REVERSAL OF FORTUNE: DIVIDEND POLICY AND THE
DISAPPEARANCE OF SUSTAINED EARNINGS GROWTH

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Reversal of Fortune: Dividend Policy and the

Disappearance of Sustained Earnings Growth

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Abstract

Managers of more than two-thirds of 145 NYSE firms responded to stalled earnings growth by increasing dividends, with most increases at least as large as that in the peak earnings year. These dividend increases are inconsistent with signalling since most firms' prior sustained earnings growth evaporated, and there is essentially no relation between favorable dividend actions and future earnings. Nor are the dividend increases a return of free cash flow, since the typical dividend increasing firm also increased capital expenditures. Managers' other communications to stockholders are consistent with Jensen's (1993) argument that managers are overly optimistic about company prospects when growth ends. Our negative findings on signalling and affirmative findings on managerial over-optimism likely reflect the fact that firms' favorable dividend actions involved only a modest resource sacrifice.

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1.   <u>Introduction</u>

This paper investigates the relation among dividend policy, earnings growth, and stock market value for 145 NYSE-listed corporations with an annual earnings decline following consistent earnings growth over at least ten years.[1] The median sample firm had annualized earnings growth of 17.9% over the five years before the year 0 initial earnings decline (21.5% over the past ten years). Had the 17.9% growth rate continued through year +3, median earnings would have reached 193% of peak (year -1) earnings, more than <u>double</u> the actual earnings reported in year 3. Thus, year 0 not only represents the first earnings decline in at least ten years, but it also marks the transition from a sustained period of strong earnings growth to a period (at least four years long) in which most firms had essentially <u>zero</u> earnings growth. [The average firm had a 14% abnormal stock price decline in year 0, and the change in the earnings growth rate explains more than 30% of the abnormal returns over years 0-3.]

Despite the disappearance of earnings growth, managers of 99 firms -- more than two-thirds the sample -- increased dividends in year 0. In 67 (67.7%) of these 99 cases, the year 0 dividend increase measured in dollar terms equals or exceeds the dividend increase in the peak earnings year (year -1). Consistent with Lintner's (1956) view that managers are reluctant to cut dividends, only two firms (1.4%) reduced dividends in year 0, while another 44 firms (30.3%) left dividends unchanged. Thus, managers of a remarkably large number of sample firms sent favorable -- and sometimes very favorable -- dividend signals in year 0.

We explore several possible explanations for the puzzling finding that

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[1]The sample contains many prominent firms that saw sustained earnings growth come to a halt, including American Express, BankAmerica, Coca-Cola, Walt Disney, General Mills, Humana, Johnson & Johnson, Merck, Philip Morris, Pillsbury, Procter & Gamble, TRW, Union Pacific, United Technologies, and Waste Management.

managers of most sample firms raised dividends in the year that earnings growth stalled. We first consider whether the high incidence of year 0 dividend increases plausibly represents a "separating equilibrium" in which managers of firms with relatively good prospects (that are mediocre in absolute terms) differentiate their companies from those with comparatively poor prospects. Although we consider a broad range of model specifications and definitions of favorable dividend signals, we find almost no evidence that such signals are useful in separating firms with superior future earnings performance.

We also investigate the possibility that managers increased dividends because the firm's poor earnings led them to believe they should cut capital outlays and return the additional free cash flow to stockholders (Jensen (1986), Miller-Modigliani (1961)). Our evidence does not support the free cash flow explanation since firms that increased dividends in year 0 typically continued to increase capital expenditures through year 1, albeit at a slower rate than in the recent past. Moreover, for the minority of firms that did reduce capital outlays, we find no statistically detectable cross-sectional relation between the dollar magnitudes of the dividend increase and the capital outlay reduction.

We also consider whether the behavioral argument advanced by Jensen (1993, p. 848) -- that managers are overly optimistic about continued growth -- may help explain our firms' high incidence of dividend increases. We analyze managers' letters to stockholders in the year 0 annual reports because, like dividend policy, they are vehicles that managers can use to signal their views about company prospects. The stockholder letters of only 7 firms (4.9% of the sample) indicated that managers were not optimistic about future prospects. Managers of 89 firms (61.4%) expressed varying degrees of optimism, while the remaining managers took no position on future earnings. [By year 3, 25 firms (17.2%) had cut dividends, suggesting that at least some managers did not fully appreciate

the severity of the year 0 earnings downturn at the time.] Finally, a subset of managers was less than forthright in their discussions of the year 0 earnings decline, which suggests that some deliberately sent unduly optimistic signals.

It is possible that managers were overly optimistic (either deliberately or naively) in their stockholder letters because they perceived only minor costs of sending signals that turn out to be wrong. A similar argument may apply to the favorable dividend signals we observe. Consistent with this view, the median sample firm's year 0 dividend increase represents only 3.5% of net income, 2.1% of operating cash flow, and 3.7% of cash + marketable securities. These data suggest that dividend increases are not reliable signals because they entail only a modest incremental cash drain on resources available to managers. In short, credible signalling requires a substantial cash commitment, and our firms' dividend increases are too small to meet this standard.

Section 2 describes our sampling algorithm and gives background descriptive statistics. Section 3 describes our sample firms' earnings growth rates and relates them to the growth patterns of the Compustat population. Section 4 documents sample firms' dividend responses to the year 0 earnings downturn. Sections 5, 6 and 7 respectively consider the signalling, free cash flow, and behavioral explanations for our findings. Section 8 presents a brief summary.

2. Sampling Procedure and Descriptive Statistics

We constructed our sample of 145 firms by searching Compustat's primary and research tapes for NYSE-listed firms with a decline in annual earnings after at least ten earnings reports that indicated strictly increasing net income, i.e., after a minimum of nine consecutive annual earnings increases. Our sample excludes public utilities, limited partnerships, American Depositary Shares, and Canadian companies. We inspected each firm's annual report for the year that

Compustat indicated that earnings first declined to confirm the accuracy of the Compustat earnings data.[2] Since we are concerned with the use of dividend policy to signal future prospects, we dropped seven firms that satisfy our other sampling criteria, but that did not pay dividends. Finally, we excluded 10 firms that changed fiscal year ends while on Compustat because such changes create non-uniform earnings intervals, making it difficult to measure earnings growth.

Our sample exhibits industry clustering at the two-digit SIC level. Twenty-three firms (15.9%) are classified as depository institutions (SIC 60) and 16 firms (11.0%) are in chemicals and allied products (SIC 28). Additionally, eight firms (5.5%) are in industrial, commercial machinery, computer equipment (SIC 35), another eight are in measurement instruments, photo goods, watches (SIC 38), and seven firms (4.8%) are in food and kindred products (SIC 20). Of the remaining 83 firms, one two-digit industry has five firms, eight industries have four firms, five industries have three firms, six industries have two firms, and 19 industries have one firm each.

The time distribution of initial annual earnings declines is:

1980: 13 firms (9.0%)		1984: 8 firms (5.5%)	
1981: 22 firms (15.2%)		1985: 11 firms (7.6%)	
1982: 36 firms (24.8%)		1986: 23 firms (15.9%)	
1983: 13 firms (9.0%)		1987: 19 firms (13.0%)	

A substantial proportion of our sample firms' initial earnings declines occurred during the major recession of the early 1980s (note especially the 24.8% incidence for 1982). There is also some evidence of joint time and industry

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[2]This screen led us to delete one firm whose annual report revealed an earnings increase for the year that Compustat showed the initial earnings decline. For this firm, events subsequent to release of the annual report led to a restatement of income that implied an earnings decline rather than the increase presented in the annual report. Compustat's earnings record includes the restated rather than originally reported earnings figure. We dropped this firm since we cannot match its dividend decisions with a clean disclosure of an initial earnings decline after a long period of sustained growth.

clustering in that 12 of the 19 earnings declines in 1987 are for depository institutions (SIC 60), many of which wrote down large amounts of third world debt. Moreover, 11 firms in chemicals and allied products (SIC 28) had initial earnings declines in 1981 (7 firms) or 1982 (4 firms).

