Information Revelation through Dividend Initiations

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Abstract: We test the information signaling theory of dividend initiations by looking at the relation between the market reaction to dividend announcements and the information asymmetry between firm insiders and the market. We find a positive relation between information asymmetry and the market reaction. We interpret our results as providing strong evidence in favor of the dividend signaling hypothesis and contrary to non-signaling models like the overinvestment models. We also explore the question of the nature of the information revealed by dividend initiations. Similar to recent studies we find evidence that dividend initiations signal a reduction in firm risk.

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Abstract

We examine the relation between the market reaction to the announcement of dividend initiations and the degree of information asymmetry between firm insiders and the market. We hypothesize that in firms with high information asymmetry it is harder to anticipate events such as a dividend initiation. Therefore the magnitude of the announcement response should be greater for firms with high information asymmetry. Our results support this hypothesis. We find a positive relation between information asymmetry and the market reaction. We also explore the question of what information is revealed by dividend initiations. Similar to recent studies we find that dividend initiations signal a reduction in firm risk.

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I. Introduction

The question of how firms determine their dividend policies, and more broadly their payout policies, remains an active area of research.[1] Although many theories have been advanced to explain firms' dividend policies, one of the most persistent themes is that dividends serve as a signal to the market (e.g. Bhattacharya, 1979; John and Williams, 1985; and, Miller and Rock, 1985). In signaling models, managers choose to pay dividends, in spite of their being costly, in order to signal unobservable firm value. However, there has been some question as to whether the data are consistent with signaling models.[2] Other researchers have sought to explain the market reaction to dividend announcements partially or fully using alternative theories, such as the dividend clientele hypothesis and the overinvestment hypothesis.[3]

In this paper, we take a fresh look at this question by looking at the relation between the market reaction to dividend announcements and the information asymmetry between firm insiders and the market. If dividends are informative, as in the signaling models, then one would expect the market reaction to be greater, the greater the initial information asymmetry. According to the overinvestment hypothesis, on the other hand, the dividend announcement provides the market with information about the likelihood of managerial overinvestment in negative NPV projects. In contrast to the signaling models, where the market learns more about the distribution of exogenously determined variables,

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[1] See Allen and Michaely (2003) for a recent review of this literature.

[2] See the discussion in Viswanath, Kim and Pandit (2002).

[3] See, for example, Bajaj and Vijh (1990) and Lang and Litzenberger (1989).

such as future demand, etc., the information imparted by the dividend announcement in the overinvestment model has to do more with endogenous managerial actions. As such, there would be no expectation of a relationship between the size of the market reaction to the dividend announcement (which measures the extent of the new information provided by the event) and ex-ante measures of information asymmetry regarding the distribution of exogenous variables.[4]

Furthermore, instead of looking at announcements of dividend changes, we look at dividend initiations. For most firms, a dividend initiation only occurs once in the history of the firm. Moreover, an initiation is arguably much harder to anticipate than a dividend increase.[5] As a result, examining the market reaction to dividend initiations should provide a powerful test of the dividend signaling hypothesis.

We find strong evidence in favor of the dividend signaling hypothesis and against non-signaling models like the overinvestment models. While dividend clientele and overinvestment theories might indeed explain some of the market reaction to dividend announcements, our results provide unambiguous evidence that the information content of dividends has an important role in explaining the attendant change in stock prices.

In addition, we explore the question of the nature of the information revealed by dividend initiations. While the seminal theoretical studies assume that the firm is signaling improved future cash flows, Benartzi et al. (1997) and Grullon et al. (2002) find

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[4] We use five different measures of information asymmetry – firm size, number of analysts following the company, analyst forecast error of earnings normalized by stock price and EPS, and the dispersion of analyst's forecasts.

[5] In addition, the martingale model of dividends, which is typically used for event studies, is easier to justify for investigations of dividend initiations than for dividend increases, as Asquith and Mullins (1983) point out.

that cash flows do not increase after a dividend increase. Similarly Bulan et al. (2004) find no evidence of cash flow improvement after dividend initiations. So what, if anything, do dividend changes signal? Grullon et al. (2002) advance the hypothesis that a dividend increase signals a decrease in systematic risk as the firm matures.[6] Dyl and Weigand (1998) also find evidence that dividend initiations reflect decreases in firm risk.

