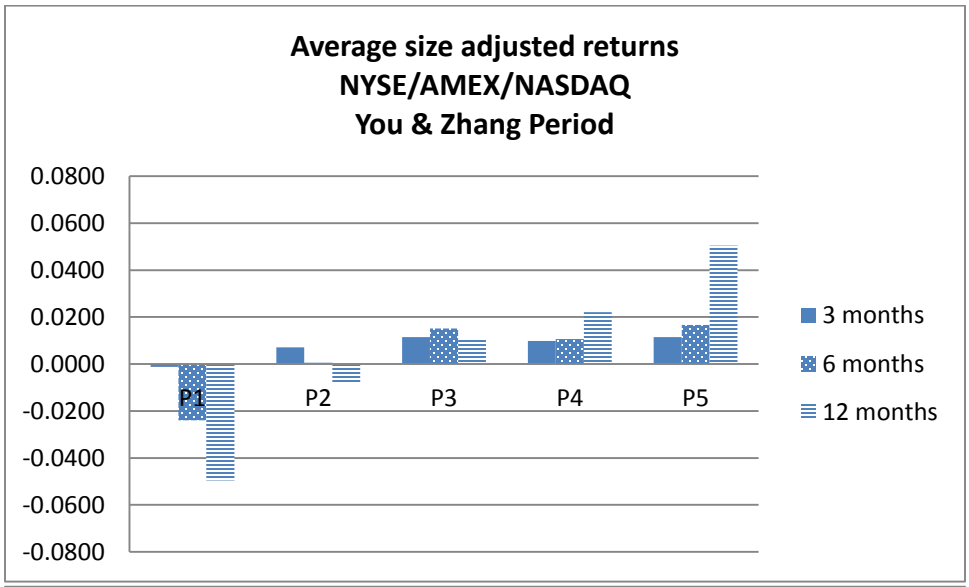
Panel A: Firm characteristics for FDR quintiles

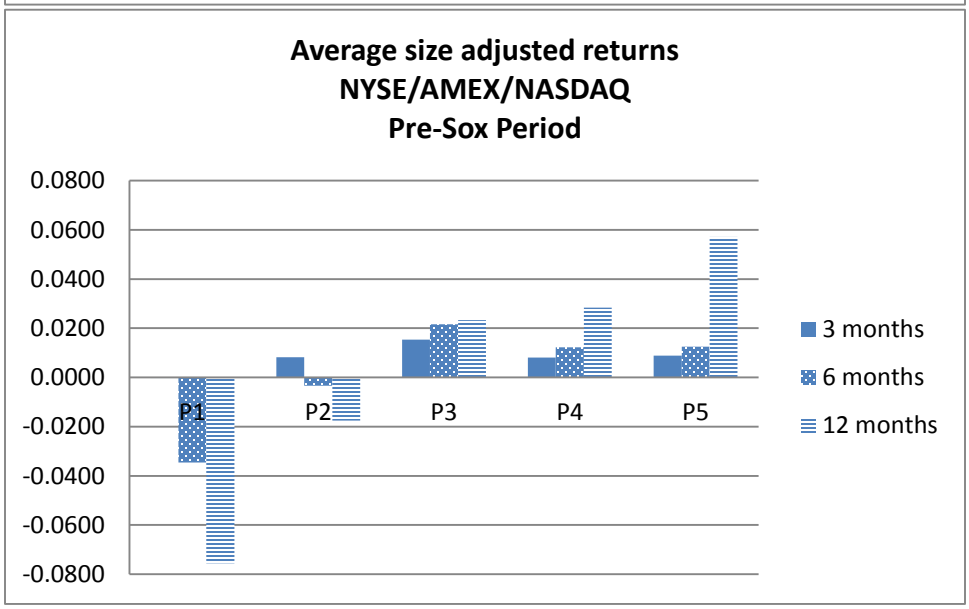
FDR Ranking	Mean FDR	Mean Size MktCap (Millions)	Mean Beta	Mean BM	Mean 6-month Pre 10-k Size Adjusted Return	Mean 6-month Pre 10-k Return
You & Zhang Period: Filings from 1996 through 2005						
P1	-0.0714283	3082.39	1.4372842	0.4029874	0.1731675	0.2833820
P2	-0.0194151	5062.65	1.0559374	0.4789216	0.0435026	0.1250448
P3	0.0002623	5889.03	0.8995853	0.4888520	0.0631117	0.1371572
P4	0.0194051	5229.49	0.9711708	0.4868833	0.0618644	0.1550837
P5	0.0713250	3277.74	1.2152484	0.4514529	0.0874205	0.2041450
Pre-Sox Period: Filings from 1996 through 2001						
P1	-0.0794410	3213.45	1.3373412	0.3742441	0.2105185	0.3241120
P2	-0.0216371	4786.15	1.0192469	0.4635866	0.0444765	0.1223288
P3	-0.0000235	4546.17	0.8891502	0.4842340	0.0893776	0.1464353
P4	0.0210975	5801.41	0.9474033	0.4813191	0.0716645	0.1602933
P5	0.0587766	3365.55	1.1193134	0.4564942	0.0811506	0.2093370
Post-Sox Period: Filings from 2004 through 2012						
P1	-0.0586889	3531.19	1.5101955	0.5055395	0.0407860	0.0778891
P2	-0.0161340	6490.62	1.2666100	0.5024998	0.0204105	0.1000463
P3	-0.0006824	7788.72	1.1562883	0.5136462	0.0185263	0.1096316
P4	0.0146804	6069.72	1.2173811	0.5082516	0.0312269	0.1144652
P5	0.0607831	3159.11	1.4048021	0.5167961	0.0586877	0.0995886

