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PUBLIC UTILITY COMPANIES: INSTITUTIONAL OWNERSHIP AND THE SHARE PRICE RESPONSE TO NEW EQUITY ISSUES

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Abstract

The purpose of this study is to investigate the relationship between the level of institutional ownership and the magnitude of the share price response to new equity issues by public utility firms. Previous studies of industrial firms argue that the presence of institutional investors reduces information asymmetry between the issuing firm and the market. Their results indicate that there is a direct relationship between the level of institutional ownership and the resulting magnitude of the share price response. We hypothesize that this relationship is not significant for public utility firms since the role of regulators supersedes that of institutional investors in reducing information asymmetries. Findings, based on a sample of 325 new equity issues by public utilities during 1977-1994, are consistent with our hypothesis.

INTRODUCTION

This paper investigates the impact that the level of institutional ownership has on the share price response to new issues of common stock by public utility companies. For a sample of industrial firms, Szewczyk, Tsetsekos and Varma (1992) find that there is a negative relationship between the absolute magnitude of the share price response to new common stock issues and the level of institutional ownership of the announcing firm. They argue that the presence of institutional investors reduces information asymmetry between the issuing firm and the market. We argue that due to the regulatory environment that exists for public utility companies, the monitoring role of institutional investors is mitigated. In essence, regulators serve as a "substitute" for the institutional investors' role of having a vested interest in the firm and the ability to have privileged information about the firm's operations. We therefore predict a lack of relationship between the level of institutional ownership and the share price response to new equity issues by public utility companies. Our findings are consistent with this prediction.

LITERATURE REVIEW

Share Price Response to New Equity Issues

A number of studies investigate the impact of new common stock issues on equity returns [e.g., Asquith and Mullins (1986), Masulis and Korwar (1986), Mikkelson and Partch (1986)]. These studies find, on average, a statistically significant negative return between three and four percent.

Several studies specifically examine the share price response associated with the issuance of new equity for utility companies. Asquith and Mullins (1986) and Masulis and Korwar (1986) both find that industrial firms experience much larger negative excess returns than the utility firms. Both studies suggest that the information asymmetry is much lower for utility firms than industrial firms since the former are subject to regulation. Bowyer and Yawitz (1980) also find a negative share price response for new equity issued by utility companies. They also show that half of the stock price decline can be attributed to the costs associated with underwriting the issue. They attribute the other half of the price decrease to price pressure and information conveyed to the market. Pettway and Radcliffe (1985), with results similar to those found by Asquith and Mullins (1986), also investigate whether the

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share prices are influenced by the information implicit in management's announcement that more equity capital is needed or whether the increase in the supply of shares offered for sale cause negative price pressure on the stock. Contrary to Bowyer and Yawitz (1980) , the authors conclude that even though price pressure is present due to the increased supply of securities, most of the change in stock prices can be attributed to an information effect.

Evidence Regarding the Impact of Institutional Ownership on the Share Price Response to New Equity Issues

Szewczyk, Tsetsekos and Varma (1992) investigate the relationship between the absolute magnitude of the share price response to a new common stock issue and the level of institutional ownership of the announcing firm. In defining the asymmetric information hypothesis, they argue that institutional owners possess more information about the firm than individual investors. As a result, announcement by firms with larger concentrations on institutional ownership should contain less information to the market. Thus, because of reduced information asymmetry, the ability to have entities with a vested interest in a firm, coupled with the ability to have superior knowledge about the firm's operations diminishes the market's reaction to a new stock issue. Based on the argument, the larger (smaller) the concentration of institutional ownership, the less (greater) reaction to a new issue of common stock.

> Szewczyk, Tsetsekos and Varma (1992) cite five reasons why this might be the case:
> "First, institutions generally have greater resources than do individual investors to allocate information. Second, economies of scale and professional expertise give institutional investors lower marginal costs in acquiring information, resulting in the acquisition of more information of higher quality. Third, some institutional investors (such as insurance companies, commercial banks and nonbank trusts) may have business relations with the firm that gives them access to information not available to individual investors. Fourth, as owners of large blocks of shares, institutional shareholders have a greater incentive to closely monitor the activities of the firm than do small investors. Finally, institutions trade more frequently than individual investors, thereby increasing the likelihood that new information is rapidly incorporated into prices." (p.214)

Thus, the existence of stockholders with a vested interest in the firm, coupled with their superior access to information concerning the firm's operations, diminishes the market's reaction to a new stock issue. This situation occurs because there is less information contained in such an announcement for firms with a large concentration of institutional ownership Szewczyk, Tsetsekos and Varma (1992) find evidence to support the asymmetry-reduction hypothesis.

