When Are Dividend Omissions Good News?*

Laarni Bulan
International Business School
MS-032, Brandeis University
Waltham, MA 02454.
lbulan@brandeis.edu

Narayanan Subramanian
Cornerstone Research
Boston, MA
nsubra1@gmail.com

Lloyd Tanlu
Harvard Business School
Soldiers Field Road
Boston, MA 02163
ltanlu@hbs.edu

September 2005
This draft: March 2007

Comments Welcome

* We acknowledge the excellent research assistance of Arina Blechter, Leigh Cohen, Josh Goldfisher, Thang Nguyen and Mathew Thomas. We thank seminar participants from Brandeis University and the Eastern Finance Association 2006 Annual Meeting for helpful comments and suggestions. The usual disclaimer applies.

When Are Dividend Omissions Good News?

ABSTRACT

A significant number of dividend omissions are actually good news, signaling a turnaround in the fortunes of the omitting firms after a period of poor performance, and frequently resulting in a resumption in dividend payments within five years of the omission. The market reaction, however, is similar for *good* and *bad* omissions, indicating that investors do not separately identify the two at the announcement of omission. We find two key determinants of whether an omission is *good* or *bad.* First, we find that *good* omitters have stronger fundamentals at the time of omission - they have higher profitability and lower levels of debt overhang. Our results suggest g*ood* omitters utilize the cash saved by the omission to reduce their (already low) overhang while b*ad* omitters have persistent debt overhang and continue to perform poorly after the omission. Second, we find that an omission is more likely to be *good* if it occurred when market sentiment for dividend paying firms was high, i.e. the firm was penalized by the market more heavily as a consequence of the dividend omission. We posit that a good omitter is a firm that recognizes the urgency of taking the "bitter medicine" in order to heal itself of its operating and financial malaise.

Dividend omissions are almost always viewed as bad news by investors, with the vast majority of omission announcements producing a negative stock price reaction (Dielman and Openheimer (1984), Healy and Palepu (1988)). But are dividend omissions necessarily signals of poor future performance? While omissions do usually occur *after* a period of poor performance during which the firm incurs operating losses (De Angelo, De Angelo and Skinner, 1992), this does not, of course, imply that the firm should continue to under-perform following the omission. In fact, the omission itself may be the necessary "bitter medicine" that a firm takes in order to heal itself of its operating and financial malaise.[1] In these cases, the performance of the firm should improve rather than deteriorate following the omission. In fact, Lie (2004) finds that "earnings deteriorate during the quarter of dividend omissions, but they recover within a couple of quarters."[2] In this paper, we study this issue of "good" omissions and "bad" omissions, i.e., those that lead to a turnaround in performance and those that signal continued poor performance.

In a sample of 445 dividend omissions, we find that nearly 35 % of omissions fall in the "good" category. These omissions are followed by a significant improvement in operating performance and in many cases, a resumption in dividend payments within the next five years. The fraction of omissions that are good is surprisingly high, considering that over 80% of omission announcements produce a negative stock price reaction. Moreover, the market reaction to good omissions is very similar to that for bad omissions – the mean and median abnormal returns for the 3-day window centered on the announcement are not statistically different between the two categories. Thus, the stock market does not identify whether an omission is good or bad at the time of the announcement.

We then examine the factors determining whether an omission is good or bad. Consistent with the evidence on the similarity of the announcement effects of good and

[1] De Angelo, De Angelo, Skinner (1990) have shown that managers are reluctant to omit a dividend and will more likely resort to dividend cuts than to an omission.
[2] In addition, he finds that the negative market reaction to omissions can be attributed, in part, to the poor operating performance in the quarter of the omission announcement.

bad omissions, we find that firms in the two categories are similar in terms of profitability (ROA) and growth rate (of sales) in the three years prior to the year of omission. In the year of the omission and the three years succeeding it, we find that good omitters have stronger fundamentals than bad omitters in terms of higher profitability (ROA) and lower debt overhang. We measure debt overhang in two ways. The first measure is *industry adjusted leverage*, which is the difference between actual firm leverage and the industry median leverage. The second measure is the *leverage gap*, which is the difference between actual firm leverage and its target leverage. Target leverage is estimated according to Kayhan and Titman (2004) and is the predicted leverage based on a tobit regression of a firm's debt ratio on variables that are known to affect capital structure, such as firm size, profitability, asset tangibility and growth opportunities. We find that the debt overhang of dividend omitters is mostly positive and significant in the years surrounding the omission. We find that not only do good omitters have relatively lower levels of debt overhang, but they also take significant steps to reduce their debt overhang around the time of the omission. Good omitters move away from the "brink" after the omission, while bad omitters continue to be financially constrained even after the omission.

Finally, we perform logit regressions of the type of omission (good or bad) on key contemporary explanatory variables, namely, size, profitability (ROA), sales growth, capital expenditures, debt overhang and the dividend premium of Baker and Wurgler (2004). Consistent with the aforementioned results, we find two key determinants of whether an omission is *good* or *bad*. First, we find that *good* omitters have stronger fundamentals at the time of omission - they have higher profitability and lower levels of debt overhang. These results suggest g*ood* omitters utilize the cash saved by the omission to reduce their (already low) overhang while b*ad* omitters have persistent debt overhang and continue to perform poorly after the omission. Second, we also find that an omission is more likely to be *good* if it occurred when market sentiment for dividend paying firms was high, i.e. the firm was penalized by the market more heavily as a consequence of the

dividend omission. We posit that good omitters are firms that recognize the urgency of taking the "bitter medicine" in order to heal itself of its operating and financial malaise.

The remainder of the paper is organized as follows: Section I explains the data and variable construction. Section II differentiates good omitters from bad omitters and analyzes the various operating and stock return characteristics between these two groups of firms. In Section III, we examine in greater detail the leverage and debt overhang of these firms and propose that debt overhang is a key determinant of whether an omission is good or bad. Section IV concludes.

I. Data

Our data comes from the CRSP and Compustat databases for the period 1962-2001. Following previous work on dividends, we limit the sample to non-financial and non-utility firms paying regular dividends, i.e. any distribution recorded in the CRSP database that has share codes equal to 10 or 11, distribution codes equal to 12XY and 4-digit SIC codes not equal to 49YY or 6YY, where X is not equal to 3, 7 or 9 and Y stands for any digit. Using CRSP data on dividend payment history, a potential dividend omission is identified when a firm has not paid a dividend within 1 quarter, 6 months or 1 year from the previous payment if the firm pays quarterly, semi-annual or annual dividends respectively. In this identification, we allow for "late" payments and define a 3-year period to consist of 1128 days or approximately 31 days in a month. From this process, we identified 2,592 potential omissions.

From this sample of potential dividend omissions, we identify actual omissions and *omission announcement dates* from the *Wall Street Journal Index* and *Lexis-Nexis*. An observation is labeled an omission when either the *Wall Street Journal Index* or a news article found on *Lexis-Nexis* states that the firm will suspend payment of its regular cash dividend. This gives us a sample of 558 omissions[3]. We keep firms that have at least a 10-year history of regular dividend payments prior to the omission to ensure our

[3] For 435 observations, either 1) the firm was not listed in the *WSJ Index* or could not be found on *Lexis-Nexis*, or 2) the dividend payment history indicated that an omission most likely occurred but a dividend announcement date could not be identified. For the remaining 1,598 observations, it was clear that an omission did not take place, i.e. a dividend was paid for that period.

sample consists of firms with a good dividend payment record.[4] This results in a final sample of 445 omissions.[5] In table 1a, we provide a breakdown of the number of omissions each year.

In the succeeding analysis, we require Compustat data for the three years prior and after an omission. The main variables that we obtain and construct from Compustat are the following: firm size (log of total assets), profitability (ROA, return on assets), sales growth, capital expenditures and leverage. We calculate industry-adjusted measures of these variables by subtracting the two-digit SIC industry median level of the variable. Details of these calculations are described in the appendix.

Using daily stock return data from CRSP, we calculate cumulative abnormal returns (CAR) in the 3-day window around the omission announcement date according to Michaely, Thaler, Womack (1995):

$$CAR_i = \prod_{-1}^{+1}(1+r_{it}) - \prod_{-1}^{+1}(1+r_{Mt}). \qquad (1)$$

In equation 1, t=0 is the omission announcement date, r_{it} is the daily return on stock i on day t, and r_M is the daily return on the CRSP value weighted index. Seven-day CARs are calculated similarly. In the same manner, we construct holding period excess returns (or market adjusted returns) for each of the three years following the omission as follows:

$$Excess\,\mathrm{Re}turn_{ik} = \prod_{2}^{k}(1+r_{it}) - \prod_{2}^{k}(1+r_{Mt}) \qquad (2)$$

where k is the number of trading days one, two or three years after the omission announcement date. This is the buy and hold return on the stock where the strategy is to buy the stock one day after the omission announcement.[6]

We then depict firm characteristics pre and post omission as follows: The point of origin is the fiscal year of the dividend omission announcement date, year 0. The firm's ROA in year 0 is the current ROA. L.ROA, L2.ROA and L3.ROA are the first, second, and third year lagged measures of ROA respectively with respect to year 0. LM.ROA is the 3-year average ROA pre-omission, i.e. the mean of L.ROA, L2.ROA and L3.ROA. Similarly, F.ROA, F2.ROA and F3.ROA are the future ROA measures and

[4] This is similar to Healy and Palepu (1988) and Michaely, Thaler and Womack (1995).
[5] Four observations are multiple omissions by the same firm occurring more than 10 years apart.
[6] r_{it} is the one day return from t-1 to t., hence the index starts at t=2.

FM.ROA is the 3-year average post-omission. To compare the three year averages pre and post omission we calculate DM.ROA, which is the difference between FM.ROA and LM.ROA. The other firm characteristics are defined in the same manner.

Table 1b presents summary statistics for the omission sample for the seven years centered on the omission and figure 1 illustrates these trends. There is a sharp decline in ROA and sales growth in the three years leading into the omission year. In the omission year, both ROA and sales growth are at their lowest levels below the industry median. Capital expenditures on the other hand displays a slow declining trend around the omission, suggesting that firms are scaling back their capital investments. Consistent with the findings of prior work, firms that omit paying a dividend are plagued with poor operating performance. In the three years after the omission however, we see increasing ROA and sales growth (consistent with Lie (2004)), which indicate that the omission may have been instrumental to the improvement in operating performance.

