THE INFORMATIONAL CONTENT OF NEW SECURITY ISSUES

by

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ABSTRACT

The Informational Content of New Security Issues

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A sample of 401 New York Stock Exchange firms which issued new equity during the period 1962-1972 was examined in order to study the informational content ot equity issues, and the mechanism by which the market reacts to these issues. It was expected that there will be some ex post long-term price movements in the firm's stock, reflecting the market's assessment of the value of projects which were later financed by an equity issue. In addition, short-term declines in price were expected due to the transactions cost of a new issue, and a shift in the value of the firm from equityholders to debtholders reflecting an unanticipated reduction in the default risk of bonds by the influx of new capital.

The sample was analysed by partitioning it into various groups and using the cross-sectional and portfolio methods of adjusting for market and risk factors and obtaining estimates of excess returns. Daily price data were used. The results show a 2-3% decline in the adjusted value of equity on the day of the announcement of the issue, and the day immediately preceeding it. No other significant price movements occurred in the short-term, indicating that the market completely discounted all information by the date of announcement. Utilities experienced significant negative long-term adjusted returns in the twelve months prior to the announcement, indicating perhaps a forced equity issue due to an unbalanced capital structure or poor cash flow. Non-utilities experienced significant positive returns in the months prior to the announcement, indicating an issue to satisfy needs for profitable investment opportunities. Other analyses were conducted testing the sensitivity of these results to the size of the issue and amount of debt in the firm.

The study concludes that the short-term response to the announcement does indicate a reaction to the transactions cost of the new issue and a shift in the value of the firm from equityholders to bondholders that was not entirely anticipated. The significant price movements that these

firms experience in the months prior to the announcements indicate that a major requirement for new capital has precipitated, and that the market is reacting to this information.

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CHAPTER I

INTRODUCTION

A new security issue of common stock often involves the efforts of thousands of people in several industries. The size of the issue may be as large as several hundred million dollars. It can radically change the capital structure of the firm. It may require that the corporation attract many new investors. Certainly, such a major event is of great importance to anyone studying the capital markets. Some of the fundamental questions concerning a new stock issue are:

1) How is the potential information contained in a new issue discounted in the market price of the firm's stock?
2) What variables associated with a new issue affect the market's view of the issue?
3) How significant is the cost of issuing new securities, and by whom is this cost borne?

A firm issues a new security when it has the need for additional funds above those provided by current operations. The need could take many forms: capital may be required for expansion, for repaying maturing debentures, or for covering operating losses. When the firm issues a new

security, it is competing for capital with other firms in the capital market. The potential fluctuations in the realized price of a new issue due to this competition and due to market-wide movements are a risk to the issuing firm. Underwriters are in the business of assuming this risk, and providing a network of sales organizations. In almost every case, corporations choose to have their equity issue initially purchased by a group of underwriters, who, for a fee, subsequently retail it to the market.

Some stock analysts believe that when new equity is issued, the earnings of the firm are "diluted" in that they must be distributed over more shareholders. They believe the original shareholders, not expecting this decline in the current earnings per share, will view this issue negatively, and the price of the firm's stock will decline. In addition, it is claimed that investors look at each stock as an individual commodity, and that the stock market is segmented such that when a company issues additional shares, the price will have to fall because given the demand, there is an increased supply of stock.

During the past twenty years, a great deal of theoretical work on the operations of the capital markets has been conducted. This body of theory has come to be called "Modern Capital Theory".[1] This theory differs fundamentally

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[1]For an excellent review of the theory and empirical evidence, see Fama [9] and Jensen [15].

from the segmented view of the market in that it assumes that investors look to securities only as income-generating devices, and as such they are perfectly substitutable for one another in investors' portfolios. It is the returns on a portfolio that is important to the investor, and individual securities will be priced such that their expected returns are equal once we adjust for risk differences. The risk of a security is determined by the risk it contributed to the investor's equilibrium portfolio, not its total variance or risk.

Coupled with this view is the hypothesis that at any one moment in time, the price of a security reflects all available information about the security. The marketplace is thought to be composed of thousands of investors who are continuously looking at the values of their securities, and other securities in the market, searching for profit opportunities. This continuous search and the subsequent reflection of any changes in their expectations in the price of the firm's securities, assures, on average, that securities are priced close to their equilibrium values. At least, there are no systematic and thus predictable deviations from equilibrium that investors could exploit to increase their trading profits. This hypothesis is known as "The Efficient Markets Hypothesis". It states that the capital markets efficiently process all new information, accurately

react to it, and price every firm's securities on the basis of all this information. Many fine insights into the workings of the capital markets have been gained by research revolving about this hypothesis. The bulk of the studies suggest that the market does indeed efficiently price securities and process new information about them. Summaries of the significant research in the field can be found in Fama [9] and Jensen [15].

Modern Capital Theory would predict several types of price movements to be associated with the information of a new equity issue. Since some basic requirement for new capital exists, the market would evaluate this requirement and reflect it in the price of the firm's stock. For instance, if over the course of a few months, a firm embarks upon a new set of projects which are expected to develop into very profitable ventures (increase future earnings), the market will have favorably changed its expectations of the firm's future earnings, and the firm's stock price will have risen to reflect the value of these investments.

So, in contrast to the segmented view of the market, Modern Capital Theory contends that when a company goes to the market to finance new investment, no price fall must occur due to the dilution of equity. Since the market is most concerned with future earnings, it will evaluate the effects of these new investments on future earnings instead

of reacting to the dilution of current earnings. Instead of viewing the issue as a significant addition to the supply of a particular firm's stock, Modern Capital Theory views the issue as only a small additional member of a very large capital market. Thus, the price of the firm's stock will not automatically fall due to increased supply, but rather will be adjusted on the basis of whatever information on future earnings the issue carries.

As we have just discussed, a major part of the information associated with an issue concerns to what uses the capital will be put, and its effects on future earnings. It is unlikely that a requirement for capital so great that it causes a new security issue will precipitate overnight. Instead, it is likely that this need will grow with time and project requirements. In this case, the marketplace, constantly evaluating their expectations of the company, will be constantly adjusting the stock price to reflect this need.

We are lead to expect that prior to the announcement of a new equity, there will be some ex post long-term price movements in the firm's stock, reflecting the market's assessment of the value of projects that subsequently will be financed by an equity issue. Of course, it is not impossible that a capital requirement suddenly precipitates--a firm may lose a major set of assets overnight when a foreign country

nationalizes them, and needs to replace them domestically. Such an occurrance would certainly constitute an unanticipated capital requirement. We expect, however, most capital requirements causing an issue are anticipated, and therefore may be observed in the stock price movements prior to the announcement of the issue.

If we do not expect the basic requirement of an issue to cause a short-term price change, since it is probably already known to the market before the announcement of the issue, then what do we expect to see on the date of announcement of the issue? In general, only unanticipated changes in expectations will cause a change in stock price on the announcement date. Let us examine, then, what parts of the information associated with a new issue may be unanticipated.

One such event is the mechanics of the issue. Until an issue is announced, the type of issue and its exact terms and arrangements are unknown to the market. The cost of an issue is always significant, and is usually between 3-11% of the value of the issue.[2] Since at least the transactions cost must always be paid by the firm issuing stock, it might be expected that this information would lead to a slight decline in the firm's stock price when the announcement of such an issue occurs.

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[2]See Table 46 for details.

Modern Capital Theory also predicts that another type of price movement will be associated with a security issue. This movement deals with the expectations of the existing security holders. Typically, a firm has a set of bondholders and shareholders. Each of them bought their respective securities based on their expectations. An unanticipated change in the capital structure of the firm will certainly cause the price of the security to change. An investor who purchases a firm's bonds has decided that, given the financial risk of holding a bond of this particular firm, and given the interest rate on the bond, the bond represents a good investment. Similarly, shareholders have made the determination that the stock is a good investment considering its present value and their expectations of the future growth in price. If the firm issues some new, additional equity, it will be bringing new capital into the firm. This increase in funds will probably decrease the chance that the firm will default on their existing bonds. Since the bonds are priced to include the probabilities of default, the price of the firm's bonds might be expected to increase.

Since the value of the firm is composed of the sum of the value of the debt and the equity, if the value of the debt increases due to the issuance of new equity, the value of the outstanding equity can be expected to decrease. We

have hypothesized that capital requirements are likely to be anticipated by the market. However, the type of issue--debt or equity--would be much less likely to be anticipated.[3] Since the shift in value discussed here occurs only for an equity issue, if the type of issue could not be totally anticipated, we should observe some of the shift in stock price at the announcement date, instead of the time at which a new issue was anticipated.

We see, then, several predicted effects of a new stock issue. Some would predict a decline in price due to the increased supply of a particular stock without any increase in demand. Modern Capital Theory predicts that three effects should be considered. First, if the particular operations of the firm require a stock issue, then these operations constitute information which will be reflected in the firm's stock price. Since it is hypothesized that the operations requiring the issue are known to the marketplace prior to the announcement of the issue, this information will be discounted in the stock price sometime prior to the announcement. Secondly, the transactions costs and mechanics of the issue form another set of information.

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[3]In individual cases, some concrete expectations of the type of issue will occur. For instance, if the firm has announced a target debt-to-equity ratio of 60% and the current ratio is 75%, then any new requirements for capital can be expected to be met by an equity issue.

This information deals with current costs rather than future earnings, yet would have a slight depressing effect on the firm's stock price on the announcement date. Third, for issues of equity, the bondholders may receive an unanticipated bonus in the form of reduced default risk, and this may cause a decrease in the value of the existing equity. To the extent that the kind of issue, debt or equity, is unanticipated prior to the announcement, this decrease will occur on the date of announcement.

Surprisingly, for all these predictions very little empirical research has concentrated on the price movements of stock when firms announce and issue new equity. Most of the research that has been done has considered the initial offerings of stock by firms "going public". Work by Boness, Chen and Jatusipitak [5], Reilly [25], Logue [17], McDonald and Fisher [18], and Shaw [26] all suggest that abnormally high returns are available for investors who buy the new issue at its original issue price and sell it once the stock begins to trade on some public market. The work also suggests that once the new issue does reach the marketplace, its subsequent behavior is very much like any other stock.

No research has been published in the financial journals on the effects of issues of new equity by firms which are already public.

CHAPTER II

THE DATA

This study will examine a sample of 401 instances of firms announcing and later issuing new equity. This biases the sample slightly to accepted issues. For each instance of a new equity issue, the price movements of the issuing firm's stock around the date of announcement of the issue will be studied. We study the period of time around the announcement instead of the issuance itself because most of the information associated with a new issue is generated by the announcement and should be immediately reflected in the stock price, even though the issue has not yet occurred. This behavior is consistent with the Efficient Markets Hypothesis, which states that changing expectations are immediately reflected in the stock price. Even so, in addition to studying the price movements around the time of announcement, several tests were made of the price movements around the issue date.

The sample of 401 stock issues represents all stock issuance announcements during the period 1962-1972 for which adequate data exists. Thus, the sampling technique was exhaustive. The period of July, 1962 to December, 1972 is studied since all prices for New York Stock Exchange stocks have been recorded on magnetic tape by Standard and

Poor's Corporation [12], and are available for computer analysis.

An issue was included in the sample if the security issued was common stock and if the firm's stock was traded on the NYSE at the time of announcement, or was traded on the ASE at the time of announcement and later moved to the NYSE. Certain issues, however, were excluded from the sample if at the time of announcement of a new equity issue there was also an announcement of another type of security issue. In this case it would be impossible to separate the effects of the information associated with the two different types of security issues. Specifically, the following types of issues were excluded:

a) preferred stock with common stock, if the number of shares of preferred was greater than 2/3 of the number of shares of common stock issued.

b) secondary issues of common stock with new issues of common stock, if the number of secondary shares was greater than 1/2 the number of new common shares.

c) simultaneous issuance of debentures and new common shares, if the face value of the debenture issue was greater than 2/3 the face value of the equity issue.

The specific bounds used to exclude simultaneous issues were designed to exclude issues which would potentially confuse the effects of the new common stock with the effects of some other security.

The sources from which the issues were gathered are:

a) "1960-1969: A Decade of Corporate and International Finance" [11]

b) Moody's Dividend Record Annuals, 1962-1972 editions [21]

c) Investment Dealer's Digest, Semiannual Corporate Finance Summary, 1970-1972 editions [14]

d) A list prepared by Morgan-Stanley Corporation, New York City [24].

The date of announcement of each issue was determined by the first concrete mention of the issue in The Wall Street Journal Index. In most cases, the announcement date was the date when the proposed issue was announced by management and was to be included on the agenda for shareholder or director's approval, or when the firm filed an application for the issue with the Securities and Exchange Commission.

In the analysis, a number of additional pieces of information were collected. The debt-to-equity ratios and number of shares outstanding for each firm prior to the announcement were provided by The Interactive Data Corporation [13]. Stocks were divided into classifications

of utilities and non-utilities using Moody's Industrial Annual's [22] and Moody's Utility Annuals [23].

Table 1 summarizes the type of companies and number of issues each year which were included in the sample. Most observations came from recent years due to the fact that many more equity issues occurred in the recent years.[4] Utility issues comprise 53% of the sample.

The sample was also grouped by the percent of equity issued, and by their relative debt-to-equity ratios. Table 2 summarizes the number of companies in each group, and Table 3 gives other summary statistics. We find that utilities tend to have much higher debt-to-equity ratios than non-utilities, and they tend to have slightly smaller issues relative to the number of outstanding shares.

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[4]The number of major issues in each year is given in Table 46 which is in Chapter 6.

Table 1

Distribution by Year of Issue
and by Utility

type	Year of Issue											total
	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	
Utility	3	5	10	9	12	7	8	24	37	41	55	211
Non-Utility	0	5	7	13	16	17	20	25	15	42	30	190
Total	3	10	17	22	28	24	28	49	52	83	85	401

Table 2

Distribution by Percent Equity and by D-E Ratio

Percent of Equity Offered in the Issue

For Utilities:

Average Market d - e Ratio in past 5 years	low	medium	high	total
low	5	1	0	6
medium	35	24	9	68
high	22	44	14	80
no data	10	20	13	43
total	72	89	36	197

For Non-Utilities:

Average Market d - e Ratio in past 5 years	low	medium	high	total
low	39	24	30	93
medium	5	11	14	30
high	4	2	11	17
no data	6	14	34	54
total	54	51	89	194

For Both Utilities and Non-Utilities:

Average Market d - e Ratio in past 5 years	low	medium	high	total
low	44	25	30	99
medium	40	35	23	98
high	26	46	25	97
no data	16	34	47	97
total	126	140	125	391

Table 3

SUMMARY STATISTICS

	Utility	Non-Utility	Total
Number of Stocks	211	190	401
Range of % Equity Issued	1-30%	2-48%	1-48%
Mediam % Equity Issued	9%	10%	10%
Range of Average Market D-E Ratio	20-64%	0-79%	0-79%
Median Market D-E Ratio	46%	20%	41%

CHAPTER III

METHODOLOGY

A. General Background

If a stock price reflects, on average, all available information about a firm, then this information includes many important events outside the operations of the firm itself, such as the general economic conditions and the conditions of the particular industry. King [16] found that, on average, 35% of the variability of a stock price can be attributed to the fluctuations of the stock market as a whole, and another 10% can be attributed to the firm's particular industry. Since research attempts to explore how the market reacts to information about an individual firm, it is necessary to control for these market and industry fluctuations. A number of statistical procedures, based on theoretical models, have been developed over the past decade. Each model[5] purports to make explicit the relationship between market factors and individual stock prices, so that these market factors can be accounted for in the analysis.

