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## **Price Reactions to Dividend Initiations and Omissions: Overreaction or Drift?**

RONI MICHAELY, RICHARD H. THALER, and  
KENT L. WOMACK\*

### **ABSTRACT**

This article investigates market reactions to initiations and omissions of cash dividend payments. Consistent with prior literature we find that the magnitude of short-run price reactions to omissions are greater than for initiations. In the year following the announcements, prices continue to drift in the same direction, though the drift following omissions is stronger and more robust. This post-dividend initiation/omission price drift is distinct from and more pronounced than that following earnings surprises. A trading rule employing both samples earns positive returns in 22 out of 25 years. We find little evidence for clientele shifts in either sample.

WHEN A FIRM INITIATES the payment of a cash dividend, or omits such a payment, the firm is making an extremely visible and qualitative change in corporate policy. What effect do such abrupt changes have on returns? We investigate both the immediate (three-day) reaction to initiation or omission announcements and the long-term post-announcement price performance.

Consistent with prior studies of dividend omissions (Healy and Palepu (1988)), and initiations ((Asquith and Mullins (1983) and Healy and Palepu (1988))), we find that omission announcements are associated with a mean price drop of about 7 percent, and initiations are associated with a price increase of over 3 percent. The center of our investigation, however, focuses on whether there are subsequent excess returns after the market has had an initial chance to react to the announcement of a change in dividend policy. There are three reasons why one might expect significant excess returns in years following the announcement.

First, many authors (e.g., Ball and Brown (1968), Foster, Olsen, and Shevlin (1984), and Bernard and Thomas (1989, 1990)) find evidence for what has come to be called "post-earnings-announcement drift." This research

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shows that when firms make surprising quarterly earnings announcements, prices continue to move in the same direction for the next three quarters, especially on the days surrounding the next two quarterly earnings announcements. Since dividend omissions and initiations are similar to earnings surprises, one might expect a similar drift in prices following the change in policy. That is, prices of firms that omit a dividend would drift down, after the immediate reaction to the omission, and prices of firms that initiate would drift up. Post-earnings-announcement drift can be interpreted as a type of underreaction. The initial price move is insufficient, leaving room for a subsequent drift.

A second literature provides some reason to expect exactly the opposite pattern of prices. Numerous studies find evidence for overreaction or mean reversion in prices. For example, De Bondt and Thaler (1985, 1987) document that those firms that exhibit the most extreme price performance over long time periods (such as 3 to 5 years) tend to display mean reverting excess returns in the subsequent time period. (This tendency is stronger for losers than for winners.) Similar results are obtained by many other researchers in other markets and for different time periods.<sup>1</sup> One study is directly applicable. Bremer and Sweeny (1991) study all the one day price changes of greater than 10 percent for a sample of large New York Stock Exchange companies. They find that over the next six days, the prices of the losers rebounded by about 30 percent of the original loss. Once again there is no rebound for the winners. De Bondt and Thaler characterize these results as evidence of overreaction to the accumulation of bad news during the formation period. One might expect a similar reaction to the omission of a dividend, especially since firms that take this action are likely to be long-term losers. The overreaction literature also suggests that the price patterns might be different for omissions and initiations, with a rebound only for the omissions.

A third reason why one might expect excess returns following a dividend initiation or omission is the likelihood that such actions could cause a change in the type of stockholders owning the company. This is known as a clientele effect. Changes in a firm's stockholder clientele may occur because some individual stockholders dislike cash dividends for tax reasons, while others may prefer the cash payments (Black and Scholes (1974), and Shefrin and Statman (1984)). Similarly, some institutions may either have a preference for dividends or be required by charter to own stock only in dividend paying companies, i.e., various "prudent man" rules. For all these reasons, it is plausible to suppose that dividend initiations and omissions may create a change in ownership. Of course, this does not necessarily imply that there will also be predictable excess returns. In an efficient market, prices will quickly adapt to a new equilibrium, even if the change in clientele is not

<sup>1</sup> See De Bondt and Thaler (1989) for a review as well as the more recent contributions of Chopra, Lakonishok, and Ritter (1992) and Lakonishok, Shleifer, and Vishny (1994).

instantaneous. That is, the new equilibrium price will reflect the eventual supply and demand after adjustments in ownership are complete. Nevertheless, if changes in ownership are gradual, price changes might be gradual too, with prices drifting as a result of "price pressure."<sup>2</sup> The existence of clientele effects does not make a crisp prediction about long-term price movements, but offers another reason to investigate this question.

Two earlier papers offer some hints as to how our investigation will turn out. First, Charest (1978) studies the price reactions to announced changes in dividend policies. His events include all changes in dividend payout of 10 cents per share or more, not just initiations and omissions. Although there are some limitations to his study because of the time at which it was written (for example, he does most of his analysis with monthly data for the time period 1947 to 1968), Charest finds small but significant drift after dividend changes. That is, excess returns are positive in the months following the announcement of a dividend increase, and excess returns are negative in the months following the announcement of dividend cuts. More recently, Christie (1990) studies the returns of dividend and nondividend paying stocks. He finds that nondividend paying firms earn negative size-adjusted returns. Although most of his article combines firms that have omitted a dividend with those that have never paid a dividend, he does report one analysis for omitting firms that shows negative returns relative to a size-matched dividend-paying sample. The results we present are consistent with and extend both of these earlier efforts.

The specific events investigated here (initiations and omissions) also provide us with a unique opportunity to analyze the question of whether the market responses to good news (initiations) and bad news (omissions) are symmetric. A quick glance at the data reveals that the absolute magnitude of the price change is larger for omissions than for initiations. However, other questions require some analysis: Are the reactions (both in the short- and long-run) proportional to the change in dividend yield, or does the announcement have a fixed effect? Does the market treat initiation and omission announcements symmetrically? Are omissions more serious events? Are those omissions when the cash dividend is replaced by a stock dividend treated differently by the market? We provide evidence on all of these issues.

The outline of the article is as follows. Section I begins with a summary of our data and some descriptive statistics about the sample of initiations and omissions. In Section II we then examine the short-run market reactions to both types of events in the three days surrounding the announcement. Section III contains the long-term return results, Section IV examines the asymmetry between the initiations (good news) and omissions (bad news) events, and Section V offers tests of the robustness of the long-term excess returns. Section VI investigates clientele effects, and Section VII concludes the article.

<sup>2</sup> For similar arguments, see Shleifer (1986) and Harris and Gurel (1986).

## **I. Sample Selection and Methodology**

### *A. Initiation Sample Selection*

Using the Center for Research in Security Prices (CRSP) tapes, we collect all New York Stock Exchange (NYSE)/American Stock Exchange (AMEX) companies that initiated dividends during 1964 to 1988. We define a dividend initiation as the first cash dividend payment reported on the CRSP Master File. (Reinstitution of a cash dividend is not considered a dividend initiation for our purposes.) The following criteria are used for inclusion in our initiation sample:

1. The company must have been traded on the NYSE or AMEX for two years prior to the initiation of the first cash dividend. This criterion was chosen for two reasons. It helps us to select an adequate preevent period for comparison of returns and it eliminates new listings on the NYSE or AMEX that had been paying dividends while on National Association of Securities Dealers Automated Quotation System (NASDAQ) or on another exchange before being listed.<sup>3</sup> While this criterion excludes a number of potential initiation candidates, we feel that it protects the cleanness of the remaining initiation events by eliminating candidates that had listed or had gone public on the NYSE or AMEX with some preannounced intention to pay dividends in the near future.
2. All closed-end funds and all companies paying monthly dividends were excluded from the sample.
3. All foreign companies (usually traded in American Depositary Receipts (ADRs)) were excluded from the sample, since payment conventions in other countries sometimes make checking the periodicity or regularity of payments difficult.

The resulting sample contains 561 cash dividend initiation events. The initiation declarations are widely spread over 25 years, as shown in Table I, Panel A. The number of firms initiating each year shows a positive correlation ( $\rho = +0.44$ ) with percentage changes in aggregate U.S. corporate profits (as reported by the Federal Reserve Board). Also shown in Table I are the market-capitalization distribution (Panel B), price range (Panel C), and industry representation (Panel D) of the initiation sample. For Panel B, we divide the entire sample into deciles according to market capitalization of NYSE/AMEX stocks at the beginning of the year. The first row in Panel B of Table I shows the frequency distribution across deciles of our initiation sample. Firms that initiate dividends are somewhat smaller than the average firm in the NYSE/AMEX universe. Although 21.5 percent of these firms are in the smallest two deciles, only 5 percent are in the largest two deciles. The median is in the 4th decile. The median price per share of initiating firms is

<sup>3</sup> It is still possible that a few firms that had previously paid a dividend enter our sample. For example, a firm that had paid a dividend on NASDAQ but was not paying one when listed on NYSE or AMEX would meet our criteria when it resumed paying a dividend.

approximately \$10, as reported in the first row of Panel C. We also tabulate the industry representation of both samples in Panel D of Table I. One hundred and seventy-five industries are represented in the initiation sample (defined by the 3-digit SIC code). No industry is represented by more than 25 observations, and the average number of observations in any one industry is 3.2. There is no discernible concentration in any one industry in a given time period. As shown in Panel D, the maximum number of initiations from one industry in any given sample year is 5, which is 20 percent of the sample in that year (1972).

### *B. Omission Sample Selection*

Unlike initiations, declarations of dividend omissions are not recorded on the CRSP tapes. The CRSP files contain announcement dates for dividend declarations, but no dates for the subsequent omissions of regular or irregular payouts. Hence, our sample construction strategy is to select from the CRSP Master File those companies that had existed on the NYSE or AMEX for more than one year and had paid regular, periodic cash dividends and then omitted such payments during 1964 to 1988. Specifically, for a company's dividend record to be considered as a *potential* omission event in our sample, one of the following must have occurred:

1. The company declared at least six consecutive quarterly cash payments and then paid no cash payment in a calendar quarter.
2. The company declared at least three consecutive semi-annual cash payments and then paid no cash payments in the next six months.
3. The company declared at least two consecutive annual cash payments and then paid no cash payments in the next year.

The above search identified more than 1,500 potential omission events in the 1964 to 1988 period. Then, searching the *Wall Street Journal (WSJ) Index* and *Moody's Dividend Record*, we were able to positively identify 887 exact dates of omissions for our sample.<sup>4</sup> Typical reasons for excluding *potential* omission events from our sample are listed below.

1. Timing differences between fiscal quarterly payments and the calendar quarter search algorithm described above. It is quite common for quarterly dividend payments to be unequally spaced throughout the year. For example, payments are usually declared and paid at a regular interval after earnings reporting times. However, fiscal fourth quarter and, hence, annual earnings reports are regularly reported longer after the close of the fiscal fourth quarter than announcements and payments

<sup>4</sup> To demonstrate the comprehensive nature of our sample of omissions, our final sample (after exclusions for data availability described below) for the years 1969 to 1980 is 476 omission events (887 in the entire 25 year sample) versus 172 in the same period by Healy and Palepu (1988). Their criteria are indeed more strict, requiring ten continuous years of dividend payments before a chosen omission event.