As mentioned earlier in the paper and shown in previous work, stock markets usually react negatively to announcements of dividend omissions. The mean and median 3-day CAR to dividend omission announcements in our sample are –6.66 % and –6..00 %, respectively, as shown in table 2a. The common interpretation of the negative stock market reaction is that omissions are signals of poor future performance. If this interpretation is correct, then the performance of the firm in the period following the omission should, on average, be followed by worse performance than that prior to it. However, as we have just seen in table 1, firm performance, although still below the industry median, actually improves after the omission in terms of profitability and sales growth.[7] Table 2a and figure 2 show the holding period returns for each of the three years after the omission. The median firm's market-adjusted holding period return in the first year after omission is – 13.91 %. This dismal stock return performance persists up

[7] These findings are consistent with prior work. Benartzi, Michaely, and Thaler (1997), Koch and Sun (2004) and Lie (2004) have shown that the negative abnormal returns around announcements of dividend decreases and /or dividend omissions mainly reflects the dismal past operating performance.

to the third year after omission.[8] Hence why do these firms show a "turnaround" in operating performance but their stock returns do not reflect it on average?

Investigating this matter further, we look at the fraction of dividend omitters with positive and negative CARs and holding period returns. Table 2b shows that 35 % to 40 % of the omissions are associated with positive holding period market-adjusted returns. On the other hand, only 18 % of dividend omissions have positive cumulative abnormal returns around the announcement date, indicating that the market expects worsening future performance of these firms. These numbers are intriguing and warrant further investigation. The evidence presented so far indicates that the decline in operating performance culminates in the dividend omission. After the omission, there is a substantial minority of firms for which the omission may actually be good news. The market, however, does not differentiate these firms from the rest.

II. Good and Bad Omissions

In this section, we show that not all omissions are bad news. We show that for a large fraction of omissions, (i) the performance following the omission is substantially better than that prior to it, in terms of ROA, sales growth and stock returns; and (ii) there is a resumption in dividend payments within 5 years of the omission. Then we classify those cases where there is a resumption in dividend payments within 5 years as good omissions and the rest as bad omissions. The market reaction to omission announcements, however, is similar for good and bad omissions.

II. A. What determines whether an omission is good or bad?

So far, we have seen that a substantial number of firms show an improvement in performance within the three-year period following an omission. However, a better indicator of the size and permanence of these improvements might be the actual resumption behavior of these firms. If these omitting firms believe that their performance

[8] Michaely, Thaler, and Womack (1995) document this phenomenon as drift, i.e. prices continue to drift in the same direction as predicted by the CAR for at least one year after the omission.

has “turned the corner” in that their gains are concrete enough and sustainable, then they may resume paying regular dividends soon after. On the other hand, if a firm does not resume dividend payments despite an improvement in performance, this could be because it is not confident of being able to sustain the good performance. Hence, we study the resumption behavior of dividend omitters.

In table 3a, we present the fraction of omitters that resume paying dividends in each of the five years following the omission. Given that these firms were undergoing financial difficulties, it is surprising to see a steady number of firms resume dividend payments in each of these five years. Overall, 34 % of the omitters resume dividend payments within five years of the omission. This fraction of omissions that result in a dividend resumption is surprisingly high, considering that over 80% of omissions produce a negative stock price reaction. Although 50 % of the firms resume paying dividends within our sample period, in our analysis we limit the resumption window to 5 years after omission for two reasons: One, we are interested in instances where the omission is used to help turn the firm around from it’s financial difficulties; and two, we expect this turnaround to occur within a reasonable time period from the omission.

In order to confirm that these resumptions are indeed the result of superior performance, we present industry-adjusted operating performance measures of the resuming and non-resuming firms in the seven years centered around the omission in table 3b and figure 3. (While the window for resumption is five years from omission, we study performance over the three years following an omission because we are interested in showing that the performance improvement of these firms begins right after the omission and that it is related to other changes taking place in the firm around the same time.) It is apparent that there is no significant difference in operating performance between resumers and non-resumers in the three years prior to omission. In the post-omission period, we find that although resumers still perform below the industry median, these firms significantly outperform the non-resumers. In the year of the omission, resumers are already more profitable than non-resumers and this difference is significant.

Moreoever, in terms of ROA, resumers have already "bounced back" to industry levels by the third year after omission, while for sales growth, it took them only two years. It is also useful to look at three-year averages, and not surprisingly, we see the same patterns. The three-year average ROA and sales growth after the omission is higher for resumers than non-resumers. Moreover, the *change* in average ROA and sales growth across the omission is significantly higher for resumers than non-resumers. We also want to point out that after the omission, resumers have greater capital expenditures. We will return to this observation later in the paper.

We have thus identified two groups of omitters, where one group outperforms the other in terms of ROA and sales growth in the three years after the omission. Are these differences reflected in stock returns? In table 4 and figure 4 we see that this is indeed the case. Holding period returns of resumers are significantly positive and significantly higher than for non-resumers in both means and medians. This difference is even more stark when looking at market adjust returns. Resumers continue to outperform the market in the three years post-omission. Non-resumers' holding period returns are either negative or not significantly different from zero. Hence, non-resumers at best, perform as well as the market in the three years following the omission. Thus, the stocks of resumers are actually good investments at the time of the omission, while those of non-resumers are poor investments. Accordingly, we term the former "good" omissions, and term the latter "bad" omissions.

II. B. The Market Reaction to Good and Bad Omissions

Does the stock market identify whether an omission is a good or a bad omission at the time of the omission announcement? We have already seen that 18 % of omissions have a positive announcement effect. Do these correspond to the good omissions? To check this, in table 4, we present the mean and median 3-day announcement effects (CAR) of good and bad omissions. Two main points may be noted: first, there is no significant difference in the announcement effects for good and bad omissions; second,

good omissions have a significantly negative announcement effect. Thus, markets do not seem to be able to distinguish between good and bad omissions at the time of their announcement, i.e. they treat both as equally bad news.

Before exploring the reasons for this, we first need to ensure that the similarity in *average* announcement effects does not mask an actual difference in the *marginal* effect between good and bad omissions. We do this below.

II. B. 1 Dividend History

One possible explanation for the similarity in announcement effects between the two groups is that the omission is more of a surprise in the case of good omissions. It is possible that the marginal reaction is indeed higher for bad omissions than for good, but the average size of the reaction in the former case is smaller because the surprise element is smaller. The reason for the lack of surprise could be that bad omissions are generally preceded by several dividend cuts (De Angelo, De Angelo, Skinner (1990, 1992) and Benartzi, S, Michaely, R, Thaler, R (1997)) that signal a gradual deterioration in performance or that the change in dividend yield caused by a bad omission is smaller than that caused by a good omission. Thus, in this section we examine whether the similarity in announcement effects for good and bad omissions remains once we control for past dividend history.

In table 5a, we calculate the following dividend history variables: 1) pre-omission dividend yield = last dividend prior to omission divided by the stock price ten days prior to the omission announcement date,[9] 2) number of dividend cuts = the number of times the dividend was cut in the three years prior to the omission[10], and 3) change in the last dividend = $(D_j - D_{j-1})/$
D_{j-1} where j is the dividend payment period immediately preceding the omission. As the table shows, the mean and median pre-omission dividend yields of resumers are higher

[9] We use the stock price 10 days prior to the omission announcement date to preclude any information dissemination related to the omission that may have occurred prior to the announcement itself.
[10] This is weighted by the frequency of dividend payment to account for differences in annual, semi-annual and quarterly frequencies.

by about 0.2 %, indicating a larger loss for investors of this cohort of firms. This difference is significant, although its magnitude is not that large. On the other hand, the number of dividend cuts in the three-year period prior to the omission is not significantly different between the two groups, nor is the change in the last dividend prior to the omission. We also present Baker and Wurgler's (2004) dividend premium in the year of the omission to examine whether dividend omissions are instances of firms catering to shifts in investor preferences (i.e., market sentiment) for dividend paying stocks.[11] Surprisingly, we see that at the time of omission, the premium is significantly higher for resumers. This suggests that resumers omitted dividends when the penalty for doing so was higher, compared to non-resumers. Thus the timing of the omission might be an indication of whether the firm is a good or a bad omitter. We return to this issue in section III.

We then perform a multivariate analysis by regressing the 3-day cumulative abnormal return around the omission against a dummy variable for resumers, the pre-omission dividend yield, the number of dividend cuts prior to the omission, the change in the last dividend prior to omission and the dividend premium. These regressions are presented in table 5b. The coefficient on the dividend yield prior to omission is negative and the coefficient on the number of dividend cuts prior to omission is positive, and these are significant at the 5 % and 10 % levels respectively. As expected, these results suggest that the element of surprise was greater (a more negative CAR) for firms that were paying higher dividends and for firms that had a fewer number of dividends cuts prior to the omission. In addition, the coefficient on the dividend premium is negative and significant, indicating that the market penalizes firms for omitting when the dividend premium is high. Moreover, if the good omissions in our sample were simply instances of catering to market sentiment, then they would have positive announcement effects, rather than the negative effects that we have documented.

The coefficient on the dummy variable for good omissions is positive, but not significant. Thus, the similarity in abnormal returns between good and bad omissions remains even after controlling for the size of the surprise element in each case. These

[11] The dividend premium is from Baker and Wurgler (2004) and is the log difference in the market to book ratios of dividend payers and non-payers.

results indicate that even after controlling for a firm's dividend history, the market does not distinguish good omissions from bad omission.

II. B. 2. Similarity in pre-omission characteristics

We have so far established that the similarity in announcement effects of good and bad omissions is indeed an indication that the market does not identify whether an omission is good or bad at the time of the omission. One reason why the markets does not distinguish between good and bad omissions is because there is no apparent significant difference in characteristics between the two types of firms leading into the omission. We have already seen that good and bad omission firms do not differ by much in terms of their dividend history. Looking back at table 3b, we see that in terms of operating performance, there is no significant difference between these two groups prior to the omission. The profitability (ROA) of both categories of firms declines substantially in the years leading up to the omission. Similar patterns are observed for the sales growth rate. However, there is no substantial difference between good and bad omitters in terms of these characteristics in any of the pre-omission years. Only in the year of omission do we observe a significantly higher industry adjusted profitability for good omitters[12]. As for capital expenditures, while the mean and median levels are higher for good omitters, it is only in the third year prior to the omission that we observe this to be significantly higher than for bad omitters. When we look at the average levels of these variables over the pre-omission period, we again see that there is no significant difference in industry adjusted pre-omission profitability or growth rate. However, the two groups do differ in terms of capital expenditures – good omitters spend significantly more on capital expenditures than bad omitters (relative to their respective industry levels). Thus, while market participants may have been unable to distinguish between the two types of firms based on the most commonly followed characteristics, namely, growth and profitability,

[12]Although the ROA of good omitters is still below industry levels.

they might have been able to do so at least partially through a less "visible" indicator, namely, capital expenditures.