In this paper we extend the previous work by estimating five measures of risk for our sample of dividend initiations. The risk measures are: three factor loadings from the Fama-French three factor model, the variance of returns as a measure of total risk, and the variance of residuals from the Fama-French model as a measure of firm specific risk. Our risk measures are similar to those used by Grullon et al. (2002), but we study dividend initiations instead of dividend increases. Our risk measures are more extensive than those used by Dyl and Weigand (1998) in their study of dividend initiations. Our results support the finding in previous studies that dividend initiating firms are perceived the market as having lower risk. We find that the firms in our sample exhibit a decrease on most of our risk measures when measured using stock returns subsequent to the dividend initiation. This decrease is particularly strong on the Fama-French size factor loading.

The remainder of this paper is organized as follows: In Section II, we take a further look at the existing literature in this area. In Section III, we describe our sample and the variables used in our tests. Section IV provides our results, and Section V concludes.

[6] However, see Bulan et al.(2004) for a market timing argument for dividend initiations.

II. Literature Review

Modigliani and Miller (1958) showed that under certain assumptions, including information symmetry between insiders and outsiders, the firm's dividend policy should be irrelevant. Consequently, studies showing a positive market reaction to dividend announcements, such as Pettit (1972) and Charest (1978), posed a problem. This led to the theory that dividend payments may be a signal of firm value. Examples of such dividend signaling models are Bhattacharya (1979), John and Williams (1985), Miller and Rock (1985) and Ravid and Sarig (1991). By paying dividends, undervalued firms, which are relatively more capable of bearing the costs of such an action, can separate themselves from overvalued firms. This theory has been tested, in the main, by examining the market's reaction to unexpected changes in dividend policy.[7]

Although the earlier evidence was interpreted as supporting the dividend signaling hypothesis, some later studies have called the theory into question. Lang and Litzenberger (1989) argue that the available evidence is more consistent with an "overinvestment" hypothesis than the cash flow signaling hypothesis. In this alternative view, the payment of dividends by overinvesting firms (interpreted as firms with a low Tobin's Q ratio) is seen as reduction of "free cash flow" à la Jensen (1986); hence such firms are rewarded for curbing their value-reducing overinvestment tendencies. Bajaj and Vijh (1990) present empirical evidence to support a view that the positive market

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[7] Among the earlier studies, Aharony and Swary (1980) document that stock prices drop during the month of an unexpected dividend decrease, while they rise during the month of an unexpected dividend increase. Other studies that obtain similar results are Pettit (1972), Kwan (1981) and Eades (1982). Watts (1973), however, did not find a significant effect. Many of the more recent studies also use the same basic approach (see e.g the articles published in the Autumn 1998 issue of *Financial Management*).

reaction to dividend increases as a signal of higher firm value is mediated by a negative reaction due to a marginal aversion to dividend income. They show that the market reaction varies by dividend yield, which is what a dividend clientele theory would predict.[8]

Dhillon and Johnson (1994) show that returns to bondholders are negative when dividends are increased, and conclude that "explanations for dividends based on information content may be less important than previously thought." They suggest that the positive abnormal stock returns are at least partly due to wealth transfer away from bondholders. More recently, Benartzi et al. (1997) find that changes in dividends are correlated with past and current changes in earnings, but not with future earnings growth. They interpret this as evidence against the signaling theory and in favor of a Lintner-type approach that models dividends as a function of earnings.[9]

However, other studies have found in favor of the signaling hypothesis. For example, Denis, Denis and Sarin (1994) rebut the overinvestment hypothesis by showing that the perceived inconsistencies disappear, once the amount of the dividend is taken into account. They also look at analyst earnings forecast revisions and changes in firm's

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8 Bajaj and Vijh (1990) allow for a signaling effect; however, they argue that there is a clientele effect in addition to the signaling effect. Prabhala (1993) shows that the results of Bajaj and Vijh (1990) and Lang and Litzenberger (1989) may be spurious, and due to the fact that the martingale dividend change model that they used was misspecified.