Our sample firms are sizable, with a median $822 million market value of equity in year -1 (mean, $1.6 billion). The median firm appears about average relative to the Compustat population in terms of its (book value-based) financial leverage, holdings of cash + marketable securities, and dividend payout ratio.[3] The median sample firm had a 1.77 ratio of market-to-book value of equity in year -1, indicating that the stock market valued these companies highly, and that their (market value-based) financial leverage was probably below average. The median .18 return on equity in year -1 exceeds the .10 return for the median Compustat firm (per Foster (1986, Table 4.2)) and is also consistent with our firms' high market-to-book ratios.

3. The Disappearance of Sample Firms' Earnings Growth

The shaded profile in Figure 1 plots actual earnings for the median sample firm over the 10 years before the initial earnings decline (years -10 to -1), the decline in year 0, and the next three years (years 1 to 3). The dotted curve plots projected earnings in years 0-3 for the median firm, assuming that each firm's earnings had continued to grow at the annual growth rate that prevailed over years -5 through -1. Although not shown, analogous mean value plots are similar to those for the median firm that appear in Figure 1.

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[3]The median firm in our sample has a .43 total debt/total assets ratio, a .07 (cash + marketable securities)/total assets ratio, and a .29 dividend payout ratio in year -1. For comparison, Foster (1986, table 4.2) reports the median Compustat firm has a .49 total debt/total assets ratio, a .07 (cash + marketable securities)/total assets ratio, and a .27 dividend payout ratio in 1983.

The shaded profile in Figure 1 shows that, although median earnings grew steadily at a high rate over years -10 through -1, this substantial earnings growth disappeared with the initial earnings decline in year 0. For the median firm, year 0 earnings declined by 18.2% percent from the prior year.[4] This initial earnings decline was followed in the next three years by earnings that were essentially flat at about 85% of their peak (year -1) level.

If earnings had continued to grow at the annual growth rate experienced in years -5 to -1, year 3 median earnings would have reached 193% of the earnings level in year -1, more than double the actual earnings in year 3. Thus, Figure 1 shows that year 0 does not simply mark the first earnings decline in many years; rather, it represents a significant turning point from a sustained period of high earnings growth to a period (at least four years long) in which most sample firms experienced essentially zero growth.

The earnings pattern in figure 1 sheds some light on the reasonableness of managers' common complaint that they must run their firms to show earnings growth or else have their firms' shares "unfairly" marked down by the stock market. Specifically, the empirical tendency for our sample firms' earnings downturns to persist for at least four years suggests that a large share price decline may well be a fair response when earnings decline for the first time in many years. Section 5 shows that our sample firms' shares do fall significantly in value in year 0, and the fall is preserved at least through year 3.

Table 1 highlights the economic importance of sample firms' stalled earnings growth. The first two columns of the table show that, over years -10 through -1, our median firm has a substantial 21.5% annualized earnings growth

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[4]The median sample firm had a -25.2% difference between the growth rate over years -1 through 3 and that over years -5 through -1. The decline in earnings growth is pervasive, with 91% of sample firms experiencing decreased growth rates over these two periods.

rate, and the median growth rate is not much smaller over the second half of the period (17.9% over years -5 through -1). More than 90% of the firms experienced double-digit annualized growth rates over both measurement intervals.

For comparison purposes, the third and fourth columns of Table 1 present histograms of annual earnings growth for all firms on Compustat's primary and research tapes (except foreign firms, ADRs, and limited partnerships, see table header for details), with growth rates calculated for 10 and five year periods starting in 1971. For Compustat firms, the median annual earnings growth rate is 12.6% for the 10 year measure and 14.1% for the five year measure. For our sample, the median earnings growth rates of 17.9% (over years -5 to -1) and 21.5% (over years -10 to -1) fall at roughly the 60th or 70th percentile for the five and ten year Compustat growth rates. While the median earnings growth rates for our sample exceed the median for the Compustat population, they are nonetheless below the growth rates for a large minority of Compustat firms. The probable reason is that we have sampled for firms with sustained year-to-year earnings growth, which will not generally identify firms with the highest growth rates calculated over a long horizon.

The earnings growth rates in Table 1 suggest that growth prospects represent a substantial proportion of equity value for most firms in our sample and, more generally, in the Compustat population. To see why, consider the valuation implications of a modest 5% annual earnings growth that is expected to continue in perpetuity. If the relevant discount rate is around 15%, the present value of growth is roughly one-third of the total value of this earnings stream.[5] [The proportion of value attributable to growth _per se_ will, of course,

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[5]Let E, g, and k respectively represent next year's expected earnings, the constant perpetual growth rate in earnings, and the relevant market discount rate, where all rates are expressed in decimal form. Assuming that g < k, the total present value of the complete earnings stream is E/(k - g) and the present value of the growth component is given by the excess of the total value minus

be greater for growth rates above 5% and lower when growth is not expected to continue indefinitely.] This reasoning suggests that the disappearance of our firms' earnings growth should be associated with large equity value declines, and this prediction is supported by the data reported in section 5 below.

4.   Dividend Policy Responses to Earnings Growth Termination

Dividend signalling models predict that managers use dividend increases to communicate to outside investors their private view that the firm's future earnings prospects are favorable.[6] If these models are descriptive, we should observe a low incidence of year 0 dividend increases because that year marks a transition from substantial and persistent earnings growth to essentially zero growth for our sample. Lintner (1956) has argued that managers are reluctant to cut dividends because they fear adverse reactions from stockholders. We should therefore see few dividend reductions in year 0, especially since the median firm had a 21.5% earnings growth rate over the last ten years and a payout ratio of 29%, which together suggest a substantial retained earnings cushion.

The dividend data in Table 2 support Lintner's argument that managers are reluctant to reduce dividends, but are inconsistent with the signalling prediction that few firms increase dividends in the year 0 transition from substantial to essentially zero earnings growth. Panel A of the table reports

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the value of the level stream, E, to be received in perpetuity: $[E/(k - g)]$ - $[E/k] = [g/k][E/(k - g)]$. The ratio of the value of growth to the total present value is then simply g/k. For the example in the text, $g/k = .05/.15 = .33$, or one-third of total value. This example ignores any differences between annual earnings and cash flow net of investment. Adjusting for such differences would change the details of the calculation, but would not change the bottom line that earnings growth generally represents a large proportion of equity value.

[6]Dividend signalling models have been developed by Bhattacharya (1979), Miller and Rock (1985), John and Williams (1985), Kumar (1988), Warther (1994), and others.

sample firms' year 0 dividend changes where, consistent with Watts (1973), a dividend change is treated as falling in a given year if announced during the second, third, or fourth fiscal quarters of that year or during the first fiscal quarter of the following year. [The Watts algorithm treats a first quarter dividend change as a response to the just-prior annual earnings realization.]

The most striking empirical fact in Table 2 is that managers of 99 firms (68.3% of the sample) increased the year 0 dividend -- an incidence of favorable dividend actions that is remarkably high given that year 0 marks the transition from high earnings growth to essentially no growth for the overwhelming majority of sample firms. Furthermore, only two sample firms (1.4%) reduced dividends, and this low incidence conforms closely to the Lintner view. Managers of another 44 sample firms (30.3%) adopted the relatively cautious strategy of leaving the year 0 dividend rate unchanged from the year -1 rate. Only 10 firms left dividends unchanged in the prior year (incidence not shown in the table).