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[5]Excellent summaries of the various models and their supporting research can be found in Fama [9] and Jensen [15].

It will be useful to examine a typical study of the capital markets using this technique. Ball and Brown [1] studied the price movements of stocks around the time that the firm's annual earnings were announced. They gathered a sample of NYSE firms and their prices around the date of announcement. Using multiple regression analysis, they created a series of "adjusted" returns on each stock. The adjusted return is just the change in price of the stock (including dividends), divided by the original price, with the effects of the market fluctuations statistically removed. The date of the announcement was labelled "day 0" and the adjusted returns of all the stocks in the sample were averaged, relative to the date of announcement. They found that for firms which announced increased earnings, the stock price had increased during the months prior to the announcement, and had ceased to increase after the announcement. Similarly, for firms with decreased earnings, the price fell prior to the announcement, and ceased to fall after the announcement.

These results are consistent with the Efficient Markets Hypothesis since they imply that the market has processed other information prior to the announcement, and has anticipated the direction and magnitude of the earnings change. The market did not wait for the actual announcement of annual earnings to react to the information. Surely quarterly

reports of earnings and officer's statements played an important part in generating information for the marketplace.

Modern capital theory postulates a direct relationship between the return on a capital investment and its risk. Most capital asset pricing models explicitly state this postulate. Black, Jensen and Scholes [2] have given excellent evidence that the expected returns on portfolios of securities are given by the following model:

$$E(\tilde{R}_i) = (1-\beta_i)\, E(\tilde{R}_z) + \beta_i\, E(\tilde{R}_m)$$

where

$E(\tilde{R}_i)$ = the expected return on portfolio i in excess of the return expected on a riskless investment, such as government bonds.

$E(\tilde{R}_z)$ = the expected return in excess of the riskless rate on a certain portfolio of stocks called portfolio z. This portfolio is constructed to be uncorrelated with the market fluctuations, and of the smallest possible variance.

β_i = a coefficient measuring the systematic risk inherent in owning this portfolio, relative to the risk of owning the entire market portfolio.

$E(\tilde{R}_m)$ = the expected return of the market portfolio in excess of the riskless rate.

The tilda ($\tilde{}$) denotes that the return is considered to be a random variable.

A number of fine studies have been conducted using this model on monthly price data. Unfortunately, there is a problem which arises when the model is used on daily data.

The coefficient β_i is econometrically determined by using stock returns and the returns on a market portfolio. For daily analysis, the price at the end of a day is compared to the previous day's closing price to produce a daily return. These daily returns are regressed on the return of a market portfolio to estimate the coefficient β_i. However, for daily returns, these estimates will be biased. The prices which are recorded as the closing prices are actually the last traded price, and for stocks which are not frequently traded, this may be the price of the security several hours prior to the closing price. Since stock prices react very quickly to new information, this last trading price will not reflect any information which has become known in the time between the last trade and the closing of the stock market. So the return which we associate with a given day is actually the return from a period just prior to the closing of the market on the previous day; to a perhaps different time prior to the closing on the next day.

Thus, we are not comparing a day's returns on an individual stock to that same day's returns on a market portfolio, but rather are comparing returns covering non-sychronous periods.[6] Regressions used to estimate the degree to which

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[6]This problem does not arise with monthly data since the time difference is negligable relative to a month.

individual stock prices are dependent upon market movements will underestimate this dependency, since they are comparing non-sychronous periods. The coefficient β is an estimate of the covariance between market movements and individual stock returns, and is constrained to average one, so, some stock's β's will be biased up (frequent traders) while others will be biased down (infrequent traders).

The difficulty in dealing with these biases is further compounded by the fact that the degree of bias depends on the volume of trading of the particular stock. If a stock is traded very frequently, it is more likely that the last trade will be close to the closing time of the exchange, and so the periods used in regression analysis will not be as non-sychronous as for a stock which is infrequently traded. So, the degree of bias is not constant over all stocks, nor is it constant with respect to one particular stock, since volume of trading is always changing. In general, the biases are significant, and have hindered the progress of research using daily data. This phenomenon was first noted by Fisher [10] and has been called the Fisher Effect.

This study will use daily adjusted returns to analyze the reaction of the stock market to a new equity issue, and so cannot use this particular capital asset pricing model for the analysis. However, by using the same theory that

generated the model, Black and Scholes [4] have developed a variant of the capital asset pricing model which overcomes most of the difficulties of using daily data. The Black and Scholes method is very simple. Instead of econometrically estimating the coefficient β_i, and combining it with the adjusted return of the market portfolio, R_m, and the adjusted return on the z portfolio, R_z, they constructed 10 large portfolios of stocks, each with a different amount of market effect and portfolio z effect. To obtain the adjusted return for an individual stock, they simply subtract the raw return from the return on the appropriate one of the 10 large portfolios. This method has all the advantages of the capital asset pricing model in that it controls for the fluctuations of the market portfolio, and for the different risks of individual securities. At the same time, since there is no need to estimate β_i in order to determine the adjusted return, no biases are introduced if the stocks on average have similar characteristics as the stocks in the comparison portfolios.

B. Methodology of this Study

Using the Black-Scholes method of portfolios to create adjusted returns, a series of adjusted returns for every stock on the NYSE was created and placed on magnetic tape. Four different types of tests were performed on portfolios

of stocks which announced equity issues:

1. Portfolio Strategies using daily data
2. Cross-Sectional Analysis using daily data
3. Cross-Sectional Analysis using monthly data
4. Cross-Sectional Analysis using the issue date instead of the announcement date.

1. Portfolio Strategies using Daily Data

This first type of analysis simulates the action that an investor might take if he knew several weeks in advance that the announcement of a new issue was going to occur on a certain date. Every time he finds that such an announcement is going to occur, he buys that firm's stock m days prior to the announcement and sells the stock k days later, which may be subsequent to the announcement. By examining the return on his investment, we are also examining what information has been discounted in the stock price by the marketplace, and are able to determine the significance of the results. In the following analyses, several different "rules" are used to measure the information released on various days:

a. Stocks enter the portfolio 20 days prior to the announcement, and leave 10 days after it.

b. Stocks enter 20 days before and leave 6 days before the announcement.

c. Stocks enter 5 days before and leave 1 day before the announcement.

d. Stocks enter at the close of trading on the day before the announcement, and leave at the close of trading on the announcement day.

e. Stocks enter 1 day after the announcement and leave 5 days after it.

f. Stocks enter 6 days after the announcement and leave 10 days after the announcement.

g. Stocks enter the day before the announcement and leave the day after the announcement.

In every case, the cumulative adjusted return accruing to the investor is calculated, and from this, a daily mean adjusted return is also calculated. If this daily return is significantly different from zero during a given period, we can say that some change in market expectations about the firm occurred and was reflected in the stock price during that period.

In the initial analysis, several different strategies of investment were used, and finally an equal-dollar strategy was decided upon. At the beginning of July, 1962, the investor puts $1.00 into his portfolio of stocks which will announce equity issues. Every day, he sells his portfolio and the next day buys the appropriate portfolio with all the funds he has earned (or has left) from his original investment, equally dividing his funds amongst the stocks. The total cumulative return reflects the percent of his original $1.00 investment that he has earned or lost as of December 31, 1972, adjusting for the effects of the market.

Since there are 2619 trading days during this 10 1/2 year period and only 401 stocks in the sample, it is clear

that on some days, there will be no stocks in the portfolio, and on other days, there will be one or more stocks. The variable number of stocks in the portfolio introduces a problem of heteroscedasticity of daily returns. In the test runs of the portfolio strategies, several adjustments were made for heteroscedasticity. The daily returns were divided by the square root of the number of stocks in the portfolio on that day in an attempt to adjust for the added variance inherent in having more stocks in the portfolio on some days. Also, each observation was divided by the estimated yearly variance to adjust for the variability over time of the stocks. Adjustments for heteroscedasticity are reflected in the value of the T-statistic, which compares the returns to their observed variance. A high T-statistic implies high confidence that the observed returns are not spurious. In the case of both adjustments, the T-statistics were not significantly improved, so in the final analysis, these adjustments were not made.

2. Cross-Sectional Analysis using Daily Data.

Instead of simulating the returns of an investor over the years, we can combine the adjusted returns of each stock relative to the date of announcement (defined as day 0), and compute the "cross-sectional" excess returns. This method has several advantages and disadvantages over the

portfolio strategy analysis. Since the cross-sectional method computes the movement of excess returns of an "average" stock over each of the days in the period of study, in a single analysis we can explicitly follow the fluctuations during this interval. In the daily cross-sectional analysis, a period beginning 20 days prior to the announcement and ending 10 days after the announcement is studied. We will see explicitly the movements of the excess returns over this 31 day period. To follow the mean excess return on each day using the portfolio method, 31 separate analyses are required, one for each day.

The disadvantage of the cross-sectional method is that it ignores the variability over time of the stock prices. By pretending that all announcements occur on the same date, day 0, we ignore the fact that some announcements occurred in 1962 and others in 1972. As a result, the estimates of the variance of excess returns will be biased downward, and all the results will appear to be somewhat more significant than they actually are. Thus, the cross-sectional analysis is a "quick and dirty" method of generally examining excess returns. We can get a very good indication of the magnitude of the bias introduced by the cross-sectional method by comparing the portfolio analysis with it. By using both types of tests on daily data, we have the advantage of viewing all the daily movements at once and at the same time

we will know the degree of bias inherent in the calculations.

For each cross-sectional analysis, the individual excess returns are cumulated over the 31 day period and averaged over the portfolio. The variance of these individual cumulative returns from their mean is also computed. Finally, daily mean returns (uncumulated) are derived from the mean cumulated returns. If

$x_{i,j}$ is the adjusted excess return on the ith day relative to the issue date of the jth firm out of n firms

$r_{i,j}$ is the cumulative excess return on the ith day for the jth firm

$\bar{r}_i$ is the mean cumulative return on the ith day

$\bar{v}_i$ is the observed variance of $\bar{r}_i$

$\bar{x}_i$ is the uncumulated daily return derived from the $\bar{r}_i$'s,

then the computations can be described by:

$$r_{i,j} = \prod_{i=1}^{j} (1 + x_{i,j}) - 1$$

$$\bar{r}_i = \sum_{j=1}^{n} r_{i,j}$$

$$\bar{v}_i = \sum_{j=1}^{n} (r_{i,j} - \bar{r}_i)^2 / _{n-1}$$

$$\bar{x}_i = \bar{r}_i - \bar{r}_{i-1}$$

We can say that the mean daily return on a given day represents the daily movement of the excess returns on an average

stock which announces an equity issue, and the cumulative return represents the average cumulative return on a stock since the 20th day prior to the announcement.

3. Cross-Sectional Analysis using Monthly Data

The daily data will give us an indication of the information associated with an equity issue over a short period around the announcement date. In order to view the long term movements of stock prices, we cumulate the daily data into months, and perform a cross-section analysis. The period studied begins 12 months prior to the announcement, and ends 4 months after the announcement. The date of announcement is defined to be the beginning of month 0, and all other months are counted relative to that date. As in the daily cross-sectional analysis, a cumulative excess return is computed along with its variance, and from it a monthly mean excess return is computed. For any given month, the cumulative excess return represents the cumulative return on the portfolio of stocks beginning 12 months prior to the announcement and ending in the given month.

4. Cross-Sectional Analysis using Monthly Data and Issue Date

In order to study any movements which might be dependent on the actual issuance of new equity, instead of the announcement, a separate analysis was performed using the issue date as day 0 instead of the announcement date. The analysis uses

monthly data and is otherwise similar in all respects to the monthly cross-sectional analysis described in part 3 above.

C. Dividing the Sample into Portfolios

Each type of analysis is performed on a portfolio of stocks. The sample of 401 stocks was divided into various portfolios in order to test the effect of certain exogenous variables in combination with the announcement. In the introduction we discussed the shift in the relative value of debt and equity that might be expected at the announcement of an equity issue. As a test of this hypothesis, we analyzed the returns on three portfolios of stocks announcing equity issues. The original sample of 401 stocks was divided into portfolios on the basis of the magnitude of their debt-to-equity ratios. Several different measures of the debt-to-equity ratios were used:

a. Book ratio -- the current balance sheet values of debt and equity were used to compute the ratio.

b. Market ratio -- the market value of equity and the balance sheet value of debt was used to compute the ratio.

c. Average market ratio--the market debt-to-equity ratios over the five years prior to the issue were averaged.

One might expect that the shift in value from the debt to equity would be greater for firms with more debt, and using

this technique we will test this expectation.

In the same way, the sample was also partitioned according to the percent of equity offered in the new equity issue. In the introduction we also discussed the hypothesis that the transactions cost of an unanticipated new equity issue will cause a decline in the firm's stock price on announcement of the issue. If this hypothesis holds, one might expect that for larger issues, the dollar value of this transactions cost will be greater, and so the resultant decline in the dollar value of the outstanding equity (price per share times the number of shares outstanding) will also be greater. The best test of this hypothesis would be to partition the sample according to the dollar value of the issue, and then to examine the dollar change in outstanding equity. Unfortunately, the data for computing dollar changes in equity is not available, and so the sample was partitioned by the percent of equity issued.

Finally, since a significant (53%) portion of the sample of firms were utilities, we partitioned the sample into two portfolios on this basis to determine if non-utilities and utilities differed in their returns associated with new equity issues.

In the next chapters, we will discuss the results of computer analysis using the four methods mentioned above on various partitions of the sample by utility, percent equity issued and debt-to-equity ratio.