9 Benartzi et al. (1997) look at ex-post earnings changes. Their failure to find increased earnings over the two years following a dividend increase may simply mean one of two things: one, that the market's horizon is longer than theirs; or two, that economy-wide factors caused the market's expectations not to be realized during their sample period. Another explanation for Benartzi et al.'s results that is consistent with the signaling theory is the finding of Dyl and Weigand (1998) that dividend announcements may be signaling, not higher earnings, but rather less risky earnings.

capital expenditures. Their findings support the Bajaj-Vijh dividend clientele hypothesis and the signaling hypothesis. Yoon and Starks (1995) also perform similar tests and again find in favor of the signaling hypothesis, and against the overinvestment hypothesis. Bernheim and Wantz (1995) look at time variations in the tax costs of dividends and relate that to the dividend announcement effect per dollar of dividends; their paper also supports the signaling model. Lipson, Maquieira and Megginson (1998) find that newly public firms use dividends to signal superior performance.

Two recent papers investigate the information content of dividend changes. Grullon et al. (2002) look at the ex-post profitability of firms that change their dividends. They find, contrary to the predictions of the traditional cash-flow signaling models, that firms in their sample that increase dividends do not have increased profitability. However, they also find that all three betas from a Fama-French three-factor model decline after dividend increases, while they rise after dividend decreases. This suggests that dividends signal a decline in firm systematic risk. Since dividend increasing firms also seem to reduce their levels of cash, Grullon et al. (2002) propose that dividend increases are indicators of a firm moving from a growth phase to a more mature phase.

Bulan et al. (2004) examine the Grullon et al. (2002) maturity hypothesis further by focusing on firms that initiate dividends. They show that dividend initiating firms tend to be large firms with slow growth and high profitability, as implied by Grullon et al. (2002).[10] They found no evidence, however, that dividend initiation signals higher firm growth or profitability. In addition, they found that the idiosyncratic risk of initiators was lower than that of non-initiators prior to initiation, and also that the risk declined

[10] They also find that dividend initiations do seem to also conform to Baker and Wurgler’s (2004) catering theory of dividends.

significantly around initiations. However, the announcement effect of initiations was not found to be significantly related to idiosyncratic risk.

The Grullon et al. (2002) and the Bulan et al. (2004) studies provide further support for the signaling hypothesis. However, their results are somewhat contradictory in some respects. Specifically, Bulan et al. (2004) find no relationship between the risk decline of dividend initiators and the market reaction, while Grullon et. al (2002) as well as Dyl and Weigand (1998) do. Furthermore, Grullon et al. (2002) do not look at the firms' Tobin's Q to test their maturity hypothesis directly against the overinvestment hypothesis. While Bulan et. al (2004) do look at the relationship between Tobin's Q and dividend initiation, they do not relate it to the market reaction. Finally, neither paper attempts to rebut the wealth transfer hypothesis put investigated by Dhillon and Johnson (1994). As a result, while it might be said that the existing studies provide some support for signaling models, the evidence is not entirely clear, either.

Our paper attempts to move the discussion forward by stepping back from specific predictions of the signaling model. Rather, we draw a broad distinction between a class of models that includes signaling models and another class that includes the overinvestment and wealth-transfer hypotheses. We do this by looking at the kind of information that is revealed by dividend announcements – is it information about exogenous variables, as in the first class of models or about endogenous variables, as in the second class of models. If the first class of models is valid, then we would expect the market reaction to be greater for firms with greater information asymmetry about exogenous variables, while in the second case, we would expect no such relationship.

II. Sample and Variables

A. Sample Selection

We extract dividend data from the CRSP database during the period 1987-2002. We exclude utility firms because they are heavily regulated, and we exclude real estate investment trusts (REITs) because they are required by law to pay out most of their earnings as dividends. We also exclude firms for which data are unavailable on either the I/B/E/S or Compustat databases.

The focus of our study is on dividend initiating firms. We consider a firm to be a dividend initiating firm if paid no dividends in the previous year and it does pay a dividend in the current year. Our final sample consists of 248 dividend initiations during the period 1987-2002. Table 1 shows the number of dividend initiations and percentage of the total sample by year, plus the dividend yield for the firms in our sample by year. The initiations are distributed roughly evenly over the sample period, although there are more initiations in the first half of the sample period than the second half. Conversely, the average dividend yield is somewhat higher in the second half of the sample period.

B. Announcement Effect

We measure the announcement effect by calculating the three-day cumulated abnormal return (CAR) centered around the dividend initiation announcement date. In particular, we compute CAR as the three-day cumulated return of the dividend initiating firm minus the cumulated return of a benchmark during the same period. In the reported results, CRSP value-weighted market return is the benchmark. We also use other benchmarks, for example, CRSP equal-weighted market return and predicted firm return based on a CAPM model estimated using one year of daily data 45 trading days prior to the announcement date. Our results do not change quantitatively when we use other benchmarks.