Confidence level at 5, 1, and 0.1%: *,**,***

Firm characteristics are shown within the five portfolios based on FDR ranking. Beta is estimated using a market model regression for firms with at least 18 months of returns in the 3 years before the 10-K filing month. Size is market capitalization as measured by the market value of equity at the end of the fiscal year. BM is the book-to-market ratio. The six month pre 10-K size adjusted return is calculated as the cumulative raw return minus the cumulative average return for the corresponding size portfolio**.**

Figure 1


Average size adjusted returns
NYSE/AMEX/NASDAQ
You & Zhang Period
0.0800
0.0600
0.0400
0.0200
0.0000
-0.0200
-0.0400
-0.0600
-0.0800
P1
P2
P3
P4
P5
3 months
6 months
12 months


Average size adjusted returns
NYSE/AMEX/NASDAQ
Pre-Sox Period
0.0800
0.0600
0.0400
0.0200
0.0000
-0.0200
-0.0400
-0.0600
-0.0800
P1
P2
P3
P4
P5
3 months
6 months
12 months

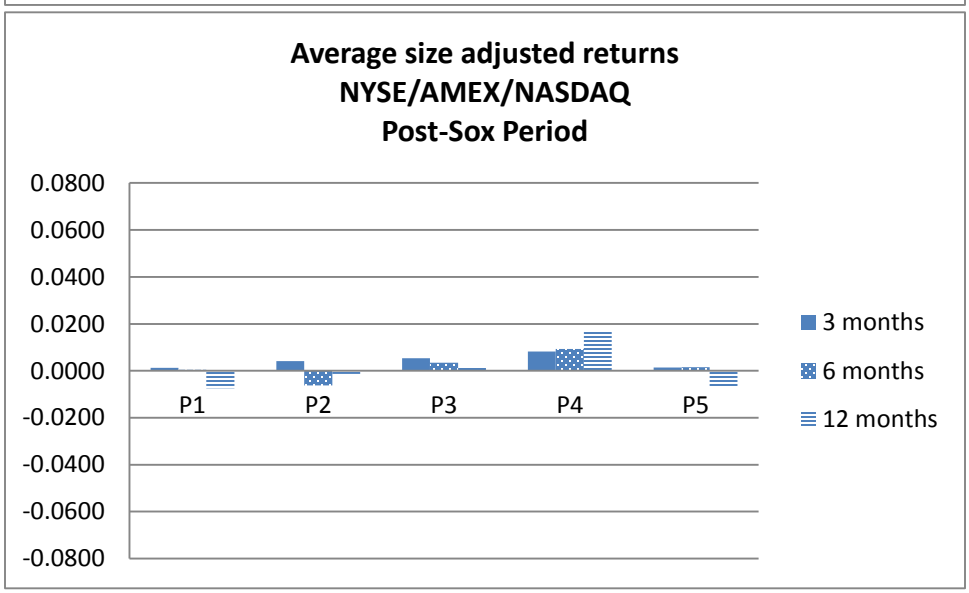

Average size adjusted returns
NYSE/AMEX/NASDAQ
Post-Sox Period
0.0800
0.0600
0.0400
0.0200
0.0000
-0.0200
-0.0400
-0.0600
-0.0800
P1
P2
P3
P4
P5
3 months
6 months
12 months

