Institutional Ownership and Share Price Responses to Announcements of New Common Stock Issues of Bank Holding Companies

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This paper investigates the impact that institutional ownership of equity has on share price responses to new issues of common stock by bank holding companies. For industrial firms, Szewczyk, Tsetsekos, and Varma (1992) find a negative relationship between the absolute magnitude of the share price response and the level of institutional ownership.

We find that there is no relationship between the institutional ownership and the share price response to announcements of new equity issues of BHCs. This result differs from that of industrial firms. We argue that the regulatory environment of banking is the reason. The size of the issue, however, does explain the magnitude of share price response to new equity offerings.

INTRODUCTION

This paper investigates the impact that institutional ownership of equity has on share price responses to new issues of common stock by bank holding companies (BHCs). Szewczyk, Tsetsekos, and Varma (1992) find for a sample of industrial firms that there is a negative 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. They argue that the presence of institutional investors reduces information asymmetries between the issuing firm and the market. The market perceives that institutional owners are likely to possess more information about the firm than are individual investors. Thus, 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 this argument, the larger (smaller) the concentration of institutional ownership, the lesser (greater) reaction to a new issue of common stock.

In this paper we argue that the role that the institutional investors presence plays on the market reaction to new equity issues for BHCs is limited due to the regulatory nature of banking. Bank regulators serve as a substitute for institutional investors as an informed monitor of the banks they regulate. BHCs are regulated by the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Office of the Comptroller of the Currency. Regulatory monitors are charged with assuring healthy banking practices and punishing those banks that are not in compliance. Regulatory monitors may serve to reduce information asymmetries in the case of BHCs, just as institutional investors do in the case of unregulated companies. Therefore, we predict that the magnitude of the share price response to the announcement of a new common stock issue by a BHC will not be related to the level of institutional ownership.

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LITERATURE REVIEW

Several studies have investigated the impact of new common stock issues on equity returns (Asquith and Mullins, 1986; Masulis and Korwar, 1986; Mikkelson and Partch, 1986). Studies find, on average, a statistically significant negative return between 3 percent and 4 percent. These studies are consistent with the models of Miller and Rock (1985) and Myers and Majluf (1984) which argue that investors draw conclusions about the firm's operating cash flows from management's decision to pursue financing in the external capital markets. The results with respect to equity issues by BHCs are slightly different. Polonchek, Slovin, and Sushka (1989) find weaker, but still statistically significant, negative share price responses to new equity issues. Wansley and Dhillon (1989) obtain statistically significant negative abnormal returns for BHCs, but not of the same magnitude as for industrial firms. Moreover, Slovin, Sushka, and Polonchek (1992) find that announcements of new equity issues by money center BHCs have a negative impact on nonissuing BHCs. Varma and Szewczyk (1993), investigating responses to private placements and public offerings of bank equity, also confirm the reduced negative share price response relative to that of industrial firm offerings.

Szewczyk, Tsetsekos, and Varma (1992) attempt to link these issues by investigating the relationship between the absolute magnitude of share price response to a new common stock issue and the level of institutional ownership of the announcing firm. Their study tests two hypotheses: a price pressure hypothesis and an asymmetric information hypothesis. The price pressure hypothesis is based on two conflicting secondary hypotheses concerning the price discount needed to sell new issues of stock. Each secondary hypothesis investigates the impact that new equity issues has on the resulting liquidity of the issuing firm's stock. The liquidity-reduction hypothesis predicts a larger price discount, while the liquidity-enhancement hypothesis predicts a smaller price discount.[1]

The asymmetric information hypothesis argues that the presence of institutional investors reduces information asymmetries between the issuing firm and the market. Szewczyk, Tsetsekos, and Varma cite five reasons why this may be:

> First, institutions generally have greater resources than do individual investors to allocate information. Second, economics 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

[1] See Szewczyk, Tsetsekos, and Varma for a more complete description of each secondary hypothesis.

reaction to a new stock issue. There is less information contained in such an announcement for firms with a large concentration of institutional ownership. We believe that the five reasons cited above apply not only to industrial firms, but also to BHCs. As with institutional investors of industrial firms, institutional investors of BHC would tend to have greater resources for obtaining information at a lower cost with great expertise and a greater possibility of having business relations established with a BHC. Owning larger blocks of shares and trading more frequently are additional reasons why institutional investors would help reduce information asymmetries with BHCs. Szewczyk, Tsetsekos, and Varma find that their asymmetry-reduction hypothesis is validated empirically in their study of industrial firms.

