

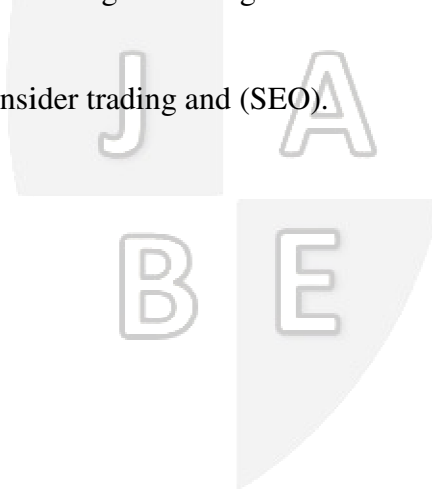
Regulation full disclosure (FD) and seasoned equity offering (SEO) firms

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ABSTRACT

Regulation Full Disclosure (FD) was adopted mainly to address the selective disclosure of information by publicly traded companies and other issuers. The aim of the rule was to promote full and fair disclosure. The influence of Regulation FD on insider trading along with earnings manipulation of firms issuing seasoned equity offering (SEOs) was investigated due to the conflicting results from prior studies. SEO firms were chosen because prior studies have documented that firms engage in earnings manipulation before issuing SEOs. Additionally, the trading patterns of insiders can reveal the true quality of firms issuing the SEO. Further investigations were also conducted to determine how the market reacts to the behavior of these firms. It was found that insider trading before regulation FD was negatively related to the market.

Keywords: Regulation (FD), insider trading and (SEO).



INTRODUCTION

This study investigates the effect of Regulation full disclosure (henceforth, Regulation FD) on the insider trading and earnings management behavior of firms issuing Seasoned Equity Offerings (SEOs). The study is motivated by the fact that research can be beneficial to both the market and regulators. For instance, there is known phenomena where publication of a paper, Jafe 1974; alerted the market and regulators (returns to insider trading and backdating scandal). It has been established that firms that conduct SEOs manipulate earnings (Teoh et 1998; Rangan 1998) and insider trading activities can give an insight as to the quality of firms (Baryeh et al. 2012).

This paper contributes to the literature because it is the first to study the influence of Regulation FD on insider trading and earnings manipulation of SEO firms. Regulation FD was enacted in August 2000 to promote full and fair disclosure, which is to counteract selective disclosure. Selective disclosure happens when a company divulges important nonpublic information about itself to particular entities, such as institutional investors and analysts before informing the rest of the public. The negative effect of selective disclosure includes a disenchantment of investors in the market; considering it to be unfair. For instance, analyst might not want to lose their privilege to selective disclosure so might refrain from making unfavorable statements about companies. According to the rule when an issuer makes public disclosure of information to some entities, for instance analyst or holders of securities who will trade on the basis of such information the issuer must make public disclosure of that information. Regulation FD was met by a very enthusiastic public who were frustrated about selective disclosure leaving them at a disadvantage.

Extant literature has concluded that firms engage in upwards earnings manipulations, therefore reporting inflated earnings [Teoh, Welch, & Wong, 1998; Shivakumar, 2000, 1996; and Kim & Park, 2005]. According to Teoh, Welch and Wong, 1998 there was evidence of higher net income growth in the issue year for issuers than for performance matched non – issuing industry peers and in addition, post-issue, issuers underperform non issuers. Furthermore, most firms conducted SEOs to resolve a near-term liquidity squeeze [see Jindra, 2000]. Prior research has concluded that insiders can predict stock price movements up to six months subsequent to trading (Jaffe 1971). Rogoff (1964) found that firms with three to four insiders buying their stock and no insider selling their stock in a month show returns to these insiders 9% higher than the rest of the market. Glass (1966) studied securities with the greatest excess buyers to sellers and found that the average returns on these securities were 10% higher than the stock market as a whole. Lorie and Neiderhoffer (1968) found that securities experiencing intensive buying than selling in a month are more likely to advance than to decline relative to the market in the six months relative to the event. There are known phenomena where publication of a paper alerted the market and regulators (such as returns to insider trading and backdating scandal), and if the market has become more sophisticated it may well be the case that the market reacts to insider trading and earnings management around SEOs. Furthermore, in August 2000, Regulation FD was enacted. This might reduce information asymmetry for investors. To the extent that Regulation FD had reduced information asymmetry, it is expected that the market will negatively view insider trading before regulation FD as compared to after the enactment. The following research questions were therefore investigated.