Table I

**Descriptive Statistics of Dividend Initiations and Omissions, 1964 to 1988**

Included in the initiation sample are all New York Stock Exchange (NYSE)/American Stock Exchange (AMEX) companies that traded for at least two years before the first dividend announcement, as recorded on the CRSP tapes. Foreign companies, American Depositary Receipts (ADRs) closed-end funds, and companies that pay monthly dividends are excluded. Firms are included in the omission sample if they are traded on the NYSE/AMEX for at least two years, skipped at least one dividend and had an identifiable omission announcement in the *WSJ* Index. The annual aggregate percentage change in U.S. corporate profits is gathered from the Federal Reserve publications, and the percentage change in the NYSE Index is taken from the *NYSE Fact Book*.

| Panel A: Distribution of Dividend Initiations and Omissions by Year, 1964-1988 |           |                                      |             |  |                                     |  |
|--|-----------|--------------------------------------|-------------|--|-------------------------------------|--|
| Year   | Omissions | Omissions<br>Percentage of<br>Sample | Initiations | Initiations<br>Percentage of<br>Sample | Change in U.S.<br>Corp. Profits (%) | Change in NYSE<br>Index (%)<br>(Excluding Dividends) |
| 1964   | 12        | 1.4                                  | 39          | 6.9                                    | 12.5                                | 14.4   |
| 1965   | 15        | 1.7                                  | 26          | 4.8                                    | 16.5                                | 9.5  |
| 1966   | 18        | 2.0                                  | 17          | 3.0                                    | 8.2                                 | -12.6  |
| 1967   | 29        | 3.3                                  | 11          | 2.0                                    | -5.2                                | 23.1   |
| 1968   | 22        | 2.5                                  | 10          | 1.8                                    | 9.8                                 | 9.4  |
| 1969   | 41        | 4.6                                  | 10          | 1.8                                    | -3.1                                | -12.5  |
| 1970   | 98        | 11.0                                 | 8           | 1.4                                    | -11.2                               | -2.5   |
| 1971   | 47        | 5.3                                  | 15          | 2.7                                    | 14.9                                | 12.3   |
| 1972   | 28        | 3.2                                  | 31          | 5.5                                    | 15.8                                | 14.3   |
| 1973   | 21        | 2.4                                  | 57          | 10.1                                   | 25.2                                | -19.6  |
| 1974   | 58        | 6.5                                  | 35          | 6.2                                    | 8.8                                 | -30.3  |
| 1975   | 47        | 5.3                                  | 53          | 9.4                                    | -3.4                                | 31.9   |
| 1976   | 24        | 2.7                                  | 77          | 13.7                                   | 25.9                                | 21.5   |
| 1977   | 20        | 2.3                                  | 51          | 9.1                                    | 20.5                                | -9.3   |
| 1978   | 18        | 2.0                                  | 21          | 3.7                                    | 16.5                                | 2.1  |
| 1979   | 30        | 3.4                                  | 17          | 3.0                                    | 10.1                                | 15.5   |
| 1980   | 44        | 5.0                                  | 14          | 2.5                                    | -7.8                                | 25.7   |
| 1981   | 47        | 5.3                                  | 10          | 1.8                                    | -4.5                                | -8.7   |
| 1982   | 74        | 8.3                                  | 9           | 1.6                                    | -25.1                               | 14.0   |
| 1983   | 19        | 2.1                                  | 7           | 1.2                                    | 22.4                                | 17.5   |

Table I—Continued

Panel A: Distribution of Dividend Initiations and Omissions by Year, 1964–1988

| Year   | Omissions | Omissions            |        | Initiations | Initiations          |        | Change in U.S. Corp. Profits (%) |  | Change in NYSE Index (%) (Excluding Dividends) |  |
|--------|-----------|----------------------|--------|-------------|----------------------|--------|----------------------------------|--|--|--|
|        |           | Percentage of Sample | Sample |             | Percentage of Sample | Sample |                                  |  |  |  |
| 1984   | 27        | 3.0                  |        | 6           | 1.1                  |        | 15.6                             |  | 1.3  |  |
| 1985   | 50        | 5.6                  |        | 6           | 1.1                  |        | −6.5                             |  | 26.1   |  |
| 1986   | 52        | 5.9                  |        | 10          | 1.8                  |        | −1.2                             |  | 14.0   |  |
| 1987   | 27        | 3.0                  |        | 9           | 1.6                  |        | 24.2                             |  | −0.3   |  |
| 1988   | 19        | 2.1                  |        | 12          | 2.1                  |        | 15.0                             |  | 13.0   |  |
| Totals | 887       | 100.0                |        | 561         | 100.0                |        |                                  |  |  |  |

Panel B: Market Capitalization Deciles (1st Decile Firms are the Smallest Size Firms)

| Decile          | 1st  | 2nd  | 3rd  | 4th  | 5th  | 6th  | 7th | 8th | 9th | 10th |
|-----------------|------|------|------|------|------|------|-----|-----|-----|------|
| Initiations (%) | 8.0  | 13.5 | 18.5 | 14.1 | 14.6 | 11.4 | 8.6 | 6.1 | 3.9 | 1.2  |
| Omissions (%)   | 14.5 | 18.0 | 15.3 | 12.1 | 12.5 | 8.7  | 9.6 | 5.2 | 2.9 | 1.1  |

Panel C: Stock Price Per Share of Initiating and Omitting Firms (Day Before the Event).

| Price (\$)      | < 5  | 5–10 | 10–15 | 15–20 | 20–30 | 30–40 | 40–50 | > 50 |
|-----------------|------|------|-------|-------|-------|-------|-------|------|
| Initiations (%) | 20.1 | 30.1 | 17.8  | 11.9  | 11.2  | 4.5   | 1.6   | 2.3  |
| Omissions (%)   | 17.9 | 39.7 | 20.4  | 10.1  | 7.2   | 2.5   | 0.6   | 1.1  |

Panel D: Industry Representation of Dividend Initiations and Omissions by Year, 1964–1988

| Year | Omissions | Industries Represented (3-Digit SIC) |  | Maximum in Any One Industry |  | Initiations |  | Industries Represented (3-Digit SIC) |  | Maximum in Any One Industry |  |
|------|-----------|--------------------------------------|--|-----------------------------|--|-------------|--|--------------------------------------|--|-----------------------------|--|
|      |           |                                      |  |                             |  |             |  |                                      |  |                             |  |
| 1964 | 12        | 11                                   |  | 2                           |  | 39          |  | 33                                   |  | 2                           |  |
| 1965 | 15        | 14                                   |  | 2                           |  | 26          |  | 24                                   |  | 2                           |  |
| 1966 | 18        | 14                                   |  | 3                           |  | 17          |  | 16                                   |  | 2                           |  |
| 1967 | 29        | 25                                   |  | 2                           |  | 11          |  | 11                                   |  | 1                           |  |
| 1968 | 22        | 19                                   |  | 2                           |  | 10          |  | 10                                   |  | 1                           |  |
| 1969 | 41        | 33                                   |  | 5                           |  | 10          |  | 10                                   |  | 1                           |  |
| 1970 | 98        | 65                                   |  | 5                           |  | 8           |  | 8                                    |  | 1                           |  |
| 1971 | 47        | 39                                   |  | 3                           |  | 15          |  | 14                                   |  | 2                           |  |



Table I—Continued

| Panel D: Industry Representation of Dividend Initiations and Omissions by Year, 1964–1988 |           |                                      |                             |             |                                      |                             |
|---|-----------|--------------------------------------|-----------------------------|-------------|--------------------------------------|-----------------------------|
| Year  | Omissions | Industries Represented (3-Digit SIC) | Maximum in Any One Industry | Initiations | Industries Represented (3-Digit SIC) | Maximum in Any One Industry |
| 1972  | 28        | 24                                   | 4                           | 31          | 25                                   | 5                           |
| 1973  | 21        | 21                                   | 1                           | 57          | 45                                   | 4                           |
| 1974  | 58        | 33                                   | 13                          | 35          | 29                                   | 3                           |
| 1975  | 47        | 40                                   | 3                           | 53          | 43                                   | 3                           |
| 1976  | 24        | 21                                   | 2                           | 77          | 46                                   | 4                           |
| 1977  | 20        | 17                                   | 2                           | 51          | 41                                   | 3                           |
| 1978  | 18        | 17                                   | 2                           | 21          | 15                                   | 3                           |
| 1979  | 30        | 29                                   | 2                           | 17          | 14                                   | 2                           |
| 1980  | 44        | 33                                   | 5                           | 14          | 13                                   | 2                           |
| 1981  | 47        | 37                                   | 5                           | 10          | 9                                    | 2                           |
| 1982  | 74        | 54                                   | 4                           | 9           | 9                                    | 1                           |
| 1983  | 19        | 17                                   | 3                           | 7           | 7                                    | 1                           |
| 1984  | 27        | 25                                   | 2                           | 6           | 6                                    | 1                           |
| 1985  | 50        | 35                                   | 4                           | 6           | 6                                    | 1                           |
| 1986  | 52        | 36                                   | 6                           | 10          | 9                                    | 2                           |
| 1987  | 27        | 25                                   | 2                           | 9           | 8                                    | 2                           |
| 1988  | 19        | 19                                   | 1                           | 12          | 12                                   | 1                           |
| Totals, all years   | 887       | 210                                  | 28                          | 561         | 175                                  | 25                          |

after the close of the previous three fiscal quarters. In the case of these timing differences, multiple payments in a contiguous calendar quarter were ascertained (approximately 450 exclusions).

2. Companies declaring monthly dividends, and closed-end funds were excluded (100 exclusions).
3. No record of an omission announcement could be found in the *WSJ Index* or *Moody's Dividend Record*, or the *WSJ Index* made it clear that no dividend omission had occurred during the suspicious time period (40 exclusions).
4. Payment of a cash dividend was not actually omitted but changed to another type of cash payout such as a return-of-capital payment (20 exclusions).
5. The company preannounced the likelihood of an omission within one month of the official announcement data (10 exclusions).

This procedure results in a sample of 887 cash dividend omission events widely spaced over the 25-year period (Table I, Panel A). Although the number of omissions shows a negative correlation with the value of yearly changes in corporate profits ( $\rho = -0.74$ ) and the one-year-lagged NYSE Index ( $\rho = -0.43$ ), the size and length of our sample prevent any year or economic cycle from dominating our inquiry. The market capitalization, price distribution, and industry representation of the omission sample is quite similar to the initiation sample: over 65 percent of the omitting firms are in the top eight size deciles (second row, Panel B), and over 82 percent traded in a price range greater than five dollars (second row, Panel C). Two hundred and ten industries are represented (second row, Panel D). Out of the 887 omissions, the largest number of omissions from one industry is 28, and the average number in any industry is 4.2. The maximum number of observations from one industry in any given sample year is 13, which is 22 percent of the sample in that year (1974).