Table 2 provides descriptive statistics of the announcement effect by year. For the entire sample period the mean (median) announcement effect is 2.69% (1.57%). In all years the average effect is positive, although the median is negative in three of the 16 years in the sample period.

C. Measures of Information Asymmetry

We use five measures of information asymmetry. The first measure is the size of the firm. It is frequently assumed in the literature that larger firms are more information transparent than small firms. For recent uses of size as a proxy for information see Deshmukh (2003). **[Insert other cites]**. Our proxy for size is **the logarithm of firm market capitalization**.

Our second measure of information asymmetry is the number of analysts following the company from the I/B/E/S database. Greater analyst coverage is associated with lower information asymmetry. For example see Deshmukh (2005). **[Insert other cites]**.

Our third and fourth measures of information asymmetry are based on analysts forecast error, which is defined as:

$$\text{Forecast Error} = ABS[EPS_{for} – EPS_{act}] \qquad (1)$$

where EPS_{for} is the mean analyst forecast of quarterly earnings per share and EPS_{act} is the actual earnings per share for the quarter preceding the dividend initiation. The analyst forecasts are taken from the last I/B/E/S reporting month prior to the release of EPS_{act}. Our two measures differ by how we scale forecast error. For one measure we scale by the firm's stock price as of the month prior to the forecast month. For the other measure we scale by EPS_{act}. **[Is this description correct? Reason for two different scales?]** Studies that use forecast error as a measure of information asymmetry include Elton, Gruber and Gultekin (1984), Christie (1987), Atiase and Bamber (1994), and DaDalt, Gay, Nam (2002).

Our last measure of information asymmetry is the dispersion of analyst forecasts. We measure this as the standard deviation of earnings per share estimates as of the last I/B/E/S reporting month prior to the release of EPS_{act}, scaled by price. Studies using this measure in include Krishnaswami and Subrammaniam (1999) and DaDalt, Gay and Nam (2002). Table 3 provides descriptive statistics for the five proxies for asymmetric information.

III. Results

A. Univariate Tests

In Table 4 we begin our tests of the information asymmetry on the stock market reaction to the announcement of dividend initiations. In the table we first divide the sample into firms with high and low information asymmetry based on the median value for each of our proxies for information asymmetry. We then report the mean, standard deviation and median announcement effect for each the high and low asymmetry groups. In the final column we report the t-statistic for a test of differences in means between the high and low information asymmetry groups. The results provide initial support for the signaling hypothesis of dividend initiations. The average announcement affect is higher in the group of firms with high information asymmetry using all five proxies, and the difference is significant using four of the five proxies. Further the differences are economically significant. For example, using Size as the proxy for asymmetry, the mean announcement effect is 3.64% in the high information asymmetry group versus only 1.74% for the low asymmetry group.

B. Multivariate Tests

In Table 5 we present six specifications of tests of the relation between the announcement effect and information asymmetry. The independent variable in all of the specifications is the announcement effect. The measures of information asymmetry by specification are: 1) and the natural logarithm of firm size (lsize); 2) a dummy variable that equals one if the firm size is larger than the median (largesize); 3) a dummy variable that equals one if the number of analysts is above the median (largen); 4) a dummy variable that equals one if the forecast error scaled by realized earnings is below the median (lower); 5) a dummy variable that equals one if the forecast error scaled by price is below the median (lowerr1); and, 6) a dummy variable that equals one if the earnings forecast dispersion scaled by price is below the median (lowdisp). We include control variables in each of the specifications in Table 5. They are the dividend yield (divvy), the net cash flow (netcf), the market to book ratio (mktbk). These control variables are fairly standard in the literature. **[Insert cites]**

The results of Table 5 demonstrate the importance of information asymmetry in determining the market response to the announcement of a dividend initiation. The coefficients on all of the proxies for information asymmetry are negative, and all are significant except for the last specification using forecast dispersion. Note that the information asymmetry variables are constructed such that higher values on the variables indicate lower information asymmetry. The coefficients on the control variables are generally not significant.