- Has Regulation FD influenced the insider trading and earnings management behavior of firms issuing SEOs?
- How does the market react to the signal of insider trading of firms conducting SEOs before and after the enactment of Regulation FD?

The effect of Regulation FD on the insider trading and earnings management behavior of firms issuing SEOs was investigated. Further investigations were also conducted to determine how the market reacted to the behavior of these firms before and after the Regulation. It was found that insider trading before regulation FD was negatively related to the short term market returns. This study continues as such; Section 2 shows the hypotheses while section 3 presents sample selection. Section 4 shows the methodology while section 5 and 6 presents the results, and conclusions respectively.

HYPOTHESIS

Previous studies have come up with conflicting evidence as to the advantages (Gintsche., A. and Markov, S.(2004)) versus the disadvantages; (Irani and Karamanou (2003)) of Regulation FD. According to the SEC, new regulations/rules must be put in place to curtail selective disclosure by issuers. The three main reasons offered by the SEC in support of Regulation FD were; first, to increase investor confidence in the fairness of the capital markets. Second, to negate the ability of management to use material information as a pawn for analyst and institutional investors. Finally, to utilize the technological advancement in modern times that allows easier dissemination of information to the public in a short period of time. Regulation FD was enacted in August 2000 to promote full and fair disclosure that is to combat selective disclosure. It was conducted in the wake of public outcry as to the disadvantage selective disclosure was to rest of the market as compared to those with access to the private information. The rule required that when an issuer makes public disclosure of information to some entities it must make that same information available to the public. Irani and Karamanou (2003) investigated the quality/ quantity of firm information to the market by comparing analyst data from before Regulation FD to after Regulation FD was enacted. They found that Regulation FD was disadvantageous, because after the passage of Regulation FD there was more forecast dispersion coupled with a decline in analyst following.

Shane, P.B., Soderstrom, N. S. and Yoon, S. W. (2001); found both disadvantages and advantages of Regulation FD. For instance they found Regulation FD to be disadvantageous in that, although Regulation FD. decreased private discussions involving security analyst and managers; there was however no decline in the percentage of earnings announcements that slightly beat or met analysts' expectations. Furthermore forecasts issued early in quarters prior to Regulation FD. were more accurate than similarly forecasts in quarters after Regulation FD. On the other hand they also document some benefits; their evidence suggests that in the post-Regulation FD. period, analysts gather relatively more uncertainty-relieving information between earnings announcements and by the end of the quarter, their forecasts are as accurate as they were in the prior year. Additionally price discovery improved in the post Regulation FD. year as compared to the preceding year. They found a reduction in reactions of the stock market to earnings announcements after Regulation FD. Generally, these results show that, in the era after Regulation FD., firms have improved their methods of communicating with investors and securities analysts about forthcoming earnings.

Gintsche., A. and Markov, S.(2004) however found Regulation FD. to be very beneficial. They examined whether Regulation FD. had declined analyst's informativeness. They found that in the environment after Regulation FD., there was a 28% decrease in the absolute price of information by financial analysts. They conclude that Regulation FD. has been effective in curtailing selective disclosure. This paper attempts to reconcile the differences regarding the pros and cons of Regulation FD. in prior literature. Since none of the prior studies have examined the effect of Regulation FD. on earnings management and insider trading of SEO firms, it is attempted to bring to light the effects the regulation will have on these firms. This lends the following hypothesis.

H1: The market was negatively affected by the insider trading of firms that conducted SEOs before Regulation FD as compared to firms that traded after Regulation FD.

There is an ongoing debate on insider's trading in their firm's shares. Some prior studies attribute the practice with increasing the informativeness of the price (e.g., Fishman and Hagerty, 1992), Baryeh et al.(2012) finds that insider trading increases the informativeness of the price, but because it is also coupled with aggressive earnings management, the firm's owners suffer when the truth is discovered. (Kaplan, Samuels, and Thorne, 2009) find that insider trading by CFOs might be unethical. Others regard it is innocuous (Elitzur and Yaari, 1995). Regulators such as the SEC and the Organization for Co-Operation and Economic Development (OECD) wish to suppress it. Hence, insider trading is a wealth reducing event for shareholders that owned shares before the SEO. This lends the following hypothesis.