In order to compare the results we obtain for initiations and omissions with the post-earnings-announcement drift literature, and to check for contemporaneous earnings announcements, we also require earnings data for as many of the firms in the initiation and omission samples as possible. To obtain this data, we search the COMPUSTAT tapes for the period 1972 to 1988 for all the firms in our samples. We then select those firms where we can identify at least five consecutive recorded earnings announcement dates around the initiation or omission date. In most cases, 12 consecutive earnings dates are available. A total of 235 initiation and 290 omission firms can be matched, or 36 percent of our sample.<sup>5</sup> If the selection requirement is only the positive identification of the earnings date at or immediately prior to the omission event, we can identify 379 omitting firms. The latter subsample is used to

<sup>5</sup> There are several reasons for our failure to find COMPUSTAT data for our entire sample. The two most important are: (1) earnings report dates are not available of the COMPUSTAT tapes before 1972 (our samples includes observations starting in 1964); and (2) COMPUSTAT data are sparse for smaller companies.

ensure that the reaction to the omission announcement is not due to an announcement of contemporaneous negative earnings.

### *C. Methodology: Excess Return Calculations*

To evaluate the performance of the firms in our initiation and omission samples before, during, and after the events (initiation or omission), we calculate the returns from a buy-and-hold strategy.<sup>6</sup> We compare those returns to four benchmark portfolio returns. More precisely, for each stock, the excess return is defined as the geometrically compounded (buy-and-hold) return on the stock minus the geometrically compounded return on either (1) the equally-weighted CRSP index including dividends, (2) the appropriate CRSP market-capitalization decile, (3) the equally-weighted market index adjusted for the beta of each stock, or (4) a matching firm in the same industry (two-digit SIC code) that is closest in market capitalization:

$$ER_{j(a \text{ to } b)} = \prod_{t=a}^b (1 + R_{jt}) - \prod_{t=a}^b (1 + MR_t) \quad (1)$$

where  $ER_{j(a \text{ to } b)}$  = Excess return for firm  $j$  from time period  $a$  to  $b$ . For the three-day event period, the time period ( $a$  to  $b$ ) is trading days  $t = -1, 0, +1$ . For the monthly periods before or after the event, the returns are calculated assuming 21 trading days for each month. That is, the 12-month return is actually a 252-trading-day ( $12 \times 21$  days) return.<sup>7</sup>  $R_{jt}$  = raw return for observation firm  $j$  on day  $t$ .  $MR_t$  = return on the equally-weighted or beta-adjusted market index, the market capitalization decile, or the industry-and-size matched firm on day  $t$ .

The average excess returns for each period are then:

$$\overline{ER} = \frac{1}{N} \sum_{j=1}^N ER_j \quad (2)$$

For clarity and ease of exposition, the article initially reports the CRSP equally-weighted excess returns as the benchmark. We focus on this benchmark because it is the least noisy and most easily replicable for other researchers. However, we also report results with beta-adjusted, size-adjusted, and industry-and-size-matched portfolio returns in Section V, when we examine the robustness of our long-run findings.

## **II. Short-Run Reactions to Omissions and Initiations**

We compute excess returns for the firms in both samples, for the time period before the event, and for the three-day window around the event (from

<sup>6</sup> Our methodology has been strongly influenced by Ritter (1991) and Loughran and Ritter (1995).

<sup>7</sup> Whenever we calculate excess returns for a time period greater than one month, we use the equal-weighted monthly returns or the capitalization-decile price index from the CRSP indices tapes to minimize the bias from compounding daily returns (see Blume and Stambaugh (1983), Roll (1983), and Canina *et al.* (1994)).

the day before the announcement to the day after). These excess returns are presented in Table II. Not surprisingly, the average performance of the stocks that initiate dividends is significantly better than the benchmark portfolios in the year prior to initiation. The initiation portfolio excess return in the prior year is +15.1 percent. During the three-day announcement (event) period, the initiation portfolios experience a significant additional excess return of +3.4 percent ( $t = 11.08$ ). These returns are observed even though the average magnitude of the annual dividend yield is a relatively modest 0.9 percent. (The initial yield is annualized by extrapolating from the first payment and is calculated using the price on the day before the dividend initiation announcement).

Firms omitting dividends perform quite poorly in the year before the omission declaration, consistent with the evidence presented in DeAngelo, DeAngelo, and Skinner (1992). The average excess return is -31.8 percent. As with the initiation sample, the reaction to the omission announcement is in the same direction as the price movement in the period before the announcement: omitting firms experience an additional excess return of -7.0 percent in the three days around the announcement. This highly significant drop in price is a response to a major change in dividend policy. The average yield prior to the omission announcement is an annualized 6.7 percent, much larger than the average yield for firms initiating dividends.

#### *A. Contemporaneous Events and Omission Announcements*

The pronounced market reaction to dividend omissions might be attributable to other concurrent events. To investigate this possibility, we search the COMPUSTAT file for earnings announcements in the three-day window around the omission announcement date, and the *WSJ* Index for other concurrent events. The only events occurring in more than 5 percent of the omission sample are announcements of a stock dividend in lieu of the (omitted) cash dividend, and earnings announcements.<sup>8</sup> We therefore investigate these two subsamples separately.

About 10 percent of the omitting firms (92 of the 887) replace the cash dividend with a stock dividend. Table II shows how these firms do, relative to those eliminating all payments. These firms have somewhat better performance in the year before the omission, with excess returns of -21.9 percent (compared to -33.0 percent for those eliminating all payouts), and the price reaction to the switch from a cash to a stock dividend at the announcement is only -3.1 percent, (versus -7.4 percent, a significant difference). This latter result is consistent with the view that the market perceives stock dividends as a positive signal of firm quality (e.g., Brennan and Copeland (1988)). However, as we discuss below, the long-term performance for these firms is worse than that for firms that eliminated all dividends.

<sup>8</sup> Other typical news events reported are corporate restructurings, takeover announcements, liquidations, and bankruptcies. The number of these concurring events is very small (less than 5 percent of total observations).

Table II  
Market-Adjusted Returns for Periods Before and At Announcement Date for Corporations  
Initiating and Omitting Cash Dividends

Market-adjusted buy-and-hold returns for the initiation and omission samples (1964 to 1988) are calculated for the one year and three months prior to the three-day event period and for the event period centered around the event day. Buy-and-hold (market-adjusted) returns are calculated as follows:

$$ER_{j(a \text{ to } b)} = \prod_{t=a}^b (1 + R_{jt}) - \prod_{t=a}^b (1 + MR_t)$$

where  $ER_{j(a \text{ to } b)}$  = Excess return for firm  $j$  from time period  $a$  to  $b$ ,  $R_{jt}$  = raw return for firm  $j$  in day or month  $t$ ,  $MR_t$  = return on the CRSP NYSE/AMEX equally-weighted market index for day or month  $t$ . The  $EW$  market geometrically compounded return is calculated from the monthly and daily CRSP return tapes.  $t$ -Statistics are calculated based on the cross-sectional variance in the mean excess return in the relevant period. Dividend yield is defined as the annualized dividend over the price the day before the event. In Panel A excess returns are calculated for the entire samples of initiations and omissions. In Panel B those firms in the omission sample that paid a stock dividend in lieu of the cash dividend are shown separately from the rest. In Panel C the mean excess returns of a subsample of firms that had contemporaneous earnings announcements are shown compared to the firms that did not have contemporaneous announcements.  $t$ -Statistics are reported in parentheses.

|  |           | Market-Adjusted Excess Returns<br>for Holding Period Relative to Event Day (%) |                             |                            |                       |
|--|-----------|--|-----------------------------|----------------------------|-----------------------|
|  |           | From Day - 254<br>to Day - 2   | From Day - 65<br>to Day - 2 | From Day - 1 to<br>Day + 1 | Dividend Yield<br>(%) |
| Panel A: Entire Samples  |           |  |                             |                            |                       |
| Initiations  | $n = 561$ | 15.1<br>(6.4)  | 4.7<br>(5.2)                | 3.4<br>(11.08)             | 0.9                   |
| Omissions  | $n = 887$ | -31.8<br>(-31.6)   | -11.2<br>(-18.9)            | -7.0<br>(-24.75)           | 6.7                   |
| Panel B: Separating the Omission Sample into Stocks that Paid and Substituted and<br>Did Not Substitute a Stock for Cash Dividend                              |           |  |                             |                            |                       |
| Stock dividend in lieu   | $n = 92$  | -21.9  | -7.5                        | -3.1                       | 5.5                   |
| No stock dividend  | $n = 795$ | -33.0<br>(3.62)  | -11.6<br>(2.32)             | -7.4<br>(5.45)             | 6.9                   |
| $t$ -Statistic of difference   |           |  |                             |                            |                       |
| Panel C: Separating the Omission Sample into Firms that Had and Did Not Have Concurrent Earnings and<br>Omission Announcements (in the Three-Day Event Window) |           |  |                             |                            |                       |
| Contemporaneous earnings announcement  | $n = 93$  | -34.1  | -13.2                       | -8.0                       |                       |
| Omission announcement only   | $n = 286$ | -34.6<br>(0.14)  | -11.7<br>(0.79)             | -5.5<br>(2.63)             |                       |
| $t$ -Statistic of difference   |           |  |                             |                            |                       |

To investigate the influence of concurrent earnings announcements, we use our subsample of 379 stocks that were successfully matched with COMPUS-TAT. Ninety-three of the 379 companies made an earnings announcement in one of the three days around the dividend omission announcement. For these 93 companies, the mean excess return in the three-day event window (omission announcement and earnings announcement) is  $-8.0$  percent, whereas the mean for companies without an earnings announcement is  $-5.5$  percent (See Table II, Panel C). Each of these excess returns is significantly different from zero, and the  $t$ -test comparing these two means indicates that the means are statistically different. Clearly, there is some incremental (negative) information content in the earnings release, although, as we discuss in Section III, the longer-run performance of the two groups is practically identical.