CHAPTER IV

RESULTS: TOTAL SAMPLE AND UTILITIES

A. Total Sample

As a first pass, we will examine the characteristics of the entire sample of 401 stocks.[7] Table 4 gives the cross-sectional abnormal, or excess, returns over the 31 days around the announcement date for the entire sample. Day 0 is defined to be the announcement date. The mean cumulative return and its standard deviation and t-statistic are given for each day. A t-statistic greater than 1.96 implies 95% confidence that the associated return is different from zero. A daily mean return was computed from the cumulative returns. Figure 1 graphically illustrates the numbers given in Table 4. The results show a significant negative return over the period. T-statistics for the cumulative returns do not imply significant returns until the day of announcement. This is consistent with the hypothesis that the announcement of a new issue contains unanticipated information.

By day -1, the cumulative returns are nearing significance at the 90% level. This suggests that some leakage of

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[7]Depending upon the type of analysis, daily or monthly, and the variables by which the sample was partitioned, some stocks were excluded from the portfolios for lack of data.

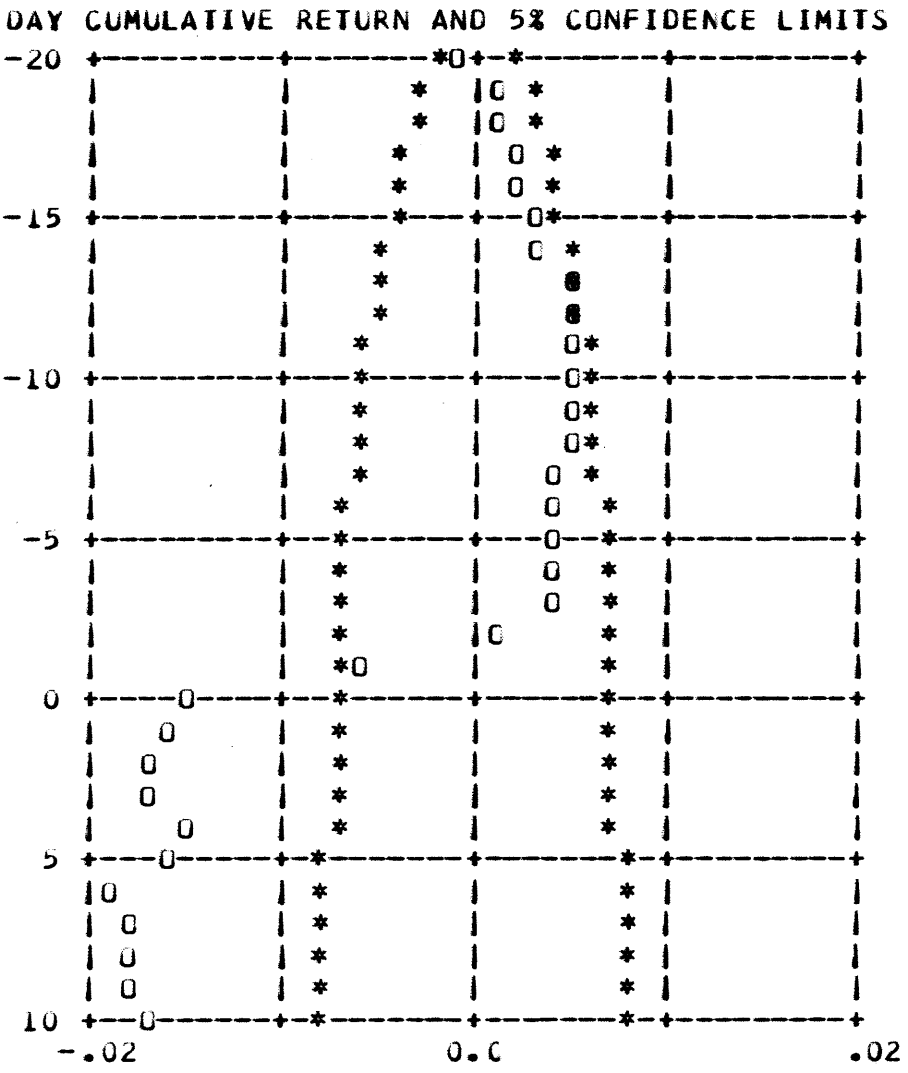
Table 4

CROSS-SECTIONAL ABNORMAL RETURNS
ALL COMPANIES WITH ISSUES, 1962-1972
385 STOCKS

DAY MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-20	-0.00085	-0.00085	0.01699	-0.9772
-19	0.00151	0.00066	0.02561	0.5061
-18	0.00082	0.00148	0.03161	0.9197
-17	0.00022	0.00170	0.03538	0.9436
-16	0.00055	0.00226	0.03935	1.1246
-15	0.00034	0.00259	0.04314	1.1803
-14	0.00083	0.00342	0.04680	1.4353
-13	0.00116	0.00459	0.04653	1.9359
-12	0.00043	0.00502	0.05139	1.9173
-11	0.00021	0.00523	0.05578	1.8399
-10	-0.00006	0.00517	0.05873	1.7263
-9	-0.00006	0.00511	0.05923	1.6917
-8	-0.00000	0.00511	0.06033	1.6604
-7	-0.00064	0.00446	0.06169	1.4200
-6	-0.00032	0.00414	0.06493	1.2510
-5	-0.00036	0.00377	0.06942	1.0670
-4	0.00008	0.00386	0.07096	1.0671
-3	-0.00027	0.00359	0.07195	0.9780
-2	-0.00248	0.00109	0.07173	0.2995
-1	-0.00687	-0.00578	0.07123	-1.5921
0	-0.00913	-0.01486	0.06975	-4.1794
1	-0.00076	-0.01561	0.07158	-4.2774
2	-0.00173	-0.01731	0.07171	-4.7355
3	0.00040	-0.01691	0.07010	-4.7340
4	0.00182	-0.01513	0.07293	-4.0698
5	-0.00127	-0.01638	0.07425	-4.3280
6	-0.00258	-0.01892	0.07552	-4.9143
7	0.00105	-0.01789	0.07846	-4.4729
8	-0.00039	-0.01827	0.08001	-4.4808
9	0.00040	-0.01787	0.08167	-4.2945
10	0.00095	-0.01694	0.08274	-4.0182

Figure 1

CROSS-SECTIONAL ABNORMAL RETURNS
ALL COMPANIES WITH ISSUES, 1962-1972
385 STOCKS



the announced issue may be taking place. Corporate insiders aware of the upcoming announcement may be acting on the information, thereby allowing the market to adjust to some of the information on day -1. Beginning with the day after the announcement, there is essentially no price movement--the decline seems to be permanent. This is consistent with the Efficient Markets Hypothesis, for the new information was immediately reflected in the stock price on day 0, and no further adjustments were necessary. The returns from day -1 and day 0 together consitute the short-term reaction to the announcement.[8] This reaction is a decline in price by about 1.6%.

Tables 5, 6, 7, 8, 9, 10 study the movement of stock prices using the portfolio method of analysis. The figures in the tables follow the adjusted returns accruing to an investor over the years. The mean daily adjusted return and its standard deviation and t-statistic are given for each year and for the total period. The cumulative yearly return is the total change in the investor's portfolio over the year. The average number of stocks in the portfolio during

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[8]There are two reasons to include day -1. First, there may be some Fisher Effect in the returns smoothing the actual returns over two days. Secondly, the announcement date is taken as the date the issue is announced in the Wall Street Journal Index [29], and information may be reaching the market after the publication deadline of the Journal, but before the close of trading.

Table 5

PORTFOLIO EXCESS RETURNS
ALL COMPANIES WITH ISSUES, 1962-1972
DAILY 387 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00144	0.01450	0.70266	0.770	0.07204
1963	-0.00056	0.01018	-0.78021	1.359	-0.11200
1964	0.00050	0.01106	0.68259	1.996	0.11454
1965	-0.00054	0.01265	-0.67331	2.159	-0.13440
1966	-0.00044	0.01217	-0.54068	3.234	-0.09827
1967	-0.00083	0.01355	-0.96880	3.147	-0.20801
1968	-0.00108	0.01352	-1.20135	4.473	-0.24413
1969	-0.00039	0.00747	-0.82452	5.356	-0.09739
1970	-0.00022	0.00855	-0.40863	6.055	-0.05570
1971	-0.00083	0.00595	-2.21917	10.146	-0.21013
1972	-0.00056	0.00519	-1.70409	9.725	-0.14013
TOTAL	-0.00029	0.01048	-1.37859	4.402	-0.71300

SERIAL CORRELATION= 0.0077

Table 6

PORTFOLIO EXCESS RETURNS
ALL COMPANIES WITH ISSUES, 1962-1972
DAILY 387 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY -6

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00380	0.01680	1.31788	0.389	0.12912
1963	0.00039	0.01272	0.36266	0.673	0.05418
1964	0.00121	0.01215	1.29998	0.968	0.20526
1965	0.00020	0.01364	0.19176	1.079	0.03489
1966	-0.00019	0.01517	-0.16050	1.520	-0.03137
1967	-0.00105	0.01928	-0.82157	1.526	-0.23818
1968	-0.00127	0.02015	-0.90276	2.217	-0.26108
1969	-0.00000	0.01122	-0.00375	2.556	-0.00065
1970	0.00152	0.01048	2.20084	2.992	0.35052
1971	-0.00028	0.00812	-0.54247	4.893	-0.06878
1972	-0.00008	0.00708	-0.17345	4.645	-0.01890
TOTAL	-0.00000	0.01354	-0.00292	2.133	-0.00179

SERIAL CORRELATION= 0.0150

Table 7

PORTFOLIO EXCESS RETURNS
ALL COMPANIES WITH ISSUES, 1962-1972
DAILY 387 STOCKS
ENTER PORTFOLIO DAY -5
LEAVE PORTFOLIO DAY -1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.00093	0.01371	-0.24436	0.119	-0.01208
1963	-0.00272	0.01421	-1.36496	0.219	-0.13854
1964	-0.00207	0.01476	-1.14052	0.316	-0.13678
1965	-0.00167	0.01795	-0.82125	0.337	-0.13022
1966	-0.00204	0.02062	-0.96054	0.536	-0.19207
1967	-0.00293	0.02386	-1.33538	0.518	-0.34606
1968	-0.00006	0.02038	-0.03354	0.730	-0.00755
1969	0.00209	0.01813	1.46981	0.860	0.33915
1970	-0.00251	0.01318	-2.25221	0.945	-0.35135
1971	-0.00211	0.01458	-2.00474	1.660	-0.40490
1972	-0.00258	0.01231	-2.90123	1.574	-0.49490
TOTAL	-0.00074	0.01712	-1.52092	0.710	-0.91252

SERIAL CORRELATION= 0.1250

Table 8

PORTFOLIO EXCESS RETURNS
ALL COMPANIES WITH ISSUES, 1962-1972
DAILY 387 STOCKS
ENTER PORTFOLIO DAY 0
LEAVE PORTFOLIO DAY 0

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00499	0.00756	1.14419	0.024	0.01498
1963	-0.00603	0.01220	-1.63838	0.044	-0.06628
1964	-0.00185	0.01581	-0.46766	0.063	-0.02958
1965	-0.01149	0.01951	-2.42828	0.067	-0.19532
1966	-0.00751	0.03665	-1.04492	0.107	-0.19528
1967	-0.00662	0.02993	-1.12760	0.104	-0.17210
1968	-0.00982	0.02725	-2.03808	0.146	-0.31421
1969	-0.00804	0.02407	-2.13980	0.168	-0.32973
1970	-0.00855	0.02588	-2.23974	0.193	-0.39307
1971	-0.00840	0.02374	-2.93960	0.332	-0.57962
1972	-0.00451	0.01531	-2.33883	0.315	-0.28415
TOTAL	-0.00274	0.02480	-2.06643	0.142	-0.95861

SERIAL CORRELATION=-0.0417

Table 9

PORTFOLIO EXCESS RETURNS
ALL COMPANIES WITH ISSUES, 1962-1972
DAILY 387 STOCKS
ENTER PORTFOLIO DAY 1
LEAVE PORTFOLIO DAY 5

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.00189	0.01300	-0.52409	0.119	-0.02457
1963	-0.00016	0.01310	-0.08590	0.219	-0.00804
1964	-0.00006	0.01131	-0.04324	0.316	-0.00397
1965	-0.00062	0.01293	-0.42417	0.337	-0.04842
1966	0.00005	0.01957	0.02585	0.536	0.00491
1967	0.00079	0.02318	0.36599	0.502	0.09057
1968	-0.00048	0.02550	-0.20877	0.721	-0.05881
1969	-0.00134	0.01530	-1.11512	0.864	-0.21652
1970	-0.00110	0.01388	-0.95100	0.965	-0.15898
1971	0.00010	0.01277	0.10628	1.640	0.01861
1972	-0.00032	0.01254	-0.35827	1.586	-0.06259
TOTAL	-0.00033	0.01650	-0.70080	0.710	-0.40484

SERIAL CORRELATION= 0.0786

Table 10

PORTFOLIO EXCESS RETURNS
ALL COMPANIES WITH ISSUES, 1962-1972
DAILY 387 STOCKS
ENTER PORTFOLIO DAY 6
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.00125	0.00617	-0.73045	0.119	-0.01625
1963	-0.00055	0.01476	-0.25760	0.203	-0.02607
1964	0.00139	0.01695	0.68595	0.332	0.09725
1965	-0.00048	0.01541	-0.27497	0.337	-0.03743
1966	0.00029	0.02007	0.13794	0.536	0.02685
1967	0.00076	0.02088	0.38527	0.498	0.08551
1968	-0.00105	0.02289	-0.49737	0.659	-0.12369
1969	0.00032	0.01506	0.26959	0.908	0.05168
1970	0.00107	0.01113	1.15309	0.961	0.15449
1971	-0.00166	0.01261	-1.80254	1.621	-0.31085
1972	0.00098	0.01151	1.18159	1.606	0.18943
TOTAL	-0.00001	0.01586	-0.02934	0.707	-0.01626

SERIAL CORRELATION=-0.0151

each year was computed to give an indication of the "density" of the portfolio. Table 5 gives the adjusted returns for the strategy (-20, 10).[9] Although there is almost always a negative return associated with this strategy, only in 1971 is this return significantly different from zero. Essentially the same data was used to compute both Tables 4 and 5. Table 4 shows significant negative cumulative returns while Table 5 shows these returns to be insignificant due to their large variance. This gives an excellent indication of the time-series variability which cross-sectional analysis ignores.

The serial correlation coefficient is a measure of the strength of dependence of a day's excess returns on the previous day's returns. If the model being used correctly adjusts for market-wide movements and risks, we would expect the serial correlation to be low. Indeed, throughout all these analyses, we will find low serial correlations.

Tables 6, 7, 8, 9 and 10 summarize the returns for strategies which divide the 31 day period into 5 subperiods. We divide the period in order to examine exactly when changes in price occur. Table 6 gives the returns for the strategy (-20,-6). We see essentially insignificant returns for this strategy. Table 7 gives returns for the strategy (-5,-1).

