Corporate Earnings And Financings: An Analysis of Cancelled Versus Completed Offerings

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Abstract

Testing the earnings downturn and overvaluation hypotheses, we examine the long-term behavior of earnings around cancelled offers of firm financings of straight debt, convertible debt, and common stock. Although we find evidence consistent with both hypotheses in our completed offerings, the earnings pattern around cancelled offerings is consistent with overvaluation rather than earnings downturn. We find an unexpected earnings drop following the cancellation, however, we find no evidence shareholders correctly anticipate the size of the earnings downturn.

Introduction

One reason why firms announce the issuance of new securities is to raise funds for investment projects. However, when firms announce the issuance of convertible debt and common stock, a negative stock market reaction is found while announcements of straight debt offers are greeted with an insignificant negative share price reaction (see Smith (1986)). Overall the average market reaction is either zero or negative for any type of security offering. Many theories have been introduced as to why the market perceives common stock and convertible debt announcements as bad news, while debt announcements reveal no news (see Barclay and Litzenberger (1988)). There has also been evidence that earnings of firms who issue straight debt, convertible debt and common stock decline rather than increase due to new projects (see Hansen and Crutchley (1990)). Two of the theories that relate the security issuance to earnings' prospects are the Earnings Downturn Hypothesis and the Overvaluation Hypothesis.

The overvaluation hypothesis suggests firms issue equity securities because management believes the stock is overvalued in the marketplace (see Myers and Majluf (1984)). The earnings downturn argument (see Hansen and Crutchley (1990)) suggests that firms raise external capital because they need funds due to a projected decline in future earnings.

Evidence and Predictable Hypotheses

The overvaluation hypothesis is based on informational asymmetry between managers and investors but also has implications regarding future cash flows. Mangers will try to issue equity when the firm's shares are overvalued, but the overvaluation is based on managers knowing more than investors about the net present values of the firm's future and current projects. If management has superior knowledge that the future cash flows of the firm will be less than expected, there is an incentive for the firm to issue equity before the stockholders realize the shares are overvalued. Thus, overvaluation would predict managers would issue equity when investors overestimate future earnings. Patel, Emery and Lee (1993) find support for this prediction; they find the earnings growth drops the years following stock offerings. Additional support is found by Hansen and Crutchley (1990) who find the level of earnings drops following security offerings.[1]

The earnings downturn hypothesis is consistent with the Miller and Rock (1985) model indicating that all security offerings convey managers' anticipation of the firm's future funding needs. The earnings downturn hypothesis implies managers issue securities to raise funds to offset expected future earnings declines. The earnings downturn hypothesis also implies the larger the size of the security issue, the greater the expected future earnings declines. Hansen and Crutchley find evidence supporting the earnings downturn hypothesis: financings

Table 1
Testable Hypotheses

Hypothesis	Overvaluation	Earnings Downturn
1	Earnings on average will fall following both cancelled and completed equity offerings	The earnings will fall less for cancelled than completed security offerings
2	The size of the unexpected earnings change will be directly related to the size of the security offer for both completed and cancelled equity offerings	The size of the unexpected earnings change will be directly related to the size of the security offer only for completed offerings
3	The excess returns at the security announcement are directly related to the unexpected earnings change for both completed and cancelled equity offerings	The excess returns at the security announcement are directly related to the unexpected earnings change only for completed offerings

are associated with significant declines in expected earnings whether external debt or equity is used, and they find a direct relation between the amount of capital raised and the decline in expected long-term earnings.

While the evidence on earnings following completed security offerings is consistent with both the overvaluation and the earnings downturn hypothesis, studying earnings surrounding cancelled security offerings will allow a test between the two theories. The earnings downturn hypothesis predicts that firms issue securities because they need funds to make up for any shortfall in expected future earnings. Therefore, if a security offer is cancelled, the projected need for funds must have disappeared. However, overvaluation would predict firms issue equity when it is overpriced due to the information asymmetry between managers' and investors' expectations of earnings. Managers would cancel offers when the stock price falls enough to reflect managers' prediction of the drop in expected earnings. Therefore, the earnings downturn hypothesis would predict less of an unexpected earnings decrease following cancelled offers, while the overvaluation hypothesis predicts no difference in unexpected earnings between cancelled and completed offerings.

The analysis of excess returns surrounding cancelled equity offers provides additional support for the overvaluation hypothesis. Equity security offers tend to be withdrawn if the firm suffers a price decline following the offering announcement (see Masulis and Korwar (1986), Mikkelson and Partch (1986, 1988), and Officer and Smith (1986)). Thus, the withdrawal may be taken as new information that shares are no longer overvalued, and the positive market reaction to the announcement of the cancellation reflects good news. Mikkelson and Partch (1988) hypothesize that issues are cancelled when the stock returns from the time following the announcement to the withdrawal date falls enough to make the stock undervalued. The evidence presented by Mikkelson and Partch gives support to the overvaluation hypothesis. Managers appear to complete an equity issue if the price decline after the equity announcement is not severe - implying the stock is still overvalued.