The bottom two panels of Table 2 provide a more complete picture of the extensive favorable dividend signalling in our sample. Dividend changes are reported in both dollar (Panel B) and percentage terms (Panel C). The dollar comparisons are probably more informative about the true signalling content of dividend changes, since many firms consistently change dividends each year by a "rounded off" dollar amount. We found many cases where managers increased dividends by the same dollar amount in two adjacent years (e.g., 10 cents per share), where the second change is typically reported as matching the policy change of the prior year. [This situation characterizes 37 (37.4%) of our 99 dividend increases.] The second percentage increase is obviously smaller than the first, but the difference is generally very small; thus it is difficult to argue that the second increase is a materially less favorable signal.

Panel B of Table 2 shows that, measured in dollar terms, 67 (67.7%) of the

99 dividend increases are equal to or larger than the dividend increases for the prior year (37 equal and 30 larger dollar increases). The apparent message sent in year 0 by managers of these 67 firms is that they were at least as confident about continuation of the firm's earnings growth as they had been in the prior year. Managers of another 32 firms increased the year 0 dividend by a smaller dollar amount than they had in the prior year. These latter changes are relatively less favorable dividend signals than the other 67 increases, but in absolute terms they nonetheless represent a managerial vote of confidence in the firm's future earnings prospects, given the current earnings decline.

Panel C of Table 2 reveals that, measured in percentage terms, 28 (28.3%) of the 99 sample firms had year 0 dividend increases that exceed (27 cases) or equal (1 case) the increase in year -1. Since these dividend changes came the year after the firm reported its highest earnings ever, they clearly represent strong favorable signals about future prospects. Although 71 firms increased dividends by a smaller percentage amount in year 0 than in the prior year, this figure materially overstates the number of instances in which year 0 dividend increases were more conservative than in year -1. As elaborated above, 37 of the 71 cases represent instances in which managers announced the same dollar increase in both years, which is more reasonably interpreted as a message of continued optimism rather than an adverse signal about future earnings.

5. **Tests for Dividend Signalling**

The puzzle raised by the data in table 2 is that a high incidence of sample managers sent favorable -- and sometimes very favorable -- dividend signals at a time when earnings growth stalled. This observation is difficult to reconcile with simple signalling models which predict that managers increase dividends when they expect an (absolute) improvement in company profitability.

The possibility remains that a more complex form of signalling explains the dividend actions of our sample managers. For example, some dividend increases may represent attempts by a subset of managers to signal their firms' relatively good prospects compared to the pool of firms in similar earnings circumstances. This "separating equilibrium" argument recognizes that, given their reluctance to reduce dividends, managers of firms with comparatively poor prospects are not likely to reveal themselves by reducing dividends. Hence, managers of firms with better prospects have incentives to differentiate their firms by increasing dividends (e.g., as in Kumar (1988) and Warther (1994)) even if a dividend increase is not warranted based on the expected level of earnings.

Dividend Signals and Future Earnings Performance

If dividend changes differentiate firms with better future prospects, then more favorable current dividend actions should be associated with greater future earnings surprises (i.e., with higher future earnings after taking into account the level that one would expect based on current earnings alone). Thus, we first examine the cross-sectional relation between sample firms' abnormal future net income over years 1-3 and their year 0 dividend actions.

In Table 3, abnormal future net income for a particular firm in a given year is the unexpected component of earnings, and is measured as realized earnings minus the predicted level of earnings under one of two benchmark models. The random walk model takes predicted net income in each future year as equal to the firm's earnings in year 0, while the growth adjustment model takes predicted net income as equal to year 0 earnings compounded forward at the geometric growth rate in earnings over years -5 to -1. For each firm in Table 3, abnormal future net income refers to the annual average of abnormal net income over years 1, 2, and (if earnings are reported on Compustat) 3.

The random walk model estimates in Panel A of Table 3 show that, over years

1-3, the average firm in the full sample experienced essentially no change in earnings from the year 0 level. Thus, the typical sample firm saw its earnings fall substantially in year 0 (per Figure 1), and earnings remained approximately constant at the new lower level for at least the next several years. Estimates under the growth adjustment model indicate that the typical firm had significant further earnings disappointments over years 1-3 (beyond the year 0 disappointment). These future earnings disappointments reflect the fact that the growth adjustment model estimates expected earnings by projecting growth at the generally high rates that prevailed during years -5 to -1.

Panels B and C allow a univariate comparison of abnormal future earnings of firms that increased dividends in year 0 versus firms that did not increase dividends. For the random walk and growth adjustment models, we find no differences that are significant at conventional levels in the abnormal future earnings of the two subsamples under parametric tests (t-statistics of -0.04 and 0.31) and nonparametric tests (p values of .625 and .871).

We next consider whether firms that sent especially strong positive dividend signals in year 0 had more favorable abnormal future earnings than firms that did not increase dividends. We define strong positive signals as cases in which the firm increased dividends by a larger dollar amount in year 0 than in year -1. Panel D of Table 3 reports that there are no significant differences in the abnormal future earnings of these firms and firms that did not increase dividends under both the random walk and growth adjustment models (parametric t-statistics of 0.07 and 0.23 and nonparametric p values of .523 and .838). Thus, the univariate tests in Table 3 show no sign that firms sending favorable year 0 dividend signals have greater abnormal future earnings.

Table 4 reports multivariate test results that provide little support for the view that year 0 dividend actions are reliable signals of future earnings

performance after controlling for other variables known to predict future earnings. In all four regression specifications, the dependent variable is abnormal future net income under the random walk model. The explanatory variables are the historical earnings growth rate, earnings in year -1, earnings in year 0, and three unusual earnings components that prior research has shown improve predictions of future earnings (see DeAngelo-DeAngelo-Skinner (1992)). Like the dependent variable, the latter five explanatory variables are standardized by the book value of stockholders' equity in year -1.

The four regression specifications in Table 4 differ only in their empirical measures of the year 0 dividend signal. The first regression includes a dummy variable that equals one if the firm increased dividends in year 0, and zero if it did not. The second specification includes the year 0 percentage change in dividends, while the third includes the difference between the year 0 and the year -1 percentage changes in dividends. The final specification includes a dummy variable that equals one if the dollar dividend change in year 0 exceeds the dollar dividend change in year -1, and equals zero otherwise.

The coefficient on the dividend variable is statistically indistiguishable from zero in all regression specifications. Moreover, the dividend coefficient is negative in two of the four specifications, which is the opposite of what one would expect if more favorable year 0 dividend actions identified firms with superior earnings prospects. In sum, none of the regressions in Table 4 indicates that dividends have marginal signalling content over and above the information in reported earnings.

Post Year 0 Dividend Behavior and Signalling

Table 5 reveals significant heterogeneity in the dividend behavior of sample firms following year 0. For example, 50 firms (34.4% of the full sample) increased dividends three or more times over years 1-3, while 49 firms (33.8%)

made no dividend changes over years 1-3. For some firms, the data also show signs of persistence in dividend actions: almost half (46 of 99, or 46.5%) of the year 0 dividend increasers made three or more increases over years 1-3, while two-thirds (31 of 46, or 67.4%) of the year 0 non-increasers made no future increases. [A chi-square test shows a significant difference (at better than the .001 level) in the post year 0 dividend behavior of firms that increased dividends in year 0 and those that did not.]

Table 5 also documents that 25 firms (17.2% of the full sample) had cut dividends by the end of year 3. [The mean dividend reduction is -64.3% (median, -53.8%), which is more than five times larger than the mean 11.5% (median, 9.5%) dividend increase in year 0 (per Table 2).] Dividend cutters are about equally split across year 0 dividend increasers and non-increasers (12 versus 13 firms), but a larger proportion of the latter firms had cut the dividend by the end of year 3 (12.1% versus 28.3%).[7] The 17.2% incidence of dividend cuts suggests that a reasonable number of sample managers were unduly optimistic about company prospects in year 0, and we return to this issue in section 7.