### III. Long-Run Price Responses

Table III and Figure 1 display the return performance for up to three years after initiations and omissions events. As before, the benchmark portfolio is the equally-weighted market index. For initiating firms, the stock prices continue to rise even after the initiation announcement: the first year excess return is  $7.5$  percent, significantly different from zero ( $t = 3.37$ ) and the three-year excess return is  $+24.8$  percent ( $t = 3.81$ ). ( $T$ -statistics are calculated using the cross-sectional variance of excess returns as in Korajczyk, Lucas, and McDonald (1991) and Michaely and Shaw (1994).<sup>9</sup> For the omit-

<sup>9</sup> Since the time periods of our events partially overlap, the excess returns we calculate are not strictly independent. For several reasons, however, this does not create a serious problem regarding our statistical tests. First, the extent to which our samples (initiations and omissions) overlap is small. As shown in Table I, our firms are well spread over the 25-year sample period. When we calculate one-year returns, about 5 percent of the observations (partially) overlap, while there is partial overlap for 15 percent of the observations for three year returns. Second, even when samples fully overlap in time, the correlation in excess returns depends on the mix of industries. Bernard (1987), for example, shows that within industries the average correlation of one-year excess returns is about 30 percent, but across industries it is only 6 percent. Once again a look at Table I shows that our observations come from many industries, reducing the potential severity of the problem.

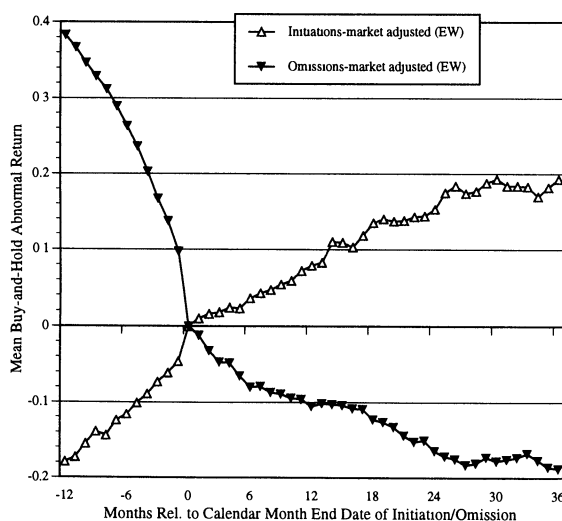
Nevertheless, we explicitly test the magnitude of the correlation in the excess returns in our sample as follows. For each event in each sample (the initiations and the omissions) we compute one-year excess returns and then sort the observations chronologically. Call the excess return for the first observation in our sample  $XR_1$  and so forth. We then compute the correlations between  $XR_i$  and  $XR_{i+1}$ , then the correlations between  $XR_i$  and  $XR_{i+2}$ , and so forth, up to a "lag" of 60 observations. The average correlation over the first 25 "lags" is less than 5 percent and is essentially white noise thereafter (both for one-year and three-year excess returns). This level of correlation is small, as was to be expected.

The next step is to investigate whether this correlation, however small, affects our inference procedure. Sefcik and Thompson (1986, Table 2, and page 327) show how the  $t$ -statistics should be adjusted in the presence of such correlation. The basic idea is that the  $t$ -statistics can be adjusted by the average correlation of the residuals. In our case, the average correlation is 0.14 percent. We then proceed to calculate the adjusted  $t$ -statistics for the one- and three-year returns as described in Sefcik and Thompson (1986). Not surprisingly (given the low correlation), none of our conclusions change.

Table III  
Market-Adjusted Returns for Periods At and After Announcement Date for Corporations Initiating and Omitting Cash Dividends

Market-adjusted buy-and-hold returns for the initiation and omission samples (1964 to 1988) are calculated for the three-day event period and for the three-month, one-year, and three-year periods beginning two trading days after the event day. In Panel A excess returns are calculated for the entire samples of initiations and omissions. In Panel B the omission sample is divided into firms that paid a stock dividend in lieu of the cash dividend and those that did not. In Panel C the mean excess return of subsample firms that had contemporaneous earnings announcements are compared to the ones that did not have a contemporaneous announcement. *t*-Statistics are reported in parentheses.

|   |                | Market-Adjusted Excess Returns<br>for Holding Period Relative to Event Day (%) |                             |                              |                              |                              |  |
|---|----------------|--|-----------------------------|------------------------------|------------------------------|------------------------------|--|
|   |                | From Day - 1<br>to Day + 1   | From Day + 2<br>to Day + 65 | From Day + 2<br>to Day + 254 | From Day + 2<br>to Day + 506 | From Day - 2<br>to Day + 758 |  |
|   |                | Panel A: Entire Sample   |                             |                              |                              |                              |  |
| Initiations   | <i>n</i> = 887 | 3.4<br>(11.08)   | 1.8<br>(1.97)               | 7.5<br>(3.37)                | 15.6<br>(3.47)               | 24.8<br>(3.81)               |  |
| Omissions   | <i>n</i> = 561 | -7.0<br>(-24.75)   | -4.6<br>(-6.34)             | -11.0<br>(-6.33)             | -15.0<br>(-5.88)             | -15.3<br>(-4.15)             |  |
| Panel B: Separating the Omission Sample into Stocks that Paid and Substituted and Did Not Substitute a Stock for Cash Dividend                              |                |  |                             |                              |                              |                              |  |
| Stock dividend in lieu  | <i>n</i> = 92  | -3.1   | -7.6                        | -15.2                        | -21.9                        | -31.3                        |  |
| No stock dividend   | <i>n</i> = 795 | -7.4<br>(5.45)   | -4.3<br>(1.74)              | -10.5<br>(0.85)              | -14.1<br>(0.94)              | -13.5<br>(1.77)              |  |
| <i>t</i> -Statistic of difference   |                |  |                             |                              |                              |                              |  |
| Panel C: Separating the Omission Sample into Firms that Had and Did Not Have Concurrent Earnings and Omission Announcements (in the Three-Day Event Window) |                |  |                             |                              |                              |                              |  |
| Contemporaneous earnings announcement   | <i>n</i> = 93  | -8.0   | -6.0                        | -11.9                        | -12.0                        | -18.2                        |  |
| Omission announcement only  | <i>n</i> = 286 | -5.5   | -5.3                        | -12.9                        | -19.5                        | -19.7                        |  |
| <i>t</i> -Statistic of difference   |                | (2.63)   | (0.34)                      | (0.14)                       | (0.74)                       | (0.12)                       |  |



**Figure 1. Buy-and-hold adjusted returns for corporations initiating and omitting cash dividends in the period 1964 to 1988.** Buy-and-hold market-adjusted returns for the initiation and omission samples are calculated from the one year before to three years after the event. The market-adjusted benchmark compares the security return to the equally-weighted index return. Buy-and-hold returns are calculated as follows:

$$ER_{j(a \text{ to } b)} = \prod_{t=a}^b (1 + R_{jt}) - \prod_{t=a}^b (1 + MR_t)$$

where  $ER_{j(a \text{ to } b)}$  = Excess return for firm  $j$  from time period  $a$  to  $b$ ,  $R_{jt}$  = raw return for firm  $j$  for month  $t$ ,  $MR_t$  = return on the equally-weighted market index for month  $t$ .

ting firms, we observe a drift in the opposite direction: the first year excess return is  $-11.0$  percent, measured from the second day after the announcement, and is  $-15.3$  percent after three years. Both excess returns are significant with  $t$ -statistics of  $6.33$  and  $4.15$ , respectively. It should be noted, however, that the long-term results of the omission sample are more robust than those of the initiation sample. That is, the omission sample excess return shows a significant drift for one and three years after the event regardless of the benchmark portfolio used. The drift after initiations, however, is significant only for some benchmarks and time intervals.

We also examine the long-run performance of firms with and without concurrent earnings announcements at the time of the omission announcement (reported in Table III, Panel C). The price behavior of the two subsamples is quite similar to the entire sample: a price drop of  $11.9$  percent and  $12.9$  percent after one year, and  $18.2$  and  $19.7$  percent after three years. We cannot reject the hypotheses that the return behavior of the two groups is identical in each of those time intervals.

The drift, however, is even more pronounced for the subsample of firms that replace the cash dividend with a stock dividend. Recall that the three-day



return for these firms is smaller than for the firms that omit all payouts ( $-3.1$  versus  $-7.4$  percent). This difference is more than offset over the following three years. As Table III, Panel B shows, the three-year buy-and-hold excess returns are  $-31.3$  percent for stock-dividend payers versus  $-13.5$  percent for the rest of the sample. (A test of these returns being different produces a  $t$ -statistic of 1.77.) This combination of a smaller initial reaction followed by a much larger drift is indeed curious.

The difference between the stock-dividend-paying firms and the others, interesting as it may be, is not the major story here. Of greater interest are the excess returns following initiations and omissions, excess returns that are both economically and statistically significant, and persist for a year or more. The negative excess returns following omissions are particularly surprising since we began our investigation believing that subsequent positive excess returns (consistent with overreaction) were as likely as drift.<sup>10</sup> This raises questions regarding the comparability of our omission sample with those of De Bondt and Thaler (1985, 1987, 1989 (who find price reversals)) as well as Bernard and Thomas (1989, 1990 (who find drift)).

Are the negative excess returns experienced by the omission firms comparable to those of De Bondt and Thaler's "losers"? To examine this we compute the excess returns for the four-year period prior to the announcement. We find that the excess returns over this period were  $-45.6$  percent. For the sake of comparison, consider the excess returns of the first and second quintile of stocks (ranked on the basis of four year monthly cumulative average market-adjusted returns) reported in De Bondt and Thaler (1987). They find that the first quintile (the big losers) have four year excess returns of  $-81$  percent, while the second quintile have excess returns of  $-32$  percent. Our sample of omission firms falls between these two levels, but this negative performance is severe enough to expect mean reversion based on De Bondt and Thaler's results of positive excess returns over the next four years for both quintiles (25 percent for the first quintile and 12 percent for the second quintile). Thus, while the omission firms are not the most extreme losers, their stock prices have lost enough to make one think that a price reversal is likely.

There is another interesting comparison that can be made between our omission sample and De Bondt and Thaler's losers. De Bondt and Thaler find that the excess returns to their losers occurred primarily in January. In light of this, we compute monthly excess returns for the omission sample in the twelve calendar months following the month of the omission event. We find that the omission portfolio actually does very well in January. The mean return for this month is  $+4.6$  percent. (Part of this excess return is attributable to the small firm sizes in the omission sample, but compared to the size-matched portfolio the omission portfolio still earns a 3.1 percent excess

<sup>10</sup> There is less contrast between the positive drift for our initiation sample and the negative returns to De Bondt and Thaler's winners, since the latter were small and not significant.

return in January.) The negative excess returns occur in the other months, particularly in the fourth quarter.<sup>11</sup>

While our results are inconsistent with overreaction, are they consistent with post-earnings-announcement drift. Have we simply rediscovered this phenomenon? We have already shown that (for the subsample of omitting firms for which we have earnings data) only one quarter of the firms omitting a dividend actually made concurrent earnings announcements, and that the concurrence of the two announcements seems to have little effect on the long-term drift. However, even if firms do not announce earnings at the same time as the dividend omission, they might still have negative earnings surprises in surrounding quarters. To investigate this, we calculate earnings surprises in the year before and after the event for all the firms where we have sufficient data. The earnings surprise is defined as the difference between this quarter's earnings ( $E_t$ ) and the earnings four quarters earlier, ( $E_{t-4}$ ) scaled by price at the end of quarter  $t - 4$ , which is prior to the ( $E_{t-4}$ ) announcement (Bernard and Thomas (1990)). The earnings numbers we use are "earnings before extraordinary items" as reported by COMPUSTAT. We also calculate excess returns for the three days surrounding each earnings announcement.

