The Value Relevance of Effective Investor Relations

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Abstract

In this study, we test formally the market value of investor relations (IR) activity employing the annual *Investor Relations Magazine* Best Overall IR Awards data from 2000 to 2002 to proxy for the quality of firm investor relations. We find firms perceived by survey respondents to have effective IR strategies have significantly higher market value, and, also, earn superior abnormal returns, both before and after the award nominations. We also find that, not surprisingly, higher analyst following is associated with more nominations, suggesting analysts tend to favor the stocks they follow, although being nominated for best overall IR is also consistent with a significant increase in analyst following in the following year. Finally, in line with effective IR leading to lower information risk, liquidity of nominated firms, measured by stock turnover, increases in the year subsequent to the award nominations. Overall, our evidence is consistent with good IR successfully reducing the risk to investors associated with high information asymmetry, as predicted by information risk and agency theories.

1. Introduction

Well-functioning capital markets require a free flow of relevant information to enable efficient asset pricing. The investor relations (IR) industry has developed substantially over the past few decades, primarily driven by a growing demand for firms to provide a higher degree of information transparency and accountability to multiple stakeholders. The National Investor Relations Institute (NIRI) defines IR as "*A corporate marketing activity, combining the disciplines of communications and finance, providing current and potential investors with an accurate portrayal of a firm's performance and prospects, therefore having a positive effect on total value relative to the overall market and the firm's cost of capital.*" However, despite the substantial increase in importance firms now place on IR activities, little attention to date has been paid in the literature as to whether an effective IR strategy adds to shareholder value. This study seeks to test directly whether high investor relations (IR) quality ratings are associated with higher firm market value – i.e., is investor relations market relevant? Specifically, we address this issue by comparing the market value, stock returns, liquidity, analyst coverage, and liquidity of firms nominated by security analysts and fund managers for 'Best Overall IR' in the annual *Investor Relations Magazine* IR Awards for 2000 to 2002, which proxies for market perceptions of effective investor relations, with firms not so rated.

We find that firms nominated for the Best Overall IR category in the annual *Investor Relations Magazine* IR survey are valued by the market significantly higher than unrated firms using the Ohlson (1995) model approach, and the best rated firms more than the other rated firms. In addition, over the year following the IR awards, nominated firms earn a highly significant superior abnormal return of 0.8% per month, controlling for prior returns and other characteristics, suggesting the market does not fully impound the implications of better IR. Examining the relation between analyst following and investor relations quality, our results show that, not surprisingly, the more analysts reporting on the firm, the more nominations for best overall IR award the firm receives in the following year. However, more importantly, best overall IR ratings are directly associated with a significant increase in subsequent analyst coverage compared with firms with no votes. Finally, we find that stock liquidity, as measured by relative stock turnover, increases by no less than 14% for the best IR rated firms, and 7% for the other rated firms, compared with firms unrated by survey respondents. In summary, consistent with the predictions of information risk and agency theories, which together propose that enhanced corporate communications will reduce information risk or agency problems caused by high information asymmetry, we find that firms nominated for best overall IR in the *Investor Relations Magazine* annual survey experience higher market value, increase in stock returns, growth in analyst coverage, and greater liquidity.

Brennan and Tamaronski (2000) demonstrate a chain of relationships that together establish a putative "*direct link between a firm's investor relations policy and its stock price*". The first link in this chain is an increase in analyst following that can result from a good corporate IR strategy that operates primarily by reducing analysts' research costs (Bhushan, 1989; Lang and Lundholm, 1996; Francis, Hanna, and Philbrick 1997;

Holland, 1998). Secondly, there is empirical support that higher analyst coverage has a significant positive impact on liquidity, both directly due to reduced trading costs, and also indirectly through the consequent effect on equity trading volumes (Brennan and Subrahmanyan, 1996). Finally, Amihud et al. (1997) find that increased stock liquidity directly impacts stock prices, thus completing the final link in a putative chain of causation from effective IR to shareholder value.

However, there is limited empirical evidence on a direct link between a firm's investor relations activity and market pricing. Botosan (1997) constructs a subjective disclosure quality index based on annual report disclosures, which are treated implicitly as a proxy for the effectiveness of the firm's overall market communication policy. Based on a small sample of firms in a single industry in 1991, she finds a direct negative relation between her firm disclosure index score and cost of equity, but only for firms with low analyst coverage. However, the role of IR is much more than just conveying formal financial information to the market (Marcus and Wallace, 1997), hence Botosan's findings can only indirectly relate to the question of value relevance of good investor relations.