Signalling theory would predict that if managers issue securities before an earnings drop then stock returns at announcement of security offerings would reflect this expected earnings drop. If managers signal the size of the earnings drop based upon the size of the security issue, then stockholders should be able to predict the size of the earnings drop based upon the security announcement. Miller and Rock (1985) combine the earnings downturn theory with signalling and predict stockholders should be able to interpret the earnings drop based on the announcement, so that stock returns at completed security offerings should reflect future unexpected earnings. However, if the offering is can-

celed, there should be no relationship between excess returns and unexpected earnings as the managers revise earnings estimates after the security announcement. When signalling is combined with overvaluation, the prediction would be that stock price returns at equity announcements should be related to the unexpected earnings following the announcement whether the offering is cancelled or completed.

Table 1 summarizes the hypotheses derived out of the two different theories: overvaluation and earnings downturn with cancelled and completed offers. The hypotheses for overvaluation are only for equity offerings while the hypotheses for earnings downturn theory reflect all security offerings. Hypotheses 1 and 2 reflect only overvaluation and earnings downturn, while hypothesis 3 is based on combining the theories with signalling. The overvaluation hypotheses 1 and 2 predict a drop in expected earnings equal for both completed and cancelled equity offerings, and the size of the offer is directly related to the earnings drop for both completed and cancelled equity offerings. The earnings downturn hypothesis predicts a drop in earnings only for completed security offerings, and the size of the offer is directly related to the earnings drop only for the completed security offerings. Hypothesis 3 predicts a relationship between excess announcement returns and unexpected earnings; this relationship is expected for both cancelled and completed offerings according to overvaluation, but only for completed offerings according to earnings downturn.

Sample Selection, Excess Returns, and Proxy Calculations

Sample Selection

Cancellations are located using two sources: withdrawn security offerings reported in the *Investment Dealers Digest* (*IDD*) and withdrawn security offerings reported in the financing decisions section of the *Wall Street Journal* (*WSJ*), from January 1974 through December 1988. To be included in the sample, the offer has to have a withdrawal announcement in the *WSJ*. If the offering announcement does not appear in the *WSJ*, we use the trading day following the offering's registration date with the Securities and Exchange Commission. Thus, the announcement date (AD) is the day the security offering is reported in the *WSJ*, or the trading day following the Securities and Exchange Commission date given in the *IDD*. The withdrawal date (WD) is the day of the *WSJ* report.

Cancellations include straight debt, convertible debt and common stock announcements. From our initial sample of cancellations we delete observations for the following reasons: 1) observations are excluded if they are missing withdrawal dates from the *WSJ* or where an offering announcement can not be established; 2) all utility announcements are deleted; 3) observations are deleted if there is insufficient data on the CRSP daily tape for estimating market model parameters; and, 4) observations are deleted if the firms are not on Compustat or cannot be found in *Moody's Industrial Manual*. The final sample contains 44 cancellations of straight debt, 39 cancellations of convertible debt, and 81 cancellations of common stock offerings made by industrial corporations traded on the NYSE or AMEX exchanges.

For our sample of completed offers, we use semi-annual issues of the Directory of Corporate Financing published by the *IDD*. We randomly select industrial primary offers till we have doubled the number of withdrawal observations in each year. If the number of primary completed offerings in any year is less than doubling the number of withdrawals, we use all the offers listed in that year. Announcement dates are found by backtracking in weekly publications of the *IDD*. Announcement and offering dates are then verified by using the *WSJ* and the Securities and Exchange Commission's Registration and Offering Statistics (ROS) File. For the completed offers, the announcement date (AD) is identified as the day the security offering is reported in the *WSJ*, or the trading day following the Securities and Exchange Commission date given in the *IDD*. The issuance date (ID) is the date given in the *IDD*. The final sample of completions contains 87 straight debt, 84 convertible debt, and 151 common stock industrial offers traded on the NYSE or AMEX exchanges. A frequency distribution of the withdrawals and completions by year by security type is given in Table 2.

Descriptive statistics for the security offers are given in Panel A of Table 3. The sample period contains 180 months, 143 (79%) of which occur during periods of economic expansion, and 37 (21%) of which occur during economic contraction (expansions and contractions as defined by the National Bureau of Economic Research). As shown in Panel A, the proportion of the sample period that is expansion and contraction fall in line between our sample of cancellations and completions. Examining the median total assets of the firms making security announcements for both cancelled and completed offers, the firms announcing straight debt have more assets than firms announcing convertible debt offers, and firms announcing common stock have less assets than either firms announcing straight or convertible debt. In addition, the dollar size of straight debt offers is larger than convertible debt, which is larger than common stock offers. However, when we take into consideration the relative size of offer (dollar amount of the offering divided by the total assets of the firm prior to the offering announcement), we find the relative size

Table 2
Financing-year frequency for all financings and by type of financing.[a]

Financing Year		All Offerings N = 486	Straight Debt N = 131	Convertible Debt N = 123	Common Stock N = 232
1974	Withdrawals	18	8	0	10
	Completions	24	15	2	7
1975	Withdrawals	13	7	2	4
	Completions	31	16	5	10
1976	Withdrawals	17	1	2	14
	Completions	30	2	3	25
1977	Withdrawals	2	2	0	0
	Completions	5	2	0	3
1978	Withdrawals	12	3	3	6
	Completions	24	8	5	11
1979	Withdrawals	10	4	4	2
	Completions	22	8	8	6
1980	Withdrawals	17	5	8	4
	Completions	29	9	11	9
1981	Withdrawals	25	11	9	5
	Completions	53	22	22	9
1982	Withdrawals	5	1	0	4
	Completions	12	1	3	8
1983	Withdrawals	12	0	1	11
	Completions	23	0	1	22
1984	Withdrawals	11	2	3	6
	Completions	23	4	6	13
1985	Withdrawals	6	0	1	5
	Completions	11	0	4	7
1986	Withdrawals	4	0	2	2
	Completions	10	0	5	5
1987	Withdrawals	11	0	4	7
	Completions	23	0	9	14
1988	Withdrawals	1	0	0	1
	Completions	2	0	0	2

[a]The sample of withdrawals is created by a weekly search of the Investment Dealer's Digest and by a daily search of the Wall Street Journal's financing decisions section from March 1974 through December 1988. The sample of completions is collected from the Investment Dealer's Digest, and then verified by the Wall Street Journal from 1974 through 1988.