III. Leverage and Debt Overhang

While the difference in capital expenditures between good and bad omitters may explain their subsequent divergence in performance, it is important to examine why the difference arises in the first place. In the corporate finance literature, there is a large body of work on the link between the capital structure and capital expenditure. Particularly relevant to our study, which deals with low profitability firms, is the work on the debt overhang and its impact on capital expenditures. Myers (1977), for example, argues that a large debt overhang could cause a firm to underinvest, i.e., to forgo positive net present value projects, by damaging its ability to raise funds to finance them. Lang, Ofek and Stulz (1996) show that leverage negatively affects growth for firms with low growth opportunities. Hennessy (2004) demonstrates that the underinvestment problem is more severe for long-lived assets and that the debt overhang has a negative effect on investment regardless of the ability of the firm to raise fresh secured debt. These papers suggest that one reason that good omission firms may be able to invest more prior to the omission might be that they suffer less from a debt overhang problem.

More importantly, debt overhang theories suggest that capital expenditure is affected not by raw leverage, but by *excess leverage*, which is the difference between the actual leverage of a firm and its debt capacity. For example, firms with a lot of tangible assets, which are more easily collateralized, may have a higher debt capacity than firms whose assets are less tangible. Therefore, the former set of firms would be able to maintain higher debt ratios without suffering from a debt overhang problem than the latter. This implies that the proper measure of leverage for the purpose of explaining differences in capital expenditure is one that is adjusted for the debt capacity of a firm. While the industry median leverage might be able to partially capture the debt capacity of a firm, it does not take into account within-industry variations in asset tangibility,

profitability, etc., which are all factors affecting an individual firm's ability to access external finance to fund projects. A better measure of the debt overhang would explicitly take these firm-specific factors into account. We turn to this below.

III. A. Measurement of Debt Overhang

Kayhan and Titman (2004), in their study of the factors determining the capital structure of a firm, estimate the "target leverage" of a firm based on proxies for the costs and benefits of debt. They examine whether firms adjust their capital structure over time so as to move closer to their target leverage. While the context of their study is different from ours, they define a "leverage deficit" variable as the difference between a firm's actual leverage and target leverage. This measure may be seen to be identical to the debt overhang once it is recognized that the target leverage is a measure of a firm's optimal debt capacity. Accordingly, we follow Kayhan and Titman's technique for estimating the target leverage or debt capacity of a firm, and use the estimated debt capacity to measure the debt overhang.

In the trade off theory of optimal capital structure (Modigliani and Miller (1958)), the costs of debt, such as bankruptcy and distress costs, are weighed against its benefits, such as interest tax shields and the reduction in agency costs associated with free cash flow. The pecking order theory (Myers (1984) and Myers and Maljuf (1984)), on the other hand, emphasizes the costs of informational asymmetry between firm insiders and outsiders, and suggests that internal cash flows, which are least subject to these costs, are likely to be a firm's most preferred form of financing, followed by debt, and finally, by external equity financing. Based on these theories, the main variables that have been used to explain capital structure (i.e., optimal leverage) in empirical work (e.g. Titman and Wessels, 1988; Rajan and Zingales, 1995; Baker and Wurgler, 2002; Kayhan and Titman, 2004) are profitability, asset tangibility, firm size and growth opportunities. Profitability may be positively associated with leverage if the agency costs of free cash flow are important. However, the pecking order theory predicts that profitability will be negatively related to leverage. Asset tangibility is likely to increase a firm's debt capacity, since tangible assets are more easily collateralized and are less likely than intangible assets to

lose value in a distress sale. Firm size may be positively associated with leverage if larger firms are more diversified and face a smaller risk of bankruptcy than smaller firms. However, since larger firms may also be able to tap external equity markets more easily, the pecking order theory suggests that size and leverage may be negatively related. Growth opportunities are likely to be negatively related to leverage under the pecking order theory.

We follow the literature in deriving proxies for these explanatory variables. We measure firm size by the natural logarithm of total sales (*SIZE*). Profitability is the return on assets (*ROA*), calculated as the ratio of the operating income before interest and depreciation (*OIBD*) to total assets[13]. Growth opportunities is proxied by the ratio of market value to book value of assets (MTB). The market value of assets is calculated as (Book value of assets – Book Value of equity + Market value of equity). Asset tangibility is measured as the ratio of property, plant and equipment to total earnings (*PPE*). Following Kayhan and Titman (2004), we also include the ratio of research and development expenses to sales (*R&D*), an R&D missing dummy variable that equals 1 if the compustat R&D variable is not missing, and the ratio of selling expenses to sales (*SE*) as additional (inverse) proxies for asset tangibility.

As in Kayhan and Titman (2004), we estimate a firm's debt capacity as the predicted value from the following Tobit regression:

$$L_t = a + b*SIZE_{t-1} + c*ROA_{t-1} + d*MTB_{t-1} + e*PPE_{t-1} + f*SE_{t-1} + g*R\&D_{t-1} + h*R\&DMissing + u_t,$$

where L_t is the actual book leverage, measured as the ratio of total debt to total assets. We also look at market leverage, measured as the ratio of total debt to market value of assets. The sample for this regression includes all firm-year observations from Compustat (1962-2001) excluding the omission sample observations in the seven year window centered on the omission year. The exclusion of the omission window observations from the prediction regression ensures that the debt capacity of a firm is estimated using "normal"

[13] (Our results are similar when we use the earnings before interest, taxes and depreciation in place of *OIBD*.)

years only, and is therefore not endogenous to the omission decision. The result of this regression is given in the appendix and is consistent with prior work. The predicted value of leverage from this regression gives the debt capacity of a firm, denoted by $\hat{L}_t$. The difference between the actual leverage and the debt capacity of a firm, (L_t - $\hat{L}_t$), gives the *leverage gap*.

III. B. Debt Overhang of Good and Bad Omitters

In table 6 and figure 5, we compare the debt overhang of the two groups of omitters in the seven year window centered on the omission year. We use two measures of debt overhang, namely, industry-adjusted book leverage and the (book) leverage gap.[14] Positive values indicate the firm is at a leverage ratio above its debt capacity and is more likely to suffer from debt overhang problems. The industry-adjusted leverage of good omitters is not significantly different from zero, except for the year of omission. In contrast, the industry-adjusted leverage of bad omitters is significantly positive in the year of omission and in the three years post-omission. In looking at trends, we see that the leverage of both good and bad omitters increases towards the omission. However, there is no significant difference in mean or median book leverage between the two groups in the pre-omission period. (It is possible that this similarity in book leverage was one more factor responsible for the similarity in market reaction to both types of omission announcements.) In the year of omission and the succeeding three years, the difference in leverage between the two widens and is significant. Bad omitters remain significantly more levered in the three years post-omission. Good omitters are able to reduce their leverage to below their omission year levels.

We see a similar, and even more compelling pattern for the leverage gap. For good omitters, it is not significantly different from zero in any of the seven years around the omission, although it peaks in the year of omission. The leverage gap of bad omitters is significantly positive in the year prior to the omission, the year of the omission and in

[14] We use book leverage rather than market leverage in our main analysis since market leverage may be affected by short term fluctuations in the market price of a firm's stock. However, our results are mostly similar when we replace book leverage with market leverage.

the three succeeding years. The leverage gap is increasing towards the omission but is not significantly different for both groups. In the year of omission and subsequent to the omission, the leverage gap of bad omitters continues to be high, while that of good omitters remains negligible.

Thus, good and bad omitters differ in both the level of, and the trend in debt overhang. We find that not only do good omitters have relatively low levels of debt overhang, but they also take steps to reduce their debt overhang around the time of the omission. Good omitters move away from the "brink" after the omission, while bad omitters continue to be financially constrained even after the omission.

III. C. Logit Regressions

So far, we have shown that profitability and debt overhang seem to be key characteristics that sets good omitters apart from the bad omitters in the year of the omission. In this section we try to predict which firms are the good omitters based on their operating and financial characteristics. We perform logit regressions of the type of omission (good or bad) on key explanatory variables namely, size, profitability (ROA), sales growth, capital expenditure and debt overhang. These regressions are shown in table 7. The dependent variable equals 1 if the firm is a good omitter (resumer) and is zero if a bad omitter (non-resumer). We estimate the logit regression in *the year of omission*, hence the explanatory variables are measured at the end of the omission year. Strictly speaking, they are measured *after* the omission has taken place. Consistent with our previous results, roa and debt overhang are significant determinants of whether an omission is good or bad. The coefficient on ROA is positive indicating the good omitters are more profitable at the time of omission while the coefficient on debt overhang is negative, i.e. good omitters are firms with smaller debt overhang.

In columns 3 and 4 of table 7 we include Baker and Wurgler's dividend premium in the year of omission as an additional explanatory variable. The coefficient on the dividend premium is positive and significant, i.e. good omissions were more likely to occur when the dividend premium was higher. Recall from table 5b that firms that omit when the premium is high are penalized by investors with a more negative abnormal

return. Thus good omitters decide to omit even when the penalty for doing so is high. We posit that a good omitter is a firm that recognizes the urgency of taking the "bitter medicine," that is the omission, in order to heal itself of its operating and financial malaise.

III. D. Why are some omitters good and others bad?

We have shown the importance of strong fundamentals (higher profitability and negligible debt overhang) as an indicator of whether a dividend omission is good news or bad news at the time of the omission. *Bad* omitters have high levels of debt overhang that persists after the omission. This persistence of debt overhang results in lower capital expenditures and continued poor performance. G*ood* omitters meanwhile utilize the cash saved by the omission to reduce their (already low) overhang. Further boosted by improving profitability, good omitters eventually resume regular dividend payments. We also propose that good omitters recognize the urgency of the omission in order to turn the firm around.

Why then do some firms take immediate steps to improve their performance while others continue with high levels of debt and its negative consequences for the firm? One possible explanation is the introduction of new management. If new management is brought in to turn the firm around, does this result in good omissions? As a final exercise, we looked at whether top management changes during or after the omission year can predict good omissions. For all the firms in our omission sample, we collected the names of the top executives (CEO, President and Chairman) from the *Moody's Industrial Manuals* for the three years centered around the omission year (t=-1, 0, +1). We created a *new management* dummy variable that equals 1 if any one of the top executives of the omitting firm was replaced in t=0 or t=+1 and included it in the logit regressions above. However, we did not find evidence to support this *new management* hypothesis. Moreover, there is no significant difference in the number of top management changes

between good omitters and bad omitters.[15] We do not explore this issue further in this paper, but this is an important topic for future research.

