

## **Contrarian insider trading and earnings management around seasoned equity offerings; SEOs**

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### **ABSTRACT**

This study attempts to resolve the differences in the literature regarding the pattern of insider trading, around earnings management. The relationship between earnings management and contrarian insider trading around seasoned equity offerings was therefore examined. While some studies found that insiders trade while managing earnings because there was a desire of insiders to sell their stockholdings at inflated prices as a motive for earnings manipulation; (Agrawal, Anup and Cooper, 2007). Other studies on the other hand showed that insiders are contrarian. For instance (Sawiski, 2005) found that investors use this contrarian approach and tend to buy stocks that have low book to market ratio and sell them when their value increases. This study found that insiders of firms conducting SEOs were contrarian; they bought recent losers and sold recent winners.

Keywords: Earnings Management, Contrarian Insider Trading.

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## INTRODUCTION

The relationship between earnings management and contrarian insider trading around seasoned equity offerings was examined. This study is motivated by the literature that established a connection between quality of earnings and insider trading (Beneish 2001, Beneish and Vargus 2002, Park and Park 2004). Other researchers have documented that opportunistic tendencies affect the bias in earnings forecasts of managers of financially distressed firms and following insider trading the trading activity of non-managerial insiders are the primary contributors (Irani 2001). Furthermore earnings management and insider trading are more prevalent when stock prices are high due to high past returns (Kadan, Ohad and Yang 2006). While some prior studies have examined earnings management or insider trading, this is the first study to examine contrarian insider trading and earnings management around seasoned equity offerings (SEOs). The following research question; is investigated; Why do insiders behave in a contrarian manner around seasoned equity offerings?

This study attempts to resolve the differences in the literature regarding the pattern of insider trading, around earnings management. While some studies found that insiders trade while managing earnings because there is a desire of insiders to sell their stockholdings at inflated prices as a motive for earnings manipulation; (Agrawal, Anup and Cooper, 2007). Other studies on the other hand showed that insiders are contrarian. (Sawiski, 2005) found that investors use this contrarian approach and tend to buy stocks that have low book to market ratio and sell them when their value increases. This study found that insiders of firms conducting SEOs were contrarian; they bought recent losers and sold recent winners. This study proceeds as follows; section 2 develops the hypotheses. Section 3 presents sample selection, section 4 presents the methodology, section 5 presents results and section 6 presents conclusions.

## HYPOTHESIS DEVELOPMENT

Managers inflated earnings before they sold stock, during the market bubble's last years; firms that managed earnings the most experienced returns of 21% higher than firms that managed earnings the least, and stocks of firms where insiders sold the most stock rose 59% higher than stocks when insiders sold the least. Also, stock corrections after the bubble burst were strongly negatively associated with estimated levels of earnings management and insider selling during the bubble. This was consistent with allegations that lofty stock-based compensation levels in the 1990s led managers to boost the stock price by manipulating earnings before they sold stocks (Huddart, Louis, 2010). Beneish found that firms that violated GAAP by earnings overstatements engaged in income-increasing earnings management to hide deteriorating firm performance and that insiders took advantage of the market's ignorance and sold their shares. Beneish and Vargus conclude that managers trading activities can be used ex-ante to determine earnings management and accrual quality. They found that insiders' sales were significantly higher than insiders' buys when the accruals in the year ahead were income increasing. Furthermore, accrual mispricing (Sloan, 1996) was partly explained by mispricing of income increasing accruals. (Lakonishok and Lee, 2001) concluded that insiders were contrarian investors who bought (sold) stock with poor past performance. This study therefore hypothesizes that insiders would use this contrarian approach will buy stocks with poor past performance and vice versa. This leads to the following;

H1: Insiders of firms with high negative (positive) discretionary accruals before (after) the SEO are net buyers.

Jenter (2005) found that insiders were contrarian investors who bought stocks when they were selling at low valuation and sold them when they were high valuation. Furthermore Sawiski (2005) found that investors used this contrarian approach and bought stocks that have low book to market ratio and sold them when they had high valuation. This phenomena has however not been studied for firms who are undergoing SEOs. This leads to the second hypothesis.

H2: Insiders of firms with high (low) book to market ratios, before (after) the SEO are net sellers (buyers).