Table 3

Panel A: Descriptive Statistics[a]

		All Offers	Straight Debt	Convertible Debt	Common Stock
Business Cycle					
Withdrawn	Contraction	35 (21%)	17 (39%)	4 (10%)	14 (17%)
	Expansion	129 (79%)	27 (61%)	35 (90%)	67 (83%)
Completed	Contraction	73 (23%)	39 (45%)	14 (17%)	20 (13%)
	Expansion	250 (77%)	48 (55%)	70 (83%)	131 (87%)
Total Assets ($millions)					
Withdrawn	Mean	4584.23	14,769.09	764.40	1016.62
	Median	353.43	1851.24	362.21	210.37
Completed	Mean	1529.16	2737.41	1132.17	1050.69
	Median	509.01	1316.72	437.68	403.01
Size of Offering ($millions)					
Withdrawn	Mean	68.25	101.24	66.89	45.11
	Median	32.01	75.00	50.00	20.00
Completed	Mean	80.14	117.84	79.04	59.04
	Median	46.79	100.00	60.00	30.00
Relative Size of Offering					
Withdrawn	Mean	0.15	0.08	0.18	0.18
	Median	0.09	0.04	0.14	0.11
Completed	Mean	0.12	0.10	0.16	0.11
	Median	0.08	0.08	0.12	0.07

Panel B: Excess Returns[b]

		Straight Debt	Convertible Debt	Common Stock
Preannouncement Runup				
Withdrawn	CAR (AD -60 through -2)	-3.47	4.02	1.71
	t-statistic	(-1.20)	(1.39)	(0.73)
Completed	CAR (AD -60 through -2)	0.56	6.47***	7.84***
	t-statistic	(0.35)	(2.61)	(5.67)
Two-day Announcement				
Withdrawn	CAR (AD -1 and AD)	-0.42	-2.11***	-3.43***
	t-statistic, % positive	(-0.89, 0.45)	(-3.02, 0.28)	(-6.26, 0.26)
Completed	CAR (AD -1 and AD)	0.26	-2.06***	-2.88***
	t-statistic, % positive	(0.01, 0.47)	(-3.67, 0.27)	(-10.21, 0.22)

[a]Contraction and expansion periods for the business cycle are as defined by the NBER. The relative size of the offering represents the dollar amount of the offering divided by the total assets of the firm.

[b]The preannouncement runup is the 59-day cumulative abnormal return (CAR) prior to the announcement. The two-day announcement is the CAR representing day 0 (AD) of the Wall Street Journal report and the previous day.

***The t-statistic is significant at the 0.01 level.

of convertible debt and common stock offers larger than straight debt offers for both cancellations and completions. There does not appear to be any major differences between security type offers that are eventually cancelled or completed. Our evidence reported for completions is consistent with firm and financing characteristics reported in Hansen and Crutchley (1990).

Excess Returns Calculations

Our excess returns methodology is identical to many earlier studies, for example, Mikkelson and Partch (1988). Each firm's excess returns are calculated using its daily market-model returns. We use the Center for Research in Security Prices (CRSP) daily file and the CRSP equally weighted index. The market-model estimation period is 200 trading days, beginning 21 trading days after the cancellation or offering announcement. The first time period (preannouncement) analyzed is the excess returns leading up to the announcement date (AD -60 through AD -2). The second period is the two-day announcement encompassing the day of the *WSJ* article reporting the security announcement and the previous day.

Proxy Calculations

The proxy for earnings in each year t ($ROABD_t$) are measured as yearly Operating Income before Depreciation (Compustat # 13) scaled by assets (Compustat #6) and is calculated as follows:[2]

$$ROABD_t = \frac{OperatingIncomeBeforeDepreciation_t}{(Assets_{t-1} + Assets_t)/2} \quad (1)$$

Because the earnings are spread throughout the year, the asset denominator is the average of assets at the beginning and the end of the year. When available, seven years of earnings are collected, the three years prior to the announcement, the announcement year, and the three years following the announcement. If complete information is not available on Compustat, it is collected from *Moody's Industrial Manual.*

The average earnings across firms of the seven years of earnings are shown in Figure 1 for all security types. Year 0 is the announcement year. The earnings for both completed and withdrawn offerings are rising prior to the announcement, and are falling after the announcement for all security types. In general, average earnings fall in the years after the security announcement for both cancelled and completed offerings. It appears as if firms are announcing equity offers at an earnings peak while firms issuing convertible and straight debt have experienced their earnings peak the year prior to the security announcement (consistent with Patel, Emery, and Lee (1993)). The earnings pattern of the common stock supports the overvaluation hypothesis number 1. Consistent with the earnings downturn hypothesis number 1, earnings are declining for all completed security offers; however, the drop in earnings following cancelled offers in inconsistent with the earnings downturn hypothesis.