We conducted an additional signalling test that incorporates information on post year 0 dividend actions of sample firms. For this test, we calculated abnormal future earnings for years 2 and 3, using the method employed in Table 3 but with year 1 earnings now serving as the random walk benchmark. We reasoned that the 61 firms that increased dividends in both years 0 and 1 had sent especially strong favorable signals about company performance. We then followed the method outlined in Table 3 to compare the abnormal future earnings of these

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[7]The lower proportion of future dividend cuts by firms that raised dividends in year 0 does not indicate that year 0 dividend increases were useful signals about future performance. The latter inference requires tests like those in Tables 3 and 4, which control for year 0 earnings to assess whether current dividend decisions improve the prediction of future earnings.

firms with the abnormal earnings of all other firms. We also compared their abnormal earnings with those of firms that made no dividend increases in either year 0 or 1. The resulting parametric and nonparametric tests show no significant differences in the abnormal future earnings of firms that increased dividends in both years 0 and 1 and either of the two comparison groups.[8]

In sum, none of our earnings-based signalling tests indicates that sample firms' dividend actions add significant new information about future earnings performance (above that in current earnings). We next assess the extent to which the stock market viewed sample firms' dividend increases as revealing important new information about company value.

Stock Market Response to Dividend Increases

Table 6 documents the stock price reactions to dividend increases both in the year of the initial earnings decline (year 0) and, for comparison purposes, in year -1. The table summarizes mean and median abnormal returns (and test statistics) associated with the Wall Street Journal report of dividend increases for the 99 firms that increased dividends in year 0 and the 135 firms that did so in year -1. The two day announcement period consists of the day before and the publication day of the WSJ report (event days -1 and 0), since we cannot be sure that the announcement came before the close of trading on the former day. [Here and throughout the paper, abnormal stock returns are calculated according to the market-adjusted returns method, with the abnormal return for a given firm in a particular period equal to the stock's raw buy-and-hold return minus the contemporaneous buy-and-hold return on the value weighted market index.[9]]

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[8]For the comparison with all other firms, the t-statistic is 1.08, and the Wilcoxon p value is .63. For the comparison with firms that did not increase dividends in either year 0 or 1, the t-statistic is 1.52 and the p value is .13.

[9]We emphasize market-adjusted returns rather than market model prediction errors in part because year 0 seems likely to have generated a structural shift in the risk-return relation for our firms. Additionally, the market model

The top panel of Table 6 shows that both year 0 and year -1 dividend increases were met with share value increases that are statistically significant, but comparatively modest in economic terms. The average abnormal return for year 0 announcements is 0.66% (median, 0.47%) while the average for year -1 announcements is 0.55% (median, 0.31%), with respective z-statistics of 2.43 and 2.60. [These figures are similar to the small positive stock returns (averaging less than 1% for regular dividends and around 2% for special dividends) documented by Aharony-Swary (1980), Brickley (1983) and others.] We also find small stock returns when we restrict attention to the subset of announcements that in our judgment did not also include confounding information (e.g., earnings disclosures).[10] The lower panel of the table shows no sign of abnormal share price change on average for the 15 trading days before and after dividend increase announcements.

Table 6 establishes that sample firms experienced an economically small but statistically significant average equity value increase -- roughly one-half of 1 percent -- when they announced dividend increases during the year of the initial earnings decline. This stock market response is essentially the same as the response to (i) dividend increases in the prior year for the same sample, and to (ii) dividend increases included in the samples of numerous previous studies. Thus, the stock market apparently viewed our sample's year 0 dividend increases as containing at most a minor amount of new information that would

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generated unreasonable intercept coefficients for some of our firms, e.g., that implied very negative normal returns (ignoring market index changes). Test statistics are calculated using methods analogous to those of Dodd-Warner (1983).

[10]For the 70 clean announcements in year 0, the average abnormal return is 0.79% (z-statistic = 2.82). For the 88 clean announcements in year -1, the average abnormal return is 0.30% (z-statistic = 1.50).

justify a higher equity value.[11]

Stock Performance Over Longer Horizons

The latter interpretation is reinforced by the fact that the stock market's

response to the year 0 dividend increases is small relative to its overall

negative response to the year 0 developments at sample firms. The average firm

experienced a statistically significant abnormal return of -13.96% cumulated

over the full year (z-statistic = -6.18) and there are no further abnormal

returns at least through year 3.[12] Earnings are an important determinant of

stock returns, with the change in the earnings growth rate explaining over 30%

of the cross-sectional variation in abnormal returns cumulated through year 3.[13]

Figure 2 reports abnormal stock returns separately for firms that increased

dividends in year 0 and those that did not. The figure presents the cumulative

abnormal performance beginning the year before the initial earnings decline (year

-1) and ending three years after the decline (year 3). For both subsamples,

the abnormal returns through the end of year -1 ..e insignificantly different

from zero. Figure 2 also shows that firms that increased dividends in year 0

had abnormal stock returns in that year of -10.17%, while firms that did not

increase dividends had abnormal returns of -22.30%. Both of these returns are

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[11]The stock market reacted much more strongly to sample firms' future
dividend cuts, with an average two-day stock return of -7.14% (median, -6.09%)
and a z-statistic of -15.18. Consistent with DeAngelo-DeAngelo-Skinner (1992),
the 25 dividend reducers had poor earnings performance over years 0-3, with 21
firms reporting at least one annual loss in this interval.

[12]We first calculate monthly market-adjusted returns for each firm and then
cumulate the resultant returns to obtain that firm's abnormal return over a given
longer interval. The reported sample figures are the cross-sectional averages
of the firm-specific abnormal returns.

[13]The adjusted R^2 is 31.5% when we regress the cumulative abnormal return
on the difference between (i) the geometric earnings growth rate over years -1
and 3 and (ii) the growth rate over years -5 to -1. The R^2 is somewhat higher
when we consider earnings levels (and not just the change in the growth rate).

significantly negative (respective z-statistics of -3.59 and -5.73), and the difference between subsamples is also significant (t-statistic = 2.90).

The less negative year 0 abnormal returns for dividend increasers raises the possibility that managers may have been able to "prop up" share prices by increasing dividends. To assess this possibility, we must control for earnings because the superior share price performance of dividend increasers may largely reflect their significantly better earnings performance.[14] We find higher year 0 abnormal stock returns for dividend increasers after controlling for earnings as we do in Table 4, with the coefficient on the dividend dummy positive and significant (t-statistic = 2.14). However, the dividend measures in two of the other three specifications are not significant. Thus, these regressions yield some hint that favorable dividend actions helped "prop up" stock prices in year 0, but they are not uniformly supportive of this view.

Figure 2 provides evidence on the related question of whether managers used dividend increases to artificially inflate share values during year 0. We would expect to observe negative stock returns following year if managers were able to "fool" the stock market into over-valuing their firms by increasing dividends. However, Figure 2 shows no sign that dividend increasing firms experienced negative stock returns over year 1-3, either absolutely or relative to non-increasers. In fact, dividend increasers and non-increasers have insignificant abnormal stock returns over years 1-3, so that the cumulative returns over years

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[14]The two subsamples had virtually identical mean and median earnings for years -4 through -1. However, non-increasers had a significantly larger year 0 earnings decline, and lower earnings through year 3. Table 3 shows that, for both subsamples, year 0 earnings are a good forecast of earnings over years 1-3 -- i.e., earnings tend to follow a random walk and differences in year 0 dividend behavior do not materially improve forecasts of future earnings.