Healy, Hutton and Palepu (1999) employ the AIMR survey of corporate communications ratings, based on a survey of analysts and fund managers, to test the stock performance of the 97 firms with three years of consecutive increases in their disclosure quality ratings to 1996. They find that, on average, these firms' stocks earned excess risk-adjusted returns of approximately 5% over this period. Botosan and Plumlee (2002) use the same AIMR disclosure ratings for the period 1986-1996 but find no significant relation between firms' IR ratings and their cost of equity capital. However, both Healy et al. (1999), and Botosan and Plumlee (2002) employ the

composite AIMR ratings which do not provide a 'pure' measure of the value of a firm's IR activities, since survey respondent perceptions of the quality of firm IR only accounts for 30% of the overall AIMR rating. As such, these two papers are best viewed as exploring the general relation between a firm's market communications activity, and its market value.

Finally, of most direct relevance to this paper, Bushee and Miller (2007) consider 210 small and mid-cap firms that initiate IR programs between 1999 and 2004 by hiring professional IR agencies. They find that these companies significantly increase their level of disclosure, media coverage, and analyst following, as well as institutional ownership. In addition, the authors find significant associated abnormal returns, and fall in the book-to-market ratio. They argue that IR activities play an important role in helping small and mid-cap companies to overcome their low visibility, because they do not generally trade on a major exchange, to attract a wider following by investors and information intermediaries, and to improve their market valuation. Our study differs to that of Bushee and Miller (2007) in a number of ways. First, our rated firms, averaging 1,040 each year, are all listed on the main exchanges, and tend to be much larger and better established than Bushee and Miller's more specialized sample, 60% of which are listed on the OTC Bulletin Board and Pink Sheets, and the remaining 40% on NASDAQ. Also our firms are likely to have more established IR programs and be already well followed by analysts, being nominated for IR industry awards. Finally, we address different, but somewhat related, research questions.

The rest of the paper is organised as follows: section 2 presents our hypotheses, data and method, section 3 presents our results, and section 4 summarises our findings.

2. Hypotheses, Data and Method

2.1. Hypotheses

The IR function of a firm is a dedicated channel of information from senior management to external stakeholders, hence IR performance, in theory should have significant impact on information asymmetry between insiders and outsiders. Effective IR should reduce the risk premium associated with information asymmetry leading, ceteris paribus, to higher market value. It should also lower the cost of analyst information gathering for, and raise the firm's profile with, investors thereby creating higher demand for analyst coverage of firms with better IR. Higher analyst coverage, combined with lower information asymmetry, should increase liquidity leading to lower liquidity premium and therefore higher stock returns. Information risk theory and agency theory thus together provide a framework in which an effective IR policy can influence both market value and stock liquidity by reducing the risk associated with high information asymmetry.

In an efficient market, the implications of effective IR activity, as proxied by the *Investor Relations Magazine* best overall IR firm ratings, will already be impounded in stock prices, and not associated with subsequent abnormal returns. If effective IR is value relevant, its impact will already be manifested in firm market value. We thus test null hypothesis $H1_0$:

$H1_0$: Effective IR has no impact on firm market value.

While effective IR can reduce information asymmetry, if the market is efficient with respect to impounding the implications of effective IR, firms that are nominated for the *Investor Relations Magazine* awards should not earn significant abnormal returns

over the year following the nomination. We thus establish our second null hypothesis:

$H2_0$: There is no significant relation between effective IR and future excess equity returns.

Effective IR should also lead to an increase in analyst coverage, because a main goal of good IR is to reduce analyst information search time and costs, leading to increased demand for analysts' services. We therefore establish our third null hypothesis:

$H3_0$: There is no significant relation between effective IR and increase in analyst coverage.

Information risk and agency theories together predict that effective IR will reduce the perceived risks that investors associate with high information asymmetry with management, and thus reduced information asymmetry will lead to increased stock liquidity. Our fourth null hypothesis is thus:

$H4_0$: There is no significant relation between effective IR and increase in stock liquidity.