In this paper, we hypothesize that most, if not all, of the reasons cited by Szewczyk, Tsetsekos and Varma (1992) concerning the role that institutional owners would play in reducing information asymmetries can be applied, in at least some form, to the role that utility company regulators play.

PUBLIC UTILITIES REGULATION

Public utility companies are regulated primarily by state regulatory commissions as well as federal regulation agencies. Although the extent of regulation varies somewhat from state to state, the general purpose of regulation is to make sure that customers get safe and reliable service at a reasonable price. Furthermore, they act to balance the interest of the customer and the shareholder.

State commissions in forty-four states are authorized to regulate the issuance of securities.[1] For example, the Oregon Revised Statutes (Phillips, 1988) provides:

> [The applicant] shall secure from the commissioner.....an order.....stating:
>
> a. The amount of the issue and the purposes to which the proceeds are to be applied.
> b. In the opinion of the commissioner the [proceeds] reasonably [are] required for purposes specified in the order and compatible with the public interest, which is necessary or appropriate for or consistent with the proper performance by the applicant of service as a public utility, and will not impair its ability to perform that service.[2]

Thus, the language of the statute clearly shows that the commission has complete authority to investigate all aspects of security issuances. In general, state regulatory commissions require that the public utility obtain permission to issue new equity. After a petition is filed for the issuance of new equity, a hearing takes place to determine if the new issue is in the public interest and is beneficial to investors.

If a public utility firm fails to abide by the regulation set forth by the commission, then the state's attorney general may take action against the utility company in court. In general, the issuance could be declared null and void. This form of enforcement may be used for any type of regulation violation by utility companies.

Thus, state regulatory commissions have access to "inside information" about public utility companies within their jurisdiction and have the ability to influence decisions that companies would make regarding capital structure. As a result, regulatory commissions would have the ability to perform a similar role as institutional investors for industrial firms in helping to reduce information asymmetry that may exist between the insiders and the market concerning announcements of new equity issues by public utility companies. More importantly, the regulatory commissions' role is stronger in the sense that they have the ability to influence capital structure changes for utility companies. Therefore, issuance of securities by a utility company may be viewed as being "verified" by the regulatory bodies. That is, in the regulator's judgement this firm has met some minimum standard to allow the security issue to move forward to the capital markets. Since the regulator has the ability to supply information about the firm in approving or disapproving of a security offering, this may supersede the role that institutional owners would otherwise play in a non-regulated environment as an information supplier.

As a result, we believe that the level of institutional ownership would not be a significant factor in explaining the share price response to the announcement of new equity issues by public utility companies. We expect to observe a difference between industrial firms and public utilities because of the regulatory influence which we believe negates the effect that institutional ownership would have in distinguishing differences in share price responses to new equity offerings. In a related study involving a heavily related industry, Filbeck (1996) shows that there is no relationship between the level of institutional ownership and the share price response to new equity offers. He concludes that the role of the regulator supersedes the role of institutional owners in distinguishing the differences in share price response to new equity offerings.

SAMPLE AND METHODOLOGY

Sample

The *Investment Dealer's Digest Directory of Corporate Financing, The Wall Street Journal Index* and *The Wall Street Journal* columns "New Securities Issues" and "Securities Offerings Calendar" (both by *The Dow Jones Capital Markets Report*) were used to locate the primary stock issues by public utility companies from 1977 to 1994. The announcement date is considered to be the earliest of (I) the article appearing in *The Wall Street Journal Index*, (ii) the listing in either "New Securities Issues" or "Securities Offerings Calendar" or, (iii) the offering date in the *Investor Dealer's Digest Directory of Corporate Financing*. Confounding events including other classes of securities issued jointly with common stock, occurring that day or the previous day are excluded from the sample.

Additionally, in order to be included in the sample, public utilities must meet the following requirements:

1. The common stock of the public utility companies must have traded 200 (trading) days immediately prior to and following the announcement date.
2. The public utility companies must have return records in the CRSP Daily Return File or CRSP OTC Return File.

Stocks with incomplete or missing data were excluded from the study. Infrequently traded stocks (stocks with no price information available for a 10-trading-day interval) were also excluded from the sample.

The information on the number of outstanding shares of stock are obtained from Standard and Poor's *Stock Guide*. This data is the last trading day of the month prior to the announcement of the new equity issue. Market value information is obtained by multiplying institutional holdings as well as the number of outstanding shares of stock by the end of the month stock price (also obtained from the *Stock Guide* for consistency).

There were a total of 368 primary stock issues by public utility companies that were identified with data available on the CRSP Daily Return Files. After screening for confounding events and for data availability problems in the form of missing returns, the final sample consisted of 325 primary stock issues. The descriptive statistics for the final sample are given in Table 1.