0-3 are close to the year 0 returns (-10.34% and -26.98% respectively).[15]

6. Dividend Increases and Free Cash Flow Considerations

The high incidence of year 0 dividend increases by sample firms might be explained simply as a return of free cash flow (Jensen (1986), Miller-Modigliani (1961)). In this view, managers interpreted the year 0 earnings problems as indicating that investment had become less attractive and therefore decided to reduce capital outlays and pay out the additional cash flow to stockholders. Since it seems unlikely that managers could effect large changes in capital outlays until year +1, we focus on the change in expenditures from year -1 through +1 (rather than from year -1 to 0). We restrict attention to the 113 sample firms with capital expenditure data available on Compustat through year +1 (77 firms that increased dividends in year 0 and 36 firms that did not).[16]

For the full sample, the mean change in capital outlays is a positive 1.4% after trimming a few influential outliers (the average is 53.4% before trimming). For the median firm in the full   ap · capital utlays declined by 2.0% from year -1 until year +1. While this full sample decline appears consistent with the free cash flow explanation for the dividend increases we observe, it is

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[15]Our first draft reported a significant negative share price drift over years 1-3. We now recognize that this drift was an artifact of our use of continuously compounded returns rather than simple returns as is economically appropriate (and as we now do). The general problem is that, if the expected abnormal return under simple compounding is equal to zero (as in an efficient market), then the expected abnormal return under continuous compounding is negative. The reason is that, except at zero, a simple return always exceeds its continuously compounded equivalent. There is no serious empirical problem if all measured returns are near zero, since then continuous and simple returns are close in magnitude. However, large differences will arise away from zero, which can generate a significantly negative abnormal return (under continuous compounding) that is perfectly consistent with market efficiency.

[16]Depository institutions account for more than two-thirds of the missing data, since Compustat does not report capital expenditures for these firms.

driven by firms that did <u>not</u> increase dividends in year 0. The median change in capital outlays is -19.3% for firms that did not increase dividends versus a positive 5.4% for firms that increased dividends.

The latter figure indicates that the typical dividend increasing firm did not finance its year 0 dividend increase through a reduction in capital expenditures. Moreover, among the minority of 33 dividend increasing firms that did cut capital outlays, there is no significant relation between the dollar change in capital outlays and the dollar change in dividends. Finally, for these 33 firms, the median ratio of the dollar dividend increase to the dollar capital outlay reduction is only -5.8%, which suggests that managers' main concern was the reduction in capital expenditures <u>per se</u> and not the desire to finance dividend increases through investment reductions.

Over years -5 to -1, the median firm in the full sample raised its capital expenditures at the rate of 20.7% per year, with rates of 17.9% and 29.1% for dividend increasers and non-increasers respectively. Each of these growth rates substantially exceeds the rate of change in capital outlays over years -1 to +1 for the corresponding sample category (-2.0% for the full sample, +5.4% for year 0 dividend increasers, and -19.3% for non-increasers).

These comparisons suggest that sample managers became more cautious around the year 0 earnings downturn, but that managers that increased dividends typically sought (and expected) continued growth -- albeit at a slower pace than before -- while managers that did not increase dividends generally adopted more conservative policies oriented toward retrenchment. This pattern in the capital expenditures data is consistent with the behavioral hypothesis investigated next.

7.   <u>Managerial Over-Optimism About Company Prospects</u>

A possible explanation for our sample firms' high incidence of dividend

increases is that managers suffer from a behavioral bias -- over-optimism -- that leads them to systematically over-estimate future earnings when growth prospects fade. This line of reasoning has been advanced by Jensen (1993), who argues that managers' mindset and the corporate culture often hinder or delay managers' recognition that a period of significant growth has ended.[17] Donaldson (1990) provides case evidence on one of our sample firms, General Mills, which indicates that managers required several years to recognize the full extent of that firm's problems.[18] We next present large sample evidence on this view.

Management's Portrayal of Company Prospects

A common feature of dividend signalling models is that managers use dividend actions to convey their views about company prospects to outside investors. Realistically, managers also communicate their optimism or pessimism about future prospects to investors through other channels such as financial statements, press releases, and meetings with analysts. Consequently, the nature of managers' other vear 0 communications might help explain why so many sample managers sent favore. divi : signals when earnings growth stalled.

Table 7 summarizes our ,sessment of management's portrayal of current earnings performance (Panel A) and the firm's future prospects (Panel B) in the stockholder letter from the year 0 annual report. Panel A reveals that managers of 37 (26.1%) firms portrayed current earnings favorably, even though year 0 is

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[17]This behavioral bias argument is similar in spirit to Roll's (1986) hubris hypothesis of corporate takeovers, which holds that managers over-estimate their own ability to generate value by acquiring other firms. It can also be viewed as a managerial analogue of Shefrin-Statman's (1984) argument that psychological biases lead investors to demand dividends even given material tax penalties.

[18]Donaldson suggests that the clear mandate for organizational change at General Mills occurred in our year 0, with the factors underlying the earnings decline serving as the genesis for the extensive restructuring he documents. General Mills' earnings did not return to their year -1 peak until year 4. Wruck (1994) provides case evidence on another sample firm, Sealed Air Corporation, whose managers apparently recognized the firm's problems at an earlier stage.

the first earnings decline in many years.[19] While the methods managers used to place a positive "spin" on current earnings varied, some examples should clarify the general tenor of these communications. One approach was to claim that current earnings are a record high after removing non-recurring gains from last year's earnings. Another was to tout current earnings as the second highest ever, and to downplay or omit mention of the earnings decline. Some managers emphasized earnings measures that did improve (e.g., operating income) and simply ignored the net income decline. The common element of these communications is that, although managers understood that current earnings were a disappointment given the firm's long record of earnings growth, they nonetheless attempted to deflect stockholders' attention from this fact.

Panel A of Table 7 also shows a higher incidence of favorable portrayals of current earnings for dividend increasers than for non-increasers -- 31.6% versus 13.6% (p value = .026 under a Chi-square test). The fact that managers of a relatively high proportion of dividend increasers put a favorable "spin" on year 0 earnings offers some support for the view that these managers sought to use dividend policy to help convince investors that current earnings do not represent a material deviation from their long record of earnings growth.

Panel B of Table 7 shows that, in discussing their firm's future earnings prospects, managers of well over half the sample adopted an optimistic tone. In 43 cases (30.3% of the sample), managers painted a strongly optimistic picture of probable future earnings. Another 17.6% of sample managers were cautiously

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[19]DeAngelo-DeAngelo (1990) and John-Lang-Netter (1992) have documented that managers of troubled firms often attempt to portray events in as favorable light as possible by blaming their firms' problems on factors beyond their control, such as weak product markets or general economic conditions.

optimistic about the future,[20] while 14.8% were optimistic about the future

provided certain "exogenous" events occur (e.g., the general economy improves).

Managers of roughly one-third the sample (46 firms, or 32.4%) simply avoided

mention of their view of future prospects. In only 7 cases (4.9%) were managers

not optimistic about the firm's earnings prospects. For example, managers of

Capital Cities/ABC Inc. indicated that the next year would be difficult, with

earnings likely to be unfavorable relative to current earnings.

Thus, a remarkably low proportion of sample managers both recognized and

were willing to acknowledge that year 0 marked a significant decline in their

firm's growth prospects. It is possible that managers of some firms could not

reliably predict in year 0 that a major decline in growth prospects had occurred.

But it is difficult to make this case for the bulk of our sample, since the stock

market evidently recognized there was a significant problem and substantially

reduced equity values on average for our sample in year 0 (per Figure 2). An

alternative explanation is that many   ~ple managers did not recognize what the

market saw more clearly, so that their year 0 dividend actions (and other

communications to stockholders) were unduly optimistic.

Costs of Sending Unduly Optimistic Signals

Managers may have been overly optimistic in their letters to stockholders

because they perceived they would bear only minor costs if their favorable

signals turned out to be wrong. This reasoning raises the possibility that

dividends have advantages as a more credible signalling device because managers

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[20]An example of a cautiously optimistic forecast is the statement by managers of National City Corp. that "... we see reasons to be optimistic, albeit cautiously, about 1981 and the years beyond. Although we were disappointed in 1980 operating results, we believe a solid foundation has been laid for renewed growth and profitability in the future." An example of a strongly optimistic forecast is the statement by managers of Waste Management Inc. that "Waste Management's outlook is extremely bright.... We are confident that Waste Management's greatest growth period still lies ahead."

are paying out additional cash -- an inherent resource sacrifice -- to back up their views of company prospects. However, the median dollar magnitude of the year 0 dividend increases is only 3.5% of net income, 2.1% of operating cash flow, and 3.7% of cash + marketable securities for our sample firms. Thus, our sample firms' favorable dividend actions typically entail only a modest incremental cash drain on company resources.