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[9]Stocks enter the portfolio on day -20 and leave on day +10.

The returns are significantly negative for several years, although the total period returns are not quite significant at the 90% level. As in Table 4, this is suggestive of information leakage.

Significant negative returns are assocaited with the date of announcement (strategy (0,0)), as shown in Table 8. These results parallel the decline shown on the announcement date in Table 4. Over the 10 1/2 years, an investor buying stocks at the close of trading the day prior to the announcement and selling at the close of trading on the date of announcement will experience a 95.8% decline in his investment, an average of 2.7% a day.[10] If the negative returns from strategy (-5,-1) are included, we find a mean daily decline of 3.4%. This figure is not strictly comparable to the 1.6% decline shown in the cross-sectional analysis (Table 4). The cross-sectional analysis computes an average return per stock, while the portfolio analysis computes an average return for a strategy per day. This strategy rarely finds exactly one stock in the portfolio each day, so that the two figures are not comparable, but rather are intended to give two sides of the same results.

Tables 9 and 10 give results for the strategies (1,5) and (6,10). In both cases, no significant returns occur.

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[10]Note the large standard deviation of .0248 per day.

As in Table 4, this is consistent with the hypothesis that all information about the issue is discounted on or before the date of announcement.

We have been considering the short-term price movements of stocks around the announcement of new equity issues. We shall now look at longer term periods. Tables 11 and 12 and Figures 2 and 3 show the cross-sectional analysis for the 12 months prior to, and 4 months after the announcement. In Table 11, we find that the cumulative adjusted returns are significantly positive for every month after month -10, and increase up to 8.6% by month +4. Note that the mean returns for months -1 and 0 are negative, in contrast to every other month. This is consistent with the negative short-term results shown in earlier tables. The magnitude of the returns over the two months is -2.5%, which is close to the short-term decline experienced on days -1 and 0 in Table 4. The months in table 12 are defined so that the end of month -1 is the day before the announcement, and month 0 begins with the announcement day. So, Tables 11 and 4 are entirely consistent with each other. Together, they show a general increase in the price of stock over the period a year prior to the announcement, and a small decline very near to the announcement date.

Table 12 and Figure 3 give cross-sectional monthly results based on the date of issue instead of the date of

Table 11

CROSS-SECTIONAL ABNORMAL RETURNS
ALL COMPANIES WITH ISSUES, 1962-1972
333 STOCKS

BASED ON ANNOUNCEMENT DATE

DAY MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.00350	0.00350	0.07735	0.8257
-11	0.00852	0.01205	0.11124	1.9772
-10	0.01142	0.02361	0.15101	2.8534
-9	0.00389	0.02760	0.16257	3.0977
-8	0.00539	0.03314	0.21070	2.8699
-7	0.01147	0.04499	0.22973	3.5734
-6	0.00051	0.04552	0.24002	3.4610
-5	0.00511	0.05086	0.25473	3.6436
-4	0.01580	0.06747	0.29143	4.2246
-3	0.01919	0.08796	0.33303	4.8195
-2	0.01096	0.09988	0.37820	4.8193
-1	-0.00463	0.09479	0.41663	4.1518
0	-0.02034	0.07252	0.39578	3.3436
1	0.00018	0.07271	0.42531	3.1198
2	0.00713	0.08036	0.47672	3.0763
3	0.00518	0.08596	0.50642	3.0976

Figure 2

CROSS-SECTIONAL ABNORMAL RETURNS
ALL COMPANIES WITH ISSUES, 1962-1972
333 STOCKS

BASED ON ANNOUNCEMENT DATE

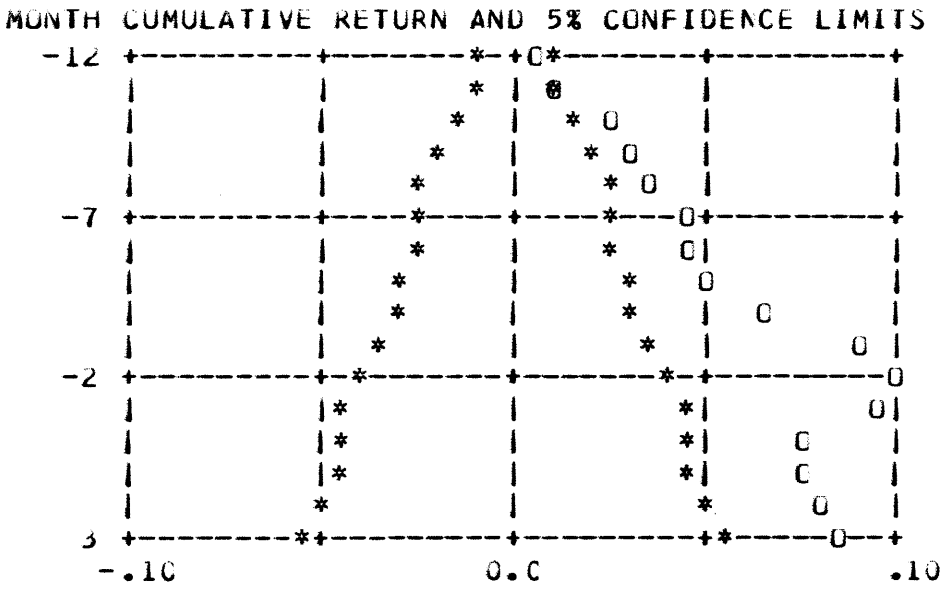


Table 12

CROSS-SECTIONAL ABNORMAL RETURNS
ALL COMPANIES WITH ISSUES, 1962-1972
333 STOCKS

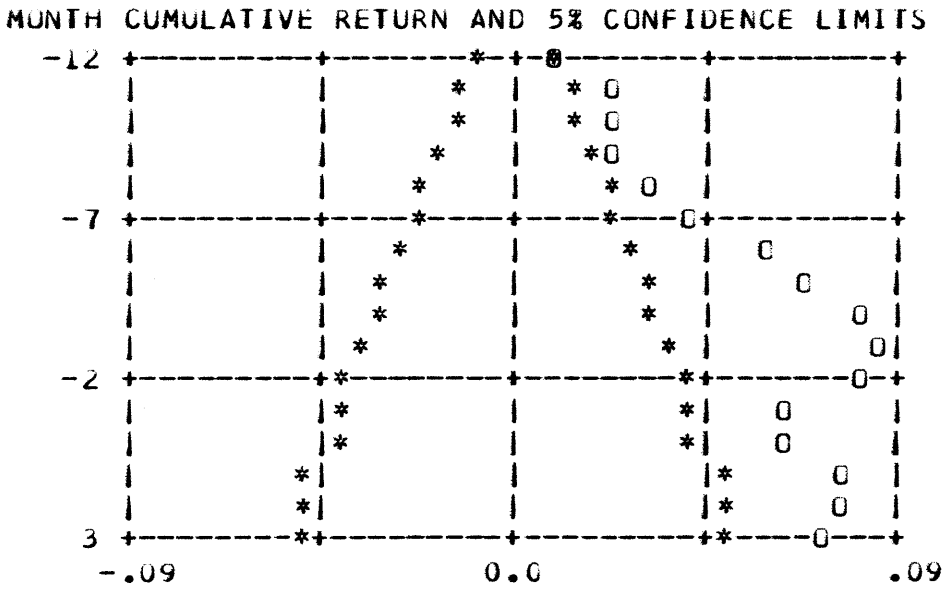
BASED ON ISSUE DATE

DAY MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.00856	0.00856	0.07800	2.0030
-11	0.01221	0.02088	0.12253	3.1095
-10	0.00118	0.02209	0.14002	2.8786
-9	0.00171	0.02384	0.16516	2.6337
-8	0.00965	0.03372	0.19568	3.1449
-7	0.00659	0.04054	0.20829	3.5517
-6	0.01605	0.05724	0.24400	4.2809
-5	0.00847	0.06620	0.27122	4.4539
-4	0.01190	0.07888	0.29554	4.8706
-3	0.00499	0.08427	0.32539	4.7260
-2	-0.00230	0.08177	0.36234	4.1183
-1	-0.01772	0.06260	0.36742	3.1092
0	0.00197	0.06469	0.38790	3.0434
1	0.00903	0.07431	0.43768	3.0982
2	0.00245	0.07695	0.44505	3.1550
3	-0.00577	0.07073	0.44830	2.8790

Figure 3

CROSS-SECTIONAL ABNORMAL RETURNS
ALL COMPANIES WITH ISSUES, 1962-1972
333 STOCKS

BASED ON ISSUE DATE



announcement. Month 0 begins with the issue date. We find the same general characteristics as in Table 11. However, the short-term decline in excess returns occurs in months -2 and -1 here, instead of during months -1 and 0 as in Table 11. This is consistant with the fact that on average the announcement of an issue occurs about a month and a half before the issue, and that the market reacts to the announcement of the issue rather than the issue itself.

B. Utilities and Non-Utilities

Since utilities comprise such a significant portion of our sample, we partitioned the sample into utilities and non-utilities to determine if there are any differences by these classifications because utilities are frequent issuers. Table 13 and Figure 4 show the cross-sectional daily excess returns for all non-utilities. The results are quite similar to Table 4. We find significant negative returns associated with the announcement. The returns begin to be significant at day 0, and again there is an indication of some information leakage on day -1.

In Table 14, we see that the portfolio returns over the 10 1/2 year period using strategy (-20,10) do not show significant returns. As in the comparison of Tables 4 and 5, this shows the added time series variance of stock prices which the cross-sectional method ignores. However, we do

Table 13

CROSS-SECTIONAL ABNORMAL RETURNS
ALL NON-UTILITIES WITH ISSUES, 1962-1972
187 STOCKS

DAY MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-20	-0.00128	-0.00128	0.02086	-0.8404
-19	0.00196	0.00068	0.03136	0.2956
-18	0.00223	0.00291	0.03967	1.0034
-17	0.00050	0.00342	0.04481	1.0426
-16	-0.00101	0.00240	0.04940	0.6656
-15	0.00138	0.00379	0.05486	0.9445
-14	0.00252	0.00632	0.05894	1.4653
-13	0.00134	0.00766	0.05827	1.7983
-12	0.00026	0.00792	0.06504	1.6660
-11	0.00070	0.00862	0.07084	1.6645
-10	-0.00087	0.00775	0.07434	1.4251
-9	0.00109	0.00885	0.07482	1.6169
-8	0.00120	0.01006	0.07569	1.8177
-7	-0.00018	0.00988	0.07712	1.7523
-6	-0.00032	0.00956	0.08308	1.5739
-5	-0.00010	0.00946	0.08838	1.4638
-4	-0.00063	0.00883	0.09079	1.3295
-3	-0.00051	0.00832	0.09195	1.2366
-2	-0.00430	0.00398	0.09183	0.5928
-1	-0.00907	-0.00512	0.09147	-0.7659
0	-0.01411	-0.01916	0.08821	-2.9705
1	0.00044	-0.01873	0.09035	-2.8347
2	-0.00095	-0.01967	0.09035	-2.9766
3	-0.00027	-0.01993	0.08701	-3.1323
4	0.00267	-0.01731	0.09033	-2.6207
5	-0.00189	-0.01917	0.09159	-2.8618
6	-0.00315	-0.02226	0.09358	-3.2524
7	0.00099	-0.02128	0.09844	-2.9565
8	-0.00012	-0.02140	0.10140	-2.8859
9	0.00119	-0.02024	0.10360	-2.6712
10	0.00113	-0.01913	0.10455	-2.5016

Figure 4

CROSS-SECTIONAL ABNORMAL RETURNS
ALL NON-UTILITIES WITH ISSUES, 1962-1972
187 STOCKS

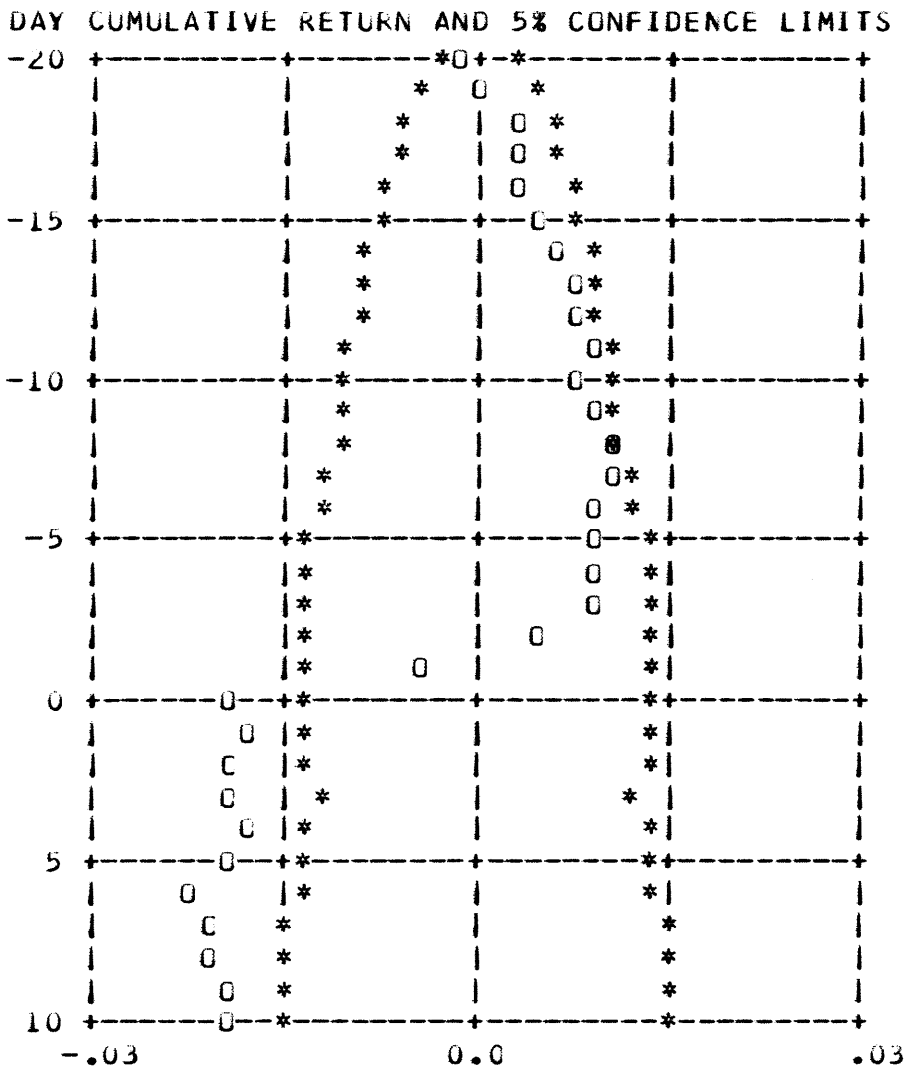


Table 14

PORTFOLIO EXCESS RETURNS
ALL NON-UTILITIES WITH ISSUES, 1962-1972
DAILY 187 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00650	0.00966	1.34519	0.032	0.02599
1963	-0.00112	0.01403	-0.93952	0.725	-0.15538
1964	0.00153	0.01877	0.97887	0.787	0.22126
1965	-0.00087	0.01727	-0.72080	1.421	-0.17827
1966	-0.00051	0.02501	-0.28540	1.849	-0.09942
1967	-0.00064	0.01683	-0.57623	2.438	-0.14673
1968	-0.00082	0.01937	-0.63843	2.881	-0.18594
1969	0.00076	0.01468	0.77924	2.760	0.17198
1970	-0.00042	0.01668	-0.33869	2.059	-0.07622
1971	-0.00112	0.00944	-1.85313	5.103	-0.27215
1972	-0.00112	0.01405	-1.12290	3.271	-0.22252
TOTAL	-0.00033	0.01692	-0.88299	2.120	-0.66671

SERIAL CORRELATION= 0.0021

find significant negative returns for the strategy (0,0), as shown in Table 15. Portfolio analysis was done for other trading strategies on non-ulilities. The results are included in Appendix B as Tables 47, 48, 49 and 50. Together with the cross-sectional analyses, they confirm that almost all information released is discounted on the date of announcement, although there is a slight indication of information leakage on the days immediately preceding the announcement.