TABLE 1
Descriptive Measures
Primary Stock Offerings
Announced by Public Utility Companies
1977-1994
(N=325)

Measure	Mean	Standard Deviation	Highest	Lowest
Size of Issue ($M)	47.27	49.04	427.50	.23
Market Value of Common Stock ($M)	853.22	1540.61	13676.37	7.79
Size of Issue/Market Value of Common Stock	.12	.16	1.51	.01
Number of Institutions Owning Stock	100.64	122.27	831	0
Percentage of Stock Owned by Institutions	16.18	20.94	65.45	0
Total Number of Shares Held by Institutions (thousands)	38353.22	49657.80	319915.00	447.00
Total Number of Shares in New Equity Issue (thousands)	2383.04	2207.45	11000.00	13.52

Model Specification

Standard event study methodology is used to generate two-day standardized abnormal returns (SARs). By use of the market model, we obtain estimates for expected returns. For each primary stock issue announcement, the values for the parameter estimates are calculated over the period (-150, -51) to determine expected returns during the interval (-50, 0). The values for the parameter estimates are calculated again over the period (51, 150) to determine expected returns during the interval (1, 50). Two estimation periods for parameter estimates are employed to account for possible risk-class changes associated with primary stock issues within the sample.

We assume the capital market response to an announcement of a primary stock issue occurs during a two-day event period. The announcement date is defined above. However, the announcement is usually made during trading hours the day before it appears in *The Wall Street Journal*. Thus, an abnormal return calculated for the two-period (-1,0) is commonly used. We follow the methodology as developed in Dodd and Warner (1983), May (1971) and Patell (1976).

Two regression models are employed to investigate the roles that institutional investors and the size of the issue play in explaining the magnitude of the share prices responses to the announcement of a new equity issue. Like Szewczyk, Tsetsekos and Varma (1992), we use the regression models:

Equation 1

$$ABAR_i = B_O + B_1\, INST_i + B_2\, SIZE_I + e_i$$

Equation 2

$$ABAR_i = B_O + B_1\, SHINST_i + B_2\, SIZE_I + e_i$$

where:

ABAR = absolute value of the two-day announcement period abnormal return.
INST = number of institutional investors
SHINST = number of shares owned by institutions divided by the number of outstanding shares of stock times 100.
SIZE = number of new shares issued divided by the number of outstanding shares of stock times 100.

The absolute value of the two-day abnormal returns is used as a measure of the information content of the announcement, but disregards whether the information conveyed is perceived to be positive or negative. As stated earlier, we hypothesize that the value of *INST* and *SHINST* will be insignificant since the ability of institutional shareholders to signal information about a new equity issue is superseded by the presence of regulation. The *SIZE* variable allows us to control for the possibility that the larger the equity issue, the larger the share price response. The relative size of an equity issue has been cited as a possible explanation for the cross-sectional differences in absolute stock price reactions to industrial firm's common stock offering announcements [STV (1992)].

RESULTS

Table 2 shows the share price response to new equity offerings by public utility companies. The two-day announcement period abnormal return is -0.50796 percent (Z value of -5.63) which is statistically significant at the one percent level. Sixty percent of the sample experienced negative returns during the two-day announcement period. These results are consistent with previous studies that have documented significant share price responses to the announcement of new equity offerings and consistent with Asquith and Mullins (1986), Masulis and Korwar (1986), Bowyer and Yawitz (1980), and Pettway and Radcliffe (1985).

Our cross-sectional regression results for the asymmetry-reduction hypothesis model appear in Table 3. The coefficients associated with the two measurements of institutional ownership are slightly negative and statistically insignificant. Consistent with our hypothesis, our results indicate that no relationship exists between the level of institutional ownership and the absolute value of the share price response to new equity issues by public utility companies[3]. These results differ from the Szewcyzk, Tsetsekos and Varma (1992) study of industrial firms that did show a significant relationship between the level of institutional ownership and the share price response. This is consistent with our argument that the presence of regulatory monitors may eliminate the role that institutional investors play in reducing information asymmetries. Filbeck (1996) finds similar results with his regulated bank holding company sample.

The coefficients associated with the size variable in the two variations of the model are both slightly positive, but significantly insignificant. Therefore, we find that the size of the issue does not explain the size of the abnormal return. This is consistent with the results found by Szewcyzk, Tsetsekos and Varma for industrial firms, and Masulis and Korwar (1986) for public utilities. Thus, larger issues of equity offerings do not convey any more information than do smaller issues.