H2: Insider trading before regulation FD was negatively related to the Cumulative abnormal returns CAR.

SAMPLE SELECTION

The final sample is made up of 206 non-financial, unregulated firms. The sample consist of firms that issued seasoned equity offerings between 1988 and 2006, as obtained from the new issues database of the Thomson-Reuters SDC Platinum; the following filters were used; Firms with multiple issues within a three-year window before or after the SEO event were deleted, which reduced the number of firms from 14,230 firms to 7,821 firms (following Teoh et al 1998).To allow for uniformity all regulated firms including financial institutions were also deleted which reduced the sample to 5,093 firms. Firms with missing data to calculate discretionary accruals and requiring at least 20 firms in the same industry classification as well as firms with enough data to calculate insider trading, were deleted. This further reduced the sample to 206 firms.

METHODOLOGY

Insider trading and earnings management activity

Insider purchase ratio; IPR [see Piotroski and Roulstone (2005), Sawicki (2005) and Brayed et. al. 2012] was used. IPR is the ratio of the number of shares purchased by insiders to the total number of shares sold by insiders (i.e. the sum of the number of shares purchased to the

number sold) in the year before the SEO. The IPR ratio is:

$$IPR = \text{BUY}_t / (\text{BUY}_t + \text{SELL}_t) \quad (1)$$

where SELL_t is the number of shares sold by registered insiders of a firm and BUY_t is the number of shares purchased by such insiders. (see Brayed et al. 2012)

Earnings management was measured by using the methodology first started by [Jones, 1990] and further developed by [Kothari, Leone & Wasley, 2005]. See Brayed et al. 2012 for details. Accruals were separated into two portions; normal, sometimes referred to as non-discretionary, accruals which is consequence of normal business operations including credit policy and business conditions. Abnormal, or discretionary accruals on the other hand results from earnings manipulation. Abnormal accruals were used to measure earnings management.

[Hribar and Collins, 2002] methodology was followed, defining Total Accruals as Net Income minus Cash flow from operations (Compustat item # 172 - 308).

$$\text{Total Accruals} = \text{Net Income (\#172)} - \text{Cash flow from operations (\#308)} \quad (2a)$$

While Current Accruals was:

$$\text{Current Accruals} = \text{Total Accruals} + \text{Depreciation expense (\#196)} + \text{loss/gain on Sale of Property Plant and Equipment (\#213)}. \quad (2b)$$

Current accruals were segregated into discretionary and non-discretionary portions using a two-stage process. Firstly, accruals were regressed on a model. This model links non-discretionary accruals to change in cash and to lagged return on assets (see Kothari). To prevent heteroscedasticity, variables were divided by lagged total assets (Compustat item #6). A regression using matched firms in the same industry classification a year before the SEO was estimated. Secondly coefficients from the first stage regression was used to calculate discretionary current accruals (DCA) :

$$\frac{DCA_{it}}{A_{i,t-1}} = \frac{CA_{it}}{A_{i,t-1}} - \left[\hat{\beta}_0 \frac{1}{A_{t-1}} + \hat{\beta}_1 \frac{\Delta Sales_{it} - \Delta AR_{it}}{A_{t-1}} + \hat{\beta}_2 ROA_{t-1} \right] \quad (3)$$

Discretionary current accruals divided by lagged total assets (DCA) is the difference between total current accruals and “normal” accruals (the bracketed term). This represents the “abnormal” or managed current accruals and is the measure for earnings management. The same methodology is used in calculating discretionary long-term accruals.

$$\frac{DTA_i}{A_{t-1}} = \frac{TA_i}{A_{t-1}} - \left[\hat{\beta}_0 \frac{1}{A_{t-1}} + \hat{\beta}_1 \frac{\Delta Sales_t - \Delta AR_{it}}{A_{t-1}} + \hat{\beta}_2 \frac{PPE_t}{A_{t-1}} + \hat{\beta}_3 ROA_{t-1} \right] \quad (4)$$