The focus of this study is the asymmetric information hypothesis. We believe that many of the reasons cited by Szewczyk, Tsetsekos, and Varma concerning the role that institutional owners play in reducing information asymmetries can be applied, in at least some analogous form, to BHC regulators.

In this study we investigate the impact that the level of institutional ownership has on the share price response to new equity issues by BHCs. Exposure to regulatory scrutiny sets banks and BHCs apart from nonbank firms. BHCs primarily are regulated by the Board of Governors of the Federal Reserve System. The board has many responsibilities, including granting prior approval for both bank and nonbank acquisitions by BHCs and determining permissible nonbanking activities for BHCs. In addition, the board also has the power to examine each affiliate and to obtain bank examination reports from the Office of the Comptroller of the Currency (OCC), and Federal Deposit Insurance Corporation (FDIC), and state bank supervisors.

It is difficult for the market to estimate the cash flow characteristics of the nonbank subsidiaries, as information on these subsidiaries is not public. In addition, although balance sheet and income statements data on the bank subsidiaries are available, there is little public information concerning the quality of their bank subsidiaries' loan portfolios. Thus, regulators possess inside information concerning bank performance that is necessary for monitoring purposes.

Regulators also possess a number of enforcement tools that support their monitoring activities, including notification of findings to boards of directors, regulatory influence of BHC capital levels, cease and desist orders, removal of management, loss of deposit insurance, and the power to close a bank subsidiary of a BHC.

We believe that regulatory monitoring has the ability to affect the market reaction to equity announcements made by BHCs. Like institutional owners, bank regulators have the ability to reduce the information asymmetry present at the announcement of a new common stock offering, thus lessening the impact of an announcement on a firm's common stock price.

The ability of BHC regulatory monitors to substitute for other information asymmetry reducers has been investigated. Filbeck and Chadwell (1993) show that the concentration of insider ownership in BHCs does not explain the distribution of share price responses to a dividend change announcement. Their results differ from other studies of industrial firms. Born (1988) finds a positive relationship between the concentration of insider ownership and the share price response to a dividend policy change for industrial firms. Filbeck and Chadwell argue that the presence of regulatory monitors reduces the

role that insiders may play in the reduction of information asymmetries in the market with respect to a dividend policy change.

We argue that regulation sets banks and bank holding companies apart from nonbank firms. We predict that the absolute magnitude of the share price response to a new equity issue will be unrelated to the level of institutional ownership in the announcing firm. Regulatory monitors have more information about a BHC than individual shareholders have and communicate that information through regulatory channels. As a result, we believe that their role supersedes that of institutional investors in reducing information asymmetries.

SAMPLE AND METHODOLOGY

We use 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) to locate primary stock issues by bank holding companies from 1976 to 1992. The announcement date is considered to be the earliest of:

1. An article appearing in the *Wall Street Journal Index*;
2. A listing in either "New Securities Issues" or "Securities Offerings Calendar;" or
3. The offering date in the *Investment Dealer's Digest Directory of Corporate Financing*.

Confounding events (such as other classes of securities issued jointly with common stock, occurring that day or the previous day) are excluded from the sample.

In order to be included in the sample bank holding companies also must meet the following requirements:

1. The common stock of the BHCs must have traded 200 (trading) days immediately prior to the announcement date; and
2. The BHCs must have return records in the CRSP daily return file or CRSP OTC return file.

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

There are 88 primary stock issues by BHCs that are identified with data available on the CRSP daily return files. The final sample consists of 53 primary stock issues after screening for confounding events and for data availability problems in the form of missing returns.