IV. Conclusion

In this paper, we show that nearly 35 % of dividend omissions are actually good news, signaling a turnaround in the fortunes of the omitting firms after a period of poor performance. The turnaround in performance frequently results in a resumption in dividend payments within five years of the omission. At the announcement of the omission however, the market reaction is similar for *good* and *bad* omissions, indicating that investors do not separately identify the two. We find two key determinants of whether an omission is *good* or *bad.* First, we find that *good* omitters have stronger fundamentals at the time of omission - they have higher profitability and lower levels of debt overhang. These results suggest g*ood* omitters utilize the cash saved by the omission to reduce their (already low) overhang while b*ad* omitters have persistent debt overhang and continue to perform poorly after the omission. Second, we find that an omission is more likely to be *good* if it occurred when market sentiment for dividend paying firms was high, i.e. the firm was penalized by the market more heavily as a consequence of the dividend omission. We posit that a good omitter is a firm that recognizes the urgency of taking the "bitter medicine" in order to heal itself of its operating and financial malaise.

[15]These results are not reported to conserve space but they are available from the authors upon request.

Appendix

Variable Definitions (CRSP-COMPUSTAT Merged Database)

Total Assets = data6
ROA = data13/data6 (where data13 = operating income before depreciation)
Sales Growth= (data12 – L.data12)/L.data12
Capital expenditure Ratio = data128/data6
Cash Ratio = data1/data6
Book debt = data181+data10-data35-data79 (total liabilities + preferred stock - deferred taxes -
convertible debt)
Book equity = data6 – book debt
Market equity = data25*data199 (shares outstanding*fiscal year end share price)
Market to Book ratio = (data6-book equity + market equity)/data6
Book Leverage = book debt/data6
Market Leverage = book debt/(data6-book equity + market equity)
R&D/Sales = data46/data12
Selling Expense/Sales = data189/data12

L is the lag operator. When data199 is missing, we replace it with the fiscal year end closing price obtained from CRSP. All variables except leverage are winsorized at the 1 % tails. The tobit regressions (Table A1) is restricted to observations with book leverage between 0 and 1.

References

Allen, Franklin, and Roni Michaely, 2004, "Payout policy," *North-Holland Handbooks of Economics*, forthcoming.

Baker, Malcolm, and Jeffrey Wurgler, 2002, "Market Timing and Capital Structure," *Journal of Finance* 57, 1:

Baker, Malcolm, and Jeffrey Wurgler, 2004, "A catering theory of dividends," *Journal of Finance* 59(3), 1125-65.

Benartzi, Shlomo, Roni Michaely, and Richard Thaler, 1997, "Do changes in dividends signal the future or the past?" *Journal of Finance* 52, 1007-1034.

DeAngelo, Harry, Linda DeAngelo, 1990, "Dividend Policy and Financial Distress: An Empirical Investigation of Troubled NYSE Firms," Journal of Finance 45, 1415-1431.

DeAngelo, Harry, Linda DeAngelo, and Douglas J. Skinner, 1992, "Dividends and Losses," J*ournal of Finance* 47(5), 1837-1863.

Dielman, T. E. and H. R. Openheimer, 1984, "An examination of investor behavior during periods of large dividend changes", *Journal of Financial and Quantitative Analysis*, 197-216

Healy, Paul M., and Krishna G. Palepu, 1988, "Earnings information conveyed by dividend initiations and omissions," *Journal of Financial Economics* 21, 149-176.

Hennessy, Christopher, 2004, "Tobin's Q, Debt Overhang and Investment," UC Berkeley working paper.

Kayhan and Titman 2004, "Firms' Histories and Their Capital Structures," NBER Working Paper 10526.

Koch, Adam S. and Amy X. Sun 2004, "Dividend Changes and the Persistence of Past Earnings Changes," Journal of Finance 59(5), 2093-2116.

Lang, Larry, Eli Ofek and Rene Stulz., 1996, "Leverage, Investment and Firm Growth," *Journal of Financial Economics* 40(1), 3-29.

Lie, Erik, 2004, "Operating Performance Following Dividend Decreases and Omissions," *Journal of Corporate Finance,* forthcoming

Michaely, Roni, Richard Thaler, and Kent Womack, 1995, "Price Reactions to Dividend Initiations and Omissions: Overreaction and Drift?" *Journal of Finance,* 50, 573-608.

Modigliani, Franco & Merton H. Miller,1958, “The Cost of Capital, Corporation Finance and the Theory of Investment,” *American Economic Review, Vol. 48, pp. 261-297.*

Myers, Stewart C.,1977, “Determinants of Corporate Borrowing,” J*ournal of Financial Economics, Vol. 5, pp 147-175.*

Myers, Stewart C.,1984, “The Capital Structure Puzzle,” *Journal of Finance, Vol. 39, pp. 575-592.*

Myers, Stewart C. and Nicholas S. Maljuf,1984, “Corporate Financing and Investment Decisions When Firms Have Information that Investors Do Not Have,” *Journal of Financial Economics, Vol. 13, pp. 187-221.*

Rajan, Raghuram G. & Zingales, Luigi,1995, “What Do We Know about Capital Structure? Some Evidence from International Data”, *The Journal of Finance, Vol. 50(5), pp. 1421 – 1460.*

Stata, 2003, Stata Reference Manual, Stata Press, College Station, Texas.

Titman, Sheridan and Roberto Wessels,1988, “The Determinants of Capital Structure Choice,” *Journal of Finance, Vol. 43, pp. 1-19.*

Table 1a. Dividend Omitting Firms by Year

Year	No. of Omissions	Percentage of all Omissions
1963	2	0.45
1964	1	0.22
1965	2	0.45
1966	2	0.45
1967	6	1.35
1968	4	0.90
1969	11	2.47
1970	35	7.87
1971	20	4.49
1972	10	2.25
1973	6	1.35
1974	12	2.70
1975	18	4.04
1976	8	1.80
1977	9	2.02
1978	8	1.80
1979	13	2.92
1980	28	6.29
1981	22	4.94
1982	37	8.31
1983	11	2.47
1984	11	2.47
1985	13	2.92
1986	25	5.62
1987	11	2.47
1988	9	2.02
1989	13	2.92
1990	15	3.37
1991	19	4.27
1992	15	3.37
1993	9	2.02
1994	6	1.35
1995	7	1.57
1996	7	1.57
1997	4	0.90
1998	7	1.57
1999	8	1.80
2000	1	0.22
Total	445	100.00%

Table 1b: Descriptive Statistics - Dividend Omitting Firms
Performance Measures Around the Omission

Variable	Mean	Median	Std. Dev.	No. of Obs.
Assets ($ `000)	423.5224 +	93.6520 +	1163.9980	445
L3.ROA (Return on Assets) - Industry Adj.	0.0227 +	0.0128 +	0.0792	443
L2.ROA (Return on Assets) - Industry Adj.	0.0050	-0.0058	0.0745	445
L.ROA (Return on Assets) - Industry Adj.	-0.0368 +	-0.0440 +	0.0751	445
ROA (Return on Assets) - Industry Adj.	-0.0827 +	-0.0757 +	0.0922	445
F.ROA (Return on Assets) - Industry Adj.	-0.0527 +	-0.0461 +	0.0935	445
F2.ROA (Return on Assets) - Industry Adj.	-0.0343 +	-0.0331 +	0.0910	438
F3.ROA (Return on Assets) - Industry Adj.	-0.0262 +	-0.0212 +	0.0964	403
L3.Sales Growth - Industry Adj.	0.0618 +	0.0213 +	0.2646	440
L2.Sales Growth - Industry Adj.	0.0305 +	-0.0109	0.3092	443
L.Sales Growth - Industry Adj.	-0.0705 +	-0.0698 +	0.2080	444
Sales Growth - Industry Adj.	-0.1287 +	-0.1368 +	0.2520	443
F.Sales Growth - Industry Adj.	-0.0783 +	-0.1000 +	0.3806	445
F2.Sales Growth - Industry Adj.	-0.0275 +	-0.0412 +	0.3244	438
F3.Sales Growth - Industry Adj.	-0.0247	-0.0412 +	0.3223	403
L3.Capital Expenditures/Total Assets - Industry Adj.	0.0280 +	0.0096 +	0.0666	440
L2.Capital Expenditures/Total Assets - Industry Adj.	0.0252 +	0.0059 +	0.0668	445
L.Capital Expenditures/Total Assets - Industry Adj.	0.0196 +	0.0032 +	0.0618	445
Capital Expenditures/Total Assets - Industry Adj.	0.0013	-0.0094 +	0.0518	445
F.Capital Expenditures/Total Assets - Industry Adj.	-0.0117 +	-0.0172 +	0.0479	445
F2.Capital Expenditures/Total Assets - Industry Adj.	-0.0064 +	-0.0124 +	0.0454	438
F3.Capital Expenditures/Total Assets - Industry Adj.	0.0007	-0.0090 +	0.0529	403

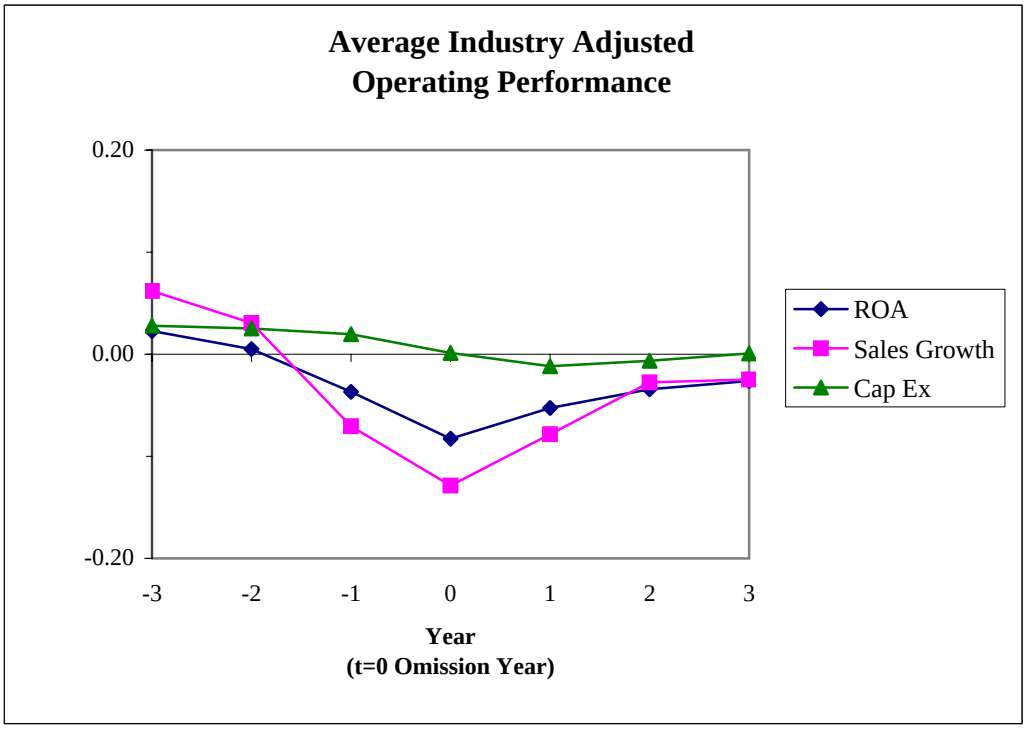
Notes:

1) Lx = xth Lagged Value, Fx = xth Future Value, where x=1,2,3,4, L1=L, F1=F and t=0 is the omission year.