The results are shown in Table IV. As expected, initiating firms experience positive earnings surprises and excess returns for the earnings announcements preceding the dividend initiation, and omitting firms have negative earnings surprises and excess returns before the omission announcement. What about the subsequent earnings announcements? After an earnings surprise, Bernard and Thomas find significant excess returns (in the same direction) for three quarters, and then a significant excess return in the opposite direction one year after the event. Do our firms show the same pattern? Unfortunately, with our small sample size (compared to the thousands of events studied by Bernard and Thomas) it is not possible to say anything definitive. We do see excess returns of 1.3 and 0.9 percent in the two quarters after an initiation (the first of which is significant) and a significant  $-1.1$  percent excess return in the quarter following an omission. However, no other excess returns are significantly different from zero.

Another comparison with Bernard and Thomas is possible. They find that the magnitude of the drift is highly correlated with the size of the initial earnings surprise. To see whether our drift displays a similar pattern we have divided both our samples into thirds based on the change in dividend yield (the dividend surprise) at the time of the announcement. We then calculate the excess returns for the year before and three years after the event. These results are shown in Table V. Unlike Bernard and Thomas, we find no clear relationship between the size of the "dividend surprise" and the subsequent drift. The excess returns in the year following the event are

<sup>11</sup> There is no strong seasonal pattern in the excess returns in the initiation sample. The January excess return is 0.6 percent using the equally-weighted index as a benchmark and  $-1.5$  percent on a size-adjusted basis. Neither are significantly different from zero.

Table IV

**Price Reactions to Earnings Announcements from One Year Before  
and to One Year After the Dividend Announcements**

We collect available (beginning in 1972) quarterly earnings announcement dates and earnings before extraordinary items for dividend-initiating and omitting firms. Earnings surprises (*ES*) are calculated using the seasonal random walk model as in Bernard and Thomas (1990). That is:

$$ES_{\text{qtr } t} = \frac{EBEI_t - EBEI_{t-4}}{PRICE_{\text{end of qtr } t-4}} \text{ where } EBEI \text{ is the earnings before extraordinary items and } PRICE$$

is the stock price at the end of the prior measurement period. Excess returns are calculated as market-adjusted buy-and-hold returns for the three-day periods centered around the earnings announcement day for each quarterly report.

| Panel A: Initiations                     |                        |                                  |                              |   |
|--|------------------------|----------------------------------|------------------------------|---|
| Quarter<br>Relative to<br>Initiation Day | No. of<br>Observations | Mean<br>Earnings<br>Surprise (%) | Mean<br>Excess<br>Return (%) | <i>t</i> -Statistic<br>of <i>ER</i> = 0 |
| - 4                                      | 174                    | +2.6                             | 1.6                          | 2.45                                    |
| -3                                       | 203                    | +2.9                             | 1.0                          | 1.85                                    |
| -2                                       | 212                    | +2.7                             | 0.9                          | 1.82                                    |
| -1                                       | 181                    | +2.4                             | 1.0                          | 1.94                                    |
| 0*                                       | 42                     | +2.5                             | 6.0                          | 4.84                                    |
| 1  | 227                    | +2.6                             | 1.3                          | 2.53                                    |
| 2  | 235                    | +1.7                             | 0.9                          | 1.22                                    |
| 3  | 231                    | +1.2                             | -0.2                         | 0.58                                    |
| 4  | 227                    | -0.1                             | 0.0                          | 0.09                                    |
| Panel B: Omissions                       |                        |                                  |                              |   |
| Quarter<br>Relative to<br>Omission Day   | No. of<br>Observations | Mean<br>Earnings<br>Surprise (%) | Mean<br>Excess<br>Return (%) | <i>t</i> -Statistic                     |
| - 4                                      | 248                    | -1.4                             | -1.6                         | 4.86                                    |
| -3                                       | 277                    | -2.2                             | -2.2                         | 0.30                                    |
| -2                                       | 278                    | -3.5                             | -1.5                         | 4.04                                    |
| -1                                       | 204                    | -4.0                             | -2.1                         | 4.89                                    |
| 0*                                       | 86                     | -5.4                             | -8.8                         | 9.77                                    |
| 1  | 281                    | -6.6                             | -1.1                         | 2.92                                    |
| 2  | 290                    | -4.1                             | 0.4                          | 0.93                                    |
| 3  | 297                    | -1.1                             | 0.4                          | 0.96                                    |
| 4  | 278                    | 2.2                              | 0.1                          | 0.37                                    |

\* Quarter 0 represents quarterly earnings announcements that were coincident with the initiation and omission three-day event period windows.

Table V  
**Market-Adjusted Returns for Firms Initiating and Omitting Dividends,  
Separated into Thirds by Change in Yield**  
Post-event market-adjusted returns are shown for three equal-number-of-observation groups based on the magnitude of the yield change. Returns are market-adjusted (equally-weighted index) buy-and-hold returns.

|                        | Market-Adjusted Return (%) for<br>Holding Periods Relative to Event Day |                          |                            |                            |
|------------------------|---|--------------------------|----------------------------|----------------------------|
|                        | From Day -254<br>to Day -2  | From Day -1<br>to Day +1 | From Day +2<br>to Day +254 | From Day +2<br>to Day +758 |
| Panel A: Initiations   |   |                          |                            |                            |
| Yield change 0.0-0.5%  | 22.3  | 1.6                      | 4.5                        | 15.1                       |
| Yield change 0.5-0.93% | 13.6  | 2.8                      | 10.5                       | 39.9                       |
| Yield change 0.93-8.0% | 9.5   | 5.7                      | 7.6                        | 19.9                       |
| Panel B: Omissions     |   |                          |                            |                            |
| Yield change 0.0-3.9%  | -23.7   | -4.2                     | -10.0                      | -17.2                      |
| Yield change 3.9-6.9%  | -33.4   | -6.6                     | -12.9                      | -16.3                      |
| Yield change 7.0-77%   | -38.4   | -10.3                    | -9.8                       | -12.2                      |

actually greatest (in absolute value) in the middle group for both omissions and initiations. For the omissions, the three-year drift is, if anything, inversely related to the size of the yield change.

#### **IV. Symmetry in Market Reactions to Initiations and Omissions**

##### *A. Short-Run Reactions*

The more pronounced initial price reaction to omissions than to initiations is not unique to our sample. Healy and Palepu (1988) for example, find a 3.9 percent increase for a sample of 131 initiations and a 9.5 percent decrease for a sample of 172 omissions. In fact, this differential holds for simple dividend increases and decreases as well. Aharony and Swary (1980), for instance, find that dividend decreases are associated with a price drop of about 3.5 percent while dividend increases are associated with a price increase of about 1 percent.

If dividend changes convey information about the future prospects of the firm (as postulated by Bhattacharya (1979) and Miller and Rock (1985)), then the differential response to omissions and initiations might suggest that negative changes have more information content (perhaps because they are more unusual). Bhattacharya's (1979) and Myers and Majluf's (1984) results also suggest that for an equivalent dividend change, the price impact of a dividend decrease should be greater than the impact of a dividend increase (since the cost of making up a deficit in cash flow is greater than the cost of having a surplus). However, if dividend changes have information content, then presumably the information transmitted is related to the size of the change in the dividend. Initiating or omitting a 5 percent dividend should be more informative than initiating or omitting a dividend paying a 1 percent yield. If we assume that information content is proportional to the magnitude of the change, then the conclusion that omissions are more informative than initiations is reversed. The average change in yield at initiation is only 0.9 percent while the change in yield at omission is 6.7 percent. Thus, while the price change upon the announcement of an omission is twice the change for an omission, this change is in response to an event 7 times larger. Perhaps it is initiations that are more informative!

To investigate this issue more rigorously, we use a series of regressions of the excess returns on the change in yield.<sup>12</sup> We do so using two measures of the change in yield: in the first, the last dividend paid is annualized and divided by the stock price on the day before the announcement, and, in the second, the annualized dividend on the day before the announcement is divided by the price one year before the announcement. The use of the current price needs no justification. The argument for the older price is that

<sup>12</sup> Asquith and Mullins (1983) examine whether the larger price reaction to dividend initiations relative to regular dividend increases is because of larger change in yield. They conclude that even after accounting for the yield differences, initiations convey more information.

prices have changed over the year since the level of the dividend was set (an average drop of 31 percent below the market for the omission sample), and so the current yield somewhat overstates the “intended” yield. We also add dummy variables to test whether the effect is symmetric between initiations and omissions:

$$ER_i \cdot M_i = \alpha_0 + \alpha_1 Q_i + \alpha_2 \left( \frac{D}{P} \right)_i \cdot M_i + \alpha_3 Q_i \left( \frac{D}{P} \right)_i \cdot M_i + \varepsilon_i \text{ for } i = 1 \text{ to } N \quad (3)$$

where

$ER_i$  is the three-day excess return for security  $i$ ,

$M_i = -1$  if the observation is an omission or 1 if the observation is an initiation,

$Q_i = 1$  if omission and 0 if initiation,

$\left( \frac{D}{P} \right)_i$  is the ratio of the annualized dividend to the price.

The results are reported in Table VI. When we use the previous day's price to scale the change in dividend yield (first row) we find that both the slope and intercepts differ between the initiation and omission samples. The intercept dummy is positive and the slope dummy is negative, both significant at the 1 percent level. This result suggests that the omission announcement per se is a more dramatic event than an initiation, but that the effect of a unit change in yield has a larger effect on prices for initiations than for omissions. Using an  $F$ -test, we can reject the hypothesis that the slope and intercept are equal for omissions and initiations at the 0.01 percent level. However, if the year-old price is used to define the change in yield (second row of Table VI), the differences between the slopes and intercepts for initiations and omissions are statistically insignificant. Likewise, we cannot reject the joint hypothesis that the intercept and slopes are equal for omissions and initiations using an  $F$ -test.

To see whether either of these results might be due to outliers in the sample, we have also run the same regressions using grouped data. To do so, we divided both samples into ten groups ranked by change in yield and reexamined the relationship between excess return and yield using the means for these deciles. The results are shown in the third and fourth rows of Table VI. Regardless of whether we divide the annualized dividend by previous day price (third row) or prior year price (fourth row), neither the intercept dummy nor the slope dummy is significantly different from zero. Similarly, the  $F$ -statistics also indicate that the intercept and the slope are equal for omissions and initiations ( $p$ -values of 0.34 and 0.62 using the two yield definitions respectively). Overall, the results show that the market reaction to the dividend change is significantly related to the magnitude of the change. When the “stale” price is used in the definition of yield, there is no asymmetry between the market reactions to initiation and omission announcements.