## SAMPLE SELECTION

The initial sample is obtained from 10,787 firms issuing seasoned equity offerings between 1985 to 2005, from the Thomson SDC Platinum new issues database. All SEOs made up of financial institutions (SIC codes 6000-6999), regulated industries (SIC codes 4900-4999) and firms which do not have sufficient data on Compustat, were deleted resulting in a sample of 2,783 firms. For each SEO, all non-issuing firms sharing the same three-digit SIC code as the issuing firm in the year prior to the SEO were identified. ( The sample selection criteria as indicated in Table 1, Appendix).

## METHODOLOGY

### Earnings Management

The extent of earnings management using the cross-sectional variant of the (Jones, 1990) methodology developed in (Teoh, Welch, and Wong, 1998) was measured. This approach separates accruals into two components; normal, or non-discretionary, accruals that results as a natural consequence of business structure and operations common to the industry (i.e. credit policy, business conditions, etc...) and abnormal, or discretionary, accruals that arise from earnings management. Abnormal accruals (our proxy for earnings management) using a two-step process was identified. For each SEO firm, a regression using all non-SEO firms in the same 3-digit SIC code as the SEO firm in the year prior to the announcement of the SEO was estimated. The coefficients from the regression of that equation were used to calculate discretionary current accruals (DCA) as follows:

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

In equation (1), discretionary current accruals deflated by lagged total assets (henceforth referred to as DCA) is defined as the difference between total current accruals and “non-discretionary” or “normal” accruals (the bracketed term on the right hand side of the equation). It represents the “abnormal” or managed component of current accruals and is used as our proxy for earnings management. A similar procedure in calculating discretionary (i.e. abnormal) long-term accruals was followed.

$$\frac{DTA_t}{A_{t-1}} = \frac{TA_t}{A_{t-1}} - \left[ \hat{\beta}_0 \frac{1}{A_{t-1}} + \hat{\beta}_1 \frac{\Delta Sales_t - \Delta AR_t}{A_{t-1}} + \hat{\beta}_2 \frac{PPE_t}{A_{t-1}} + \hat{\beta}_3 \frac{ROA_{t-1}}{A_{t-1}} \right] + \varepsilon_t \quad (2)$$

Finally, Discretionary Long-term Accruals (henceforth DLA) is defined as the difference between discretionary Total Accruals and Discretionary Current Accruals:

$$\frac{DLA_t}{A_{t-1}} = \frac{DTA_t}{A_{t-1}} - \frac{DCA_t}{A_{t-1}} \quad (3)$$

### Shareholdings Of Insiders

Since data from the Thompson Financial (TFN insider Filing Data) was obtained, which contained information on all publicly traded U.S. companies, their insider trading definition was used which defined corporate insiders broadly to include those that have “access to non-public, material, insider information.” These insiders are required to file SEC form 3, 4 and 5 when they trade in their company stocks. To analyze the pattern of insiders of issuers of seasoned equity offerings, the insider purchase ratio used by (Piotroski and Roulstone, 2005) and (Sawicki, 2006) that measured insider trading behavior was adopted. The insider purchase ratio (IPR) was calculated as follows;

$$IPR_t = \frac{BUY_t}{BUY_t + SELL_t} \quad (4)$$

Where  $BUY_t$  and  $SELL_t$  were (respectively) the number of shares purchased (sold) in open market transactions by registered insiders of a firm during a given fiscal year relative the year in which the SEO occurs.

### RESULTS

The sample was divided into quintiles based on the level of  $IPR_t$ , the relative levels of abnormal accruals across groups was examined. The sample was also divided into quintiles based on book to market values. The relative levels of abnormal accruals across groups was examined; (As indicated in Table 2, Appendix). Table 2 Quintile 1 presents results for SEO firms which had the highest IPR ratios which represented the majority sales group; while quintiles 5 represents firms with low IPR ratios which is majority purchases. Most of the firms showed negative discretionary accruals which represented income decreasing earnings. The firms in the majority sales group however exhibited income decreasing accruals (which is negatively significant) in the years before and after the SEO while they exhibited positive or income increasing accruals in the year of the SEO. This shows signs of the contrarian approach where firms manipulate earnings downward in the year before the SEO and manipulate it upwards in the year of the SEO where they sell their shares and then they have to reverse the trend in the year of the SEO. For the high purchase group evidence of firms manipulating earnings downwards in the year before the SEO but upward in the year of the SEO and the year after the SEO was found even though none of these were significant. (As indicated in Table 2, Appendix)

Table 3 shows the firms with high and low book to market ratio. Quintile 1 and 2 shows firms with high book to market ratio while quintile 4 and 5 shows firms with low book to market

ratios. Firms in the high book to market group exhibit income decreasing accruals which is significant in the year before the SEO while firms in the low book to market exhibit income decreasing accruals in the year after the SEO. (As indicated in Table 3, Appendix)