2.2. Data

Since 1996 the *Investor Relations Magazine* has commissioned annually an independent research firm to obtain nominations from investors and analyst for firms that have performed the 'best' in distinct categories of IR over the previous 12 months. Nominations for the period 2000-2002 were collected from a large sample of fund managers and sell and buy-side analysts listed in the *Thomson Financial I/B/E/S*, *Barron's* and *WILink* databases, covering a wide range of industry sectors and

investment specialisations, although all respondents were encouraged to nominate firms outside their specialities. An average of 1,708 respondents responded to each annual survey. The nomination-collection process took place during March, and was finalised on 31 March each year but nominations should only have related to IR performance over the previous 12 months. Table 1, panel A presents the number of firms nominated in each category for each of the three years in the sample.

Table 1 here

Stock returns, market values, and trading volumes are extracted from the Centre for Research in Share Prices (CRSP) database. Book value of equity and net income are from COMPUSTAT, and analyst coverage is obtained from the *Thomson Financial I/B/E/S* database.

2.3. Method

Each year from 2000 to 2002, firms nominated for best overall IR in the respective *Investor Relations Magazine* survey in the 'large firms' category (market capitalization > $3bn) are sorted by the number of nominations received, and divided into two portfolios formed at the median breakpoints of award nominations. The 'Best rated' portfolio consists of firms that receive more than the median number of nominations, and the 'Other rated' portfolio all the other firms that receive at least one nomination. Similarly, firms nominated in the 'small firms' category (market capitalization < $3bn) are also sorted into two portfolios on the same basis. Finally, we form two pooled portfolios, the 'Best rated' pooled portfolio is formed by pooling together the 'Best rated' firms from both the large and small categories, and the 'Other rated' pooled

portfolio is formed in the same way. Panel B of table 1 presents the number of firms in each portfolio, pooled across the three award years.[1]

To assess the value relevance of effective investor relations, we employ the well established Ohlson (1995) valuation model to provide an appropriate framework to measure the incremental contribution to firm value of variables other than book value and current earnings (Quirin et al., 2000). The model explicitly recognises that some value relevant information will appear in accounting numbers with a time lag. Thus, since investor relations reputation is built over time,[2] we follow Easton (1999) and use price level rather than returns regression. Ohlson (1995) derives his valuation function (equation 7, p. 670) as:

$$P_t = b_1(E_t - D_t) + b_2\, BVE_t + b_3\, \nu_t \qquad (1)$$

where:

P_t = market value of the firm's equity at time t,

E_t = earnings of the firm for the period (t-1, t),

D_t = net dividends paid at time t,

BVE_t = net book value at time t, and

ν_t = information other than abnormal earnings.

We make several modifications to the basic valuation equation:

(i) To measure the market impact of effective IR, as proxied by nominations for the *Investor Relations Magazine* best overall IR awards, we assume the

[1] Since the portfolios are formed using percentiles of votes, the number of stocks in the portfolios is not equal.

[2] Though the respondents are asked to nominate firms based on their IR performance over the previous 12 months, they would have been building their IR departments and policies over time.

IR rating reflects information other than that contained in current earnings and book value.

(ii) We set dividends to zero consistent with Barth et al. (1998), and Graham et al. (2003) among other studies.

(iii) Barth and Kallapur (1996) suggest that the coefficient estimates of such price level equations could be biased due to scale differences in the cross-section of firms. As such, we use weighted least squares regression with market capitalizations as weights to remove scale bias, consistent with Easton and Sommers (2003).

To test whether the firms nominated for IR awards earn superior risk-adjusted stock returns, we employ the conventional Carhart (1997) four-factor model:

$$R_{P,t} - R_{F,t} = a + b\ RMRF_t + s\ SMB_t + h\ HML_t + m\ MOM_t + e_t \quad (2)$$

where

$R_{P,t}$ = the average of the returns of the firms in portfolio P during month t,

$R_{F,t}$ = the risk free rate (US long bond rate) at the start of month t,

$RMRF_t$ = excess return on the market factor in month t,

SMB_t = return on the mimicking portfolio for the size factor in month t,

HML_t = return on the mimicking portfolio for the book-to-market factor in month t, and

MOM_t = return on the mimicking portfolio for the momentum factor in month t.

RMRF, SMB, HML and MOM factors are from the *Kenneth French* web site.[3]

[3] (http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/).