2) Industry Adj. - industry median adjusted by substracting the 2-digit SIC median value

3) + Significantly different from zero at the 10 % level or better using the t-test for means and Wilcoxon (signed-rank) test for medians.

Figure 1: Operating Performance around the Omission



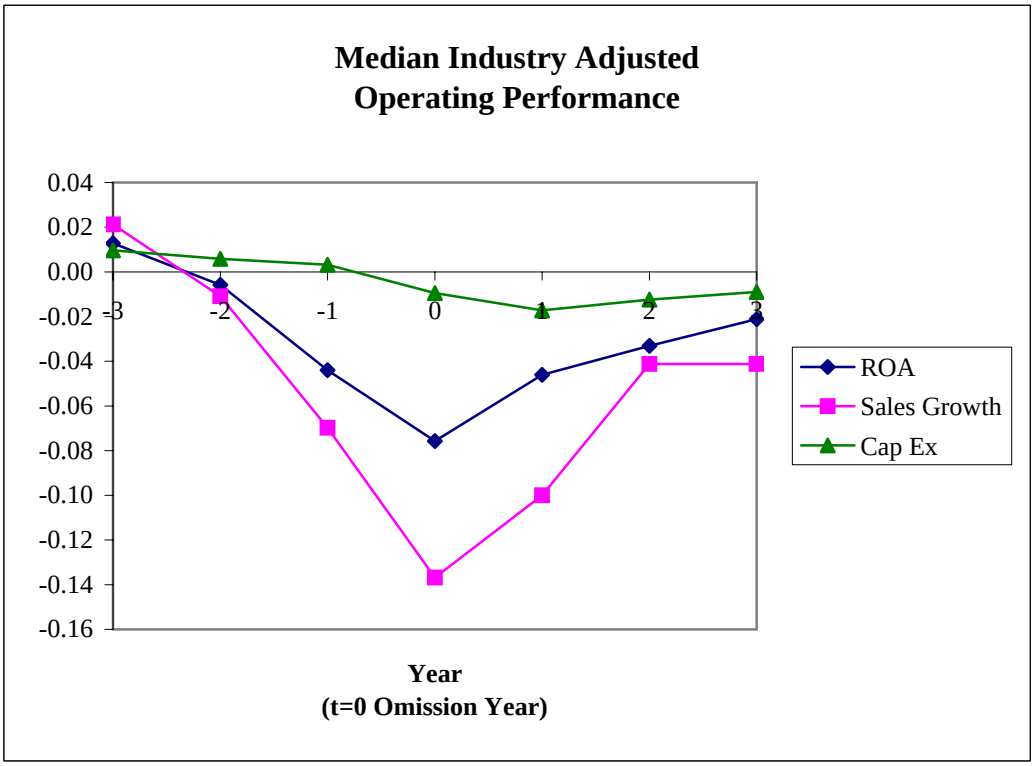


Table 2a: Holding Period Returns and Cumulative Abnormal Returns

Variable	Mean	Median	Std. Dev.	No. of Obs.
Cumulative Abnormal Return (3-day)	-0.0666 +	-0.0600 +	0.0872	427
One year holding period return	0.1186 +	0.0256 +	0.5291	445
Two year holding period return	0.2675 +	0.1053 +	0.8200	441
Three year holding period return	0.4424 +	0.1733 +	1.1711	432
One year holding period excess return	-0.0600 +	-0.1391 +	0.4798	445
Two year holding period excess return	-0.0324	-0.1788 +	0.8001	441
Three year holding period excess return	-0.0020	-0.2363 +	1.1328	432

Table 2b: Percentage of Postive and Negative Holding Period Returns and Cumulative Abnormal Returns

Variable	Mean	Median	Std. Dev.	No. of Obs.	Percent of all Omitters[1]
Cumulative Abnormal Return (3-day) >0	0.0473	0.0357	0.0491	78	18.27%
One year holding period return >0	0.4888	0.3662	0.4613	232	52.13%
Two year holding period return >0	0.7227	0.4516	0.7921	255	57.82%
Three year holding period return >0	1.0842	0.7063	1.1854	246	56.94%
One year holding period excess return >0	0.4321	0.3141	0.4131	159	35.73%
Two year holding period excess return >0	0.6846	0.3661	0.8178	169	38.32%
Three year holding period excess return >0	0.9674	0.5562	1.1666	175	40.51%
Cumulative Abnormal Return (3-day) <0	-0.0920	-0.0762	0.0722	349	81.73%
One year holding period return <0	-0.2847	-0.2330	0.2028	213	47.87%
Two year holding period return <0	-0.3565	-0.3125	0.2464	186	42.18%
Three year holding period return <0	-0.4063	-0.3930	0.2503	186	43.06%
One year holding period excess return <0	-0.3336	-0.2842	0.2318	286	64.27%
Two year holding period excess return <0	-0.4779	-0.4357	0.3241	272	61.68%
Three year holding period excess return <0	-0.6621	-0.6340	0.3945	257	59.49%

Notes:

1) Holding period returns are calculated from the omission announcement date (t=0).

2) Excess (market-adjusted) returns are calculated by substracting the CRSP value-weighted index return over the same period.

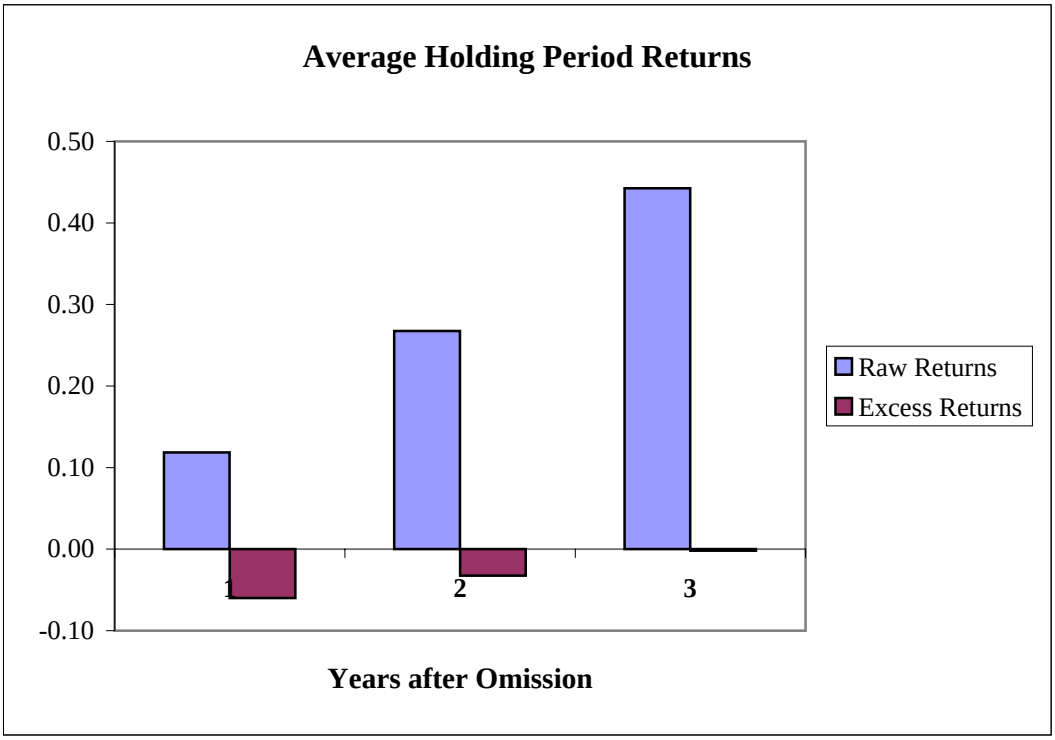
3) Cumulative abnormal returns are market-adjusted returns measured over the 3-day period centered on the omission announcement date.

4) The smaller sample size is due to missing data.

5) + Significantly different from zero at the 10 % level or better using the t-test for means and Wilcoxon (signed-rank) test for medians.

6) [1] The percentage is based on the total number of observations for each variable taken from table 2a.

Figure 2: Post-Omission Holding Period Returns



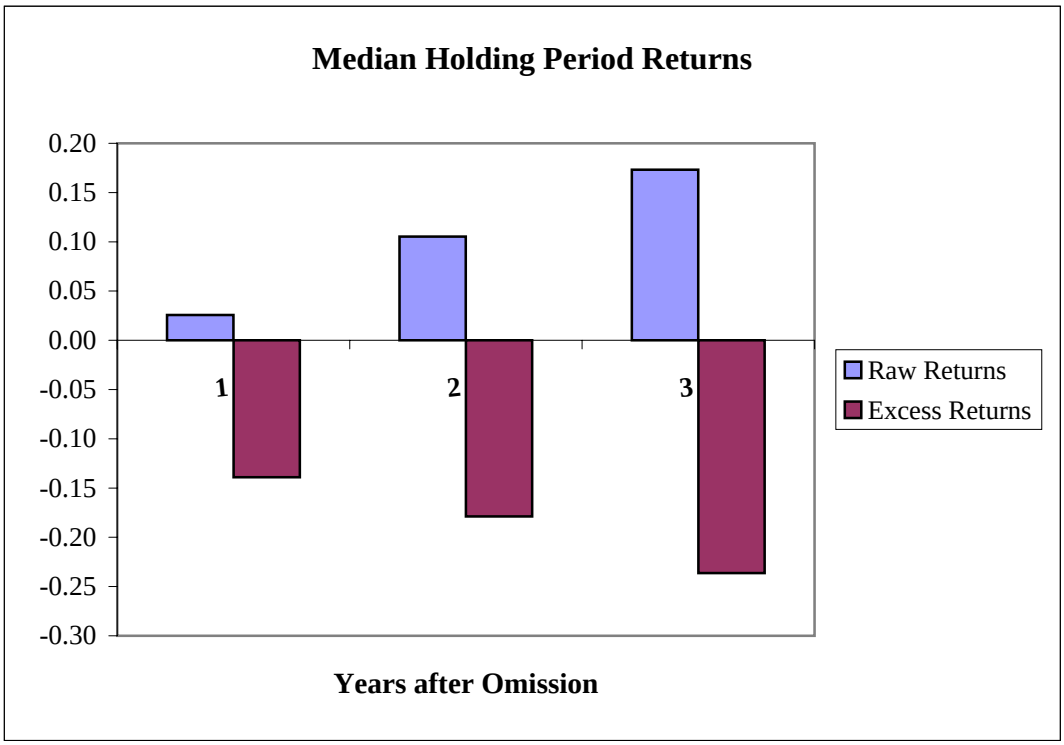


Table 3a: Dividend Resumptions

Year Resumed after Omission[1]	No. of Firms	Percent of all Omitters
Year 1	24	5.4%
Year 2	39	8.8%
Year 3	35	7.9%
Year 4	26	5.8%
Year 5	23	5.2%
> Year 5	74	16.6%
Never Resumed[2]	224	50.3%
Total	445	100.0%

[1]The year after omission that firms resumed payment of regular cash dividends.