The same analyses were done for the sample of utilities, and the results are given in Tables 16, 17 and 18. Table 16 and Figure 5 show a significant decline in excess returns on days -1 and 0. The t-statistics for day -1 suggest that for utilities a significant amount of information leakage occurs on the day prior to the announcement. Again, there is essentially no price movement after the announcement date.

Table 17 gives the portfolio returns for utilities using the strategy (-20, 10). There is the suggestion of negative returns, and for 1967 and 1972, these returns are significantly negative. The one-day excess returns are given in Table 18. As in the other tables, we find significant negative returns occur on the date of announcement. In Appendix B, Tables 50, 51, 52 and 53 give the results for other trading periods. They suggest that all adjustments for the announcement occur on or immediately preceding the announcement date.

Table 15

PORTFOLIO EXCESS RETURNS
ALL NON-UTILITIES WITH ISSUES, 1962-1972
DAILY 200 STOCKS
ENTER PORTFOLIO DAY 0
LEAVE PORTFOLIO DAY 0

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00499	0.00756	1.14419	0.024	0.01498
1963	-0.00290	0.00367	-1.76770	0.020	-0.01449
1964	-0.00118	0.01470	-0.25481	0.040	-0.01184
1965	-0.00303	0.01055	-0.70451	0.024	-0.01820
1966	0.00314	0.01944	0.53500	0.044	0.03449
1967	-0.00206	0.00888	-0.56805	0.024	-0.01236
1968	-0.00083	0.01151	-0.25096	0.053	-0.01000
1969	-0.00606	0.01359	-1.94371	0.080	-0.11514
1970	-0.00526	0.02083	-1.38465	0.126	-0.15795
1971	-0.00686	0.01731	-2.47397	0.166	-0.26745
1972	-0.00366	0.01355	-1.87187	0.211	-0.17575
TOTAL	-0.00295	0.01580	-2.57144	0.074	-0.55839

SERIAL CORRELATION=-0.0589

Table 16

CROSS-SECTIONAL ABNORMAL RETURNS
ALL UTILITIES WITH ISSUES, 1962-1972
198 STOCKS

DAY	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-20	-0.00044	-0.00044	0.01232	-0.4969
-19	0.00108	0.00064	0.01871	0.4847
-18	-0.00051	0.00013	0.02140	0.0866
-17	-0.00005	0.00008	0.02319	0.0492
-16	0.00203	0.00211	0.02672	1.1135
-15	-0.00065	0.00147	0.02798	0.7376
-14	-0.00077	0.00069	0.03122	0.3121
-13	0.00100	0.00169	0.03158	0.7530
-12	0.00059	0.00228	0.03375	0.9512
-11	-0.00026	0.00203	0.03612	0.7894
-10	0.00070	0.00273	0.03864	0.9943
-9	-0.00115	0.00158	0.03909	0.5671
-8	-0.00115	0.00043	0.04050	0.1477
-7	-0.00108	-0.00065	0.04180	-0.2200
-6	-0.00033	-0.00098	0.04059	-0.3400
-5	-0.00061	-0.00159	0.04426	-0.5070
-4	0.00076	-0.00083	0.04457	-0.2629
-3	-0.00005	-0.00088	0.04544	-0.2727
-2	-0.00075	-0.00163	0.04531	-0.5063
-1	-0.00478	-0.00640	0.04463	-2.0183
0	-0.00442	-0.01079	0.04586	-3.3116
1	-0.00188	-0.01265	0.04757	-3.7429
2	-0.00246	-0.01508	0.04803	-4.4178
3	0.00103	-0.01406	0.04911	-4.0286
4	0.00101	-0.01306	0.05152	-3.5678
5	-0.00069	-0.01374	0.05303	-3.6469
6	-0.00204	-0.01576	0.05319	-4.1691
7	0.00110	-0.01468	0.05318	-3.8832
8	-0.00065	-0.01532	0.05245	-4.1088
9	-0.00033	-0.01564	0.05344	-4.1187
10	0.00077	-0.01488	0.05492	-3.8133

Figure 5

CROSS-SECTIONAL ABNORMAL RETURNS
ALL UTILITIES WITH ISSUES, 1962-1972
198 STOCKS

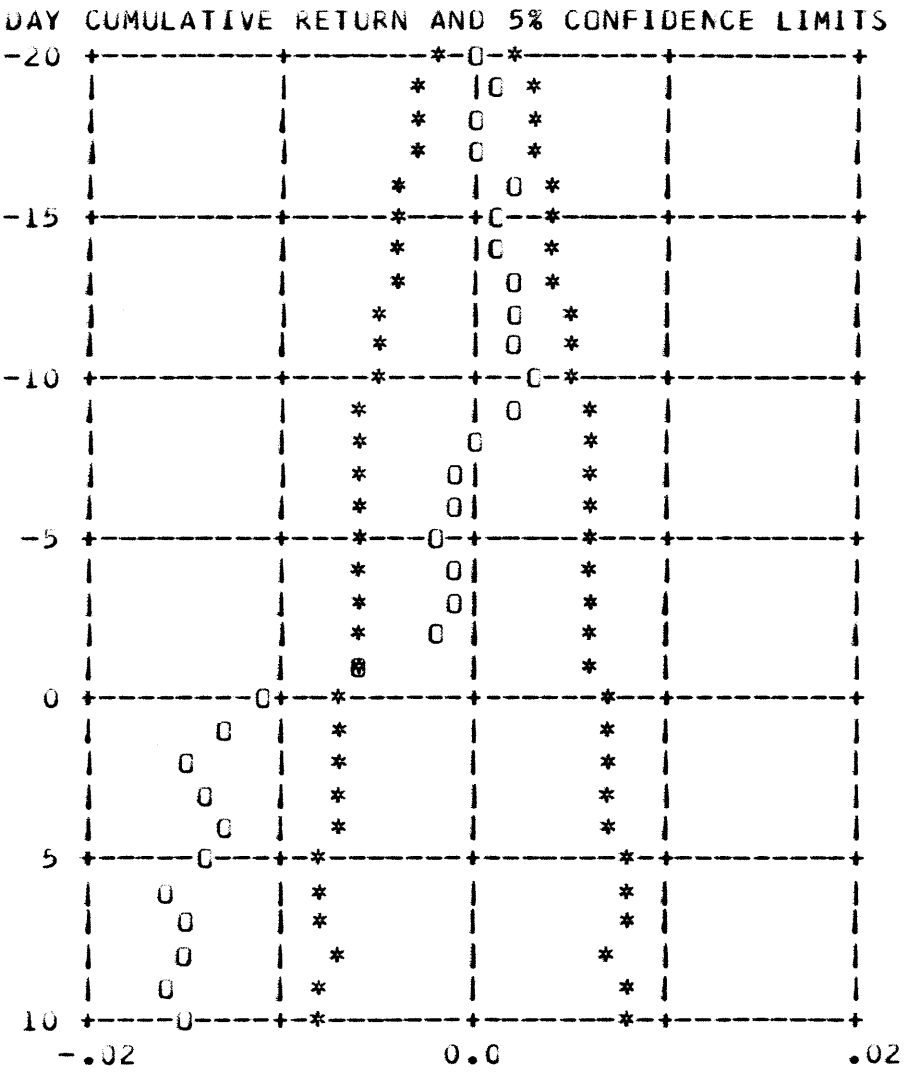


Table 17

PORTFOLIO EXCESS RETURNS
ALL UTILITIES WITH ISSUES, 1962-1972
DAILY 200 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00098	0.01484	0.44586	0.738	0.04488
1963	0.00019	0.01019	0.21302	0.633	0.02514
1964	-0.00011	0.00850	-0.17950	1.209	-0.02136
1965	-0.00049	0.00713	-0.87299	0.738	-0.07846
1966	-0.00076	0.01111	-0.98657	1.385	-0.15738
1967	-0.00179	0.01153	-1.93350	0.709	-0.27851
1968	-0.00056	0.01025	-0.71640	1.593	-0.09688
1969	-0.00059	0.00991	-0.94215	2.596	-0.14769
1970	-0.00042	0.00935	-0.70893	3.996	-0.10568
1971	-0.00068	0.00734	-1.47460	5.043	-0.17223
1972	-0.00066	0.00530	-1.98264	6.454	-0.16649
TOTAL	-0.00035	0.00926	-1.70836	2.281	-0.72106

SERIAL CORRELATION=-0.0757

Table 18

PORTFOLIO EXCESS RETURNS
ALL UTILITIES WITH ISSUES, 1962-1972
DAILY 187 STOCKS
ENTER PORTFOLIO DAY 0
LEAVE PORTFOLIO DAY 0

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	-0.00876	0.01632	-1.31486	0.024	-0.05255
1964	-0.00299	0.01894	-0.38690	0.024	-0.01795
1965	-0.01640	0.02183	-2.49224	0.044	-0.18041
1966	-0.01481	0.04462	-1.28528	0.063	-0.22211
1967	-0.00809	0.03388	-1.06748	0.080	-0.16174
1968	-0.01536	0.03238	-2.12178	0.093	-0.30728
1969	-0.01102	0.03018	-1.71343	0.088	-0.24251
1970	-0.01745	0.03184	-2.19247	0.067	-0.27923
1971	-0.01269	0.02898	-2.73359	0.166	-0.49472
1972	-0.00714	0.02396	-1.46023	0.104	-0.17140
TOTAL	-0.00515	0.03180	-2.16514	0.068	-0.92126

SERIAL CORRELATION= 0.0516

By comparing the magnitude of the mean excess returns for utilities and non-utilities, we can examine any differences in the information which the market is discounting near the date of announcement. Table 19 gives a summary of such an examination for the past few tables and some tables to come. In the table, the means and their standard deviations are compared using the difference in the mean t-statistic test. If this statistic is greater than 1.96, we can say the two means are different from each other at the 95% confidence level. The table shows that the mean excess returns in Tables 13, 14, 15, 16, 17, and 18, while often significantly negative in themselves, are not significantly different from each other.

Tables 20, 21, 22 and 23 show the long-term price movements for non-utilities and utilities associated with the announcement. In Table 20 and Figure 6 we see a huge excess return, 24.8%, associated with non-utilities announcing equity issues. The cumulative returns are significantly positive for every month after month -11. These results strongly suggest that the market favorably changed its expectations during the year prior to the announcement for these firms. Even with these strongly positive returns, note that month 0 has a return of -2.2%, which is consistent with the short-term decline shown in Tables 13 and 15. Table 21 and Figure 7 give monthly cross-sectional returns

Table 19

Difference in the Means Tests

Table	Title	Mean	T-Stat	Difference in Means T-Stat
7	Non-Util, C-S Daily	-.01913	-2.5016	0.4951
8	Utility, C-S Daily	-.01488	-3.8133	
5	Non-Util, Port (-20,10)	-.00033	-0.8829	0.0004
6	Utility, Port (-20,10)	-.00035	-1.7083	
20	Non-Util, Port (0,0)	-.00295	-2.5714	0.8528
25	Utility, Port (0,0)	-.00515	-2.1651	
9	Non-Util, C-S Monthly	.24768	4.9944	6.6460
11	Utility, C-S Monthly	-.08889	-8.8784	
10	Non-Util, C-S Issue D.	.20756	4.7299	6.3190
12	Utility, C-S Issue D.	-.07722	-7.5238	

Table 20

CROSS-SECTIONAL ABNORMAL RETURNS
ALL NON-UTILITIES WITH ISSUES, 1962-1972
173 STOCKS

BASED ON ANNOUNCEMENT DATE

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.01275	0.01275	0.09891	1.6949
-11	0.01632	0.02927	0.14167	2.7175
-10	0.02254	0.05247	0.19519	3.5355
-9	0.01341	0.06658	0.20529	4.2659
-8	0.01787	0.08564	0.27227	4.1370
-7	0.02416	0.11187	0.29196	5.0398
-6	0.00650	0.11910	0.30440	5.1460
-5	0.01542	0.13635	0.32105	5.5861
-4	0.03170	0.17237	0.36532	6.2061
-3	0.03418	0.21244	0.41667	6.7062
-2	0.02650	0.24457	0.47233	6.8105
-1	0.00058	0.24530	0.52831	6.1070
0	-0.02227	0.21757	0.49847	5.7409
1	0.00585	0.22469	0.53825	5.4906
2	0.01360	0.24134	0.60910	5.2115
3	0.00511	0.24768	0.65227	4.9944