To test the average level of analyst coverage of firms over the year immediately prior to the nomination year, we pool our sample firms across award years and run the following multinomial logistic regression which controls for firm market value at each year-end, and prior-year stock returns:

$$IR_{i,t} = \alpha + \beta_{AF} AF_{i,t-1} + \beta_{MV} \ln(MV_{i,t}) + \beta_{PYR} PYR_{i,t-1} + \varepsilon_i \quad (3)$$

where

$IR_{i,t}$ = 0 if the firm is not rated, 1 if the number of nominations it receives is less than median ('Other rated'), and 2 if the number of nominations it receives is greater than the median ('Best rated'),

$AF_{i,t-1}$ = number of analysts publishing forecasts in the I/B/E/S FirstCall database for firm i in the year prior to the nominations,

$MV_{i,t}$ = market value of equity of firm i at 31 March in the year of nomination, and

$PYR_{i,t-1}$ = stock returns from March of year t-2 to February of year t-1 (where t is the year of nominations).

To test whether there is a change in analyst following in the year after the nomination, we run the following regression:

$$AF_{i,t+1} - AF_{i,t-1} = \alpha + \beta_{OR} OR_{i,t} + \beta_{BR} BR_{i,t} + \beta_{MV} \ln(MV_{i,t}) + \beta_{PYR1} PYR1_i + \beta_{PYR2} PYR2_i + \beta_{PYR3} PYR3_i + \varepsilon_i \quad (4)$$

where

$AF_{i,t-1}$ = number of analysts publishing forecasts for firm i in the I/B/E/S FirstCall database in the year prior to the nominations,

$AF_{i,t+1}$ = number of analysts publishing forecasts for firm i in the I/B/E/S FirstCall database in the year subsequent to the nominations,

$OR_{i,t}$ = 1 if the number of nominations it receives is less than median ('Other rated'), 0 otherwise,

$BR_{i,t}$ = 1 if the number of nominations it receives is greater than the median ('Best rated'), 0 otherwise,

$MV_{i,t}$ = market value of equity of firm i at March 31 in the year of nomination,

$PYR1_i$ = stock returns from March 1 of year t-2 to February 28 of year t-1,

$PYR2_i$ = stock returns from March 1 of year t-1 to February 28 of year t, and

$PYR3_i$ = stock returns from March 1 of year t to February 28 of year t+1.

To test whether stock liquidity increases after the IR award nominations, we use the stock turnover ratio as a measure of liquidity. The monthly turnover ratio for each stock is defined as (see e.g. Korajczyk and Sadka, 2008):

$$TO_{it} = \frac{Vol_{it}}{SO_{it}} \tag{5}$$

where

TO_{it} = turnover ratio of stock i during month t,

Vol_{it} = total trading volumes of stock i during month t, and

SO_{it} = number of shares outstanding for firm i at the end of month t.

Following Tkac (1999), we adjust individual firm turnover ratios for market wide activity by:

$$RTO_{i,t,t+\tau} = \frac{\overline{\overline{TO}}_{i,t,t+\tau}}{\overline{\overline{TO}}_{m,t,t+\tau}} \tag{6}$$

where

$\overline{\overline{TO}}_{i,t,t+\tau}$ = average monthly turnover ratio for firm i over the period t to t+τ,

$\overline{TO}_{m,t,t+\tau}$ = average monthly turnover ratio for all firms in the same size category over the period t to t+τ,

The change in relative turnover (DRTO) is calculated as follows:

$$DRTO_i = RTO_{i,t} - RTO_{i,t-1} \quad (7)$$

where

$RTO_{i,t}$ = average monthly relative turnover for firm i from April of year of nomination to March of the year after the nomination, and

$RTO_{i,t-1}$ = average monthly relative turnover for firm i from March of year before nomination to February of year of nomination.

Finally, to test for the relation between change in stock liquidity and the IR rating, controlling for firm size, we estimate the following regression:

$$DRTO_i = \alpha + \beta_{OR} OR_i + \beta_{BR} BR_i + \beta_{MV} \ln(MV_i) + \varepsilon_i \quad (8)$$

where

MV_i = market value of equity of firm i at 31 March in the year of nomination, and

$OR_{i,t}$ = 1 if the number of nominations it receives is less than median ('Other rated'), 0 otherwise,

$BR_{i,t}$ = 1 if the number of nominations it receives is greater than the median ('Best rated'), 0 otherwise,

3. Results

3.1. Value relevance

The results of our regressions using equation (1) to assess the value relevance of effective investor relations are presented in table 2. The results show a strong positive

relation between IR rating and market value for both small and large firms, clearly demonstrating that better investor relations is associated with higher market value.[4] We therefore reject null hypothesis $H1_0$; effective investor relations *does* make an incremental contribution to firm value.