In Table 6 we repeat the regressions of Table 5, but add year dummies to control for any time trends in the data. The results in Table 6 are even stronger than in the previous table. The coefficients on all of the information asymmetry variables are all negative, and strongly significant on all of the variables except forecast dispersion. Firms with lower information asymmetry have a lower announcement effect upon dividend initiation. The results in Tables 5 and 6 provide strong support for the information signaling hypothesis of dividend initiations. Firms with greater information asymmetry have a greater market reaction to initiation announcements. As discussed above this pattern is consistent with the dividend signaling hypothesis, but the pattern can not be explained by non-signaling hypotheses such as the overinvestment hypothesis.

We next turn to the question of risk reduction after dividend initiation. We begin by determining the changes in factor loadings in a Fama-French three factor model after dividend initiation the methodology follows Grullon et al. (2002). We also calculate changes in idiosyncratic risk, which we measure as the standard deviation of the residuals from the Fama-French model regression, and changes in total risk, which we measure as the standard deviation of returns. **[Insert more detailed description of methodology]**

Table 7 presents the results of the changes in risk that occur after dividend initiation. We find significant reductions in three risk measures: the factor loading on the Fama-French size factor (Dsmb), the idiosyncratic risk measured by the residual from the Fama-French model estimation (Didsy), and the total risk as measured by the standard deviation of returns (Dretstd). In addition, the change in the loading on the Fama-French market factor (Dmktrf) is negative, but not significant. The only risk factor showing an increase is the loading on the Fama-French book-to-market factor (Dhml), but this change is also not significant. The results in Table 7 show that firms that initiate dividends experience a decline in risk. These findings are similar to those reported by Grullon et al. (2002) for a sample of dividend increases. Our findings also confirm and extend the findings of Dyl and Weigand (1998). They also examine dividend initiations, but use simpler risk measures.

IV. Conclusion

In this paper we attempt to distinguish between the dividend signaling hypothesis of dividend initiations and non-signaling models such as the overinvestment hypothesis, using a sample of 248 dividend initiations during the period 1987-2002. We examine the relation between the level of information asymmetry of the firm and the market reaction to a dividend initiation. Under the signaling hypothesis one would expect a positive relation between information asymmetry and the market reaction. On the other hand it is difficult to explain such a pattern using a non-signaling model such as the overinvestment hypothesis. Thus our tests provide a sharper test of the signaling hypothesis than other studies in the literature.

Our results provide strong support for the signaling hypothesis. We include in our tests five measures of the information asymmetry of the firm: 1) firm size; 2) number of analysts following the firm; 3) analyst forecast error scaled by price; 4) analyst forecast error scaled by actual earnings; and, 5) dispersion of analyst forecasts scaled by price. We find a positive relation between information asymmetry and the market reaction to dividend initiations that is both economically and statistically significant. Of course, our results do not rule the possibility that non-signaling effects, such as the overinvestment hypothesis. However, we believe our results do provide strong evidence of an important role for a signaling effect.

We also explore the nature of the information signaled by dividend initiations. Our results confirm and extend recent papers that find evidence that dividends signal changes in firm risk. We extend Grullon et al (2002) by confirming that the risk reduction they identify occurs in dividend initiations as well as increases. We extend Dyl and Weigand (1998) by using a more extensive set of risk measures.

References

Aharony, J., and I. Swary, 1980. Quarterly dividend and earnings announcements and stockholders' returns: An empirical analysis. Journal of Finance 35, 1-12.

Allen, F., and R. Michaely, 2003. Payout policy, in Handbook of Economics of Finance Volume 1A edited by G. Constantinitdes, M. Harris, and R. Stulz, Boston, Elsevier North-Holland.

Asquith, P., and D. W. Mulllins, 1983. The impact of initiating dividend payments on shareholders' wealth. Journal of Business 56, 77-96.

Atiase, R., and L. Bamber, 1994, Trading volume reactions to annual accounting earnings announcements: The incremental role of predisclosure information asymmetry. Journal of Accounting Research 24, 21-36.

Bajaj, M. and Anand Vijh, 1990. Dividend clienteles and the information content of dividend changes. Journal of Financial Economics 26, 193-219.

Baker, M, and J. Wurgler, 2004. A catering theory of dividends. Journal of Finance 59, 1125-1165.

Benartzi, S., R. Michaely, and R. H. Thaler, 1997. Do changes in dividends signal the future or the past? Journal of Finance 52, 1007-10034.

Bernheim, B. D., and A. Wantz, 1995. A tax-based test of the dividend signaling hypothesis. American Economic Review 85, 532-551.