[2]Firms that have not resumed as of 2001.

Table 3b: "Good" and "Bad" Omissions
Performance Measures Around the Omission

Variable	Mean Resumer (R)	Median Resumer (R)	Mean Non-resumer (NR)	Median Non-resumer (NR)	t-stat (R-NR=0)	z-stat ranksum test
Panel A: Firm Characteristics						
L3.ROA (Return on Assets) - Industry Adj.	0.0272 +	0.0214 +	0.0205 +	0.0094 +	0.8398	0.8690
L2.ROA (Return on Assets) - Industry Adj.	0.0097	-0.0019	0.0026	-0.0101	0.9342	0.8030
L.ROA (Return on Assets) - Industry Adj.	-0.0346 +	-0.0365 +	-0.0379 +	-0.0457 +	0.4406	0.9370
ROA (Return on Assets) - Industry Adj.	-0.0696 +	-0.0625 +	-0.0892 +	-0.0870 +	2.1175 *	2.7260 *
F.ROA (Return on Assets) - Industry Adj.	-0.0283 +	-0.0224 +	-0.0647 +	-0.0590 +	3.9215 *	4.6110 *
F2.ROA (Return on Assets) - Industry Adj.	-0.0104 +	-0.0158 +	-0.0464 +	-0.0441 +	3.9809 *	4.6800 *
F3.ROA (Return on Assets) - Industry Adj.	-0.0007	0.0026	-0.0397 +	-0.0291 +	3.9284 *	4.4300 *
L3.Sales Growth - Industry Adj.	0.0623 +	0.0252 +	0.0616 +	0.0178 +	0.0267	0.7480
L2.Sales Growth - Industry Adj.	0.0008	-0.0126	0.0453 +	-0.0104	-1.4310	-0.6600
L.Sales Growth - Industry Adj.	-0.0663 +	-0.0668 +	-0.0726 +	-0.0737 +	0.2996	0.4610
Sales Growth - Industry Adj.	-0.1089 +	-0.1100 +	-0.1386 +	-0.1445 +	1.1654	1.3300
F.Sales Growth - Industry Adj.	-0.0423 +	-0.0495 +	-0.0961 +	-0.1174 +	1.4039	3.7990 *
F2.Sales Growth - Industry Adj.	0.0085	-0.0022	-0.0458 +	-0.0559 +	1.6560 *	3.7020 *
F3.Sales Growth - Industry Adj.	0.0476	0.0118	-0.0628 +	-0.0730 +	3.3100 *	4.8970 *
L3.Capital Expenditures/Total Assets - Industry Adj.	0.0348 +	0.0128 +	0.0247 +	0.0071 +	1.4979	1.8820 *
L2.Capital Expenditures/Total Assets - Industry Adj.	0.0265 +	0.0062 +	0.0246 +	0.0055 +	0.2867	1.1930
L.Capital Expenditures/Total Assets - Industry Adj.	0.0210 +	0.0040 +	0.0189 +	0.0030 +	0.3411	0.5530
Capital Expenditures/Total Assets - Industry Adj.	-0.0004	-0.0090 +	0.0021	-0.0099 +	-0.4832	-0.2530
F.Capital Expenditures/Total Assets - Industry Adj.	-0.0125 +	-0.0144 +	-0.0113 +	-0.0185 +	-0.2378	1.3460
F2.Capital Expenditures/Total Assets - Industry Adj.	-0.0006	-0.0044	-0.0093 +	-0.0168 +	1.9188 *	3.5260 *
F3.Capital Expenditures/Total Assets - Industry Adj.	0.0067 +	-0.0026	-0.0024	-0.0130 +	1.6441 *	3.2420 *
LM.ROA (Return on Assets) - Industry Adj.	0.0009	-0.0086 +	-0.0048	-0.0145 +	0.8615	0.8530
FM.ROA (Return on Assets) - Industry Adj.	-0.0138 +	-0.0177 +	-0.0465 +	-0.0502 +	4.2934 *	4.9910 *
DM.ROA (Return on Assets) - Industry Adj.	-0.0169 +	-0.0077 +	-0.0426 +	-0.0292	2.9629 *	3.1260 *
LM.Sales Growth - Industry Adj.	-0.0005	-0.0179	0.0129	-0.0190 +	-0.7789	-0.2750
FM.Sales Growth - Industry Adj.	0.0024	-0.0096	-0.0578 +	-0.0696 +	2.6287 *	4.7670 *
DM.Sales Growth - Industry Adj.	0.0039	-0.0022 +	-0.0684 +	-0.0771 +	2.4529 *	3.5180 *
LM.Capital Expenditures/Total Assets - Industry Adj.	0.0267 +	0.0136	0.0227 +	0.0102 +	0.7290	1.6770 *
FM.Capital Expenditures/Total Assets - Industry Adj.	-0.0021	-0.0038 +	-0.0065 +	-0.0127 +	1.1090	2.3210 *
DM.Capital Expenditures/Total Assets - Industry Adj.	-0.0285 +	-0.0203 +	-0.0290 +	-0.0174	0.0792	-0.1800

Notes:

1) Resumers are firms that resumed within 5 years of the omission. Non-resumers are firms the never resumed as of 2001 or resumed after 5 years from omission.

2) Lx = xth Lagged Value, Fx = xth Future Value, where x=1,2,3,4, L1=L, F1=F and t=0 is the omission year.

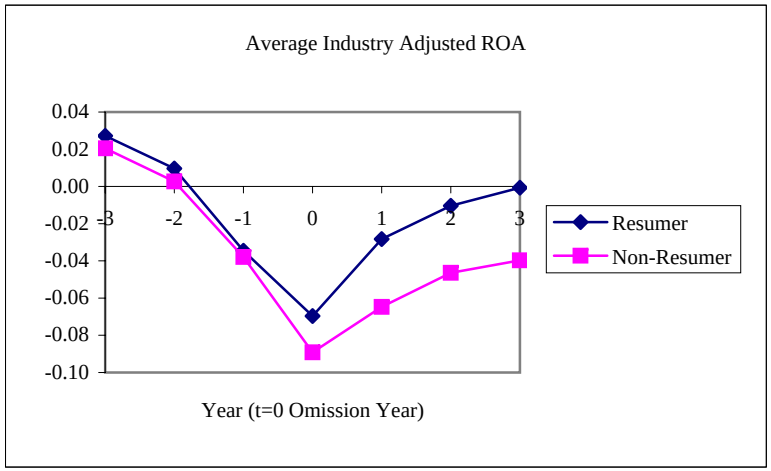
3) Industry Adj. - industry median adjusted by substracting the 2-digit SIC median value

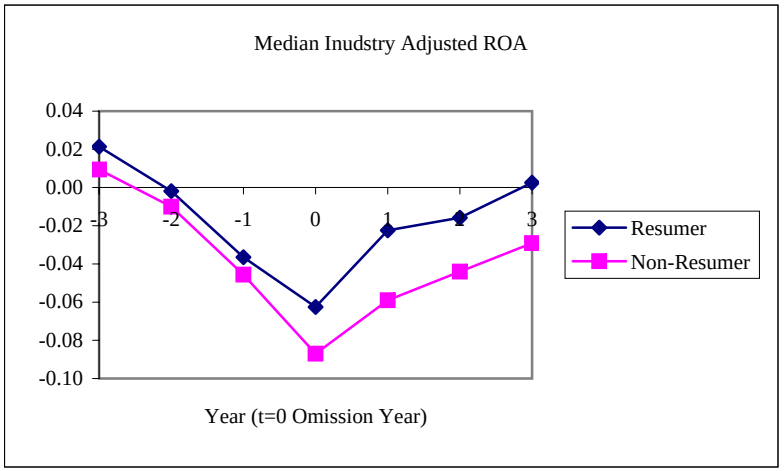
4) LM = lagged 3 year average of L, L2 and L3, DM=FM-LM where FM is the future 3 year average of F, F2 and F3

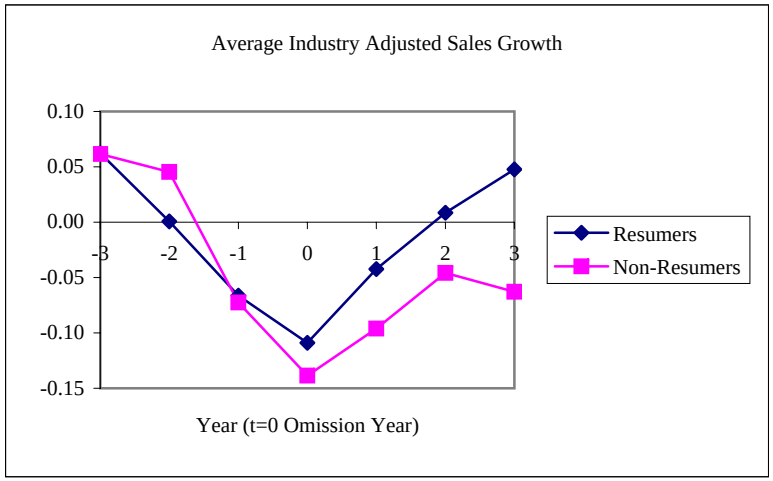
5) + Significantly different from zero at the 10 % level or better using the t-test for means and Wilcoxon (signed-rank) test for medians.