Table 2 here

3.2. Equity returns

Table 3 shows that over the year immediately prior to the IR awards, firms nominated for the awards earn significant positive abnormal returns, and the superior performance is present across both large and small firms, as well as across both IR rated portfolios. However, large firms that were not nominated earned abnormal returns higher than those for the rated firms. The evidence shows prior superior financial performance may drive nominations for the IR awards, at least in the case of smaller firms.

Table 3 here

Table 3 panel C shows that the sample firms earn 80 basis points (bp) per month abnormal returns post nomination, which is significant at the 1% level (t = 3.40), and both, large firms (panel A) and small firms (panel B) outperform significantly (76bp and 85bp per month respectively). The evidence leads us to reject null hypothesis $H2_0$ that the nominated firms do not earn superior returns post nomination. Although the average abnormal return over the 12-month period post award nomination is lower than that for the previous 12 months for all portfolios, nonetheless, the market does not

[4] For the median large firm with market capitalization of $7.8bn, moving from 'unrated' to 'other rated' is associated with increase in market value of about $3bn, and moving from unrated to 'best rated' an increase in market value of about $11bn. For the median small firm with market capitalization of $98.6m, the associated increases in market value are $1.6m and $6.0m respectively. For the median firm in our overall sample with market capitalization of $141.6m, the respective increases in market value are $2.0m and $9.5m.

appear fully to incorporate the implications of better IR strategies, and can thus be viewed as inefficient with respect to this information.

3.3. Analyst Coverage

The average analyst following for firms nominated for best overall IR in the *Investor Relations Magazine* awards is higher than that for those not nominated in the year before nomination. For large firms, prior average analyst following is 16.8, while that for small firms it is 6.9. In contrast, average following for large unrated firms in the prior award year is 11.5, and for small unrated firms it is only 2.2.[5]

Regression results in table 4 show that, controlling for firm market value and prior year returns, there is a strong positive relation between prior analyst coverage and number of IR award nominations for both large and small firms. For large firms, a unit increase in analyst following increases the probability of the firm being in 'other rated' by 2% (an odds ratio of 1.02x) and that of the firm being in 'best rated' by 4% (odds ratio of 1.04). For small firms, the respective probability increases are 4% and 6% (odds ratios 1.04 and 1.06). The results show that the higher prior year analyst following, the greater the number of nominations received by a firm. Not surprisingly, the relation is stronger for smaller firms than for larger firms. Thus, table 4 provides evidence of a strong positive relation between prior analyst following and IR rating, consistent with that of Lang and Lundholm (1993) survey respondents tend to vote for firms they are familiar with.

Table 4 here

[5] Full results are not tabulated for brevity and are available from the first author on request.

Table 5 shows that controlling for size and prior year returns, there is a strong positive relation between IR ranking and change in analyst following. The results show that for large firms, 'other rated' firms experience an increase of 1.64 analysts, and 'best rated' an increase of 2.53 analysts following them relative to 'unrated' firms. For small firms, the increase in number of analysts following them is 0.72 and 1.21 for 'other rated' and 'best rated' firms respectively. The results lead us to reject null hypothesis $H3_0$ at conventional levels. The evidence is consistent with effective IR leading to increased analyst following, in line with the prediction of lower information costs.

Table 5 here

3.4. Stock liquidity

Table 6 clearly shows that controlling for size, there is a strong positive association between the number of nominations received, and change in relative turnover ratio for small firms, with relative turnover ratio increasing by 18% for 'other rated' and by 37% for 'best rated' firms compared with firms with no votes. However, surprisingly, we find a negative relation for large firms, although for the firm sample as a whole the equivalent relative stock turnover ratio increases are 14% and 7%. This provides evidence against null hypothesis $H4_0$, relative trading volumes increase for nominated firms, and the increase is higher for firms that receive more nominations. The results are consistent with increased liquidity for small nominated firms as costs associated with information asymmetry fall for small firms with better communications strategies as proxied by their IR award nominations.

Table 6 here

4. Conclusions and summary

This study uses firms nominated for 'Best Overall IR' in the *Investor Relations Magazine* surveys of large numbers of fund managers and buy- and sell-side analysts over the period 2000 to 2002. We first find that nominated firms are rewarded with significantly higher market valuations than those that are unrated, and those with above median ratings more than those below the median, demonstrating the importance of effective investor relations programs.