Information on the number of outstanding shares of stock is obtained from the *Standard & Poor's Stock Guide*. These data are taken from information in the issue at the end of the month prior to the announcement of the new equity issue. Market value information for institutional holdings and firm value are obtained by multiplying institutional

Table 1—Descriptive Measures of Primary Common Stock Offerings Announced by Bank Holding Companies, 1976-1992 (N = 53)

Measure	Mean	Median	STD	Range Highest	Range Lowest
Size of Issue ($M)	75.62	32.49	124.53	1025.63	0.65
Market Value of Common Stock ($M)	982.61	365.65	1484.04	9463.55	43.70
Size of Issue/Market Value of Common Stock	0.09	0.07	0.07	0.28	0.00
Number of Institutions Owning Stock	122.87	50.50	146.45	616	3
Percentage of Stock Owned by Institutions	31.84	30.67	19.86	73.93	0.42
Total Number of Shares of Outstanding Stock (thousands)	27985.64	13616.50	34219.86	138392	2526
Total Number of Shares Held by Institutions (thousands)	13335.49	3825.50	21360.04	96131	41
Total Number of Shares in New Equity Issue (thousands)	2238.00	1000.00	3038.51	15000	6.3

holdings and the number of outstanding shares of stock by the end of the month stock price, respectively (also from the *Stock Guide* for consistency). Descriptive statistics on the sample are in Table 1.

MODEL SPECIFICATION

Standard event study methodology is used to generate two day standardized abnormal returns (SARs). Using 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.[2]

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. The announcement usually is made during trading hours the day before it appears in the *Wall Street Journal*, however. Thus, an abnormal return calculated for the two period (-1, 0) commonly is used.

Following Dodd and Warner (1983) based on earlier work by May (1971) and Patell (1976) standardized abnormal returns are calculated. The Z test is used to test for statistical significance of the standardized abnormal returns.

The distribution of the absolute value of the two day abnormal returns is used in the weighted least squares regression models to investigate the role that institutional investors play in the distribution of share price responses to the announcement of a new equity issue. Like Szewczyk, Tsetsekos, and Varma, we use the regression models:[3]

[2] In our sample the parameter estimates for beta during the pre- and post-event estimation periods are statistically insignificant from each other (before beta for the sample = 0.9318; after beta for the sample = 0.9213; t-test for difference in means = 0.15534).

[3] The absolute value of the abnormal returns is used in the models to determine the marginal information content of the BHC equity announcements, regardless of whether the reaction is received positively or negatively. Szewczyk, Tsetsekos, and Varma state that "if nonzero abnormal returns reflect the incorporation of

(1) $ABAR_i = B_0 + B_1\ INST_i + B_2\ SHINST_i + e_i$

(2) $ABAR_i = B_0 + B_1\ INST_i + B_2\ SIZE_i + e_i$

where:

ABAR	=	Absolute value of the two day announcement abnormal return;
INST	=	Number of institutions owning shares of the firm's common stock;
SHINST	=	Number of shares owned by institutions divided by the number of outstanding shares of stock times 100 percent; and
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. The absolute value disregards whether the information conveyed is perceived to be positive or negative. The null hypothesis is that there is no relationship between institutional ownership, as measured by either INST or SHINST, and the absolute value of the two day announcement abnormal return. We argue that the ability of institutions to signal information about a new equity issue is superseded by the presence of regulatory monitors. The SIZE variable allows us to control for the possibility that larger size equity issues may convey more information, resulting in larger share price responses. 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 (Szewczyk, Tsetsekos, and Varma, 1992).[4] We conduct these regressions for the entire period under investigation. Following the work of Polonchek, Slovin, and Sushka (1989) and Keeley (1989) we use the regression model in periods prior to and following the December 1981 capital adequacy regulatory change. This change introduces a publicly known and quantifiable system of determining the adequacy of bank capital. The ability of regulators to reduce perceived market asymmetries is expected to be stronger following this change.

RESULTS

Table 2 shows the share price response to new equity offerings by bank holding companies. The two day announcement period abnormal return is -0.819 percent (Z-test = -3.03) which is statistically significant at the 1 percent level. Sixty-eight percent of the sample experienced negative returns during the two day announcement period. These

newly received information into stock prices, the absolute value of the abnormal price reaction to the equity offering announcements should be positively related to their marginal information content and larger absolute abnormal returns elicited by the more information disclosures" (pp. 221-222).

[4] We also include the capital adequacy position as a control variable to explain the share price response. Keeley (1989) and Varma and Szewczyk (1993) both find that the stock price response to common stock offers by BHCs is different for capital sufficient versus capital deficit BHCs. They use comparison of means tests for their results. We find that the capital adequacy variable is not statistically significant when used as a part of a regression model to explain share price response to new equity issues. Results are available upon request from the authors.