This observation suggests a possible explanation for our finding that sample firms' favorable dividend actions did not reliably predict superior future earnings -- the cash magnitudes of the dividend signals were too small to meaningfully differentiate firms with superior prospects. Ancillary support for this view is found in studies by Vermaelen (1980) and Dann-Masulis-Mayers (1991) of stock repurchase tender offers, which generally entail substantial cash payouts. They find that repurchases tend to be followed by abnormally positive earnings, i.e., earnings above the level expected given current performance. Consistent with this pattern, ˜rickley (1983) finds that large regular dividend increases tend to be foll.   ɔy favorable earnings surprises.

8.   Conclusion

Managers of more than two-thirds of 145 NYSE firms responded to stalled earnings growth by increasing dividends, with most increases at least as large as the dividend increase in the peak earnings year. Using a broad range of model specifications and definitions of favorable dividend actions, we find almost no evidence that these actions differentiate firms with superior future earnings performance. Our findings pose a challenge for dividend signalling models, which predict that managers use favorable dividend actions to convey that company prospects are quite good in absolute terms, or at least good relative to other firms in similar earnings circumstances.

The high incidence of dividend increases by sample firms is not explained by managers' desire to cut capital outlays and return the additional free cash flow to stockholders (Jensen (1986), Miller-Modigliani (1961)). The evidence is inconsistent with the free cash flow explanation because firms that increased dividends in year 0 generally continued to increase capital outlays through year 1, albeit at a slower rate than prior to year 0. Moreover, for the minority of dividend increasing firms that did reduce capital outlays, there is no statistically detectable relation between the dollar magnitude of the dividend increase and the size of the capital outlay reduction.

We also consider the behavioral argument advanced by Jensen (1993) that managers' mindset and the corporate culture often make it difficult for managers to recognize that a period of significant growth has ended. We find evidence that the high incidence of year 0 dividend increases reflects managers' over-optimism about company prospects. For example, the stockholder letters in the year 0 annual reports indicate that managers were not optimistic about future prospects in only 7 (4.9%) cases. Yet the average sample firm experienced large negative stock price performance in year 0, earnings growth evaporated for the median firm, and managers of 25 (17.2%) firms had to reduce dividends by year 3. It thus appears that few sample managers were appropriately pessimistic about company prospects in year 0. In addition, managers of 37 (26.1%) firms were less than forthright in their discussions of the year 0 earnings decline, suggesting that some managers may have deliberately sent overly optimistic dividend signals.

Perhaps the key factor underlying our negative findings on signalling and affirmative findings on managerial over-optimism is that sample firms' favorable dividend signals involve only a modest resource sacrifice. For the median firm that increased dividends in year 0, the dollar magnitude of the increase is just 3.5% of net income, 2.1% of operating cash flow, and 3.7% of cash + marketable

securities. The small magnitude of the incremental payout raises doubts about the argument that dividends are credible signals because managers are using cash to reinforce their views of company prospects. When the resource sacrifice is small, managers can send overly optimistic dividend signals at modest cost, so that such signals are not reliable. This reasoning suggests the following testable hypothesis for future research: favorable dividend actions are reliable signals of future performance only when they entail a material resource payout.

Figure 1

Median Net Income in Years Surrounding Initial Annual Earnings Decline
in Year 0: 145 NYSE Firms With a Decline in Annual Earnings After
Consistent Earnings Growth Over At Least 10 Years

The sample contains 145 firms (with data on Compustat's primary or research tapes) that reported a decline in annual earnings after earnings growth over at least 10 years (a minimum of nine consecutive earnings increases). For each firm, event time is defined such that year -1 is the year of peak reported net income preceding the initial earnings decline in year 0. "Actual net income" represents the median value of net income in the specified year divided by net income in year -1 (hence, this ratio equals one by definition for all firms in year -1). "Growth adjusted expected net income" for years 0 through 3 represents the median projected value of net income assuming that each firm's earnings had continued to grow at the growth rate experienced over years -5 through -1. There are 145 observations for years -10 through 0 and, primarily because of mergers or LBOs, 140 observations for year 1, 136 for year 2, and 131 for year 3.
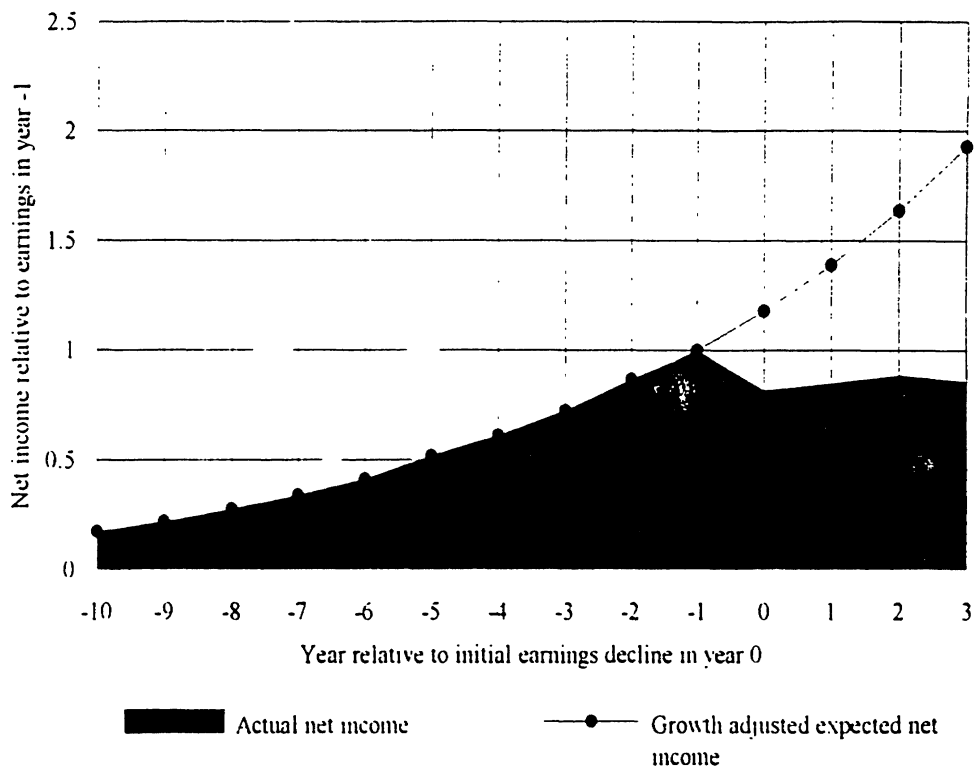

Year relative to initial earnings decline in year 0

Actual net income   **Growth adjusted expected net income**

Table 1
Average Annual Earnings Growth Rates for (i) Current Sample of 145 NYSE Firms With a Decline in Annual Earnings During 1980-1987 After Consistent Earnings Growth Over At Least 10 Years and (ii) Firms Listed on Compustat

The current sample contains 145 firms (with data on Compustat's primary or research tapes) with a decline in annual earnings after earnings growth over at least 10 years (a minimum of nine consecutive earnings increases). The table reports the geometric growth rate (decimal form) from earnings in a given base year to earnings in year -1, the year before the initial earnings decline. The Compustat sample contains all firms with earnings available on the same tapes (except foreign firms, ADRs, and limited partnerships). Each growth rate is calculated from "base" earnings reported for the first year of Compustat data (1971 in the tapes employed here) and "ending" earnings reported six or eleven years later. All firms in the Compustat sample have earnings data available for 1971, with the sample size declining over time due to mergers, bankruptcies, etc. If earnings are positive in the base year and negative in the ending year, the firm is assigned to the low end of the distribution. If earnings are negative in the base year and positive in the ending year, the firm is assigned to the high end. If earnings are negative in both years, the firm is assigned to the low end. The label "<-1.00" indicates the relevant firm had negative net income at the end of the period. The label "n/m" (not meaningful) indicates the relevant firm had negative income at the beginning of the period.