Bhattacharya, S. 1979. Imperfect information, dividend policy, and the "bird in the hand" fallacy. Bell Journal of Economics 10, 259-270.

Bulan, Laarni T., Narayanan Subramanian, and Lloyd D. Tanlu, 2004. On the timing of dividend initiations. Harvard NOM Working Paper No. 03-57. http://ssrn.com/abstract=472943.

Charest, G., 1978. Dividend information, stock returns and market efficiency – II. Journal of Financial Economics 6, 297-330.

Christie, A., 1987. On cross-sectional analysis in accounting research. Journal of Accounting and Economics 9, 231-258.

DaDalt, P., G. D. Gay, and J. Nam, 2002. Asymmetric information and corporate derivatives use. Journal of Futures Markets 22, 241-267.

Denis, D. J., D. K. Denis, and A. Sarin, 1994. The information content of dividend changes: Cash flow signaling, overinvestment, and dividend clienteles. Journal of Financial and Quantitative Analysis 29, 567-588.

Deshmukh, Sanjay, 2003. Dividend initiations and asymmetric information: A hazard model. Financial Review 38, 351-368.

Deshmukh, Sanjay, 2005. The effect of asymmetric information on dividend policy. Quarterly Journal of Business and Economics 44, 107-127.

Dhillon, U., and H. Johnson, 1994. Effect of dividend changes on stock and bond prices. Journal of Finance 49, 281-289.

Dyl, Edward A. and Robert A. Weigand, 1998. The information content of dividend initiations: Additional evidence. Financial Management 27, 27-35.

Eades, K., 1982. Empirical evidence on dividends as a signal of firm value. Journal of Financial and Quantitative Analysis 17, 471-500.

Elton, E., M. Gruber, and M. Gultekin, 1984. Professional expectations: Accuracy and diagnosis or errors. Journal of Financial and Quantitative Analysis 19, 351-363.

Grullon, Gustavo, Roni Michaely, and Bhaskaran Swaminathan, 2002. Are dividend changes a sign of firm maturity? Journal of Business 75, 387-424.

Jensen, M.,1986. Agency costs of free cash flow, corporate finance and takeover. American Economic Review 76, 323-329.

John, K., and J. Willliams, 1985. Dividends, dilution and taxes: A signaling equilibrium. Journal of Finance 40, 1053-1070.

Krishnaswami, S. and V. Subramaniam, 1999. Information asymmetry, valuation, and the corporate spin-off decision. Journal of Financial Economics 53, 73-112.

Kwan, C., 1981. Efficient market tests of the informational content of dividend announcements: Critique and extension. Journal of Financial and Quantitative Analysis 16, 193-206.

Lang, Larry H. P. and Robert H. Litzenberger, 1989. Dividend announcements: Cash signaling vs. free cash flow hypothesis? Journal of Financial Economics 24, 181-191.

Lipson, M. C. Maquieira, and W. Megginson, 1998. Dividend initiations and earnings surprises. Financial Management 27, 36-45.

Miller, M. H., and K. Rock, 1985. Dividend policy under asymmetric information. Journal of Finance 40, 1031-1051.

Modigliani, F., and M. H. Miller, 19958. The cost of capital, corporation finance and the theory of investment. American Economic Review 48, 261-297.

Pettit, R. R., 1972. Dividend announcements, security performance and the capital market efficiency. Journal of Finance 27, 993-1007.

Prabhala, N. R., 1993. On interpreting dividend announcement effects: Free cashflow, clientele or signaling. Working paper, New York University.

Ravid, S. A., and O. Sarig, 1991. Financial signaling by committing to cash outflows. Journal of Financial and Quantitative Analysis 26, 165-180.

Viswanath, P.V., Yuki Kim and Jay Pandit, 2002. Dilution, Dividend commitments and liquidity: Do dividend changes reflect information signaling? Review of Quantitative Finance and Accounting 18, 359-379.

Watts, R., 1973. The information content of dividends. Journal of Business 46, 191-211.

Yoon, P. S., and L. Starks, 1995. Signaling, investment opportunities, and dividend announcements. Review of Financial Studies 8, 995-1018.