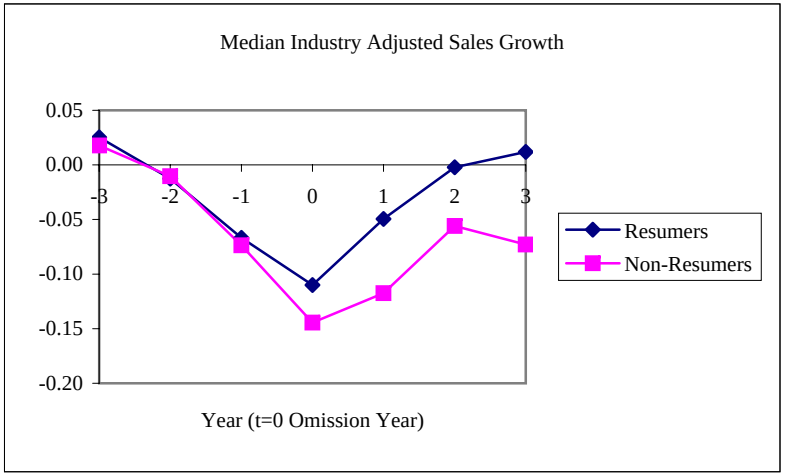
6) * At least 10 % significance, t-test of equality of means and z-statistic of two sample Wilcoxon ranksum test.

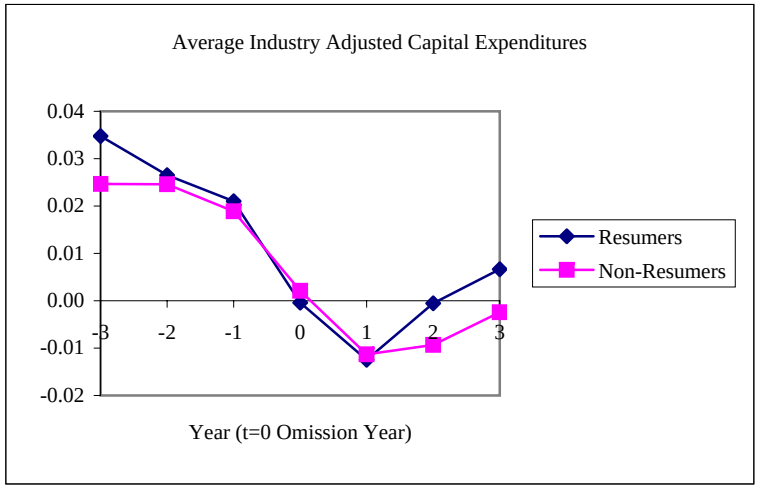
Figure 3: Operating Performance Around the Omission for "Good" and "Bad" Omissions











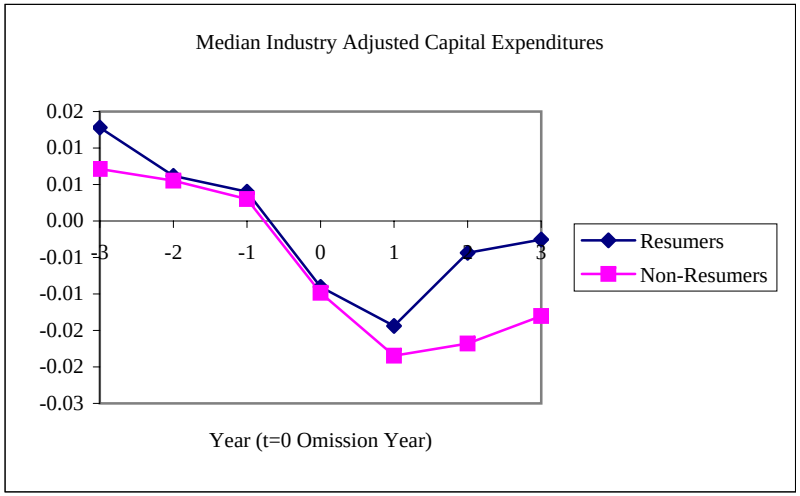


Table 4: "Good" and "Bad" Omissions
Holding Period Returns and Cumulative Abnormal Returns

Variable	Mean Resumer (R)	Median Resumer (R)	Mean Non-resumer (NR)	Median Non-resumer (NR)	t-stat (R-NR=0)	z-stat ranksum test
One year holding period return	0.2734 +	0.2288 +	0.0422	-0.0496	4.4242 *	5.0480 *
Two year holding period return	0.5406 +	0.3689 +	0.1324 +	-0.0169	5.0548 *	6.4030 *
Three year holding period return	0.8099 +	0.6267 +	0.2568 +	-0.0461	4.7502 *	6.2210 *
One year holding period excess return	0.1008 +	-0.0116 +	-0.1393 +	-0.2265 +	5.1028 *	5.8690 *
Two year holding period excess return	0.2569 +	0.0961 +	-0.1757 +	-0.2977 +	5.5185 *	6.9860 *
Three year holding period excess return	0.4210 +	0.2279 +	-0.2157 +	-0.4904 +	5.7148 *	7.5120 *
Cumulative Abnormal Return (3-day)	-0.0682 +	-0.0605 +	-0.0658 +	12.0000 +	-0.2642	-0.3610

Notes:

1) Resumers are firms that resumed within 5 years of the omission. Non-resumers are firms the never resumed as of 2001 or resumed after 5 years from omission.

2) Holding period returns are calculated from the omission announcement date (t=0).

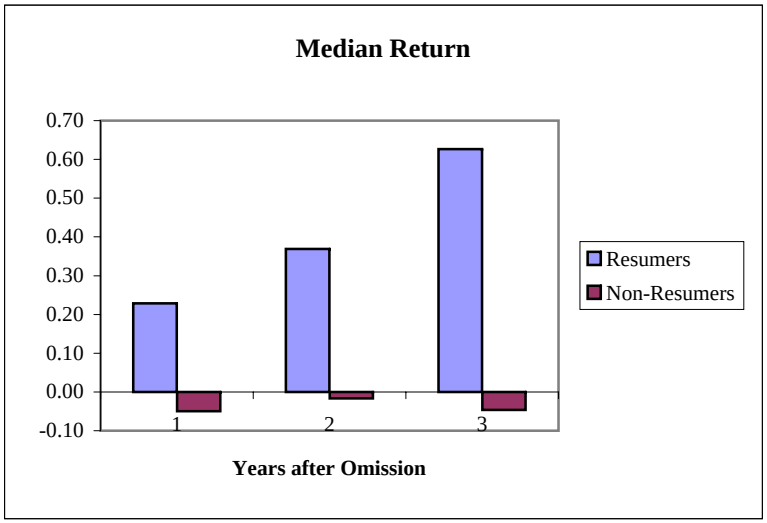
3) Excess (market-adjusted) returns are calculated by substracting the CRSP value-weighted index return over the same period.

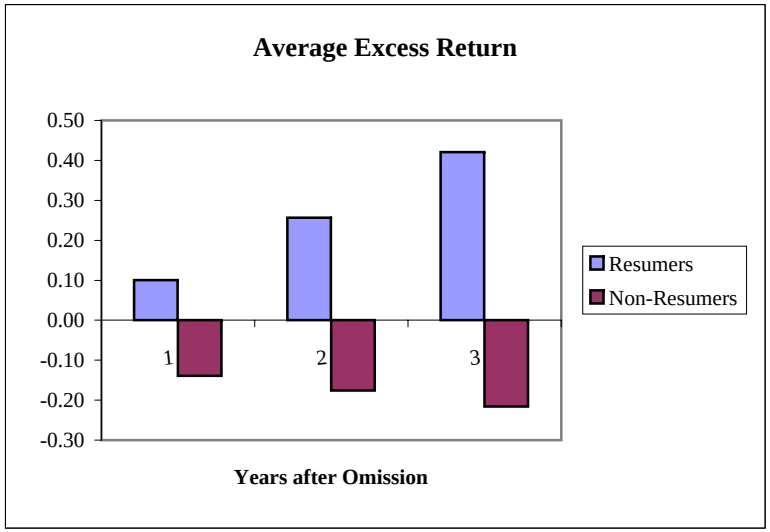
4) Cumulative abnormal returns are market-adjusted returns measured over the 3-day period centered on the omission announcement date.

5) + Significantly different from zero at the 10 % level or better using the t-test for means and Wilcoxon (signed-rank) test for medians.

6) * At least 10 % significance, t-test of equality of means and z-statistic of two sample Wilcoxon ranksum test.

Figure 4: Post-Omission Holding Period Returns for "Good" and "Bad" Omissions





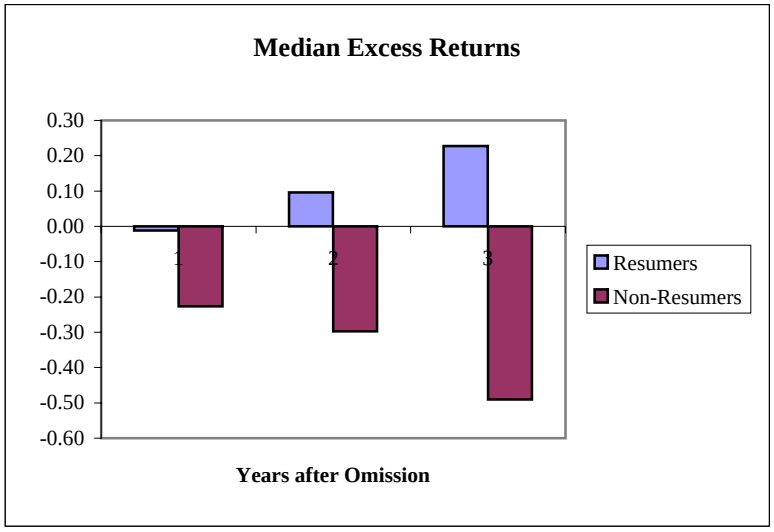


Table 5a: "Good" and "Bad" Omissions
Dividend History

Variable	Mean Resumer (R)	Median Resumer (R)	Mean Non-resumer (NR)	Median Non-resumer (NR)	t-stat (R-NR=0)	z-stat ranksum test
Panel A						
Last dividend yield prior to omission[1]	0.0144 +	0.0120 +	0.0123 +	0.0102 +	2.1586 *	2.401 *
Number of dividend cuts in previous 3 years[2]	0.6197 +	0 +	0.6714 +	1 +	-0.6670	-0.475
Change in last dividend prior to omission[3]	-0.0587 +	0 +	-0.0345 +	0 +	-1.0332	-0.851
Dividend Premium in Omission Year	-1.3687	-4.60	-5.8604 +	-7.80 +	2.9414 *	2.5520 *

Notes:

1) Resumers are firms that resumed within 5 years of the omission. Non-resumers are firms the never resumed as of 2001 or resumed after 5 years from omission.