Figure 6

CROSS-SECTIONAL ABNORMAL RETURNS
ALL NON-UTILITIES WITH ISSUES, 1962-1972
173 STOCKS

BASED ON ANNOUNCEMENT DATE

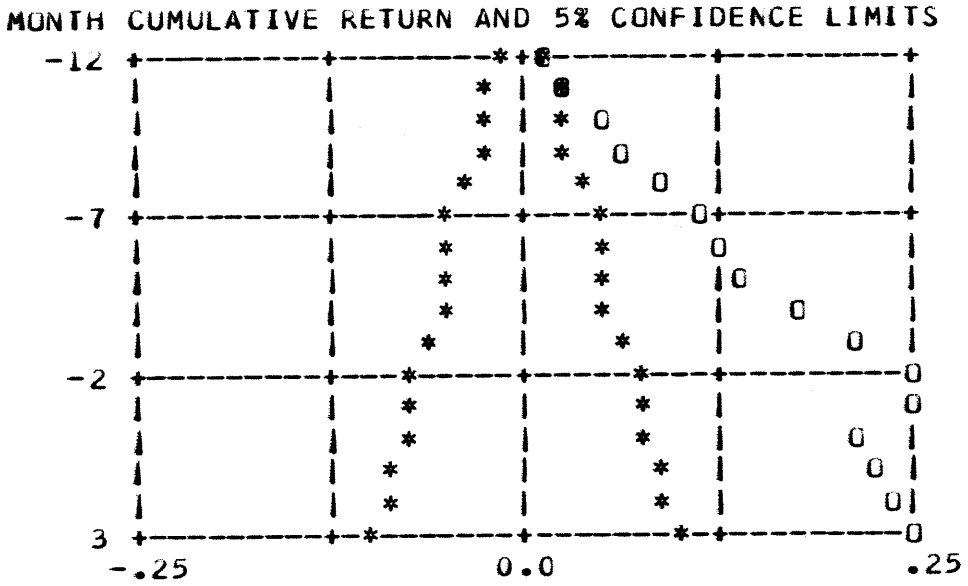


Table 21

CROSS-SECTIONAL ABNORMAL RETURNS
ALL NON-UTILITIES WITH ISSUES, 1962-1972
173 STOCKS

BASED ON ISSUE DATE

DAY MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.01536	0.01536	0.09743	2.0741
-11	0.02446	0.04019	0.15645	3.3792
-10	0.00997	0.05057	0.17784	3.7402
-9	0.01204	0.06321	0.20961	3.9668
-8	0.02010	0.08459	0.24814	4.4837
-7	0.01748	0.10354	0.26112	5.2157
-6	0.03264	0.13956	0.30632	5.9927
-5	0.01741	0.15940	0.34089	6.1503
-4	0.02783	0.19166	0.36563	6.8948
-3	0.01465	0.20913	0.40417	6.8057
-2	0.00434	0.21438	0.45478	6.2001
-1	-0.01713	0.19357	0.46358	5.4920
0	0.00622	0.20099	0.48944	5.4013
1	0.01490	0.21889	0.55915	5.1489
2	0.00091	0.21999	0.56862	5.0887
3	-0.01019	0.20756	0.57719	4.7299

Figure 7

CROSS-SECTIONAL ABNORMAL RETURNS
ALL NON-UTILITIES WITH ISSUES, 1962-1972
173 STOCKS

BASED ON ISSUE DATE

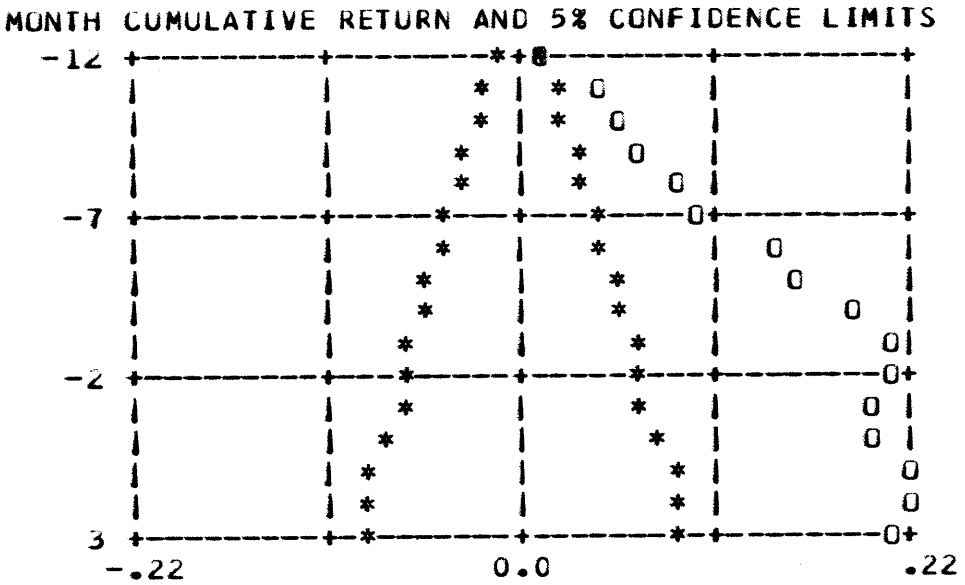


Table 22

CROSS-SECTIONAL ABNORMAL RETURNS
ALL UTILITIES WITH ISSUES, 1962-1972
160 STOCKS

BASED ON ANNOUNCEMENT DATE

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	-0.00650	-0.00650	0.04142	-1.9839
-11	-0.00007	-0.00656	0.05878	-1.4124
-10	-0.00103	-0.00759	0.06720	-1.4281
-9	-0.00702	-0.01455	0.07847	-2.3461
-8	-0.00921	-0.02363	0.07913	-3.7771
-7	-0.00379	-0.02733	0.08864	-3.9003
-6	-0.00689	-0.03403	0.08829	-4.8753
-5	-0.00781	-0.04157	0.08628	-6.0940
-4	-0.00457	-0.04595	0.08977	-6.4753
-3	-0.00072	-0.04664	0.09320	-6.3299
-2	-0.01040	-0.05656	0.09959	-7.1838
-1	-0.01207	-0.06794	0.09598	-8.9544
0	-0.01756	-0.08431	0.10313	-10.3413
1	-0.00796	-0.09161	0.10955	-10.5767
2	-0.00229	-0.09369	0.12045	-9.8384
3	0.00530	-0.08889	0.12664	-8.8784

Figure 8

CROSS-SECTIONAL ABNORMAL RETURNS
ALL UTILITIES WITH ISSUES, 1962-1972
160 STOCKS

BASED ON ANNOUNCEMENT DATE

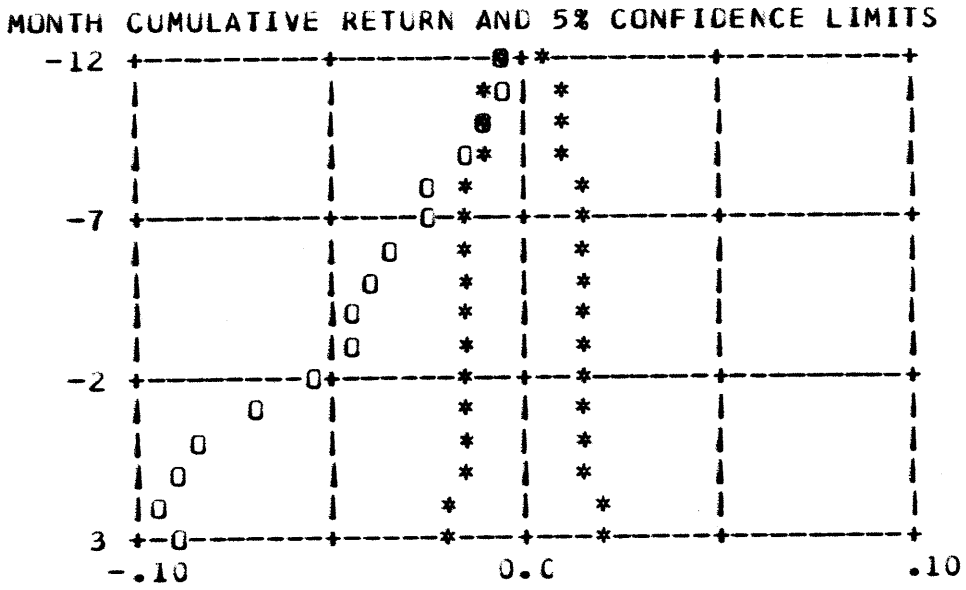


Table 23

CROSS-SECTIONAL ABNORMAL RETURNS
ALL UTILITIES WITH ISSUES, 1962-1972
160 STOCKS

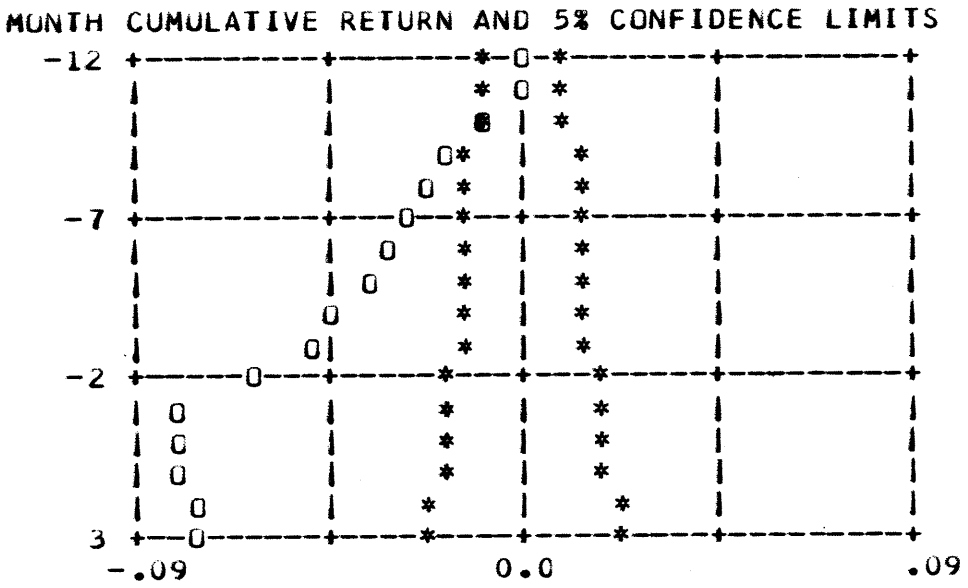
BASED ON ISSUE DATE

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.00121	0.00121	0.04827	0.3164
-11	-0.00121	-0.00000	0.06348	-0.0006
-10	-0.00870	-0.00871	0.06993	-1.5748
-9	-0.01012	-0.01874	0.07696	-3.0797
-8	-0.00259	-0.02128	0.08652	-3.1106
-7	-0.00645	-0.02758	0.08855	-3.9405
-6	-0.00430	-0.03177	0.08642	-4.6501
-5	-0.00290	-0.03457	0.09067	-4.8233
-4	-0.00879	-0.04306	0.09465	-5.7547
-3	-0.00801	-0.05073	0.09523	-6.7380
-2	-0.01145	-0.06160	0.10292	-7.5707
-1	-0.01854	-0.07900	0.10282	-9.7190
0	-0.00399	-0.08268	0.11390	-9.1816
1	0.00073	-0.08201	0.12023	-8.6282
2	0.00467	-0.07772	0.13221	-7.4353
3	0.00054	-0.07722	0.12983	-7.5238

Figure 9

CROSS-SECTIONAL ABNORMAL RETURNS
ALL UTILITIES WITH ISSUES, 1962-1972
160 STOCKS

BASED ON ISSUE DATE



based on the issue date instead of the announcement date. As in Table 12, these results are essentially the same as the analysis done on announcement date, except that the decline comes in the months immediately preceeding the issue, indicating that price adjustments occur at the announcement date and not at the issue date.

Table 22 and Figure 8 give results for monthly cross-sectional analysis on utilities. In sharp contrast to the positive returns shown for non-utilities over this same time period in Table 21, utilities show a significant decline of 8.9%. The difference in the means tests (Table 19) confirms our suspicion that these results stand in sharp contrast.

Note that the decline in price is more pronounced during the months immediately preceeding the issue, and month 0. This again confirms the short-term decline in price in addition to whatever long-term movements are indicated. Table 23 and Figure 9 give the same analysis based on issue date instead of announcement date, and again we see the same general results, shifted a month back since the market is reacting to the announcement and not to the issue itself.

In general we have always found a short-term decline in excess returns of about 2-3% at the date of announcement. This decline is evident in both daily and monthly cross-sectional analysis, and in the portfolio analysis for the

strategies which center on or near the date of announcement. The decline is not significantly different for utilities and non-utilities. Over the long run, non-utilities show a strong increase in price while utilities show a strong decrease in price followed by the announcement of an equity issue. In the next chapter we will examine samples of partitioned according to other variables in order to further study the information associated with equity issues.

CHAPTER V

RESULTS: PERCENT EQUITY ISSUED AND D-E RATIOS

A. Percent Equity Issued

The sample of 401 stocks announcing new equity issues was also partitioned into three groups according to the percentage of equity offered by each firm. This percent is defined simply as the number of new shares issued divided by the new total number of shares outstanding, and represents the percentage ownership which changes hands during the equity issue. As mentioned in Chapter I, by using this variable to partition the sample, we hoped to study the price movements associated with different size issues. This particular method of partitioning firms was chosen as the best given the problems of data collection. The ideal partition would be according to the dollar size of the issue, and then the dollar decrease or increase in equity could be studied. Unfortunately, our data can only show changes in the per share equity, and since firms tending to issue large dollar amounts of new equity would also tend to have large dollar amount of outstanding equity, a partition by dollar size of issue would obscure the analysis. Instead, by partitioning according to percent equity, we are assuming that firms with large amounts of outstanding equity will issue large amounts of new equity, and so the partitions hopefully will result

in the measuring of the effects of different size issues. To the extent that this assumption is false, the partition will not yield any information about this effect of issue size.