Table VI  
Dividend Yield Changes as A Determinant of the Price Reaction around  
Initiation and Omission Announcements

Using multivariate linear regression, we investigate the relationship between the market reaction to the initiation/omission announcement and the change in yield:

$$ER_i \cdot M_i = \alpha_0 + \alpha_1 Q_i + \alpha_2 \left(\frac{D}{P}\right)_i \cdot M_i + \alpha_3 Q_i \left(\frac{D}{P}\right)_i \cdot M_i + \varepsilon_i, \quad i = 1 \dots N$$

where  $ER_i$  is the three-day excess return for security  $i$ ,  $M_i = -1$  if the observation is an omission or  $= 1$  if the observation is an initiation,  $Q_i = 1$  if omission and 0 if initiation,  $\left(\frac{D}{P}\right)_i$  is the ratio of the annualized dividend to the price on the day before (first and third regressions) or the year before the announcement (second and fourth regressions). To reduce the outliers effects in the last two regressions, observations are grouped according to their yield into 10 omissions and 10 initiations deciles. The  $F$ -statistics tests the joint hypotheses that both the intercept and the slope dummies are insignificantly different from zero.  $t$ -Statistics are in parentheses.

| Intercept $\alpha_0$                               | Intercept<br>Dummy $\alpha_1^* Q_i$ | Yield<br>Coefficient $\alpha_2$ | Slope Dummy<br>Coefficient $\alpha_3$ | $F$ -Test<br>(probability) | $R^2$ | $N$  |
|--|-------------------------------------|---------------------------------|---------------------------------------|----------------------------|-------|------|
| Panel A: When Yield = $D/P_{t-1}$                  |                                     |                                 |                                       |                            |       |      |
| 0.011<br>(2.43)                                    | 0.029<br>(4.91)                     | 2.117<br>(5.59)                 | -1.67<br>(-4.40)                      | 13.47<br>(0.00)            | 0.16  | 1448 |
| Panel B: When Yield = $D/P_{t-250}$                |                                     |                                 |                                       |                            |       |      |
| 0.019<br>(4.52)                                    | 0.004<br>(0.53)                     | 0.997<br>(3.88)                 | 0.10<br>(0.36)                        | 0.70<br>(0.50)             | 0.14  | 1448 |
| Panel C: When Yield = $D/P_{t-1}$ , Grouped Data   |                                     |                                 |                                       |                            |       |      |
| 0.0097<br>(1.75)                                   | 0.009<br>(1.05)                     | 1.62<br>(3.04)                  | -0.81<br>(-0.54)                      | 1.13<br>(0.35)             | 0.90  | 20   |
| Panel D: When Yield = $D/P_{t-250}$ , Grouped Data |                                     |                                 |                                       |                            |       |      |
| 0.010<br>(2.06)                                    | -0.003<br>(-0.34)                   | 1.16<br>(3.51)                  | 0.32<br>(0.90)                        | 2.01<br>(0.62)             | 0.92  | 20   |

### *B. Long-Run Response*

We have documented price drifts associated with both omission and initiation announcements. These deviations from the market efficiency paradigm are not unique to our study. However, the specific events investigated here (initiations and omissions) provide us with a unique opportunity to analyze the question of whether the long-run market response to good news (initiations) and to bad news (omission) is symmetric. Similar to the immediate response to these events, it appears that the absolute magnitude and the duration of the drift are more pronounced for omissions than for initiations. The magnitude of the drift may depend on the intensity of the news (i.e., the magnitude of the change in yield). It is also possible that the drift will be more pronounced for stocks that are thinly traded, i.e., low turnover. These stocks may experience slower price responses to informational events, including initiations and omissions.

To investigate these issues, we estimate a set of regressions (not reported) similar to the ones we used in the analysis of the short-term reactions (equation (3)). The independent variables are the stock's dividend yield, its average daily turnover in the year after the event, and a dummy variable,  $Q_i$ , that takes the value of one if the event is an omission and zero if an initiation. The dependent variables are the one-year and the three-year excess returns. No discernible pattern is found for either the one or the three-year excess returns: neither the yield nor the liquidity coefficients are significant. The long-term drift, and the asymmetry in the drifts between initiations and omissions, cannot be explained by the magnitude of the change in the yield, nor by the stock's subsequent liquidity.

## **V. Robustness**

There are several possible concerns one might have about the results presented so far. First, are the long-run excess returns sensitive to the particular benchmark selected? Second, could the excess returns be attributable to changes in risk? Third, are the excess returns concentrated in particular industries or years? Finally, do the excess returns imply a viable trading rule?

### *A. The Benchmark Portfolio*

We have argued that the equally-weighted index is an appropriate benchmark to use in computing excess returns for our samples. However, both samples have somewhat higher concentrations of small firms than the NYSE/AMEX population (as shown in Table I, the median firm in both samples lies in the 4th decile) so it is possible that our results could be influenced by the size effect. To test for this possibility we recalculate excess returns using size-adjusted portfolios. To do this, we calculate excess returns by subtracting the CRSP NYSE/AMEX market capitalization decile return



appropriate to each firm from that firm's return. (Firm size is measured as the market value of equity at the beginning of the event year).

Another possibility is that our samples may be concentrated in particular industries, and a few select industries are producing the excess returns. To check out this possibility, we also construct industry-and-size-matched portfolios. For each firm in our samples we select the (nonevent) firm from the same two-digit SIC code that is closest in size at the beginning of the year. It should be noted however, that controlling for industry may not be appropriate in our case. That is, if the initiation or omission events coincide with industry-wide misvaluation, controlling for industry effects will reduce our ability to identify abnormal performance.

The results are described in Table VII. For the most part, the results are qualitatively the same as those obtained using the equally-weighted index. In both samples, the returns prior to the event, and those in the event window, are very close to those shown before in Table II. Since both of our samples overweight small capitalization firms, and since small stocks generally outperformed large stocks during our sample period, using size-adjusted returns as a benchmark reduces the reported excess returns on average. For the omission sample, the postevent (negative) excess returns are thus more pronounced: the one-year excess returns are  $-12.7$  percent for the size-adjusted portfolio,  $-14.7$  percent for the industry-and-size-matched portfolio, and  $-11.3$  percent for the beta-adjusted portfolio, compared to  $-11.0$  percent using the equally-weighted index. The three-year cumulative returns are  $-19.6$ ,  $-16.0$ ,  $-19.7$ , and  $-15.3$  percent, respectively. All are significant.

For the same reasons, the positive excess returns for initiations also become smaller when using the size-adjusted benchmarks, especially the three-year returns. The one-year and the three-year mean excess returns are significant for both the beta-adjusted and size-adjusted benchmarks. The long-run excess returns are positive but insignificant when the industry-and-size-matched benchmark is used. Of course, the industry-and-size-matched portfolio procedure introduces considerable additional noise into the excess return calculations because of the higher variance of the firm-by-firm matching comparisons relative to portfolio comparisons, so we put the most weight on the market-adjusted (with or without beta) and size-adjusted returns.

In Table VII we also report median excess returns using the equally-weighted index. Although medians are not very interesting from an investment perspective, they can tell us to what extent the portfolio returns are produced by outliers or asymmetries in returns. Since individual firm returns are typically right skewed (negative returns are bounded at  $-100$  percent), median returns are usually lower than mean returns (especially for long-term returns), and our results are no exception. Thus, the median excess returns for the omissions are more negative, whereas the median excess returns for the initiations are closer to zero.

**Table VII**  
**Beta-Adjusted, Size-Adjusted, and Industry-Matched Returns for Corporations Initiating and Omitting Dividends**

Table VII compares market-adjusted, beta-adjusted, size-adjusted, and industry-matched buy-and-hold returns for the initiation and omission samples. We calculate the buy-and-hold return for the initiating and omitting firms as:

$$ER_{j(a \text{ to } b)} = \prod_{t=a}^b (1 + R_{jt}) - \prod_{t=a}^b (1 + MR_t)$$

where  $ER_{j(a \text{ to } b)}$  = Excess return for firm  $j$  from time period  $a$  to  $b$ ,  $R_{jt}$  = raw return for firm  $j$  in day or month  $t$ ,  $MR_t$  is either the return on (1) the equally-weighted market, (2) the equally-weighted market times the appropriate firm beta, (3) the appropriate market capitalization decile for New York Stock Exchange/American Stock Exchange firms on the CRSP tape, or (4) a matching firm (closest by size with the appropriate SIC code), in day or month  $t$ . If the matching firm was delisted before the sample firm, the equally-weighted market index was substituted for the matching-firm return.  $t$ -Statistics are calculated based on the cross-sectional variance of the excess returns in the relevant period and are reported in parentheses.

|   | Excess Returns (%) for<br>Holding Periods Relative to Event Day |  |   |   |
|---|---|--|---|---|
|   | From<br>Day - 254<br>to Day - 2<br>(1 Yr.<br>Preevent)          | From<br>Day - 1<br>to Day + 1<br>(Event<br>Return) | From<br>Day + 2<br>to Day + 254<br>(1 Yr.<br>Postevent) | From<br>Day + 2<br>to Day + 758<br>(3 Yr.<br>Postevent) |
| Panel A: Initiations                          |   |  |   |   |
| Mean, market-adjusted (EW)                    | 15.1<br>(6.4)   | 3.4<br>(11.08)                                     | 7.5<br>(3.37)   | 24.8<br>(3.81)  |
| Mean, beta-adjusted                           | 13.2<br>(5.4)   | 3.4<br>(10.82)                                     | 6.2<br>(2.65)   | 13.9<br>(2.05)  |
| Mean, size-decile adjusted                    | 13.8<br>(5.96)  | 3.4<br>(11.19)                                     | 6.0<br>(2.69)   | 12.1<br>(1.89)  |
| Mean, industry-and-size-<br>matched portfolio | 13.5<br>(4.6)   | 3.0<br>(7.40)                                      | 0.76<br>(0.25)  | 8.6<br>(1.07)   |
| Median, market-adjusted (EW)                  | 0.6   | 2.3  | 1.7   | - 1.4   |
| Panel B: Omissions                            |   |  |   |   |
| Mean, market-adjusted (EW)                    | - 31.8<br>(- 31.6)  | - 7.0<br>(- 24.75)                                 | - 11.0<br>(- 6.33)                                      | - 15.3<br>(- 4.15)                                      |
| Mean, beta-adjusted                           | - 31.4<br>(- 26.5)  | - 7.0<br>(- 24.61)                                 | - 11.3<br>(- 6.08)                                      | - 16.0<br>(- 4.12)                                      |
| Mean, size-decile-adjusted                    | - 32.9<br>(- 32.02)   | - 7.0<br>(- 24.92)                                 | - 12.7<br>(- 7.39)                                      | - 19.6<br>(- 5.41)                                      |
| Mean, industry-and-size-<br>matched portfolio | - 28.1<br>(- 16.1)  | - 7.1<br>(- 21.10)                                 | - 14.7<br>(- 6.00)                                      | - 19.7<br>(- 4.13)                                      |
| Median, market-adjusted (EW)                  | - 32.5  | - 6.3  | - 18.1  | - 32.0  |

*B. Beta Risk Changes*

Can the excess returns after initiation and omission announcements be explained by changes in systematic risk as measured by beta? While such an explanation is always possible, a change in beta-risk seems unlikely to explain our results because of the direction of the drifts that we observe. After initiations, prices drift up while after omissions, they drift down, so a risk change hypothesis must argue that firms become riskier after initiations and less risky after omissions. It is worth noting that such a risk shift is precisely the opposite pattern of the risk changes that some authors (e.g., Chan (1988) and Ball and Kothari (1989)) have proposed as an explanation of De Bondt and Thaler's findings. Nevertheless, for completeness we have investigated this issue by taking the CRSP estimated beta of each stock in our samples for the calendar year of the event and the years before and after. These betas are calculated using the daily returns in that year. For the omissions, the three betas are, in order, 1.06, 0.95, and 1.08. For the initiations the three betas are: 1.34, 1.35, and 1.24. If we simply compare the preannouncement year betas with the postannouncement year betas, we find that both samples show movement in the wrong direction to support a risk explanation.