Table 1. Dividend initiating firms by year

Year	Number	Percent	Average Dividend Yield
1987	9	3.63	1.22
1988	25	10.08	1.82
1989	18	7.26	2.06
1990	18	7.26	0.82
1991	17	6.85	1.62
1992	16	6.45	1.49
1993	18	7.26	0.88
1994	23	9.27	1.34
1995	25	10.08	1.68
1996	12	4.84	1.78
1997	15	6.05	1.41
1998	5	2.02	2.28
1999	13	5.24	1.75
2000	10	4.03	1.35
2001	9	3.63	1.85
2002	15	6.05	1.59
ALL	248	100	1.53

Table 2. Dividend announcement effect

Year	Mean	Std Dev.	Median	Min	Max
1987	4.43	4.55	4.28	-2.23	13.89
1988	0.29	3.99	0.08	-10.4	6.73
1989	4.07	5.68	3.03	-5.21	15.81
1990	2.95	5.05	1.85	-3.71	15.41
1991	0.31	5.61	0.23	-12.8	11.3
1992	3.09	6.84	1.73	-4.47	23.34
1993	0.89	7.39	-0.27	-8.31	20.35
1994	3.38	6.24	3.14	-7.25	17.6
1995	2.17	6.09	1.48	-6.83	15.97
1996	4.47	5.83	3	-2.37	17.73
1997	2.82	7.07	-0.86	-5.73	16.97
1998	0.76	8.07	-3.05	-7.43	10.94
1999	4.63	10.63	3.49	-7.54	36.41
2000	5.42	3.97	4.59	0.13	11.22
2001	3	10.74	1.47	-6.11	29.16
2002	3.34	5.01	2.89	-4.88	13.39
ALL	2.69	6.39	1.57	-12.8	36.41

Table 3. Asymmetric Information measures

	N	Mean	Std Dev	Median	Min	Max
Lsize	248	5.395154	1.848726	5.216792	1.219502	11.01258
N	173	3.843931	4.304396	2	1	24
erreps	173	0.307314	1.112123	0.117371	0	13.875
Erreps1	173	0.005621	0.020146	0.00102	0	0.212326
Disp	115	0.001375	0.00315	0.000457	0	0.025142

Table 4. Univariate analysis of announcement effect

	High Information Asymmetry			Low Information Asymmetry			
Variables	Mean	Std. Dev.	Median	Mean	Std. Dev.	Median	T-stat
Size	3.64455	7.1578	1.78732	1.73718	5.37942	1.47599	2.37
Number of analysts	3.22337	7.24349	1.72015	1.26818	4.61835	1.49944	2.06
Error of forecast scaled by realized earnings	3.36113	7.05079	2.1626	1.33426	5.21041	1.05813	2.15
Error of forecast scaled by price	3.3493	7.37687	1.94395	1.34596	4.7483	0.54141	2.13
Dispersion scaled by price	1.94939	5.10447	1.81355	1.35393	5.45461	0.60539	0.6

Table 5. Regression of announcement effect on information asymmetric measure and other controls (t values are in parenthesis.)

Intercept	5.857	3.455	2.479	2.507	2.353	0.689
	(3.62)	(3.72)	(2.30)	(2.34)	(2.27)	(0.68)
divy	5.892	19.602	58.136	59.508	58.231	132.500
	(0.18)	(0.62)	(1.28)	(1.32)	(1.29)	(2.17)
netcf	-0.450	-0.475	-1.498	0.932	0.111	-0.522
	(-0.11)	(-0.12)	(-0.32)	(0.20)	(0.02)	(-0.12)
mktbk	-0.041	-0.037	0.169	0.089	0.220	0.229
	(-0.13)	(-0.12)	(0.48)	(0.25)	(0.62)	(0.68)
lsize	-0.575					
	(-2.34)					
largesize		-1.711				
		(-1.97)				
largen			-1.804			
			(-1.87)			
lowerr				-1.926		
				(-1.99)		
lowerr1					-1.938	
					(-1.98)	
lowdisp						-0.773
						(-0.74)
Rsquare	0.031	0.024	0.034	0.037	0.037	0.045

Table 6. Regression of announcement effect on information asymmetric measure and other controls and year effects (t values are in parenthesis.)