A market adjustment is made to perform statistical tests on the changes in earnings. A firm's market adjusted earnings is measured as:

$$MKTROABD_{it} = ROABD_{it} - ROABD_{mt}$$

where $ROABD_{mt}$ is the average return on assets before depreciation of all firms on Compustat for year t. The adjusted return on assets before depreciation is averaged over all sampled firms for each year and classification to obtain the market adjusted earnings.[3]

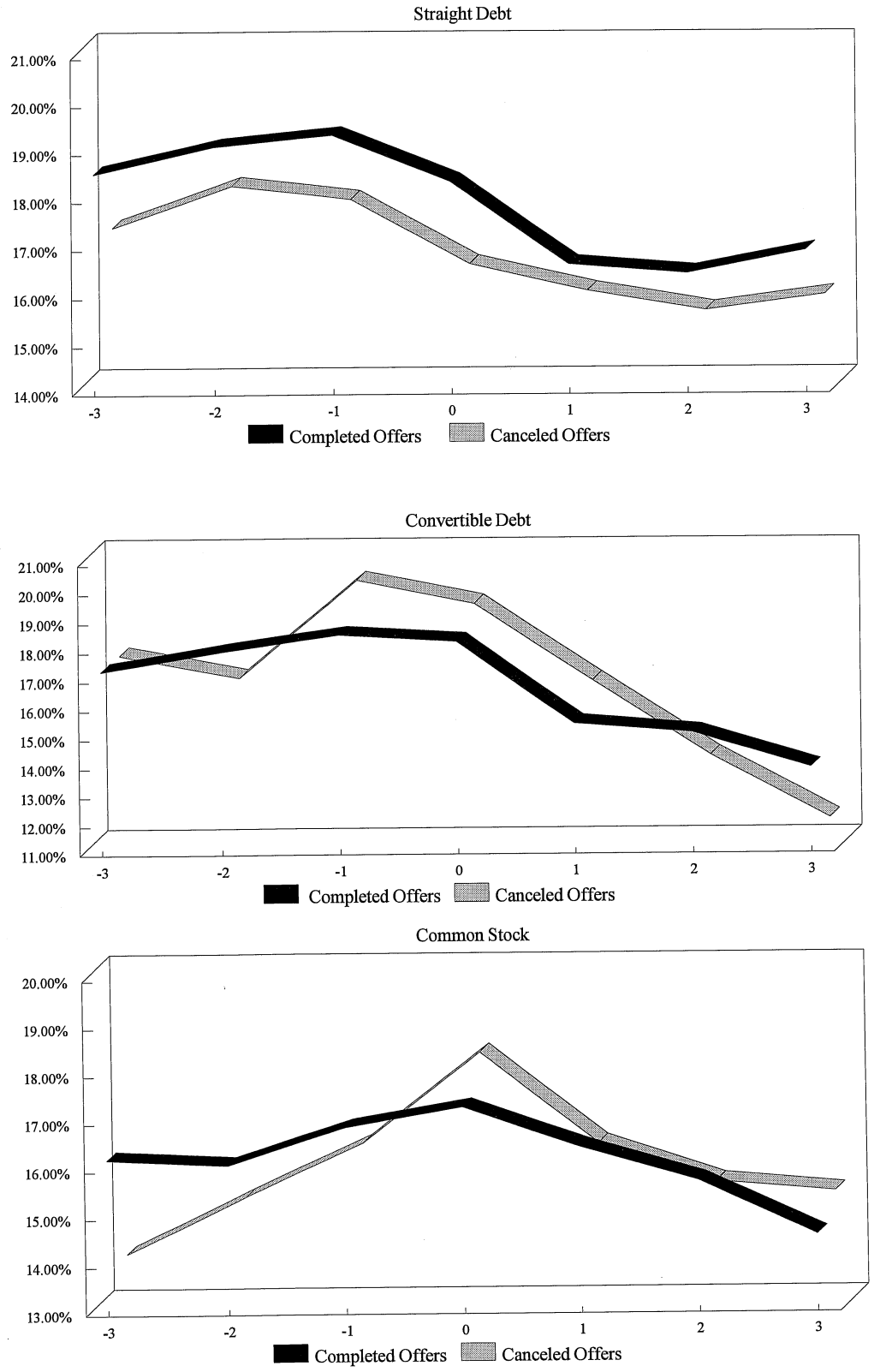
Average market adjusted earnings are calculated for the three years prior to the announcement. Unexpected earnings are calculated for the announcement year ($UNROABD_{0,0}$), and the three years following the announcement ($UNROABD_{+1,+3}$). $UNROABD_{0,0}$ is the difference between market adjusted earnings prior to year 0 (years -3 through -1) and market adjusted earnings in year 0. $UNROABD_{+1,+3}$ is calculated two ways. $UNROABD_{+1,+3}^{1}$ is the difference between average market adjusted earnings prior to year 0 (years -3 through -1) and the average market adjusted earnings after year 0 (years +1 through +3). $UNROABD_{+1,+3}^{2}$ is the difference between average market adjusted earnings prior to and including year 0 (years -2 through 0) and the average market adjusted earnings after year 0 (years +1 through +3). According to overvaluation, managers may choose to issue in a very high earnings year when the stock is at the peak of earnings, so $UNROABD_{+1,+3}^{2}$ is more appropriate to measure overvaluation.[4] According to the earnings downturn hypothesis, managers may be issuing securities before or in the middle of the earnings downturn so either earnings measure may be appropriate. In fact, examining Figure 1, it appears that the earnings downturn starts in time 0 for debt issuers while it starts in time 1 for stock issuers.