Growth rate decile:	Current sample: earnings growth rate from given year through year -1:		Compustat firms: annual earnings growth rate over interval of:	
	Year -10	Year -5	10 years	5 years
10%	.127	.10-	<1.00	-.309
20%	.144	.128	.007	.012
30%	.166	.144	.064	.059
40%	.185	.160	.099	.102
Median	.215	.179	.126	.141
60%	.235	.220	.154	.187
70%	.267	.265	.190	.246
80%	.297	.302	.255	.361
90%	.398	.388	.500	n/m
Sample size	145	145	2135	2790

Table 2

Dividend Changes in Year of Initial Annual Earnings Decline:
145 NYSE Firms With a Decline in Annual Earnings After
Consistent Earnings Growth Over At Least 10 Years

The sample contains 145 firms (with data on Compustat's primary or research tapes) that reported a decline in annual earnings after earnings growth over at least 10 years (a minimum of nine consecutive earnings increases). All dividend figures refer to split-adjusted regular dividends per share (as reported by CRSP and confirmed in the Wall Street Journal) for the year of the initial decline in annual earnings. Consistent with Watts (1973), a dividend change is treated as falling in the year of the initial earnings decline if it was announced during the second, third, or fourth fiscal quarters of that year or during the first fiscal quarter of the following year.

A. Dividend change incidence

	Number of firms	Percent of cases	Percentage change in per share dividend payment: Mean	Median
Full sample	145	100.0%	7.2%	6.7%
Dividend increased	99	68.3	11.5	9.5
Dividend unchanged	44	30.3	0.0	0.0
Dividend cut	2	1.4	-49.3	-49.3

B. Dollar size of 99 dividend increases

	Number of firms	Percent of cases
Larger dollar increase than in prior year	30	30.3%
Same dollar increase as in prior year	37	37.4
Smaller dollar increase than in prior year	32	32.3

C. Percentage size of 99 dividend increases

	Number of firms	Percent of cases
Larger percentage increase than in prior year	27	27.3
Same percentage increase as in prior year	1	1.0
Smaller percentage increase than in prior year	71	71.7

Table 3
Abnormal Future Net Income Following the Initial Annual Earnings Decline for 145 NYSE Firms With a Decline in Annual Earnings After Consistent Earnings Growth Over At Least 10 Years: Sample Partitioned By the Presence or Absence of a Favorable Dividend Signal in the Initial Earnings Decline Year·

Abnormal future net income equals the annual average difference between the firm's net income over the three years following the initial earnings decline (years 1, 2, and 3) and predicted net income, divided by stockholders' book equity in the year before the earnings decline (year -1). To be included in this analysis, a firm must have complete earnings data available on Compustat at least through year 2. The random walk model takes predicted net income in each future year as equal to the firm's year 0 earnings. The growth adjustment model takes predicted net income as equal to year 0 earnings compounded forward for the appropriate number of periods at the geometric growth rate in earnings over years -5 through -1. The t-value refers to the test statistic to assess the significance of mean values under conventional (univariate or two sample comparison) parametric tests. The p-value refers to the significance level for Wilcoxon non-parametric tests. Subsample B contains the firms that did not increase dividends in the year of the initial earnings decline, while subsample C contains the firms that did increase dividends in that year. Subsample D contains the subset of firms that increased dividends by a larger dollar amount in the year of initial earnings decline than in the prior year.

	Earnings expectation model:			
	Random walk model:		Growth adjustment model:	
Sample category (# firms; # with complete data)	Mean (Median)	t-value (p-value)	Mean (Median)	t-value (p-value)
A. Full sample (n=145; 135)	-0.6% (5%)	-0.42 (.172)	-7.8% (-4.8%)	-4.31 (<.001)
B. No dividend increase (n=46; 43)	-0.7% (1.5%)	-0.28 (.840)	-7.0% (-6.1%)	-2.13 (.034)
C. Dividend increase (n=99; 92)	-0.6% (2.3%)	-0.31 (.129)	-8.2% (-4.3%)	-3.76 (<.001)
C versus B difference	---	-0.04 (.625)	---	0.31 (.871)
D. Strong positive dividend signal (n=30; 27)	-1.1% (2.3%)	-0.23 (.256)	-8.4% (-4.4%)	-1.60 (.084)
D versus B difference	---	0.07 (.523)	---	0.23 (.838)

Table 4
Regressions of Abnormal Future Net Income on Historical Earnings Growth Rate, Current and Past Earnings, and Dividend Signal: 145 NYSE Firms With a Decline in Annual Earnings After Consistent Earnings Growth Over At Least 10 Years

The sample contains 145 firms with a decline in annual earnings in year 0 after consistent growth over at least 10 years. These regressions employ the 135 firms with complete earnings data on Compustat at least through year 2, and complete year 0 data for extraordinary items, discontinued operations, and special items. Abnormal future net income equals earnings averaged over years 1, 2, and (if available) 3, minus year 0 earnings. Abnormal future income, year -1 and 0 earnings, and the year 0 unusual items are standardized by year -1 stockholders' book equity. The historical growth rate is the geometric average calculated from earnings for years -5 through -1. The strong positive signal dummy equals 1 if dividends were increased by a larger dollar amount in year 0 than in year -1 (and equals 0 otherwise).

	Estimated coefficient (t value)			
Constant	-0.01	0.01	-0.00	-0.00
	(-0.21)	(0.10)	(-0.05)	(-0.01)
Historical earnings growth rate	-0.42	-0.41	-0.42	-0.42
	(-3.23)	(-3.16)	(-3.16)	(-3.27)
Year -1 earnings	0.84	0.78	0.81	0.80
	(2.19)	(2.06)	(2.11)	(2.12)
Year 0 earnings	-0.55	-0.47	-0.51	-0.50
	(-1.76)	(-1.55)	(-1.69)	(-1.64)
Extraordinary items	0.59	0.76	0.54	0.53
	(0.61)	(0.77)	(0.55)	(0.5
Discontinued operations	-0.60	-0.70	-0.68	-0.71
	(-0.38)	(-0.44)	(-0.42)	(-0.44)
Special items	-0.21	-0.22	-0.23	-0.24
	(-0.74)	(-0.81)	(-0.83)	(-0.87)

Alternative measures of year 0 dividend signal:

Dividend increase dummy (1 if increase, 0 otherwise)	0.02 (0.48)			
Year 0 % dividend change		-0.13 (-0.82)		
Year 0 % dividend change] minus year -1 % dividend change			0.01 (0.09)	
Dummy for strong positive dividend signal in year 0				-0.01 (-0.33)
Adjusted R^2	8.9%	9.2%	8.8%	8.8%

Table 5

Dividend Changes in the Three Years Following the Initial Earnings Decline for
145 NYSE with an Annual Earnings Decline After Consistent Earnings Growth Over
At Least 10 Years: Sample Partitioned into Firms that Increased Dividends in
the Year of Initial Earnings Decline (Year 0) and Those that Did Not

The dividend changes reported here refer to changes in the split-adjusted regular
dividend per share according to CRSP and/or the Wall Street Journal. Consistent
with Watts (1973), a dividend change is treated as falling in a given fiscal year
if it was announced during the second, third, or fourth quarters of that year
or the first quarter of the next fiscal year. The top part of the table reports
the frequency with which sample firms increased dividends over the three years
following the initial decline in earnings in year 0 (i.e., over years 1-3). The
bottom part of the table gives the frequency with which sample firms had cut the
dividend by the end of year 3.