CONCLUSIONS

In this study, we investigate the impact that the level of institutional ownership has on the share price response to a new equity issue of public utility companies. Previous studies of industrial firms have shown that the magnitude of share price responses to the announcement of a new equity issue is related to the level of institutional holdings of the issuing firm. In particular, the larger the concentration of institutional owners, the smaller the share price response. Institutional investors may help to reduce information asymmetry in the market, and thus, reduce the share price response to "information" contained in a new equity issue by industrial firms.

We argue that regulation sets public utility firms apart from industrial firms. The presence of regulatory commissions mitigates the role of institutional ownership in reducing asymmetry between insiders and the market. We hypothesize that the share price response to new equity issues by public utility firms will not be affected by the concentration of institutional owners since regulatory monitors have access to more information than individual shareholders and can communicate that information to the market through regulatory actions. It is argued that the role of regulators supersedes that of institutional investors in reducing information asymmetries.

Our results indicate that there is a lack of relationship between the level of institutional ownership and the absolute magnitude of the share price response to the announcement of a new equity issue by a public utility firm. These results serve as evidence that the regulatory nature of public utilities result in a reduced role for institutional owners to play in the reduction of asymmetry information. Unlike their industrial counterparts, institutional ownership is not a useful device for investors trying to distinguish market reaction differences with new equity offerings by public utilities.

TABLE 2
Share Price Response
Primary Common Stock Offerings
Announced by Public Utility Companies
1977-1994
(N=325)

Event Date	Abnormal Return	Z Test Value	Percent Positive
-10	0.00974	-0.10476	47.0769
-9	-0.13631	-1.47114	40.9231
-8	0.06959	0.79137	46.7692
-7	-0.07890	-1.58182	43.5185
-6	-0.05830	-1.52461	45.5385
-5	-0.08652	-0.58760	44.9231
-4	-0.09684	-1.43467	44.9231
-3	0.04941	0.37986	47.3846
-2	-0.08522	-1.22242	44.6154
-1	-0.25914	-4.24133	40.0000
0	-0.24882	-3.72552	40.6154
1	0.01967	0.10571	48.9231
2	-0.03619	-0.81855	48.0000
3	0.01064	0.77551	48.3077
4	-0.09039	-1.52838	44.9231
5	0.00826	0.47754	44.9231
6	-0.07364	-0.96357	44.6154
7	0.05351	1.10197	48.6154
8	-0.02208	1.10887	48.9231
9	0.05270	0.50513	50.1538
10	-0.00055	-0.03489	47.3846

Interval Abnormal Returns

Event Date Period	Abnormal Return	Z-Test Value
(-11,-7)	-0.10592%	-0.92844
(-6,-2)	-0.27747	-1.96302*
(-1,0)	-0.50796	-5.63341**
(1,5)	-0.08800	-0.44193
(6,10)	0.00994	0.76810

**Significant at the one percent level
*Significant at the five percent level

The size of the issue also does not offer any significant explanatory value with regard to the magnitude of the share price response This finding is consistent to previous research that indicates that the excess returns for utility firms are not related to the size of the offering (Asquith and Mullins, 1986; Masulis and Korwar, 1986).

TABLE 3
Regression Model
Primary Common Stock Offerings
Announced by Public Utility Companies
1977-1994
(t statistics in parenthesis)

Dependent Variable	Intercept	INST	SHINST	SIZE	F-Value	p-value
ABAR (N=325)	0.0134** (0.0001)	-0.000002 (0.8320)		0.000071 (0.2125)	0.929	0.3960
ABAR (N=325)	0.0133** (0.0001)		-0.000011 (0.8031)	0.00008 (0.1824)	0.938	0.3926

**Significant at the one percent level
*Significant at the five percent level

ENDNOTES

1. From the *NARUC Compilation of Utility Regulatory Policy 1991 - 1992.* Regulatory commissions do not have authority over the issuance of securities in Alaska, Deleware, Iowa, Mississippi, North Dakota and Texas. Thus any security offerings from these states were omitted from our sample.

2. "Progress of Regulation: Trends and Topics" by Shippen Howe in *Public Utilities Fortnightly*, October 14, 1982, pp. 61-64.

3. In studies involving insider ownership, McConnell and Servaes (1990) argue that nonlinear relationships may exist between independent and dependent variables. Like Filbeck (1996), we run additional models to investigate possible variations of relationships between the dependent and independent variables. We find no evidence of non-linear relationships existing between either the level of or the percentage of institutional ownership and the two day abnormal return. In addition, by running univariate regressions with each of the independent variables, we find no evidence that multicollinearity between variables is influencing our results significantly. Results from these additional models are available from the authors upon request.

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