We also show that nominated firms have higher abnormal stock returns over the year immediately preceding the award nomination period, suggesting past performance drives firm nominations to some extent. However, more importantly, this outperformance continues over the subsequent year, though on an attenuated basis, suggesting that the market is unable to price this quality of IR activity information efficiently.

Consistent with behavioural finance theories that suggest effective IR might enhance the 'availability' of a stock, thus leading decision makers, such as security analysts, to favor a firm, we find firms that receive IR award nominations tend to have higher analyst following in the year before nomination. However, controlling for this, we also show that effective IR actually serves to increase analyst coverage by likely reducing the time and costs of analysing information for analysts leading to increased demand for analysts' services from investors.

Finally, in line with information risk and agency theories that predict reduced perceived risk due to effective IR leading to lower transaction and 'agency costs' for stockholders, we find a significant increase in trading volumes and thus liquidity, in the case of our small nominated firms.

In summary, we find firms nominated for the *Investor Relations Magazine* Best Overall IR award, which proxies for effective IR strategies, have higher market values, higher stock returns, increased analyst following and higher liquidity. We thus conclude that, consistent with information and agency cost theories, good IR has clear market impact. We believe this is the first study in the literature to have demonstrated this for a large cross-section of main exchange listed firms.

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Table 1: Number of sample firms

Panel A shows the number of firms in the sample each year with market capitalization > $3 billion at the end of December of the year prior to the nomination, panel B shows the number of firms in the sample each year with market capitalization < $3 billion at the end of December of the year prior to the nomination, and panel C shows the total number of firms in the sample each year. 'Best rated' refers to the firms with number of votes > median number of votes, 'Other rated' refers to all other nominated firms, and 'Unrated' refers to all firms that were not nominated in a particular year. Medians are computed separately for each year and each category.

	2000	2001	2002	Total
A. Large firms				
All rated	487	457	416	1,360
Best rated	219	213	169	601
Other rated	268	244	247	759
All Unrated	145	120	126	391
B. Small firms				
All rated	686	531	548	1,765
Best rated	210	187	197	594
Other rated	476	344	351	1,171
All Unrated	5,639	5,488	4,854	15,981
C. All firms				
All rated	1,173	988	964	3,125
Best rated	429	400	366	1,195
Other rated	744	588	598	1,930
All Unrated	5,784	5,608	4,980	16,372

Table 2: Value relevance

All companies nominated for 'Best Overall IR' in the *Investor Relations Magazine* 2000, 2001 and 2002 annual IR surveys, and all stocks that receive no votes are included in our sample. 'Large' refers to stocks with market capitalization of more than $3 billion as at 31st of December of the year prior to the nominations and 'Small' refers to all other stocks. 'All' refers to all stocks pooled across 'Large' and 'Small'.

The following regression is estimated:

$MV_{i,t} = \alpha + \beta_{BVE} BVE_{i,t} + \beta_{NI} NI_{i,t} + \beta_{OR} OR_{i,t} + \beta_{BR} BR_{i,t} + \varepsilon_i$

where MV_i is the market value of equity of firm i at 31 March in the year of nomination (t), BVE_i is the book value of common equity for firm i and NI_i is the net income before extraordinary items for firm i. The accounting data is lagged by 6 months. $OR_{i,t}$ is 1 if the number of nominations received by firm i is less than the median ('Other rated'), 0 otherwise, and $BR_{i,t}$ is 1 if the number of nominations received by firm i is greater than the median ('Best rated'), 0 otherwise. The median is computed each year for 'Small' and 'Large' firms separately.

	α	β_{BVE}	β_{NI}	β_{OR}	β_{BR}	Adj R^2
Large	1.04 (2.57)	1.75 (24.90)	0.85 (6.07)	1.10 (2.38)	3.97 (7.41)	0.32
Small	0.01 (15.25)	0.48 (61.67)	0.10 (5.94)	0.16 (21.81)	0.60 (31.61)	0.30
All	-0.01 (3.32)	1.16 (76.94)	0.46 (13.85)	0.17 (9.65)	0.84 (18.49)	0.32

Table 3: Risk adjusted returns

Portfolios in panel A are formed as follows: each year from 2000 to 2002, all companies nominated for 'Best Overall IR by a large firm' by the *Investor Relations Magazine* are sorted into 2 portfolios: 'Best rated' has the firms with number of votes > median number of votes and 'Other rated' has all other rated firms. All other firms that are not rated are in the 'Unrated' portfolio.