Table 2—Abnormal Returns Associated With Dividend Changes by Bank Holding Companies 1976-1992

Panel A: Share Price Response of Primary Common Stock Offerings Announced by Bank Holding Companies

Sample	Two Day Abnormal Return	Z-Value Statistic
Total Sample (N = 53)	-0.81948%	-3.03162*
Pre-December 1981 Sample (N = 21)	-0.59721%	-1.22748
Post-December 1981 Sample (N = 32)	-1.2222%	-3.3461*

Panel B: Difference in Means Test

Comparison	T-value	Level of Significance	Variance Assumption of Subsamples	Variance Folded-Form F-Test (Level of Significance)
Pre-1981 Sample Versus Post-1981 Sample	-0.8695	0.4887	Equal	1.90 (0.1414)

* Significant at the 1 percent level
** Significant at the 5 percent level

results are consistent with previous studies that have documented significant share price responses to announcement of new equity offerings and consistent with Keeley (1989), Polonchek, Slovin, and Sushka (1989), Wansley and Dhillon (1989), and Slovin, Sushka, and Polonchek (1992). These studies show that the negative share price response to new equity issues for bank holding companies is weaker than that of industrial firms. Each argues that these results occur because regulation of the capital structure of BHCs reduces information asymmetry.

Table 2 breaks the sample into announcements occurring prior to and after the December 1981 implementation of quantitative capital guidelines. We find that although negative share price results are found in both periods (AR = -.59721 percent and -1.2222 percent, respectively), only in the post-December 1981 are these results significantly different from zero. There is no significance difference, however, between the pre- and post-December 1981 periods.

Our cross-sectional regression results for the asymmetry-reduction hypothesis model appear in Table 3. We find no relationship between the level of institutional ownership and the (absolute value of) the share price response to new equity issues by bank holding companies in the model including the entire sample. These results differ from Szewczyk, Tsetsekos, and Varma's (1992) sample of industrial firms which show such a relationship. Next, we examine the behavior of the model for the periods before and after the December 1981 regulatory changes. As predicted, the variables related to institutional ownership are not significantly different from zero. This indicates that unlike the Szewczyk, Tsetsekos, and Varma study of industrial firms, the number of institutional investors or the percentage of institutional investors to total investors does not explain the share price response to new equity issues of BHCs.[5] This is consistent with our

[5] Research by McConnell and Servaes (1990) has indicated that relationships with independent variables, such as insider ownership, may possess a nonlinear relationship with respect to dependent variables. We also investigate the possibility of a nonlinear relationship between the level and percentage of institutional ownership and the absolute value of the abnormal returns associated with a new equity offering by BHCs. For each regression we include a squared term of the two measures for institutional ownership. Neither of these variations produces statistically significant nonlinear independent variables in either of the overall significant models. The nonlinear coefficients t-statistic is 1.167 with respect to the level of institutional ownership squared; for the percentage of institutional ownership squared the coefficient t-statistic is -0.669. The results

Table 3—Regression Model of Primary Common Stock Offerings Announced by Bank Holding Companies, 1976-1992 (t-statistics in parentheses)

Dependent Variable	Intercept	INST	SHINST	SIZE	F-Value	p-Value
ABAR Total	1.8282	0.000261		0.0390	0.593	0.5564
(N = 53)	(3.836)**	(0.150)		(1.089)		
ABAR Total	2.0857		-0.000637	0.0365	0.709	0.4970
(N = 53)	(3.502)**		(-0.499)	(1.024)		
ABAR Pre-12/81	2.9015	-0.00384		-0.1059	1.865	0.1836
(N = 21)	(4.459)**	(-1.082)		(-1.801)		
ABAR Pre-12/81	2.8967		-0.0141	0.0984	1.308	0.2949
(N = 21)	(2.967)**		(-0.433)	(-1.617)		
ABAR Post-12/81	1.1813	0.00098		0.1085	3.257	0.0530
(N = 32)	(1.814)	(0.493)		(2.552)**		
ABAR Post-12/81	2.0314		-0.0145	0.963	3.686	0.0375
(N = 32)	(2.433)**		(-0.975)	(2.290)**		