Empirical Results

Excess Returns

The cumulative excess returns, reported in Panel B of Table 3, prior to the announcement as well as the two-day announcement period are similar to those found in other studies (see Mikkelson and Partch (1986 and 1988)). Both completed and cancelled convertible debt and common stock offers exhibit a price runup in the

Figure 1 Unadjusted earnings surrounding security announcements.



preannouncement period, although it is only significant for completed offers. Both exhibit significantly negative excess returns at the announcement of the security issue. Similarly non-parametric tests show that the percentage of positive announcements for the convertible debt and common stock samples is significantly less than fifty percent. Straight debt offers do not exhibit significant excess returns for either the preannouncement or announcement periods; nor are the number of positive announcements significantly different than fifty percent.[5] The completed samples of convertible debt and common stock follow the pattern of overvaluation with a price runup prior to the equity announcement. Consistent with the overvaluation hypothesis, there is a more negative reaction at announcement for common stock than either convertible or straight debt.

Unexpected Earnings

In the sample pooling across security types

Table 4
Market adjusted earnings (in percent) for the prior 3 years (-3,-1), the financing year (0,0), and the subsequent 3 years (+1,+3) for all financings and by type of financing.[a]

Financing Type	$MKTROABD_{-3,-1}$	$UNROABD_{0,0}$	$UNROABD_{+1,+3}{}^{1}$	$UNROABD_{+1,+3}{}^{2}$
All Offers				
Withdrawn	0.65	1.28**	-0.57	-1.69***
N = 134	(1.04)	(2.42)	(-0.93)	(-2.67)
Completed	1.36***	0.61**	-1.03***	-1.20***
N = 313	(3.79)	(2.00)	(-2.79)	(-3.76)
Straight Debt				
Withdrawn	1.10	-1.19	-1.53*	-0.05
N = 40	(1.15)	(-1.57)	(-1.76)	(-0.06)
Completed	2.45***	-0.56	-1.70***	-0.32
N = 87	(3.49)	(-1.19)	(-3.16)	(-0.57)
Convertible Debt				
Withdrawn	1.54	1.42	-1.74	-3.62**
N = 38	(1.14)	(1.35)	(-1.38)	(-2.18)
Completed	1.66**	0.62	-1.81**	-1.80**
N = 78	(2.22)	(1.09)	(-2.17)	(-2.52)
Common Stock				
Withdrawn	-0.01	2.52***	0.53	-1.59*
N = 56	(-0.01)	(3.10)	(0.55)	(-1.93)
Completed	0.57	1.28**	-0.22	-1.41***
N = 148	(1.15)	(2.59)	(-0.39)	(-3.09)

[a] $MKTROABD_{-3,-1}$ represents the market adjusted earnings prior to the offer announcement. First, we find the return on assets before depreciation ($ROABD_t$) for each firm in year -3 through year -1 minus the market $ROABD_t$ for each year -3 through year -1. The mean over the 3 years is calculated for each firm, then the reported $MKTROABD_{-3,-1}$ is the mean from across the firms. $UNROABD_{0,0}$ represents unexpected earnings at the offer announcement year. First we subtract the market $ROABD_t$ in year 0 from the firm's $ROABD_t$ in year 0. $UNROABD_{0,0}$ is the mean difference between each firm's average market adjusted earnings prior to year 0 and the market adjusted earnings in year 0. $UNROABD_{+1,+3}{}^{1,2}$ represents unexpected earnings after the announcement year. First, each firm's $ROABD_t$ in year +1 through year +3 minus the market $ROABD_t$ for each year +1 through year +3 is calculated. $UNROABD_{+1,+3}{}^{1}$ is the mean difference between each firm's average market adjusted earnings prior to year 0 (years -3 through -1) and the average market adjusted earnings after year 0. $UNROABD_{+1,+3}{}^{2}$ is the mean difference between each firm's average market adjusted earnings prior to and including year 0 (years -2 through 0) and the average market adjusted earnings after year 0.

* The t-statistic is significant at the 0.10 level.

** The t-statistic is significant at the 0.05 level.

*** The t-statistic is significant at the 0.01 level.

(Table 4), the completed offers have significantly greater average earnings than the market the three years prior to announcement. Both the cancelled and completed samples have significantly positive unexpected earnings

the year of announcement. Firms announcing security offerings are not in the middle of an earnings downturn; on the contrary, these are firms that on average are performing better than the market prior to and in the year of the security offering announcement. However, in the three years following the announcement the completed offers show a significant decrease in both measures of unexpected earnings while the cancelled offers show a significant decrease in only the second measure. The evidence on the earnings downturn theory is mixed combining all security types. The drop in earnings following the announcement of the completed offers is consistent with the earnings downturn hypothesis number 1 and evidence reported is Hansen and Crutchley (1990) and Korwar (1983). However, the unexpected earnings drop for the cancelled offers in the post period is consistent only with the overvaluation hypothesis number 1. Dividing by security type indicates a different earnings pattern.