Lastly, Discretionary Long-term Accruals (DLA), the difference between discretionary Total Accruals and Discretionary Current Accruals is:

$$\frac{DLA_t}{A_{t-1}} = \frac{DTA_t}{A_{t-1}} - \frac{DCA_t}{A_{t-1}} \quad (5)$$

A market model, see Baryeh 2012 and Brown and Warner 1985 was used to estimated the financial performance of the firms. This was based on a regression using the market index and an estimation period; 3 day (following Brown & Warner, 1985). Return (R), is defined as

$$R_{jt} = \alpha_j + \beta_j R_{mt} + \varepsilon_{jt} \quad (6)$$

R_{mt} is the return of the market index (equally weighted) on day t. Abnormal return is defined as the difference between actual returns and the one estimated in Equ. (6):

$$AR_{jt} = R_{jt} - (\hat{\alpha}_j + \hat{\beta}_j R_{mt}) \quad (7)$$

Where $\hat{\alpha}_j$ and $\hat{\beta}_j$ are ordinary least-square estimates of α_j and β_j as estimated in the prior regression. For a period of trading days starting at T_1 and finishing at T_2 , the abnormal return (cumulative) is:

$$CAR_{T_1 T_2} = 1/N \sum_{j=1}^N \sum_{t=T_1}^{T_2} AR_{jt} \quad (8)$$

RESULTS

The effect of insider trading and discretionary accruals of seasoned equity offering firms was analyzed. Table 1 shows the regression results for the periods before the regulation and the period after, Discretionary Current Accruals (DCA), on the three-day CAR and other control variables. It was found that insider trading before regulation FD was negatively related to CAR -0.66144 and significant at -2.08. There was no significant relation between insider trading after regulation FD and CAR. This provided support for H1. There was no significant relation between discretionary accruals and CAR. The negative relation between insider trading before regulation FD and CAR (-0.66144 significant at -2.08) provided evidence for H2.

CONCLUSION

There has been inconclusive findings about the benefits or otherwise of Regulation FD. Prior studies have argued about the advantages (Gintsche., A. and Markov, S.(2004)) versus the disadvantages; (Irani and Karamanou (2003)) of the Regulation. Shane, P.B., Soderstrom, N. S. and Yoon, S. W. (2001); however find both disadvantages and advantages of Regulation FD. This study contributes to the literature because it adds to the advantages of Regulation FD in a different setting (during SEOs). It was found that insider trading before regulation FD was negatively related to CAR. There was no significant relation between insider trading after regulation FD and CAR.

This study is beneficial to regulators who want to determine the effectiveness of Regulation FD. To researchers and academicians the study shows the market was influenced by insider trading around SEOs when Regulation FD was enacted. This paper contributes to the literature because it is the first to study the effect of Regulation FD on the insider trading as well as earnings manipulation of SEO firms.

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APPENDIX

Table 1: Regression of “Periods” before and after Regulation FD to the Three Day CAR, Discretionary Current Accruals and Control Variables

$$CAR_3 = \alpha_0 + \alpha_1 IDum8700 + \alpha_2 IDUM2006 + \alpha_3 DCA + \alpha_4 TA + \alpha_5 MV + \alpha_6 IROA + \varepsilon_t$$

Dependent variable CAR_3				
Independent Variable	α	Standard error	t-Value	Pr > t
Intercept	0.07562	0.13034	0.58	0.5625
IDUM8700	-0.66144	0.31854	-2.08	0.0391
IDUM2006	-0.83583	0.56579	-1.48	0.1412
DCA	-0.09165	0.07724	-1.19	0.2368
TA	-4.90621E-7	0.00002454	-0.02	0.9841
MV	-0.00169	0.00178	-0.95	0.3438
IROA	-0.45478	0.35970	-1.26	0.2076
N = 206 $R^2 = 0.04$ Adj $R^2 = 0.01$				

Intercept

IDum8700 = Insider Trading for Sub- period” before Regulation FD 1987 to Aug 15th 2000

IDum2006 = Insider Trading for Sub- period” after Regulation FD Aug 15th 2000 to 2006

CAR_3 = Three day cumulative abnormal return

DCA = Discretionary current accruals

Control variables: TA, MV and IROA, which are Total Assets, Market value and lagged Return on Assets