## CONCLUSION

Results confirm prior studies which even though were not conducting SEOs also found insiders to be contrarian; in buying recent losers and selling recent winners. The results also show that insiders that purchase in the current year, increase income in the future year while insiders who sell shares in the current year deflate past years income. This is due to the fact that firms in the majority sales group exhibit income decreasing accruals (which is negatively significant) in the years before and after the SEO while they exhibit positive or income increasing accruals in the year of the SEO. The results exhibits signs of the contrarian approach where firms manipulate earnings downward in the year before the SEO and manipulate it upwards in the year of the SEO when they sell their shares and then they have to reverse the trend in the year of the SEO.

For the high purchase group evidence of firms manipulating earnings downwards in the year before the SEO but upward in the year of the SEO and the year after the SEO was found even though none of these were significant. Results also showed insiders to be omniscient that is they buy prior to good results and sell prior to bad results. This is because firms in the high book to market group exhibit income decreasing accruals which is significant in the year before the SEOs while firms in the low book to market exhibit income decreasing accruals in the year after the SEO. Further analysis includes determining if the high and low quintiles of the sample will have any association with returns.

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## APPENDIX

<b>Table 1: Sample Selection</b>	
<b>Sample</b>	<b>No. of firms</b>
<b>Total SEO firms</b>	<b>10,787</b>
<b>SEO firms with Financial Institutions &amp; Regulated Firms</b>	<b>10,752</b>
<b>SEO firms on Compustat</b>	<b>2,783</b>

**Table 2: Insider Purchases And Sales**

Quintiles	Variable	N	Mean	Std. Dev.	t-value
1	DTA <sub>t-1</sub>	64	-0.751	3.744	-1.60
	DTA <sub>t</sub>	75	0.108	0.928	1.01
	DTA <sub>t+1</sub>	67	-0.114	0.520	-1.80
2	DTA <sub>t-1</sub>	75	-0.226	2.285	-0.86
	DTA <sub>t</sub>	75	-1.200	11.515	-0.90
	DTA <sub>t+1</sub>	60	1.881	14.523	1.00
3	DTA <sub>t-1</sub>	70	-2.232	13.654	-1.37
	DTA <sub>t</sub>	77	0.592	4.872	1.07
	DTA <sub>t+1</sub>	62	-0.384	1.434	-2.11
4	DTA <sub>t-1</sub>	77	-0.082	0.780	-0.92
	DTA <sub>t</sub>	71	-1.503	15.577	-0.81
	DTA <sub>t+1</sub>	58	-0.104	4.152	-0.19
5	DTA <sub>t-1</sub>	74	-0.04	1.974	-0.17
	DTA <sub>t</sub>	76	0.036	1.205	0.26
	DTA <sub>t+1</sub>	66	0.196	2.101	0.76

$DTA_{t-1}$  Discretionary total accruals in the year before the SEO

$DTA_t$  Discretionary total accruals in the year of the SEO

$DTA_{t+1}$  Discretionary total accruals in the year after the SEO

**Table 3: Discretionary Accruals for high versus low book to market value firms**

Quintiles	Variable	N	Mean	Std. Dev.	t-value
1	$DTA_{t-1}$	65	-2.820	14.182	-1.60*
	$DTA_t$	68	-2.347	19.501	-0.99
	$DTA_{t+1}$	48	-0.092	4.607	-0.14
2	$DTA_{t-1}$	65	-0.035	0.753	-0.37
	$DTA_t$	71	-0.011	1.437	-0.07
	$DTA_{t+1}$	61	1.934	14.571	1.04
3	$DTA_{t-1}$	78	-0.508	3.939	-1.14
	$DTA_t$	75	-0.120	5.945	-0.18
	$DTA_{t+1}$	65	-0.271	1.214	-1.80*
4	$DTA_{t-1}$	70	-0.164	1.112	-1.23
	$DTA_t$	81	0.358	2.357	1.37
	$DTA_{t+1}$	70	-0.087	0.454	-1.60*
5	$DTA_{t-1}$	82	0.076	1.238	0.55
	$DTA_t$	79	0.002	0.081	0.17
	$DTA_{t+1}$	69	-0.024	0.245	-0.81

$DTA_{t-1}$  Discretionary total accruals in the year before the SEO

$DTA_t$  Discretionary total accruals in the year of the SEO

$DTA_{t+1}$  Discretionary total accruals in the year after the SEO