The completed sample of straight and convertible debt offers show earnings significantly higher than the market prior to the offer, but the common stock sample does not. Only the common stock sample, for both withdrawn and completed, shows a significant jump in unexpected earnings in year 0. This is consistent with overvaluation, that managers are choosing a high earnings year to issue stock. For the period following the announcement, significance depends upon the earnings measure used. Using the first earnings measure, both the completed and cancelled debt offers show significant declines in earnings. Using the second earnings measure, both completed and cancelled convertible debt and common stock show significant declines. Completed convertible debt has a significant decline in earnings using the first measure while the cancelled offers do not, but the difference in the magnitude of the drop is very small (-1.74% versus -1.81%) and the insignificant drop could simply be due to small sample size. None of the unexpected earnings measures are significantly different between completed and cancelled offers. This does not support the earnings downturn hypothesis number 1 which would not predict a drop in earnings after a cancellation.

Overvaluation suggests a test only on common stock. A significant increase in earnings is found in the year of offer which is consistent with managers issuing in a high earnings year. There is a significant drop in earnings for both cancelled and completed offers according to the second measure which was testing overvaluation. This supports the overvaluation hypothesis number 1 that managers are expecting a drop in expected earnings when they issue stock. This evidence on completed common stock is consistent with either Hansen and Crutchley (1990) and Korwar (1983).

Excess Returns and Unexpected Earnings

In order to test whether managers are signalling unexpected earnings decreases after security announcements and whether stockholders correctly interpret this signal, we examine the relationship between the unexpected earnings and excess returns. In addition, we test to see whether the stated reason for the offer affects the excess returns or whether there are differences between cancelled and completed offers. We create dummy variables to reflect the offer reason and whether the offer is withdrawn. Refinancing debt should give a greater overvaluation signal than investment purposes. Therefore, we expect a more negative relation between the two-day excess returns and the offer reason refinance debt than investment purposes. The variable INV equals 1 if the reason for the offer is investment purposes, 0 otherwise; REF equals 1 if the reason for the offer is to refinance debt, 0 otherwise; and WD equals 1 if the offer is cancelled, 0 otherwise.

Panel A of Table 5 uses the 59-day pre-announcement cumulative excess returns as the dependent variable. We do not find significance within security types for the dummy variables representing whether the offer is cancelled in the straight debt or convertible debt samples. We do find the runup for withdrawn common stock offers is lower than that of completed. Consistent with overvaluation, the dummy variable representing the issuance reason debt refinancing has a higher runup associated with it. Unexpected earnings in time 0 are positively related to runup for common stock and convertible offers. This could simply be that stock prices of firms in high earnings years are rising due to earnings information. Also, there is a negative relationship between post announcement earnings and runup for straight and convertible debt. This is consistent with the findings of Hansen and Crutchley (1990).

If stockholders can interpret the size of the earnings downturn when managers announce a security issue, we would expect a positive relationship between the earnings downturn and two day announcement returns. However, as shown in Panel B of Table 5, the only regression that is significant is based upon convertible debt, and in this regression, the earnings are not related to announcement returns. The only significant relationships are with respect to reason for offer; the investment reason leads to higher returns and refinancing debt leads to lower returns which supports overvaluation. However, we can find no relationship between announcement returns and unexpected earnings.[6] This is evidence inconsistent with signalling theory and both Hypotheses 3.

Table 5

Ordinary least-squares regressions of the common stock cumulative excess returns.

$CAR(B,A)_i = a_0 + b_{WD}Withdrawn_i + b_{INV}INV_i + b_{REF}REF_i + b_{0,0}UNROABD_{(0,0)i} + b_{+1,+3}UNROABD_{(+1,+3)i}$ [a]

Row Number		a_0	b_{WD}	b_{INV}	b_{REF}	$b_{0,0}$	$b_{+1,+3}$	Statistics	
Panel A.	Dependent variable is CAR(-60,-2)							R^2	F
1.	Straight Debt N = 125	-0.01 (-0.46)	-0.06 (-1.25)	0.07 (0.93)	-0.01 (-0.02)	-0.40 (-1.16)	-0.66** (-2.13)	0.11	2.83
2.	Convertible Debt N = 115	0.06** (1.99)	-0.05 (-1.12)	0.03 (0.62)	-0.05 (-1.26)	1.06** (2.55)	-0.94*** (-3.04)	0.12	3.07
3.	Common Stock N = 204	0.09*** (4.48)	-0.06** (-2.20)	-0.01 (-0.16)	-0.05* (-1.72)	0.44* (1.92)	-0.29 (-1.49)	0.06	2.78
Panel B.	Dependent variable is CAR(-1,0)								
4.	Straight Debt N = 125	0.01 (0.03)	0.01 (1.20)	-0.02 (-1.53)	-0.03** (-2.18)	0.02 (0.25)	-0.03 (-0.50)	0.05	1.19
5.	Convertible Debt N = 115	-0.02** (-2.25)	-0.01 (-0.66)	0.02* (1.80)	-0.02* (-1.89)	0.05 (0.48)	-0.05 (-0.72)	0.10	2.32
6.	Common Stock N = 204	-0.03*** (-5.94)	-0.01 (-0.85)	-0.01 (-0.32)	-0.01 (-1.04)	0.08 (1.51)	-0.08* (-1.70)	0.03	1.23