Of course, beta may not be the best measure of risk. Fama and French (1993) have argued that returns are best explained by size and the ratio of market value to book value. We have reported size-adjusted returns but not returns correcting for price to book. However, it is clear what direction this correction would take. The initiation sample will tend to be high price-to-book (i.e., growth stocks) and the omission sample will tend to be low price-to-book (i.e., value stocks). Therefore, the drifts we observe will become more pronounced if we compare the returns to other stocks with these characteristics.

*C. Event Clustering*

While Table I (Panel A) indicates that neither the initiations nor the omissions events are clustered in one particular time period, it is still possible that the excess returns are dominated by a shorter subperiod. Perhaps the drift existed in the 60s, was recognized, and has since disappeared. We investigate this possibility by splitting our samples into two time periods so that there are equal numbers of observation in each subperiod. (The split occurs in 1975 for the initiation sample and 1976 for the omissions.) We then evaluate the portfolio performance (relative to the equally-weighted index) before, during, and after the events for each subperiod. The results are reported in Table VIII.

In general, we find that excess returns, before and after the announcements, are more pronounced in the second subperiod than in the first. For the initiation sample, the average excess returns in the year before the event is +8.6 percent for the 1966 to 75 period compared with +21.6 percent for the 1975 to 88 period. The excess return in the three years after the event is +11.1 percent in the first subperiod and is +38.4 percent in the second.

Table VIII  
Market-Adjusted Returns for Firms Initiating and Omitting Dividends When  
the Sample is Divided Into Two Time Periods

Market-adjusted buy-and-hold returns for the initiation and omission samples (1964 to 1988) are calculated for the year before, the three days of, and for the one-, two-, and three-year periods after the events. Each sample is divided into two time periods so that the number of events in each time period is equal.

|                      |         | Market-Adjusted Returns (%)<br>for Holding Period Relative to Event Day |                          |                            |                            |                            |  |
|----------------------|---------|---|--------------------------|----------------------------|----------------------------|----------------------------|--|
|                      |         | From Day -254<br>to Day -2  | From Day -1<br>to Day +1 | From Day +2<br>to Day +254 | From Day +2<br>to Day +506 | From Day -2<br>to Day +758 |  |
| Panel A: Initiations |         |   |                          |                            |                            |                            |  |
| 1966-1975            | n = 280 | 8.6   | 3.1                      | 1.7                        | 2.7                        | 11.1                       |  |
| 1975-1988            | n = 281 | 21.6  | 3.7                      | 13.3                       | 28.3                       | 38.4                       |  |
| Panel B: Omissions   |         |   |                          |                            |                            |                            |  |
| 1966-1975            | n = 443 | -27.6   | -8.0                     | -7.5                       | -8.9                       | -6.8                       |  |
| 1976-1988            | n = 444 | -36.0   | -6.0                     | -14.6                      | -21.1                      | -23.9                      |  |

Similarly, the three-year post-omission-announcement drift is  $-6.8$  percent and  $-23.9$  percent for the first and second subperiods respectively. A comparable picture emerges when we compare the performance in each time period to the size-adjusted portfolios. We have no explanation for why the magnitude of the post-event drift increases in the second sub-periods.

#### *D. Returns to a Trading Rule*

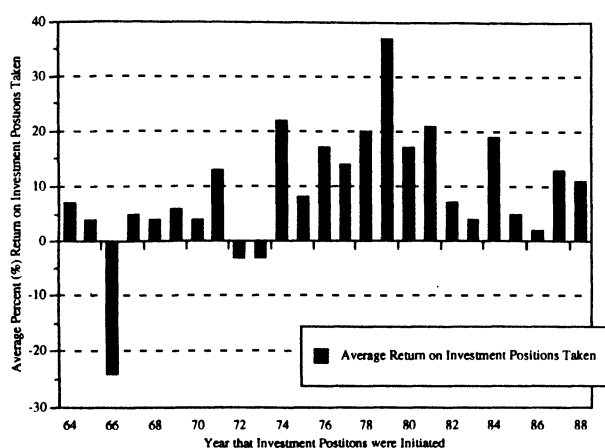
As a final test of the robustness of the results, we calculate the returns to a simple trading rule. For each initiation event in our sample we buy a given long position (say \$1,000) in the stock at the closing price on the day after the initiation announcement, and offset this position by selling short the market (as measured by the CRSP equally-weighted index). Similarly, for every omission event we sell the stock short at the closing price the day after the announcement, and take an offsetting long position in the equally-weighted index. We hold the positions for one year (actually 252 trading days). Then, although these are theoretically zero investment portfolios, we compute returns as a percentage of the long positions.<sup>13</sup>

In order to see how this strategy performs on a year-by-year basis, we have assigned the profits of any given event to the year in which the event occurred, i.e., the year in which the trades were initiated. The results are shown in Figure 2. The average return across all the years is  $+9.7$  percent. The returns are positive in 22 out of the 25 years, and there is only one bad year for the strategy, 1966. We conclude from this exercise that the excess returns from this anomaly are not produced by any one time period, and appear to be economically significant.

### **VI. Clientele Effects**

Common Wall Street wisdom has it that stocks differ in their clienteles. For example, it is well known that institutions primarily hold stocks in large firms, and small firms are held primarily by individuals. Firms with different dividend policies are also thought to have different clienteles for two distinct reasons, one economic and one psychological. First, if dividends are taxed at a higher rate than capital gains, then high-yield stocks should be relatively more attractive to stockholders with low (or zero) marginal tax rates. Second, as Shefrin and Statman (1984) have argued, some individuals may prefer to own stock in dividend paying companies because they employ the rule "spend the dividends, don't touch the principal" as a self-control device. Utilities, for example, are held primarily by individuals, though they pay high dividends (see Lee, Shleifer, and Thaler (1991)). Of course, if stockholders do sort themselves according to their preferences for dividend income versus capital

<sup>13</sup> We make no claims that this exercise represents a real investment opportunity. The purpose of the calculation is to see whether the excess returns are concentrated in specific time periods. We therefore make no calculations regarding transactions costs.



**Figure 2. A naive trading strategy capturing abnormal returns to dividend initiations and omissions.** For each initiation event in our sample we buy an equal-dollar long position in the stock at the closing price on the day after the initiation announcement, and offset this investment with a short position in the CRSP equally-weighted index. Similarly, for every omission event we sell the stock short at the closing price the day after the announcement, and buy an offsetting long position in the equally-weighted index. Both positions are held for one year (252 trading days). Returns are calculated as a percentage of the long position. The figure displays the average return in each year to the trading strategy: the returns displayed are for positions initiated in the year shown, but closed out in the following year. The average return across all years is +9.7 percent.

gains, then the announcement of a dividend omission or initiation should produce a significant shift in clientele. At the time of the omission, the average firm in our sample was paying out an annual yield of 6.7 percent, so the change in yield is substantial. For this reason, omissions are a particularly interesting case to look at for evidence of clientele shifts. (Initiations, with their much smaller 0.9 percent average yield, would presumably create a smaller clientele shift.) The fact that we also find long-term price drifts after dividend initiations and omissions suggests another reason to check for clientele shifts, since price pressure effects might be a plausible explanation for the drifts. With this motivation, we examine clientele effects in two ways, first by monitoring volume, and second by checking for shifts in institutional ownership.

One way of looking for evidence of a clientele shift is to see whether the turnover rate for firms that initiate or omit dividends shows a marked change following the announcement. To examine this we measure the trading volume for each firm in our sample for the 125 trading days (6 months) before the event day and for the 250 days after the event. Normal volume is defined as the portfolio's average turnover in days  $-125$  to  $-5$  where day zero is the event day. We then compute the portfolio's abnormal volume,  $AV_t$ , (defined as the ratio of daily turnover to normal turnover) and its standard deviation as follows:

For each stock we calculate the daily turnover  $TO_{it}$ , defined as the number of shares traded over the number of shares outstanding.

$$TO_{it} = \frac{\text{Number of shares traded}_{it}}{\text{Number shares outstanding}_{it}} \quad \begin{matrix} i = 1 \dots N \\ t = -125 \dots 250 \end{matrix} \quad (4)$$

where  $N$  is the number of firms in the sample.

Next the average daily turnover for each event is calculated using the daily turnover in days  $-125$  to  $-6$ :

$$\overline{TO}_i = \sum_{t=-125}^{-6} TO_{it} / 120 \quad (5)$$

Then, the portfolio daily turnover for day  $t$  is defined as the simple average turnover for all securities in the sample (either initiations or omissions).

$$TO_t = \frac{1}{N} \sum_{i=1}^N \frac{TO_{it}}{\overline{TO}_i} \quad t = -125 \dots 250 \quad (6)$$

Finally, the abnormal volume (in percentage terms) for day  $t$  is defined as

$$AV_t = TO_t - 1 \quad t = -125 \dots 250 \quad (7)$$

and its standard deviation is:

$$S.D.(AV_t) = \frac{1}{(119)} \sum_{t=-125}^{-6} (AV_t - \overline{AV})^2 \quad (8)$$

where

$$\overline{AV} = \frac{\sum_{t=-125}^{-6} AV_t}{120} \quad (9)$$

The results are displayed in Table IX and Figures 3 (initiations) and 4 (omissions). The average daily turnover for the omission and initiation portfolios is 0.223 and 0.233 percent, respectively, implying an annual turnover of 56 percent, somewhat lower than the average NYSE daily turnover. The results for the initiation sample show that in the eleven days around the initiation announcement, abnormal volume is positive, and significantly positive in days  $-3$  to  $+3$ . However, the increase in turnover is not very large. The average cumulative turnover in those eleven days is only 3.23 percent compared with the normal eleven day turnover of 2.56 percent. Also, as Figure 3 shows, there is no appreciable increase in turnover in the subsequent year.