Dividend increases in years 1 to 3	Number (percent) of firms in category:		
	Full sample	Year 0 dividend increasers	Year 0 non-increasers
3 or more	50 (34.4%)	46 (46.5%)	4 (8.7%)
2 increases	23 (15.9%)	17 (17.1%)	6 (13.0%)
1 increase	23 (15.9%)	18 (18.2%)	5 (10.9%)
0 increases	49 (33.8%)	18 (18.2%)	31 (67.4%)
Column total	145 (100.0%)	99 (100.0%)	46 (100.0%)

Chi-square test of difference across subsamples of year 0 dividend
increasers and non-increasers is significant at <.001 level.

Dividend cut by the end of year 3	25 (17.2%)	12* (12.1%)	13 (28.3%)

Binomial proportions test for difference across year 0 dividend
increasers and non-increasers is significant at the .03 level.

*Six of these 12 firms increased dividends again (after their year 0 increase)
before cutting dividends during years 1-3.

Table 6
Abnormal Daily Stock Returns Surrounding Dividend Increase Announcements
by 145 NYSE Firms With a Decline in Annual Earnings After
Consistent Earnings Growth Over At Least 10 Years

Year 0 is the year of initial annual earnings decline. Event day 0 is defined as the publication date of the Wall Street Journal Index's report of a dividend increase, so that the share price impact of the announcement should occur on either day -1 or day 0. Abnormal stock returns and associated test statistics are calculated from CRSP data according to the market-adjusted returns method. [For a particular firm in a given period, the abnormal return equals the stock's raw return minus the contemporaneous return on the CRSP value-weighted index that includes NYSE and AMEX stocks.]

Two day abnormal returns at announcement:

(Days -1 and 0)	Year 0	Year -1
Mean	0.66%	0.55%
Median	0.47%	0.31%
Proportion positive	.606	.563
Z-statistic	2.43	2.60
Sample size	99	135

Daily (AR) and cumulative (CAR) abnormal returns:

Event day	Year 0		Year -1	
	AR	CAR	AR	CAR
-15	0.2%	0.2%	0.1%	0.1%
-10	0.0	-0.1	-0.1	0.7
-5	-0.3	-0.6	0.0	0.3
-4	0.1	-0.6	0.1	0.4
-3	-0.0	-0.6	0.3	0.6
-2	-0.1	-0.7	-0.1	0.4
-1	0.4	-0.3	0.3	0.8
0	0.2	0.0	0.2	1.0
1	0.4	0.4	0.1	1.0
2	0.0	0.4	0.3	1.2
3	-0.1	0.3	0.0	1.3
4	-0.2	0.1	0.1	1.4
5	-0.3	-0.2	-0.0	1.4
10	0.4	0.2	0.2	1.5
15	-0.0	0.7	0.2	1.3

Figure 2

Abnormal Stock Returns Surrounding the Initial Annual Earnings Decline (in Event Year 0) for 145 NYSE Firms With a Decline in Annual Earnings During 1980-1987 After Consistent Earnings Growth Over At Least 10 Years: Sample Partitioned into Firms that Increased and that Did Not Increase Dividends In Year 0.

Abnormal stock returns are calculated from CRSP data according to the market-adjusted returns method. [For a particular firm in a given period. the abnormal return equals the stock's raw return minus the contemporaneous return on the CRSP value-weighted index.] The figure presents abnormal returns for the 99 firms that increased dividends in year 0 and the 46 firms that did not increase dividends in year 0. The sample sizes decline over time primarily due to mergers or LBOs. There are 87 dividend increasers and 44 non-increasers with data available on CRSP through the end of year 3. In this figure. event time is measured such that 0 represents the end of the year of the initial earnings decline. +1 represents the end of the following year. etc.
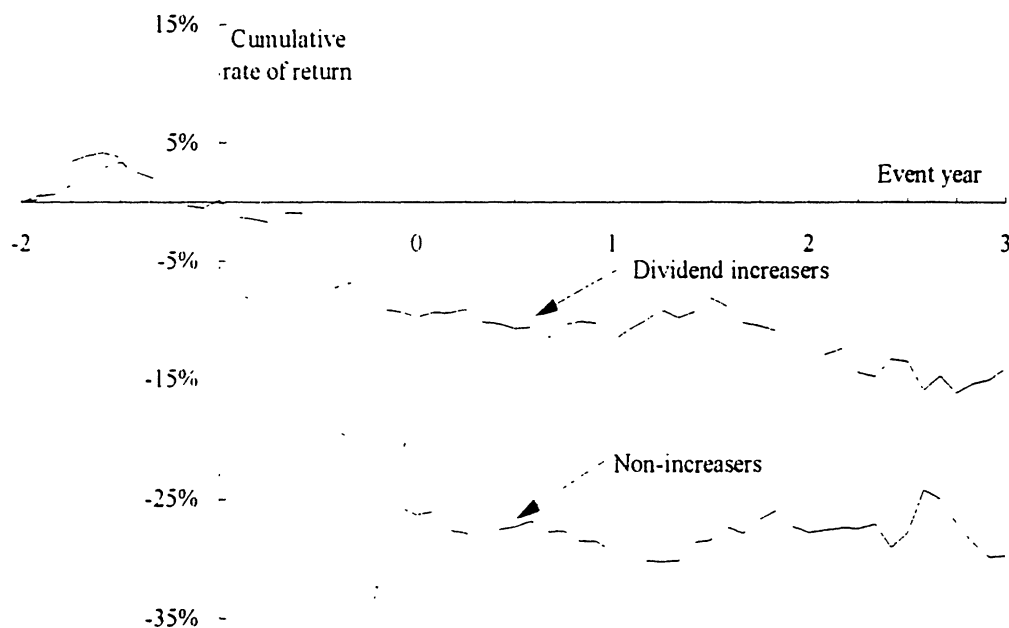
Table 7

Management's Discussion of Current Earnings Performance and Future Earnings
Prospects in the Annual Report Letter to Stockholders for the Year of Initial
Earnings Decline: 145 NYSE Firms With a Decline in Annual Earnings After
Consistent Earnings Growth Over At Least 10 Years

The classifications in the table are based on independent assessments of each
stockholder letter by two of the co-authors of this study. In the bottom panel,
"contingently optimistic" refers to management statements that were optimistic
about future earnings provided that particular events occurred (e.g., the economy
improved). The table excludes three firms for which we do not have access to
the annual report for year 0, the year of initial earnings decline. One of these
three firms increased dividends in year 0.

Number of firms (% of column cases):

A. Current Earnings Discussion	Full sample	Year 0 dividend decision: increase	no increase
A. Acknowledge decline	103 (72.5%)	66 (67.3%)	37 (84.1%)
B. Do not mention	2 (1.4%)	1 (1.0%)	1 (2.3%)
C. Portray favorably	37 (26.1%)	31 (31.6%)	6 (13.6%)

Chi-square comparison of A versus C for dividend increasers and non-
increasers: p value = .026.

B. Portrayal of Future Earnings Prospects

	Full sample	increase	no increase
A. Strongly optimistic	43 (30.3%)	34 (34.7%)	9 (20.5%)
B. Cautiously optimistic	25 (17.6%)	16 (16.3%)	9 (20.5%)
C. Contingently optimistic	21 (14.8%)	11 (11.2%)	10 (22.7%)
D. No mention	46 (32.4%)	35 (35.7%)	11 (25.0%)
E. Not optimistic	7 (4.9%)	2 (2.1%)	5 (11.3%)

Chi-square comparison of A versus pooled sample of B, C, D, and E
for dividend increasers and non-increasers: p value = .088.

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