[a] $CAR(B,A)_i$ is the daily cumulative abnormal return to the common stock of issuer, from day B to day A. $MKTROABD_{-3,-1}$ represents the market adjusted earnings prior to the offer announcement. First, we find the return on assets before depreciation ($ROABD_t$) for each firm in year -3 through year -1 minus the market $ROABD_t$ for each year -3 through year -1. The mean over the 3 years is calculated for each firm, then the reported $MKTROABD_{-3,-1}$ is the mean from across the firms. $UNROABD_{0,0}$ represents unexpected earnings at the offer announcement year. First we subtract the market $ROABD_t$ in year 0 from the firm's $ROABD_t$ in year 0. $UNROABD_{0,0}$ is the mean difference between each firm's average market adjusted earnings prior to year 0 and the market adjusted earnings in year 0. $UNROABD_{+1,+3}$ represents unexpected earnings after the announcement year. First, each firm's $ROABD_t$ in year +1 through year +3 minus the market $ROABD_t$ for each year +1 through year +3 is calculated. $UNROABD_{+1,+3}$ is the mean difference between the each firm's average market adjusted earnings prior to year 0 and the average market adjusted earnings after year 0. The other regressors are dummy variables equal to zero except: $WD_i = 1$ if the offer is withdrawn, $INV_i = 1$ if the use of the proceeds is for investment, and $REF_i = 1$ if the stated use of the proceeds is to refinance debt.

* The t-statistic is significant at the 0.10 level.

** The t-statistic is significant at the 0.05 level.

*** The t-statistic is significant at the 0.01 level.

Offering Size and Unexpected Earnings

The earnings downturn hypothesis number 2 predicts a direct relation exists between the amount of capital raised and the amount of earnings shortfall, but only for completed offers. Overvaluation hypothesis number 2 would predict this direct relation for equity offers, both cancelled and completed. In Table 6, we regress the relative size of the offerings (measured as the dollar amount of the offering divided by the total assets of the firm prior to the offering announcement) on the unexpected earnings in the financing year and the post time period for each security type. The results do not support the earnings downturn hypothesis number 2 as we find a significant negative relation between relative size and unexpected earnings after the announcement year for both completed and cancelled offers.

When we separate by security type, we find that pooled results are driven by the straight debt and common stock samples. For both debt and common stock we find a significant negative relationship between unexpected earnings following announcement and the size of the offer. Whether the offer is cancelled or completed, the size of the earnings drop is related to the size of the announced offer which does not support the earnings downturn hypothesis number 2. The evidence on the common stock sample supports overvaluation hypothesis number 2. The higher the unexpected earnings in time 0, the larger the equity issue. Managers appear to base the size of the common stock offer upon the degree of overvaluation. We find insignificant relations between relative size and unexpected earnings for the convertible debt sample.

Summary and Conclusions

This paper extends the earnings research of Hansen and Crutchley (1990) and Patel, Emery and Lee (1993) by studying earnings surrounding cancelled as well as completed offerings. We find earnings are rising prior to security announcements and declining the year of or after the announcement year. This earnings pattern is the same for all security types whether the offer is cancelled or completed. The unexpected earnings (earnings as compared to the market) in the announcement year are positive only for the common stock sample. However, unexpected earnings fall significantly after the announcement year for all three security types whether the offer is cancelled or completed. We find no relationship between the announcement excess returns and the unexpected earnings, but for cancelled and completed straight debt and common stock there is a significant relationship between the size of the offer and the unexpected earnings.

The results of this paper confirm those of Hansen and Crutchley (1990) and Patel Emery and Lee (1993) that unexpected earnings are falling after security announcements. The evidence we find supports the overvaluation hypothesis of security issues. Managers appear to announce equity issues when the earnings have been increasing and are at their peak, while earnings fall after the announcement for both completed and cancelled offerings. If managers have more information than the market about these future earnings declines, they may announce an equity offer to take advantage of stock overvaluation. We find that management is able to predict the size of the earnings downturn and announces larger offers the larger the future earnings downturn. The fact that earnings are falling after cancelled offers is not consistent with earnings downturn; if firms issue securities because they need the money, then the only way a firm could cancel the offer is if earnings are not as bad as management originally expected.

Consistent with the overvaluation hypothesis and with Mikkelson and Partch's (1988) findings, we show there are positive excess returns prior to common stock announcements. In addition, we find firms announcing stock issues have high earnings prior to the announcement and that the higher these earnings are, the larger the projected stock issue. Similar to Mikkelson and Partch, we find that if the stock price falls too much after the stock announcement, managers cancel the offering. Although the earnings pattern is similar to the excess returns pattern, like Hansen and Crutchley, we do not find a relationship between the unexpected earnings and the announcement excess returns. This lack of a relation between the excess returns at the security announcement and the earnings downturn would indicate that stockholders are unable to interpret the announcement of an offer as a clear signal regarding the magnitude of the future earnings downturn.