* Significant at the 1 percent level
** Significant at the 5 percent level

hypothesis. We argue that the presence of regulatory monitors may eliminate the role that institutional investors play in reducing information asymmetries.[6] After December 1981, however, we find that the SIZE variable is positive and significantly different from zero at the 5 percent level (t values for the SIZE variable using the INST and SHINST models at 2.552 and 2.290, respectively)[7] The larger the size of the issue, the greater is the absolute share price response.[8] This differs from Szewczyk, Tsetsekos, and Varma who do not find explanatory power of the size of the equity issue for industrial firms. Our results indicate

are also not significant when the linear coefficients of each measure are removed from the regression equations.

[6] Keeley (1989) and Varma and Szewczyk (1992) find that capital deficient BHCs have negative abnormal returns associated with new offers, while capital sufficient BHCs do not. We include two variations of our regression equations. First, we include a dummy variable indicating whether the firm is capital sufficient or capital deficient. Firms are classified based on the regulatory standards in effect at the time of the announcement. Second, we use the actual capital ratio at the time of the new equity issue as an additional independent variable. In both variations the regulatory variable is statistically insignificant in the two overall statistically significant models. For the first model the t statistics for the capital adequacy dummy variable in the two models are -1.304 and -0.515, respectively. For the second model the t statistics for the capital ratio variable for the two model are 0.756 and 0.052, respectively. Including the capital adequacy variable does not alter the statistical significance (at the 5 percent level) of the size of the issue variable. In the first model (capital adequacy dummy variable) the t statistics for the size of the issue variable are 2.742 and 2.311, respectively. In the second model (capital adequacy ratio variable) the t statistics for the size of the issue variable are 2.641 and 2.128, respectively. Thus, we conclude that the capital position of the BHC is not a factor in explaining the distribution of abnormal returns associated with a new equity issue by BHCs. Additionally, the size of the issue does not serve as a proxy for the capital adequacy classification of the firm. Results of these variations are available upon request from the authors.

[7] To control for the possibility that the size of the offering serves as a proxy for the size of the bank, we include a variation of our regression models. This variation includes the additional independent variable of the natural logarithm of the market value of the bank. We find that the bank size variable is statistically insignificant in the two overall statistically significant regressions (t values = -0.300 and 1.659, respectively). The size of the offering variable, however, remains statistically significant at the 5 percent level (t values = 2.220 and 2.753, respectively). Therefore, we conclude that the size of the offering does not serve as a proxy for the size of the bank. These results are available upon request from the author.

[8] We also perform the Spearman rank correlation test to confirm the existence of a relationship between the ABARs and the size variable (p value = .0575).

that the market has a stronger reaction (either positive or negative) to BHC equity announcements based on the relative size of the issue.

In sum, we find no evidence that the level of institutional ownership explains the share price responses we observe from the announcement of a new equity issue by a BHC.

CONCLUSIONS

This study investigates the impact that the level of institutional ownership has on the share price response to a new equity issue of bank holding companies. Previous studies of industrial firms have shown that the distribution of share price responses to the announcement of a new equity issue can be explained by the level of institutional investors of the issuing firm. In particular, the larger the concentration of institutional owners, the smaller is the share price response. Institutional investors may reduce information asymmetries in the market and, thus, reduce share price response to information contained in a new equity issue in industrial firms.

We argue that regulation sets banks and bank holding companies apart from nonbank firms. We hypothesize that the presence of regulatory monitors reduces or eliminates the advantage to the market of the reduced information asymmetries due to the presence of institutional owners. Thus, the share price response to new equity issues by BHCs is not affected by the concentration of institutional owners. Because regulatory monitors have more information about a BHC than individual shareholders have and communicate that information through regulatory channels, their role supersedes that of institutional investors in reducing information asymmetries. We find there is no relationship between the level of institutional ownership and the distribution of share price response to the announcement of a new equity issue of a BHC. We find statistically significant results that indicate that the larger the size of the issue, the greater is the reaction in the financial markets (whether positive or negative).

In summary, when investigating share price responses to new equity issues by BHCs with respect to the role institutional ownership plays, we find that neither the number or proportion of institutional owners explain the share price response.

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