Table 5A

Regression of FDR on pre-six month size adjusted return

	Coefficient	t-stat	R^2
You & Zhang Period: 1996-2005			
Intercept	0.00043149	1.09	
Pre-six month size adjusted return	-0.00482***	-3.78	0.0031
Pre-Sox Period: 1996-2001			
Intercept	0.00067762	1.14	
Pre-six month size adjusted return	-0.00594***	-4.06	0.0052
Post-Sox Period: 2004-2012			
Intercept	0.00019315	0.55	
Pre-six month size adjusted return	0.00382**	2.35	0.0006

Confidence level at 5, 1, and 0.1%: *,**,***

The following model is estimated:

$$FDR_{i,t} = \beta_0 + \beta_1 PreReturn_{i,t} + \epsilon_{i,t}$$

where the six month pre 10-K return is calculated as the cumulative raw return minus the cumulative average return for the corresponding size portfolio.

Table 5B

Regression of FDR on pre-six month return

	Coefficient	t-stat	R^2
You & Zhang Period: 1996-2005			
Intercept	0.00077556	1.81	
Pre-six month return	-0.00419***	-3.39	0.0025
Pre-Sox Period: 1996-2001			
Intercept	0.00110	1.77	
Pre-six month return	-0.00525***	-3.69	0.0043
Post-Sox Period: 2004-2012			
Intercept	-0.00009685	-0.25	
Pre-six month return	0.00417**	2.92	0.0009

Confidence level at 5, 1, and 0.1%: *,**,***

The following model is estimated:

$$FDR_{i,t} = \beta_0 + \beta_1 PreReturn_{i,t} + \epsilon_{i,t}$$

where the six month pre 10-K return is calculated as the cumulative raw return.

Table 6

Regression of future size adjusted returns on FDR, market capitalization, and pre 10-k returns

	DEP VAR: 3-month return			DEP VAR: 6-month return			DEP VAR: 12-month return		
	I	II	III	I	II	III	I	II	III
You & Zhang Period: Filings from 1996 through 2005									
Intercept	0.00463	0.04381	0.04175	0.02721	0.08243	0.07037	0.03313	0.00807	0.04952
FDR	0.05684	0.02318	0.02433	0.23373***	0.14204*	0.14914*	0.57217***	0.32176[a]	0.29700[a]
Beta		-0.00989***	-0.01001***		-0.01765***	-0.01827***		-0.01443*	-0.01281*
Size		-0.00140	-0.00131		-0.00198	-0.00144		0.00163	-0.00021
BM		0.00199	0.00229		0.00602	0.00780		0.02399[a]	0.01793
6-mo pre-return			0.00183			0.01072[a]			-0.03633***
R^2	0.0037	0.0058	0.0058	0.0081	0.0108	0.0112	0.0085	0.0131	0.0147
Pre-Sox Period: Filings from 1996 through 2001									
Intercept	-0.01073	0.06413	0.06305	0.05114	0.19075*	0.17984[a]	0.02393	0.10625	0.17105
FDR	0.04534	-0.00099	-0.00028	0.25315***	0.13111	0.13860	0.70078***	0.38681[a]	0.34174
Beta		-0.01034*	-0.01038*		-0.02936***	-0.02974***		-0.03071**	-0.02875**
Size		-0.00285	-0.00280		-0.00481[a]	-0.00431		-0.00145	-0.00438
BM		0.00020	0.00039		-0.00567	-0.00375		0.01543	0.00409
6-mo pre-return			0.00074			0.00758			-0.04484***
R^2	0.0039	0.0064	0.0064	0.0083	0.0122	0.0124	0.0100	0.0160	0.0187
Post-Sox Period: Filings from 2004 through 2012									
Intercept	-0.00505	-0.02262	-0.01109	-0.05121**	-0.01790	0.01084	-0.07448*	-0.11590[a]	-0.07825
FDR	-0.07006	-0.08856	-0.08379	-0.07970	-0.11355	-0.10390	-0.10012	-0.13452	-0.12299
Beta		0.00218	0.00264		0.00015	0.00119		0.01012[a]	0.01145*
Size		0.00176[a]	0.00147		0.00038	-0.00039		0.00449[a]	0.00345
BM		0.00502	0.00401		0.01952*	0.01596[a]		0.02955[a]	0.02482
6-mo pre-return			-0.02330***			-0.05356***			-0.06676***
R^2	0.0064	0.0076	0.0090	0.0053	0.0064	0.0093	0.0047	0.0061	0.0081