Firms that omit dividends show a similar pattern shown in the second column of Table IX. Significantly positive abnormal volume is detected up to nine days after the omission date, but the cumulative average turnover in the eleven days around the announcement is 3.62 percent, compared with a normal eleven day turnover of 2.45 percent. Once again, there is no discernible change in volume in the year following the omission announcement.

**Table IX**  
**Abnormal Trading Volume Around Dividend Initiation and Omission Announcements**

Abnormal volume is calculated for the 21 days centered around the initiation/omission announcement. Normal volume is defined as the average daily turnover in day  $-125$  to  $-5$  relative to the event, and abnormal volume is the daily turnover in the event day minus the average daily turnover, relative to the daily average turnover. The standard deviation of turnover is calculated in the estimation period (day  $-125$  to day  $-5$ ) from the average daily turnover.

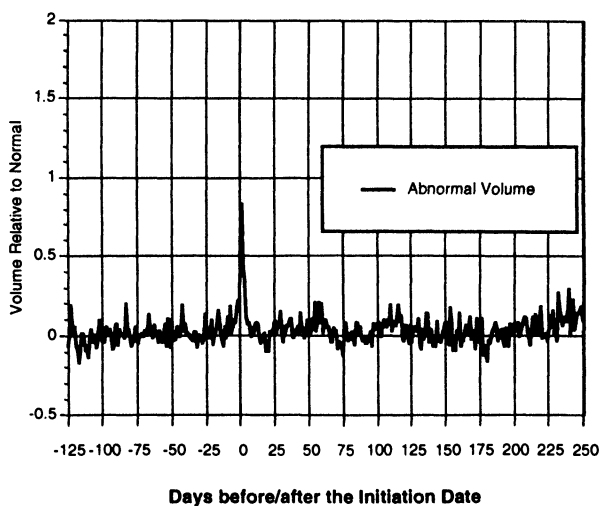
| Day Relative to<br>Announcement Date | (1)<br>Dividend Initiations |                     | (2)<br>Dividend Omissions |                     |
|--------------------------------------|-----------------------------|---------------------|---------------------------|---------------------|
|                                      | Abnormal<br>Volume (%)      | <i>t</i> -Statistic | Abnormal<br>Volume (%)    | <i>t</i> -Statistic |
| -10                                  | 10.6                        | 1.68                | -0.4                      | -0.07               |
| -9                                   | -0.6                        | -0.09               | -0.4                      | -0.07               |
| -8                                   | 17.0                        | 2.67                | 3.8                       | 0.61                |
| -7                                   | 0.8                         | 0.13                | -4.1                      | -0.65               |
| -6                                   | 4.0                         | 0.63                | -5.8                      | -0.94               |
| -5                                   | 9.0                         | 1.42                | -6.6                      | -1.06               |
| -4                                   | 7.0                         | 1.10                | 1.7                       | 0.28                |
| -3                                   | 15.9                        | 2.51                | 8.6                       | 1.39                |
| -2                                   | 20.5                        | 3.22                | 4.6                       | 0.74                |
| -1                                   | 18.8                        | 2.95                | 126.1                     | 20.31               |
| 0                                    | 81.9                        | 12.89               | 191.0                     | 30.77               |
| 1                                    | 82.5                        | 12.99               | 98.8                      | 15.92               |
| 2                                    | 40.3                        | 6.35                | 55.2                      | 8.90                |
| 3                                    | 32.5                        | 5.12                | 42.8                      | 6.89                |
| 4                                    | 10.2                        | 1.61                | 26.6                      | 4.28                |
| 5                                    | 6.2                         | 0.97                | 30.0                      | 4.84                |
| 6                                    | 7.1                         | 1.11                | 38.8                      | 6.25                |
| 7                                    | 2.5                         | 0.40                | 12.9                      | 2.07                |
| 8                                    | -1.8                        | -0.29               | 11.2                      | 1.80                |
| 9                                    | 3.3                         | 0.52                | 15.9                      | 2.56                |
| 10                                   | 0.9                         | 0.14                | 0.0                       | -0.01               |

The relatively minor increase in volume during the event window, and the absence of an increase thereafter, strongly suggests that if there are changes in clientele, they are not very dramatic.<sup>14</sup> Of course, changes in clientele could occur (albeit gradually) without an increase in volume. We have, therefore, also undertaken a direct investigation of whether the share of institutional ownership changes after a dividend omission.<sup>15</sup> To do this we used the *Standard and Poor's Stock Guide* to obtain an estimate of the

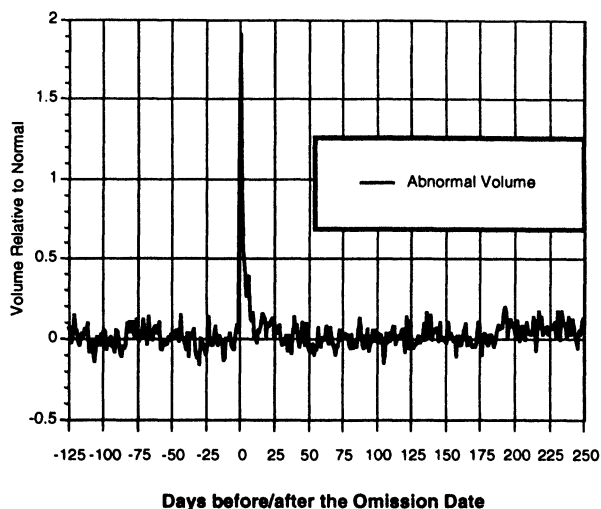
<sup>14</sup> In investigating volume and price changes of 192 firms that initiated dividends, Richardson, Sefcik, and Thompson (1986) conclude that the volume increase is primarily in response to the news contained in the initiation announcement.

<sup>15</sup> We also tried to collect data on institutional ownership for initiating firms but could not obtain a large enough sample size to make an analysis possible. The problem is that many initiating firms are too small to be included in the *Standard and Poor's Stock Guide*, the source of our ownership data.





**Figure 3. Abnormal trading volume around dividend initiation announcements.** Abnormal volume from the six months before the initiation announcements to one year after the announcements is calculated. Normal volume is defined as the average daily turnover in day  $-125$  to  $-5$  relative to the event, and abnormal volume is the daily turnover minus the average daily turnover in the estimation period, relative to the daily average turnover.



**Figure 4. Abnormal trading volume around dividend omission announcements.** Abnormal volume from the six months before the omission announcements to one year after the announcements is calculated. Normal volume is defined as the average daily turnover in day  $-125$  to  $-5$  relative to the event, and abnormal volume is the daily turnover minus the average daily turnover in the estimation period, relative to the daily average turnover.

percentage of shares held by institutions for the three years before and three years after the omission announcement. The data on institutional holdings began to appear in the *Stock Guide* in 1979, so we are able to obtain three years of data prior to omissions only for events occurring in 1982 and later. For this reason, and because not every firm is listed in the *Stock Guide*, our sample of omitting firms falls from 887 to 168.<sup>16</sup> For these 168 firms, we then computed the average institutional ownership share for the three years preceding the event and the three years after the event. Averaging across all firms, we find that the mean institutional holdings before the omission announcement are 30.0 percent (18.1 percent standard deviation) while the mean postevent share is 30.9 percent (17.6 percent). This adds further support to the impression that dividend omissions do not produce dramatic changes in ownership.

## VII. Summary and Conclusion

We investigate the immediate and long-term effects of dividend initiation and omission announcements. Consistent with prior studies, we find that the short-run price impact of dividend omissions is negative and that of initiations is positive. Initiation reactions are about one-half the magnitude of the market reaction to omission announcements. The change in yield, however, is about seven times larger for the omission announcements. We show that the market reaction to a dividend omission announcement is no greater than to an initiation for a given change in yield.

The most surprising of our findings concerns the significant long-term drifts following announcements of initiations and especially omissions. These drifts are surprising on several counts. First, from an efficient market perspective, predictable excess returns are always surprising. In the case of the omissions, where the drift is large and robust, our attempts to correct for risk or size only make the excess returns larger. It also seems that these drift patterns are quite consistent through time: we show that in 22 out of 25 years examined in the study, the combined initiating and omitting firms' drifts result in abnormal profits. Second, firms that omit a dividend are prior losers, not unlike those studied by De Bondt and Thaler who find significantly positive excess returns. Third, while the negative drift resembles that found by Bernard and Thomas and others who have investigated post earnings announcement drift, this is not the same phenomenon. The drift here is more pronounced, lasts longer, and does not appear to occur primarily around subsequent earnings announcements. Fourth, we can find no evidence of important changes in volume or clientele, which mitigates price pressure as a potential explanation for the anomalous drift.

<sup>16</sup> We also deleted firms when the year to year changes were so wild as to suggest that one of the observations was an error. For example, if the institutional holdings for three consecutive years were recorded as 20, 2, 23 percent, we suspected that the middle year was an error and dropped the observation.

It is apparent that both the immediate and the long-term reaction to omission announcements is greater (in absolute value) than to initiation announcements. We are able to explain (at least partially) the asymmetry in the short-term reaction by the difference in the magnitude of the yield change between these two types of events. We cannot find any explanation for the long-term differences in price behavior between initiations and omissions. Neither the intensity of the news (i.e., the change in yield) nor the stock's liquidity can explain the larger drift observed for omissions. Finally, we show that those firms substituting stock dividends for cash dividends experience a smaller price drop at the announcement, but that these stocks perform even worse than nonstock-dividend-paying firms in the long run.

Although our long-term drift results are surprising, they are consistent with several other recent articles. Ikenberry, Lakonishok, and Vermaelen (1995) find positive long-term excess returns following the open-market share repurchases while Loughran and Ritter (1995) find negative long-term excess returns following seasoned equity issues. In both of these cases, firms are making announcements that the market might perceive to be signals regarding the intrinsic value of the stock. Share repurchases indicate that the stock price is too low, while equity issues suggest the opposite. The long-term returns imply that these signals are accurate, but the fact that the price adjustment seems to take months instead of minutes suggests that the market is, in some sense, underreacting to the announcements. The findings of Jegadeesh and Titman (1993) can also be interpreted as underreaction in the three-months to one-year time horizon. In another relevant article Womack (1995) finds similar drift after changes in brokerage recommendations. When brokerage firms add a stock to their "buy" list or "sell" list, there are both immediate and delayed excess returns. We hope future research will help us understand why the market appears to overreact in some circumstances and to underreact in others.

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