The hypothesis is that the decline seen in stock price on the day of announcement can be attributed to the transactions cost of the issue and to the shift in value between debtholders and equityholders. Since for larger issues there is a larger dollar transaction cost and a larger bonus for the debtholders, then for larger issues the decline in stock price will be larger. Tables 24, 25, and 26 and Figures 10, 11 and 12 show the excess returns on the three samples using daily cross-sectional analysis. The mean cumulative returns over the 31 day period around the announcement date are all significantly negative, with the exception of Table 24. In each case we see the same general characteristics of price adjustment on day 0 as in the total sample analysis. Note, however, that the magnitudes of the cumulative returns for day 10 are increasing for increasing percentage equity offered. Table 27 gives the results of difference in the mean t-statistic tests for these and other tables, and suggests that there is a significant distinction in the decline a stock experiences, based on the percentage of equity issued. This is consistent with our transactions cost hypothesis, and is also consistent with the hypothesis

Table 24

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH LOW % OWNERSHIP OFFERED
128 STOCKS

DAY	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-20	0.00070	0.00070	0.01797	0.4377
-19	0.00164	0.00234	0.02586	1.0216
-18	0.00170	0.00404	0.02716	1.6815
-17	0.00187	0.00591	0.02986	2.2398
-16	0.00213	0.00806	0.03552	2.5659
-15	-0.00204	0.00600	0.03796	1.7897
-14	0.00025	0.00626	0.04427	1.5997
-13	0.00002	0.00628	0.04178	1.7016
-12	0.00190	0.00820	0.04620	2.0075
-11	0.00251	0.01073	0.04813	2.5219
-10	-0.00004	0.01069	0.04952	2.4415
-9	0.00119	0.01189	0.05396	2.4939
-8	0.00074	0.01265	0.05741	2.4926
-7	0.00004	0.01269	0.05712	2.5127
-6	-0.00041	0.01227	0.05719	2.4273
-5	-0.00069	0.01157	0.05963	2.1957
-4	-0.00039	0.01118	0.06058	2.0881
-3	-0.00139	0.00977	0.05919	1.8678
-2	-0.00132	0.00844	0.05871	1.6267
-1	-0.00460	0.00380	0.05965	0.7215
0	-0.00668	-0.00290	0.05678	-0.5784
1	-0.00242	-0.00531	0.05997	-1.0025
2	-0.00013	-0.00545	0.06143	-1.0034
3	-0.00023	-0.00567	0.06193	-1.0367
4	0.00155	-0.00414	0.06312	-0.7415
5	0.00059	-0.00355	0.06571	-0.6115
6	-0.00150	-0.00505	0.06819	-0.8378
7	0.00040	-0.00465	0.06875	-0.7661
8	-0.00086	-0.00551	0.07158	-0.8709
9	0.00109	-0.00443	0.07361	-0.6807
10	0.00039	-0.00404	0.07386	-0.6192

Figure 10

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH LOW % OWNERSHIP OFFERED
128 STOCKS

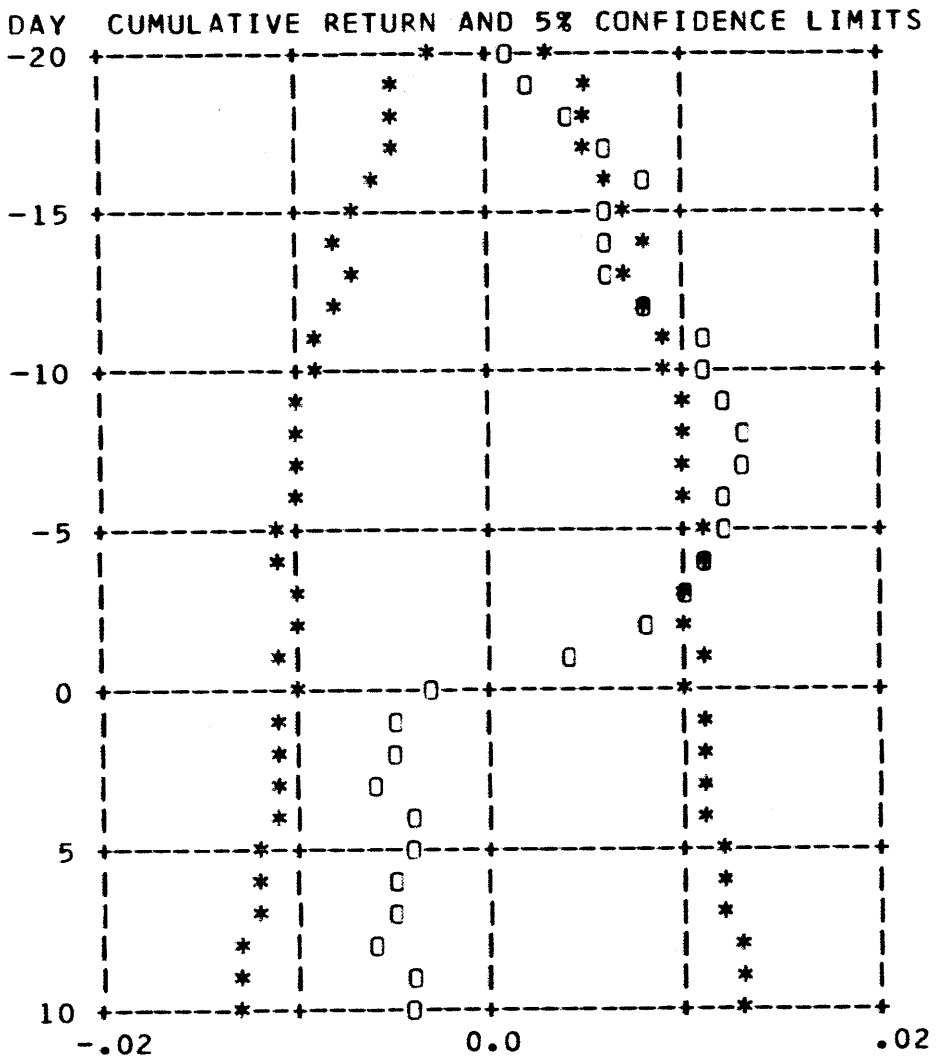


Table 25

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH MEDIUM % OWNERSHIP OFFERED
128 STOCKS

DAY	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-20	-0.00085	-0.00085	0.01501	-0.6384
-19	0.00202	0.00117	0.02304	0.5744
-18	0.00023	0.00140	0.02685	0.5884
-17	0.00020	0.00159	0.03229	0.5588
-16	0.00109	0.00269	0.03576	0.8514
-15	-0.00029	0.00240	0.03681	0.7392
-14	-0.00065	0.00176	0.03826	0.5194
-13	0.00147	0.00323	0.03790	0.9650
-12	-0.00023	0.00300	0.04559	0.7452
-11	-0.00053	0.00248	0.05580	0.5018
-10	0.00037	0.00284	0.05743	0.5599
-9	-0.00093	0.00191	0.05221	0.4143
-8	-0.00040	0.00152	0.05300	0.3234
-7	-0.00180	-0.00028	0.05383	-0.0598
-6	0.00041	0.00012	0.05467	0.0252
-5	-0.00110	-0.00098	0.06393	-0.1737
-4	0.00020	-0.00078	0.06741	-0.1313
-3	0.00079	0.00000	0.06693	0.0007
-2	-0.00275	-0.00274	0.06495	-0.4777
-1	-0.00720	-0.00992	0.06940	-1.6175
0	-0.00661	-0.01646	0.06671	-2.7919
1	-0.00264	-0.01905	0.06649	-3.2420
2	-0.00185	-0.02086	0.06398	-3.6891
3	-0.00128	-0.02212	0.05894	-4.2458
4	0.00038	-0.02175	0.06121	-4.0203
5	-0.00091	-0.02264	0.06209	-4.1244
6	-0.00103	-0.02364	0.06289	-4.2533
7	0.00113	-0.02254	0.06315	-4.0377
8	0.00081	-0.02175	0.06340	-3.8812
9	0.00010	-0.02165	0.06583	-3.7199
10	0.00273	-0.01897	0.06812	-3.1506

Figure 11

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH MEDIUM % OWNERSHIP OFFERED
128 STOCKS

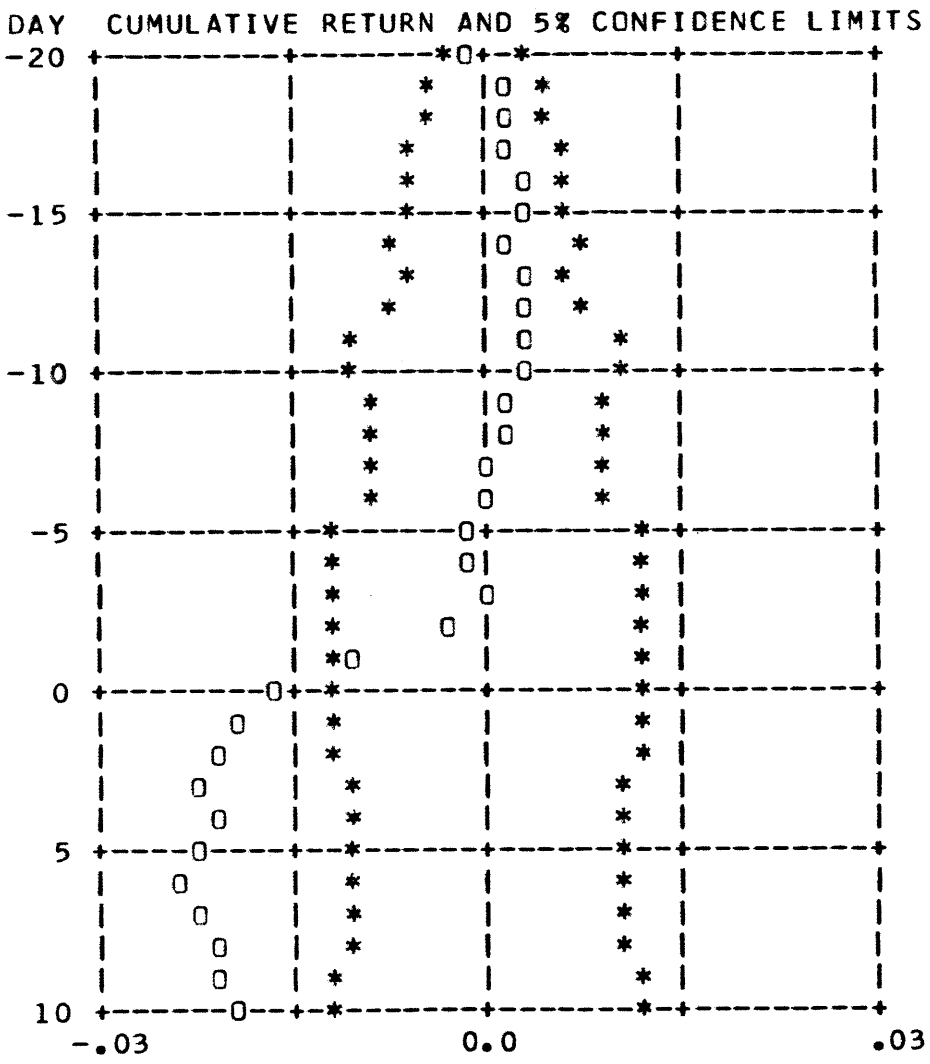


Table 26

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH HIGH % OWNERSHIP OFFERED
129 STOCKS

DAY	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-20	-0.00238	-0.00238	0.01782	-1.5138
-19	0.00087	-0.00151	0.02775	-0.6165
-18	0.00054	-0.00097	0.03922	-0.2803
-17	-0.00140	-0.00237	0.04244	-0.6342
-16	-0.00157	-0.00393	0.04530	-0.9859
-15	0.00335	-0.00060	0.05279	-0.1290
-14	0.00286	0.00226	0.05624	0.4574
-13	0.00199	0.00426	0.05773	0.8377
-12	-0.00038	0.00387	0.06106	0.7206
-11	-0.00136	0.00251	0.06246	0.4565
-10	-0.00051	0.00200	0.06779	0.3347
-9	-0.00045	0.00154	0.06973	0.2513
-8	-0.00036	0.00118	0.06911	0.1945
-7	-0.00016	0.00102	0.07213	0.1604
-6	-0.00096	0.00006	0.07962	0.0086
-5	0.00070	0.00076	0.08236	0.1045
-4	0.00044	0.00120	0.08290	0.1643
-3	-0.00020	0.00100	0.08689	0.1310
-2	-0.00338	-0.00239	0.08803	-0.3080
-1	-0.00881	-0.01118	0.08231	-1.5427
0	-0.01411	-0.02513	0.08204	-3.4788
1	0.00280	-0.02240	0.08517	-2.9866
2	-0.00322	-0.02555	0.08602	-3.3729
3	0.00272	-0.02290	0.08543	-3.0438
4	0.00351	-0.01946	0.09002	-2.4555
5	-0.00350	-0.02289	0.09046	-2.8746
6	-0.00521	-0.02798	0.09097	-3.4936
7	0.00163	-0.02640	0.09774	-3.0677
8	-0.00111	-0.02748	0.09936	-3.1416
9	0.00001	-0.02748	0.10022	-3.1136
10	-0.00027	-0.02774	0.10116	-3.1140

Figure 12

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH HIGH % OWNERSHIP OFFERED
129 STOCKS

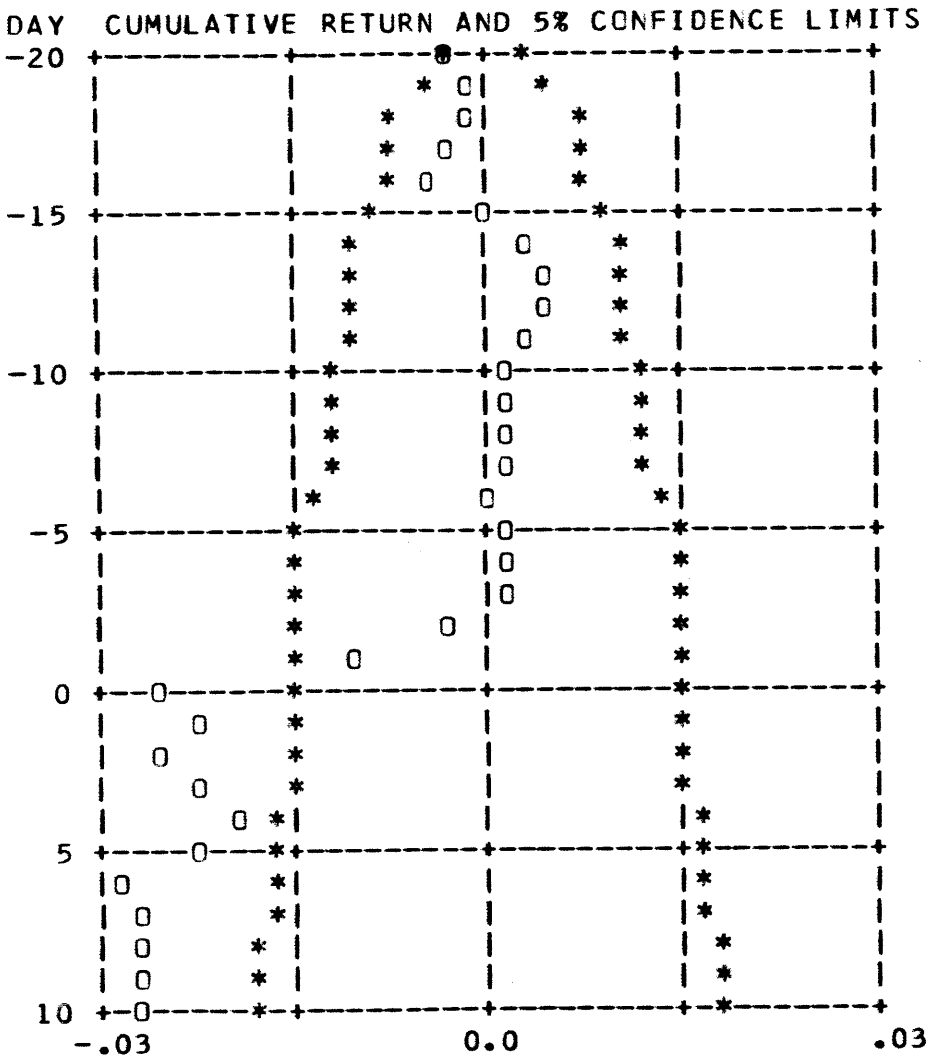


Table 27

Difference in the Means Tests

Table	Title	Mean	Tables	Difference in Means T-Stat
28	C-S Daily, Low %	-.00404	28×29	1.6811
29	C-S Daily, Med %	-.01897	28×30	0.8516
30	C-S Daily, High %	-.02774	29×30	2.1462
61	Non-Util, C-S Daily, Low%	.01734	61×62	4.2977
62	Non-Util, C-S Daily, Med%	-.05043	62×63	2.0929
63	Non-Util, C-S Daily, High%	-.02421	61×63	-1.4225
73	Util, C-S Daily, Low %	-.01422	73×74	0.2845
74	Util, C-S Daily, Med %	-.01704	74×75	-0.0812
75	Util, C-S Daily, High %	-.01346	73×75	-0.3737
			61×73	2.2392
			62×74	-2.742
			63×75	0.639
37	Port (-1,1), Low %	-.00222	37×38	0.1402
38	Port (-1,1), Med %	-.00254	37×39	0.1783
39	Port (-1,1), High %	-.00270	38×39	0.0577
31	C-M, Low %	.02761	31×32	-0.0459
32	C-M, Med %	.03024	31×33	-2.4714
33	C-M, High %	.19003	32×33	-2.0877
64	Non-Util, C-M, Low %	.27386	64×65	1.5895
65	Non-Util, C-M, Med %	.10394	64×66	0.6216
66	Non-Util, C-M, High %	.35428	65×66	-2.1027
76	Util, C-M, Low %	-.09583	76×77	-1.1401
77	Util, C-M, Med %	-.07056	76×78	0.1576
78	Util, C-M, High %	-.09997	77×78	1.1331
			64×76	4.3416
			65×77	2.5539
			66×78	19.6551

that a shift between debt and equityholders will occur.