2) [1]Div/P where P is the price 10 days before the omission. [2]Weighted by the frequency of dividend payment.

[3]Measured as $(D_j-D_{j-1})/D_{j-1}$ where j is the dividend payment period immediately preceding the omission.

3) + Significantly different from zero at the 10 % level or better using the t-test for means and Wilcoxon (signed-rank) test for medians.

4) * At least 10 % significance, t-test of equality of means and z-statistic of two sample Wilcoxon ranksum test.

5) The Dividend Premium is derived from Baker and Wurgler (2004a) and is the log difference in the market to book ratios of dividend payers and non-payers.

Table 5b: Cumulative Abnormal Return (CAR) Regressions
Dependent Variable: 3-day CAR

	(1)	(2)	(3)	(4)
Explanatory Variables				
Last dividend yield prior to omission[1]	-1.4557**	-1.2865*	-1.2704*	-1.2383*
	(0.004)	(0.011)	(0.012)	(0.016)
Number of dividend cuts in previous 3 years[2]		0.0103+	0.0095+	0.0105+
		(0.065)	(0.081)	(0.054)
Change in last dividend prior to omission[3]			-0.0096	-0.0102
			(0.549)	(0.534)
Dividend Premium				-0.0006*
				(0.020)
"Good" Omission Dummy (= 1 if resumer)	0.001	0.001	0.001	0.004
	(0.941)	(0.909)	(0.935)	(0.646)
Constant	-0.0486**	-0.0578**	-0.0578**	-0.0631**
	(0.000)	(0.000)	(0.000)	(0.000)
Observations	409	409	409	409
Adjusted R-squared	0.015	0.021	0.019	0.028

Notes:

1) Estimation is by OLS with bootstrapped standard errors (500 repetitions) adjusted to allow for correlation within the two-digit SIC industry group.

2) P values in parentheses calculated from bootstrapped standard errors (500 repetitions) adjusted to allow for correlation within the two-digit SIC industry group. + significant at 10%; * significant at 5%; ** significant at 1%

3) Resumers are firms that resumed within 5 years of the omission. Non-resumers are firms the never resumed as of 2001 or resumed after 5 years from omis

4) [1]Div/P where P is the price 10 days before the omission. [2]Weighted by the frequency of dividend payment.
[3]Measured as $(D_j-D_{j-1})/D_{j-1}$ where j is the dividend payment period immediately preceding the omission.

5) The Dividend Premium is derived from Baker and Wurgler (2004a) and is the log difference in the market to book ratios of dividend payers and non-payer

Table 6: Debt Overhang for "Good" and "Bad" Omissions

Variable	Mean Resumer (R)	Median Resumer (R)	Mean Non-resumer (NR)	Median Non-resumer (NR)	t-stat (R-NR=0)	z-stat ranksum test
L3. Book Leverage - Industry Adjusted	-0.0168	-0.0244	-0.0276 +	-0.0009 +	0.6251	0.0800
L2. Book Leverage - Industry Adjusted	-0.0063	-0.0074	-0.0088	0.0205	0.1428	-0.1430
L. Book Leverage - Industry Adjusted	0.0137	0.0116	0.0214 +	0.0450 +	-0.4351	-0.9510
Book Leverage - Industry Adjusted	0.0369 +	0.0440 +	0.0823 +	0.0918 +	-2.1552 *	-2.6010 *
F. Book Leverage - Industry Adjusted	0.0209	0.0123	0.0909 +	0.0830 +	-3.0563 *	-3.3420 *
F2. Book Leverage - Industry Adjusted	0.0154	0.0011	0.1125 +	0.0880 +	-3.8152 *	-3.8420 *
F3. Book Leverage - Industry Adjusted	0.0261	0.0182	0.1091 +	0.0717 +	-3.0940 *	-3.1010 *
L3. Book Leverage Gap	-0.0078	-0.0043	-0.0120	-0.0029	0.2619	0.1250
L2. Book Leverage Gap	-0.0126	-0.0115	0.0007	0.0068	-0.8258	-0.9150
L. Book Leverage Gap	0.0042	-0.0060	0.0242 +	0.0339 +	-1.1955	-1.5430
Book Leverage Gap	0.0194	0.0132	0.0723 +	0.0643 +	-2.5689 *	-2.7550 *
F. Book Leverage Gap	-0.0029	-0.0216	0.0678 +	0.0528 +	-3.0706 *	-3.3600 *
F2. Book Leverage Gap	0.0030	-0.0157	0.0917 +	0.0587 +	-3.5468 *	-3.5670 *
F3. Book Leverage Gap	0.0151	0.0076	0.0933 +	0.0565 +	-2.9250 *	-3.1240 *
LM. Book Leverage - Industry Adjusted	-0.0031	-0.0017	-0.0046	0.0160	0.0893	-0.3560
FM. Book Leverage - Industry Adjusted	0.0205	0.0073	0.0936 +	0.0953 +	-3.1737 *	-3.4090 *
DM. Book Leverage - Industry Adjusted	0.0256 +	0.0200 +	0.0981 +	0.0680 +	-4.5539 *	-4.9650 *
LM. Book Leverage Gap	-0.0045	-0.0037	0.0033	0.0078	-0.5058	-0.5670
FM. Book Leverage Gap	0.0050	-0.0186	0.0718 +	0.0627 +	-2.9587 *	-3.2950 *
DM. Book Leverage Gap	0.0043	-0.0033	0.0701 +	0.0461 +	-3.8577 *	-4.2760 *

Notes:

1) Resumers are firms that resumed within 5 years of the omission. Non-resumers are firms the never resumed as of 2001 or resumed after 5 years from omission.

2) Book leverage gap is the difference between actual book leverage and target leverage according to Kayhan and Titman (2004).

3) Lx = xth Lagged Value, Fx = xth Future Value, where x=1,2,3,4, L1=L, F1=F and t=0 is the omission year.

4) Industry Adj. - industry median adjusted by substracting the 2-digit SIC median value

5) LM = lagged 3 year average of L, L2 and L3, DM=FM-LM where FM is the future 3 year average of F, F2 and F3

6) + Significantly different from zero at the 10 % level or better using the t-test for means and Wilcoxon (signed-rank) test for medians.

7) * At least 10 % significance, t-test of equality of means and z-statistic of two sample Wilcoxon ranksum test.

8) In the year of omission, the number of observations for resumers and non-resumers is 138 and 277 respectively for book leverage gap.
This smaller sample size is due to missing data needed in the calculation of the leverage gap.

9) Results for market leverage are similar to the results for book leverage.

Figure 5: Debt Overhang for "Good" and "Bad" Omissions

Table 7: Logit Regressions on the Type of Omission
Dependent Variable = 1 if Resumer

	(1)	(2)	(3)	(4)
Explanatory Variables				
Log Assets - Ind. Adj.	0.1366*	0.1075	0.1625*	0.1478*
	(0.047)	(0.120)	(0.018)	(0.040)
ROA - Ind. Adj.	2.1255+	2.2562+	2.2194+	2.2938+
	(0.075)	(0.063)	(0.079)	(0.055)
Sales Growth - Ind. Adj.	0.3696	0.3185	0.3669	0.3125
	(0.473)	(0.545)	(0.404)	(0.484)
Capital Expenditures/Total Assets - Ind. Adj.	-0.6608	0.7079	-0.4321	1.153
	(0.763)	(0.740)	(0.839)	(0.582)
Book Leverage - Ind. Adj.	-1.6281**		-1.4589**	
	(0.004)		(0.007)	
Book Leverage Gap		-1.7867**		-1.6858**
		(0.001)		(0.004)
Dividend Premium			0.0196**	0.0205**
			(0.007)	(0.004)
Constant	-1.0301**	-0.8915*	-1.0835**	-1.0073**
	(0.003)	(0.010)	(0.002)	(0.005)
Observations	443	415	443	415
Pseudo R-Square	0.026	0.027	0.041	0.043
Wald Chi-Square	14.04	15.31	21.57	22.36

Notes:

1) Dependent variable = 1 if resumer and = 0 if non-resumer. Resumers are firms that resumed within 5 years of the omission. Non-resumers are firms the never resumed as of 2001 or resumed after 5 years from omission.

2) Industry Adj. - industry median adjusted by substracting the 2-digit SIC median value

3) Book leverage gap is the difference between actual book leverage and target leverage according to Kayhan and Titman (2004). The smaller sample size is due to missing data needed in the calculation of the leverage gap.

4) P values in parentheses calculated from bootstrapped standard errors (500 repetitions) adjusted to allow for correlation within the two-digit SIC indust
+ significant at 10%; * significant at 5%; ** significant at 1%

5) The Dividend Premium is derived from Baker and Wurgler (2004a) and is the log difference in the market to book ratios of dividend payers and non-

6) Results for market leverage are similar to the results for book leverage. Robustness checks include as additional explanantory variables the ratio of cash balance to total asset and the market to book ratio.

Table A1: Estimation of Target Debt
Tobit Regression (Kayhan and Titman, 2004)

	Dependent Variable	
Explanatory Variables	**Book Leverage**	**Market Leverage**
L.Log Sales	0.0356**	0.0219**
	(0.000)	(0.000)
L.ROA (Return on Assets)	-0.7096**	-0.9444**
	(0.000)	(0.000)
L.Market to Book	-0.0031*	-0.0850**
	(0.022)	0.000
L.Tangible Assets/Assets	-0.006	0.0155*
	(0.281)	(0.011)
L.Selling Expense/Sales	-3.9997**	-11.8645**
	(0.000)	(0.000)
L.R&D/Sales	-1.0164**	-0.9988**
	(0.000)	(0.000)
L.R&D Dummy	0.0009	-0.0019
	(0.667)	(0.351)
Constant	0.4643**	0.6228**
	(0.000)	(0.000)
Observations	35065	35054
Chi-Square	11516	24525

Notes:

1) Robust p values in parentheses, + significant at 10%; * significant at 5%; ** significant at 1%

2) L = Lagged value

3) Estimation includes industry (2-digit SIC) and year fixed effects.

4) The estimation sample excludes the omission firms during the 7 year omission window (7 years centered around the omission) and firm-year observations with book leverage greater than one.

5) The R&D Dummy variable equals 1 if R&D is non-missing.