Portfolios in panel B are formed as in panel A but using all companies nominated for 'Best IR by a small firm' by the *Investor Relations Magazine.*

'Best Rated' in panel C is formed by pooling 'Best rated' firms from panels A and B. Similarly, 'All rated', 'Other rated', and 'Unrated' are formed by pooling firms from the respective portfolios in panels A and B similarly.

The following regression is carried out for each portfolio:

$R_{Pt} - R_{Ft} = a + b\ (RMRF_t) + s\ SMB_t + h\ HML_t + w\ WML_t + e_t$.

Where R_{Pt} is the equally-weighted return on portfolio P in month t, R_{Ft} is the 1-month Treasury Bill rate at the beginning of month t, $RMRF_t$ is the return on the market factor in month t, SMB_t is the return on the mimicking portfolio for the size factor in month t, HML_t is the return on the mimicking portfolio for the B/M factor in month t and WML the return on the mimicking portfolio for the momentum factor in month t. Previous 12-months refer to monthly returns from March of year t-1 to February of the award year t, and next 12-months refer to monthly returns from April of award year t to March of the year t+1. Stocks that are delisted during the holding period are assumed to earn portfolio returns for the rest of the period.

	Previous 12 months			**Next 12 months**		
	Intercept	t	Adj R^2	Intercept	t	Adj R^2
A. Large firms						
All rated	1.71	6.49	0.94	0.76	2.95	0.96
Best rated	1.66	5.55	0.93	0.70	2.22	0.94
Other rated	1.75	5.51	0.92	0.82	2.98	0.96
All Unrated	3.50	4.48	0.61	0.43	0.88	0.90
B. Small firms						
All rated	1.62	4.17	0.92	0.85	3.08	0.96
Best rated	1.73	4.27	0.89	0.59	1.70	0.94
Other rated	1.56	3.65	0.91	0.99	3.43	0.96
All Unrated	0.80	1.31	0.82	0.63	1.11	0.85
C. All firms						
All rated	1.65	6.29	0.95	0.80	3.40	0.97
Best rated	1.72	5.69	0.93	0.62	2.42	0.96
Other rated	1.60	5.88	0.95	0.92	3.75	0.97
All Unrated	0.86	1.44	0.82	0.62	1.12	0.85

Table 4: Analyst coverage regression estimation

All companies nominated for 'Best Overall IR' in the *Investor Relations Magazine* 2000, 2001 and 2002 annual IR surveys, and all stocks that receive no votes are included in our sample. 'Large' refers to stocks with market capitalization of more than $3 billion as at 31st of December of the year prior to the nominations and 'Small' refers to all other stocks. 'All' refers to all stocks pooled across 'Large' and 'Small'.

The following regression is estimated:

$IR_{i,t} = \alpha + \beta_{AF} AF_{i,t-1} + \beta_{MV} \ln(MV_{i,t}) + \beta_{PYR} PYR_{i,t-1} + \varepsilon_i$

where $AF_{i,t-1}$ is the number of analysts publishing forecasts in the I/B/E/S FirstCall database for firm i in the year prior to the nominations, $MV_{i,t}$ is the market value of equity of firm i at 31 March in the year of nomination, and $PYR_{i,t}$ refers to the stock returns from March of year t-2 to February of year t-1 (where t is the year of nominations). $IR_{i,t}$ is 0 if the firm is not rated, 1 if the number of nominations it receives is less than median ('Other rated'), and 2 if the number of nominations it receives is greater than the median ('Best rated'). The median is computed each year for 'Small' and 'Large' firms separately.