Suggestions for Future Research

This paper raises several interesting questions that could be explored by future research. One possible test is to examine the firms with positive announcement returns and to try to identify how these are different than the majority of the firms who exhibit negative announcement returns. We do not find a positive stock price reaction for security announcements where the stated management reason for the offer is to fund capital investments. The firms that have a positive reaction to a security announcement may be signaling their potential future investments by some other actions rather than stating how the funds will be invested. One possibility is that management may commit currently available funds to the project prior to the security announcement, thus sending a better signal to the marketplace regarding the future projects.

Table 6
Ordinary least-squares regressions of relative offering size on abnormal earnings by financing type.

$$RELSIZE_i = a_0 + b_{0,0}UNROABD_{(0,0)i} + b_{1,3}UNROABD_{(+1,+3)i} + e_i$$

Financing Type	a_0	$b_{0,0}$	$b_{1,3}$	Statistics R^2	F
All Offers					
1. Withdrawals	0.13***	0.92***	-1.17***	0.15	11.83
N = 134	(7.42)	(3.31)	(-4.66)		
2. Completions	0.11***	0.39***	-0.41***	0.05	7.80
N = 313	(18.82)	(2.92)	(-3.85)		
Straight Debt					
3. Withdrawals	0.06***	0.09	-0.85***	0.20	4.74
N = 40	(4.14)	(0.27)	(-2.79)		
4. Completions	0.10***	0.69***	-0.48**	0.09	4.34
N = 87	(9.91)	(2.75)	(-2.21)		
Convertible Debt					
5. Withdrawals	0.17***	-0.24	-0.42	0.05	1.01
N = 38	(5.18)	(-0.44)	(-0.89)		
6. Completions	0.16***	0.13	-0.07	0.00	0.08
N = 78	(9.76)	(0.39)	(-0.31)		
Common Stock					
7. Withdrawals	0.16***	1.27***	-1.49***	0.23	8.08
N = 56	(4.61)	(2.85)	(-3.66)		
8. Completions	0.10***	0.39**	-0.53***	0.11	8.82
N = 148	(14.03)	(2.54)	(-4.20)		

[a]$RELSIZE^i$ represents the relative size of the offering which is the dollar amount of the offering divided by the total assets of the firm prior to the offering announcement. $MKTROABD_{-3,-1}$ represents the market adjusted earnings prior to the offer announcement. First, we find the return on assets before depreciation ($ROABD_t$) for each firm in year -3 through year -1 minus the market $ROABD_t$ for each year -3 through year -1. The mean over the 3 years is calculated for each firm, then the reported $MKTROABD_{-3,-1}$ is the mean from across the firms. $UNROABD_{0,0}$ represents unexpected earnings at the offer announcement year. First we subtract the market $ROABD_t$ in year 0 from the firm's $ROABD_t$ in year 0. $UNROABD_{0,0}$ is the mean difference between each firm's average market adjusted earnings prior to year 0 and the market adjusted earnings in year 0. $UNROABD_{+1,+3}$ represents unexpected earnings after the announcement year. First, each firm's $ROABD_t$ in year +1 through year +3 minus the market $ROABD_t$ for each year +1 through year +3 is calculated. $UNROABD_{+1,+3}$ is the mean difference between the each firm's average market adjusted earnings prior to year 0 and the average market adjusted earnings after year 0.

* The t-statistic is significant at the 0.10 level.
** The t-statistic is significant at the 0.05 level.
*** The t-statistic is significant at the 0.01 level.

Another avenue for further research is to identify why the issuing firms seem to have such a high degree of informational asymmetry. The overvaluation hypothesis predicts greater informational asymmetry for equity issues. However, we find that future unexpected earnings declines are just as severe for firms issuing debt. Are firms who are able to issue before earnings downturns characterized by less monitoring? If so we might see lower insider and institutional ownership for these firms.

In addition, we find that future unexpected earnings decline even if the offer is cancelled. A question that arises is how firms can afford to cancel offerings when their earnings are going to fall in the future. One possible explanation is that firms' cancelling offerings will issue some time after the cancellation. However, we do not find this to be the case in the majority of cancellations. Another possible explanation is that management is making a mistake by not going through with the offering. As we pointed out, the majority of firms making security announcements are reporting earnings above the market. Perhaps management miscalculates investment needs and will have trouble raising funds in the future.

Endnotes

1. Overvaluation only has predictions regarding equity security announcements. Although Hansen and Crutchley (1990) find an earnings drop following straight debt offerings, this evidence is not inconsistent with overvaluation.
2. Hansen and Crutchley (1990) use income after depreciation, but using operating income before depreciation should capture cash flow problems more accurately. We also tried income after depreciation in our calculation of earnings, but find no appreciable differences from the reported results.
3. This measurement is done as in Hansen and Crutchley (1990) and Vermaelen (1981), except that the beta on earnings is assumed to be one so that we do not further reduce our cancelled sample because of lack of data.
4. Patel, Emery and Lee (1993) compare earnings following offers to both earnings prior to the issuance and earnings in the issuance year. $UNROABD_{+1,+3}{}^{2}$ combines these measures.
5. Although not reported, we analyzed the excess returns for cancelled and completed samples of straight debt, convertible debt, and common stock over five subperiods for direct comparison to the excess returns reported in Mikkelson and Partch (1986 for completions and 1988 for cancellations). Our completed and cancelled excess returns over the five subperiods for all security offerings are consistent with those reported findings by Mikkelson and Partch.
6. We also tried using our second measure of earnings in the regressions reported in Tables 4 and 5 with no appreciable differences.

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