Intercept	9.111	5.020	3.239	2.849	4.454	1.167
	(3.44)	(2.22)	(1.36)	(1.22)	(1.79)	(0.45)
divy	9.546	31.436	73.702	73.051	69.378	158.707
	(0.29)	(0.97)	(1.59)	(1.59)	(1.50)	(2.41)
netcf	-1.834	-1.421	-2.513	1.106	-0.661	-0.467
	(-0.45)	(-0.35)	(-0.53)	(0.23)	(-0.14)	(-0.10)
mktbk	0.043	-0.011	0.233	0.123	0.336	0.314
	(0.14)	(-0.04)	(0.65)	(0.35)	(0.93)	(0.87)
lsize	-0.851					
	(-3.28)					
largesize		-2.061				
		(-2.30)				
largen			-2.198			
			(-2.17)			
lowerr				-2.725		
				(-2.61)		
lowerr1					-2.784	
					(-2.53)	
lowdisp						-0.764
						(-0.67)
y1988	-5.117	-4.209	-2.574	-2.401	-4.197	-2.040
	(-2.09)	(-1.70)	(-0.93)	(-0.87)	(-1.48)	(-0.66)
y1989	-1.324	-0.753	-0.366	-0.354	-2.113	-3.045
	(-0.51)	(-0.29)	(-0.12)	(-0.12)	(-0.68)	(-0.84)
y1990	-1.902	-1.702	-2.021	-1.249	-2.362	-2.157
	(-0.74)	(-0.65)	(-0.67)	(-0.41)	(-0.79)	(-0.70)
y1991	-4.999	-4.223	-2.525	-2.312	-4.598	-0.502
	(-1.92)	(-1.61)	(-0.89)	(-0.82)	(-1.55)	(-0.14)
y1992	-1.309	-1.012	-2.291	-1.531	-3.938	-1.271
	(-0.50)	(-0.38)	(-0.79)	(-0.53)	(-1.33)	(-0.43)
y1993	-3.412	-2.900	-2.653	-2.296	-3.981	-2.780
	(-1.33)	(-1.11)	(-0.96)	(-0.84)	(-1.44)	(-1.00)
y1994	-1.033	-0.581	0.210	1.016	-0.730	-0.096
	(-0.42)	(-0.23)	(0.08)	(0.39)	(-0.28)	(-0.03)
y1995	-2.440	-2.056	-0.627	0.865	-1.143	-0.731
	(-1.00)	(-0.83)	(-0.24)	(0.32)	(-0.43)	(-0.24)
y1996	0.045	0.281	1.483	1.794	0.488	0.462
	(0.02)	(0.10)	(0.46)	(0.56)	(0.15)	(0.14)
y1997	-1.304	-1.282	-0.997	0.254	-1.800	0.542
	(-0.49)	(-0.48)	(-0.35)	(0.09)	(-0.64)	(0.18)
y1998	-3.396	-3.624	-8.176	-7.803	-9.437	-6.890
	(-0.97)	(-1.02)	(-1.95)	(-1.88)	(-2.25)	(-1.55)

y1999	0.634	1.049	1.534	2.462	0.585	-1.121
	(0.23)	(0.38)	(0.54)	(0.87)	(0.20)	(-0.37)
y2000	1.855	1.811	3.615	3.637	1.543	3.333
	(0.64)	(0.62)	(1.19)	(1.21)	(0.51)	(1.07)
y2001	0.156	-0.412	-1.885	-2.248	-3.085	-2.974
	(0.05)	(-0.14)	(-0.59)	(-0.71)	(-0.97)	(-0.92)
y2002	-0.342	-0.242	1.442	2.231	-0.230	1.141
	(-0.13)	(-0.09)	(0.50)	(0.76)	(-0.08)	(0.38)
Rsquare	0.112	0.091	0.135	0.146	0.144	0.165

Table 7: Tests of Risk Changes After Dividend Initiation: All initiating firms

variable1	mean	std	median	Prob p-value	Sign
mktrf	1.01683	0.69657	0.98548	<.0001	<.0001
smb	1.02481	1.29278	0.85247	<.0001	<.0001
hml	0.21701	1.41562	0.18758	0.0172	0.0087
Dmktrf	-0.05779	1.01342	-0.01253	0.373	0.4882
Dsmb	**-0.29159**	**1.45618**	**-0.26963**	**0.0019**	**0.0052**
Dhml	0.06077	1.80527	0.02689	0.5987	0.5241
Didsy	**-0.00111**	**0.00929**	**-0.00116**	**0.0622**	**0.0296**
Dretstd	**-0.01173**	**0.06082**	**-0.01173**	**0.0029**	**0.0008**