	Other rated				**Best rated**			
	α	β_{AF}	β_{MV}	β_{PYR}	α	β_{AF}	β_{MV}	β_{PYR}
Large	-5.60 (3.24)	0.02 (2.24)	0.41 (3.85)	0.38 (3.35)	-24.44 (13.31)	0.04 (3.76)	0.44 (3.99)	1.50 (12.73)
Small	-13.72 (34.00)	0.04 (5.95)	0.10 (2.92)	0.88 (27.51)	-23.40 (27.14)	0.08 (9.30)	0.19 (4.43)	1.51 (23.75)
All	-13.76 (43.41)	0.04 (6.55)	0.13 (4.51)	0.89 (35.68)	-19.49 (42.01)	0.06 (8.58)	0.20 (5.61)	1.22 (35.58)

Table 5: Change in analyst following

All companies nominated for 'Best Overall IR' in the *Investor Relations Magazine* 2000, 2001 and 2002 annual IR surveys, and all stocks that receive no votes are included in our sample. 'Large' refers to stocks with market capitalization of more than $3 billion as at 31st of December of the year prior to the nominations and 'Small' refers to all other stocks. 'All' refers to all stocks pooled across 'Large' and 'Small'.

The following regression is estimated:

$$AF_{i,t+1} - AF_{i,t-1} = \alpha + \beta_{OR}\, OR_{i,t} + \beta_{BR}\, BR_{i,t} + \beta_{MV} \ln(MV_{i,t}) + \beta_{PYR1}\, PYR1_i + \beta_{PYR2}\, PYR2_i + \beta_{PYR3}\, PYR3_i + \varepsilon_i$$

where $AF_{i,t-1}$ and $AF_{i,t+1}$ are the number of analysts publishing forecasts in I/B/E/S FirstCall database for firm i in the year prior to and subsequent to the nominations year respectively, $MV_{i,t}$ is the market value of equity of firm i at 31 March in the year of nomination, PYR1 refers to the stock returns from March of year t-2 to February of year t-1, PYR2 refers to the stock returns from March of year t-1 to February of year t and PYR 3 refers to the returns from March of year t to February of year t+1 (where t is the year of nominations). $OR_{i,t}$ is 1 if the number of nominations received by firm i is less than the median ('Other rated'), 0 otherwise, and $BR_{i,t}$ is 1 if the number of nominations received by firm i is greater than the median ('Best rated'), 0 otherwise. The median is computed each year for 'Small' and 'Large' firms separately.

	α	β_{OR}	β_{BR}	β_{MV}	β_{PYR1}	β_{PYR2}	β_{PYR3}	Adj R^2
Large	15.02 (4.71)	1.64 (3.49)	2.53 (4.67)	-1.16 (5.73)	1.10 (6.72)	1.40 (8.82)	-2.06 (4.60)	0.11
Small	1.40 (9.18)	0.72 (8.11)	1.21 (9.99)	-0.19 (14.29)	0.58 (22.52)	0.73 (32.49)	0.25 (8.84)	0.09
All	2.35 (13.94)	0.81 (8.69)	1.14 (9.61)	-0.28 (18.99)	0.70 (23.59)	0.84 (32.12)	0.20 (5.70)	0.08

Table 6: Relative turnover regression analysis

All companies nominated for 'Best Overall IR' in the *Investor Relations Magazine* 2000, 2001 and 2002 annual IR surveys, and all stocks that receive no votes are included in our sample. 'Large' refers to stocks with market capitalization of more than $3 billion as at 31st of December of the year prior to the nominations and 'Small' refers to all other stocks. 'All' refers to all stocks pooled across 'Large' and 'Small'.
pooled across 'Large' and 'Small'.
The following regression is estimated:

$DRTO_i = \alpha + \beta_{OR} OR_i + \beta_{BR} BR_i + \beta_{MV} \ln(MV_i) + \varepsilon_i$

where DRTO is the difference between the relative turnover ratio (RTO) for the year after the award nomination and the RTO for the year before the award nomination. Relative turnover for the year is computed as the ratio of average monthly turnover ratio for stock i and average monthly turnover ratio for the market over the same period. DRTO is the difference between RTO in the following year and RTO during the previous year. MV_i is the market value of equity of firm i at 31 March in the year of nomination (t). OR_i is 1 if the number of nominations received by firm i is less than the median ('Other rated'), 0 otherwise, and BR_i is 1 if the number of nominations received by firm i is greater than the median ('Best rated'), 0 otherwise. The median is computed each year for 'Small' and 'Large' firms separately.

	α	β_{OR}	β_{BR}	β_{MV}	F
Large	-0.26 (0.85)	-0.12 (2.68)	-0.10 (1.95)	0.02 (1.10)	2.63**
Small	-0.68 (9.69)	0.18 (4.35)	0.37 (6.52)	0.06 (9.31)	75.50***
All	-0.43 (7.03)	0.07 (2.18)	0.14 (3.15)	0.03 (6.60)	40.47***