Confidence level at 5, 1, and 0.1%: *,**,*** Confidence level at 10% denoted by [a]

The following model is estimated :

$$RET_{i,t} = \beta_0 + \beta_1 FDR_{i,t} + \beta_2 Beta_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 BM_{i,t} + \beta_5 PreReturn_{i,t} + \sum_{i=1}^{9} SICDUM + \sum_{i=1}^{16} YEARDUM + \varepsilon_{i,t}$$

where RET is the six month post 10-K size adjusted return, FDR is the size-adjusted return for the three trading days starting from the date when a company files its 10-K, Beta is estimated using a market model regression for firms with at least 18 months of returns in the 3 years before the 10-K filing month, Size is the natural log of the market capitalization as measured by the market value of equity at the end of the fiscal year, BM is the book-to-market ratio, and the six month pre 10-K return is calculated as the cumulative raw return.

Table 7

Regression of future six (twelve) month size adjusted return on FDR, beta, size, book to market, pre-six month return and dummy variables for SOX implementation period and SOX post period

	Panel A Future Six Month Size Adjusted Return					Panel B Future Twelve Month Size Adjusted Return				
	Model 1	Model II	Model III	Model IV	Model V	Model 1	Model II	Model III	Model IV	Model V
Intercept	0.03047	0.03274	0.03464	0.03590	0.03788	-0.03906	-0.03445	-0.03210	-0.03283	-0.03038
FDR	0.03090	0.03105	0.17984*	0.04403	0.19838*	0.12580	0.12574	0.44260*	0.13280	0.45276*
Beta	-0.00809**	-0.00763**	-0.00737**	-0.00726**	-0.00699*	-0.00008	0.00117	0.00155	0.00143	0.00183
Size	-0.00109	-0.00086	-0.00091	-0.00105	-0.00110	0.00192	0.00247	0.00240	0.00236	0.00229
BM	0.01442*	0.01503*	0.01472*	0.01306[a]	0.01273[a]	0.02432*	0.02564*	0.02539*	0.02477*	0.02449*
Pre-six month return	-0.00576	-0.00624	-0.00552	0.01064	0.01160[a]	-0.04195***	-0.04313***	-0.04142***	-0.03448***	-0.03235***
ImpSox		-0.01253*	-0.01235*	-0.01136[a]	-0.01100[a]		-0.02238*	-0.02194*	-0.02040*	-0.01973*
PostSox		-0.00868*	-0.00852*	-0.00050	-0.00027		-0.02054**	-0.02013**	-0.01687*	-0.01633*
ImpSox × FDR			-0.06595		-0.09138			-0.48211		-0.49065
ImpSox × Pre				0.00199	0.00056				-0.01154	-0.01328
PostSox × FDR			-0.30021*		-0.30704*			-0.58058*		-0.58484*
PostSox × Pre				-0.07037***	-0.07079***				-0.03069	-0.03173
R^2	0.0015	0.0017	0.0022	0.0040	0.0045	0.0030	0.0033	0.0041	0.0035	0.0043

Confidence level at 5, 1, and 0.1%: *,**,*** Confidence level at 10% denoted by [a]

The following model is estimated :

$$RET_{i,t} = \beta_0 + \beta_1 FDR_{i,t} + \beta_2 PreReturn_{i,t} + \beta_3 IMPSOXDUM_{i,t} + \beta_4 POSTSOXDUM_{i,t} + \beta_5 IMPSOXDUMxFDR_{i,t}$$
$$+ \beta_6 IMPSOXDUMxPRE_{i,t} + \beta_7 POSTSOXDUMxFDR_{i,t} + \beta_8 POSTSOXDUMxPRE_{i,t} + \sum_{i=1}^{9} SICDUM + \epsilon_{i,t}$$

where RET is the six (twelve) month post 10-K size adjusted return, FDR is the size-adjusted return for the three trading days starting from the date when a company files its 10-K, IMPSOXDUM is a dummy variable for the implementation period of 2002-2003, POSTSOXDUM is a dummy variable for the years 2004-2012. The last four variables are interaction terms.