The sample groupings were used for a portfolio analysis using various trading strategies. For the strategy (-20,10), no significant excess returns were found, as might be expected from previous results using this strategy. The results of these analyses can be found in Appendix B in Tables 55, 56,57,58,59,60,61,62, and 63. The strategy (-1,1) more closely covers the announcement date, and in Tables 28, 29 and 30 we see significant negative excess returns for all three groups. The magnitudes of these negative returns are about as expected from previous analysis, and as might be expected from Tables 24, 25 and 26, they become increasingly negative for increased percentage of ownership offered. However, as Table 27 indicates, the difference in the means tests do not show this increase in negative returns to be significant.

The portfolio tests include the time-series variation of stock prices which cross-sectional analysis ignores. This explains why, using cross-sectional analysis, significant distinctions were found in the three groups, and using portfolio analysis, the distinctions were not significant. Between the two types of analysis, we are left with a strong suggestion that the percentage of equity offered does influence the decrease in stock price over the short-term. Perhaps an analysis on actual dollar values, as ideally

Table 28

PORTFOLIO EXCESS RETURNS
ISSUES WITH LOW % OWNERSHIP OFFERED
DAILY 129 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	-0.00138	0.01192	-0.44972	0.060	-0.02077
1964	-0.00000	0.01066	-0.00047	0.107	-0.00002
1965	-0.00357	0.01268	-1.37952	0.095	-0.08569
1966	-0.00142	0.02282	-0.31648	0.119	-0.03683
1967	-0.00186	0.01720	-0.56188	0.108	-0.05022
1968	-0.00507	0.01419	-1.92456	0.133	-0.14706
1969	-0.00407	0.01493	-2.07556	0.264	-0.23597
1970	-0.00615	0.02086	-2.30085	0.260	-0.37495
1971	-0.00237	0.01882	-0.94100	0.249	-0.13250
1972	-0.00777	0.01788	-2.64267	0.155	-0.28746
TOTAL	-0.00222	0.01756	-2.39292	0.141	-0.79379

SERIAL CORRELATION=-0.1869

Table 29

PORTFOLIO EXCESS RETURNS
ISSUES WITH MEDIUM % OWNERSHIP OFFERED
DAILY 129 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.00931	0.01466	-1.90469	0.071	-0.08378
1963	-0.00660	0.01277	-1.63506	0.048	-0.06601
1964	0.00119	0.01115	0.26149	0.024	0.00714
1965	-0.00723	0.02587	-0.83885	0.036	-0.06511
1966	0.00222	0.01142	0.58308	0.036	0.01998
1967	-0.00692	0.02847	-1.26291	0.108	-0.18684
1968	-0.00548	0.00982	-2.55780	0.093	-0.11508
1969	-0.00478	0.02170	-1.22668	0.124	-0.14820
1970	-0.00415	0.02064	-1.56971	0.280	-0.25305
1971	-0.00679	0.01867	-3.19223	0.356	-0.52284
1972	-0.00265	0.01426	-1.62939	0.406	-0.20388
TOTAL	-0.00254	0.01907	-2.44852	0.144	-0.85706

SERIAL CORRELATION=-0.0346

Table 30

PORTFOLIO EXCESS RETURNS
ISSUES WITH HIGH % OWNERSHIP OFFERED
DAILY 129 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	-0.01463	0.01369	-2.61748	0.024	-0.08778
1964	-0.00713	0.02035	-1.35769	0.059	-0.10700
1965	-0.00831	0.02207	-1.59688	0.071	-0.14953
1966	-0.00631	0.03442	-1.06880	0.167	-0.21453
1967	-0.00383	0.02440	-0.76978	0.096	-0.09202
1968	-0.00676	0.03024	-1.44763	0.212	-0.28372
1969	-0.00531	0.02113	-1.37546	0.120	-0.15916
1970	-0.00390	0.02189	-0.53485	0.035	-0.03512
1971	-0.00606	0.02325	-2.28522	0.391	-0.46627
1972	-0.00375	0.02134	-1.52244	0.382	-0.28136
TOTAL	-0.00270	0.02504	-1.95645	0.142	-0.88987

SERIAL CORRELATION= 0.0728

envisioned, would improve the clarity of this distinction.

Each of the three groups in the above analyses included both utilities and non-utilities. In order to test the effects of this, we re-partitioned the sample into 6 groups. First, the utilities and non-utilities wer separated. Then, for each of these classes, three equal groups were created, ranking each firm by the percentage of equity offered. Daily cross-sectional analysis was done on all six groups, and the results were summarized into Tables 31, 32, 33, 34, 35, and 36 and Figures 13, 14, 15, 16, 17, and 18.

For the non-utilities, Tables 31, 32 and 33, we do not see the clear increase in negative excess returns that we saw in the main sample, although Table 27 does show that the difference in the means tests suggests significant distinctions for two of the three pairs. Neither are clear distinctions shown by the utilities in Tables 34, 35 and 36. The analyses were repeated using the portfolio strategy (1,1), and again no significant differences were found. The results of these portfolio strategies can be found in Appendix B in Tables 64, 65, 66, 67, 68, and 69.

While these six groups exist, we can check the significance of the differences in short-term returns across the groups according to whether or not the groups are utilities. This analysis is also summarized in Table 27. Tables 31 and 34 both represent groups of firms with low percentage equity

Table 31

CROSS-SECTIONAL ABNORMAL RETURNS
UTILITY ISSUES & LOW % OWNERSHIP
65 STOCKS

DAY	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-20	0.00048	0.00048	0.01260	0.3087
-19	0.00173	0.00221	0.01782	0.9988
-18	0.00062	0.00283	0.02271	1.0046
-17	0.00082	0.00365	0.02513	1.1723
-16	0.00049	0.00414	0.02895	1.1535
-15	-0.00263	0.00150	0.02840	0.4260
-14	-0.00088	0.00062	0.03353	0.1490
-13	0.00035	0.00097	0.03463	0.2269
-12	0.00114	0.00211	0.03993	0.4270
-11	-0.00015	0.00197	0.04197	0.3779
-10	0.00154	0.00351	0.04473	0.6326
-9	-0.00145	0.00205	0.04644	0.3562
-8	-0.00009	0.00196	0.04795	0.3293
-7	-0.00128	0.00067	0.04893	0.1108
-6	-0.00083	-0.00016	0.04828	-0.0267
-5	-0.00161	-0.00177	0.05279	-0.2705
-4	0.00059	-0.00118	0.05183	-0.1843
-3	-0.00078	-0.00197	0.05056	-0.3139
-2	0.00261	0.00064	0.04978	0.1037
-1	-0.00307	-0.00243	0.05067	-0.3874
0	-0.00357	-0.00599	0.04988	-0.9687
1	-0.00321	-0.00918	0.05288	-1.4003
2	-0.00135	-0.01052	0.05301	-1.6007
3	-0.00114	-0.01166	0.05379	-1.7471
4	0.00059	-0.01107	0.05530	-1.6137
5	-0.00093	-0.01198	0.05776	-1.6727
6	-0.00382	-0.01575	0.05748	-2.2098
7	0.00315	-0.01266	0.05545	-1.8404
8	-0.00126	-0.01390	0.05719	-1.9600
9	-0.00094	-0.01483	0.05457	-2.1912
10	0.00062	-0.01422	0.05534	-2.0717

Figure 13

CROSS-SECTIONAL ABNORMAL RETURNS
UTILITY ISSUES & LOW % OWNERSHIP
65 STOCKS

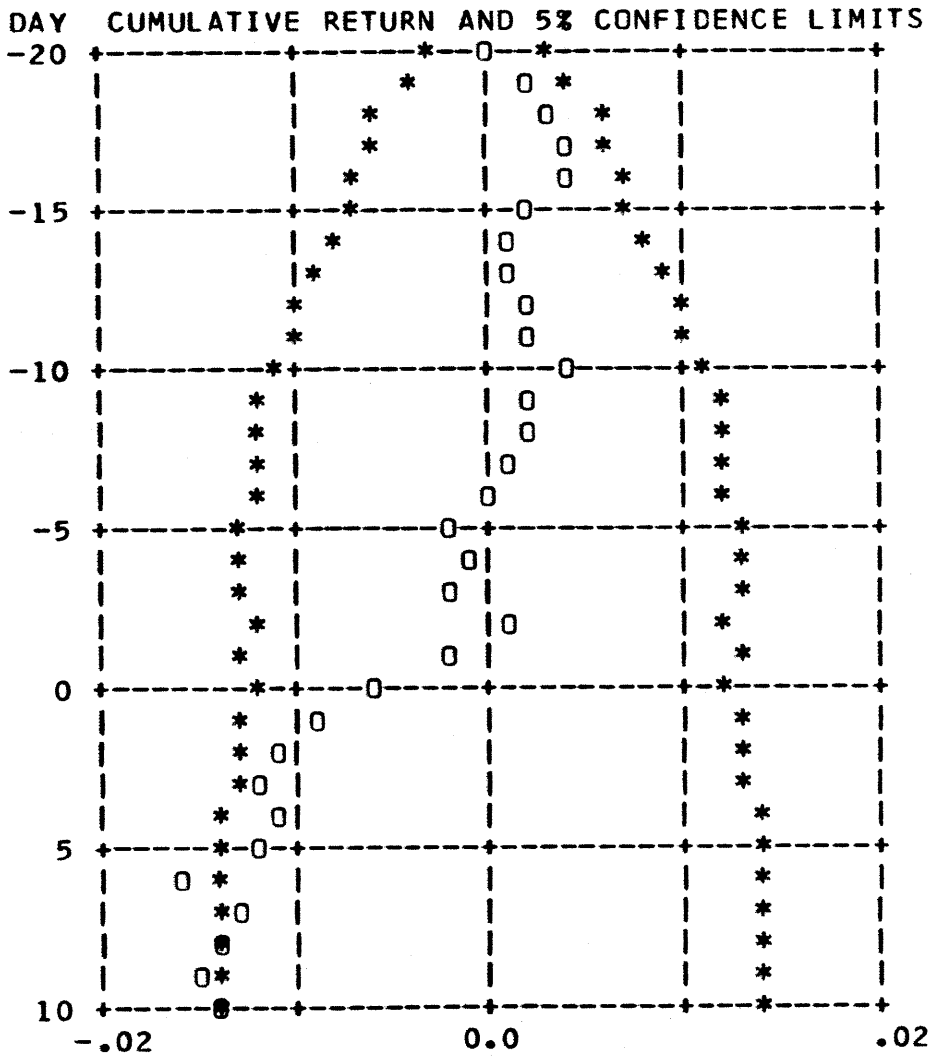


Table 32

CROSS-SECTIONAL ABNORMAL RETURNS
UTILITY ISSUES & MEDIUM % OWNERSHIP
65 STOCKS

DAY	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-20	-0.00031	-0.00031	0.01257	-0.1997
-19	0.00197	0.00166	0.02210	0.6066
-18	-0.00266	-0.00100	0.02436	-0.3318
-17	-0.00060	-0.00160	0.02521	-0.5130
-16	0.00171	0.00011	0.02949	0.0296
-15	-0.00049	-0.00038	0.03191	-0.0963
-14	0.00007	-0.00031	0.03333	-0.0751
-13	0.00290	0.00259	0.03479	0.5994
-12	-0.00078	0.00181	0.03442	0.4230
-11	-0.00218	-0.00038	0.03833	-0.0800
-10	-0.00030	-0.00068	0.04109	-0.1335
-9	0.00009	-0.00059	0.03908	-0.1217
-8	-0.00229	-0.00288	0.04024	-0.5772
-7	-0.00063	-0.00351	0.04228	-0.6700
-6	0.00044	-0.00307	0.04274	-0.5795
-5	-0.00152	-0.00459	0.04369	-0.8461
-4	0.00094	-0.00365	0.04439	-0.6627
-3	-0.00006	-0.00371	0.04546	-0.6583
-2	-0.00269	-0.00639	0.04684	-1.0994
-1	-0.00661	-0.01295	0.04493	-2.3241
0	-0.00229	-0.01522	0.04457	-2.7524
1	-0.00150	-0.01669	0.04530	-2.9705
2	-0.00047	-0.01715	0.04699	-2.9431
3	-0.00153	-0.01866	0.04922	-3.0562
4	0.00076	-0.01791	0.05111	-2.8248
5	-0.00002	-0.01793	0.05367	-2.6930
6	-0.00090	-0.01881	0.05406	-2.8058
7	-0.00024	-0.01905	0.05578	-2.7531
8	0.00172	-0.01736	0.05389	-2.5970
9	-0.00093	-0.01828	0.05665	-2.6010
10	0.00126	-0.01704	0.05767	-2.3821

Figure 14

CROSS-SECTIONAL ABNORMAL RETURNS
UTILITY ISSUES & MEDIUM % OWNERSHIP
65 STOCKS

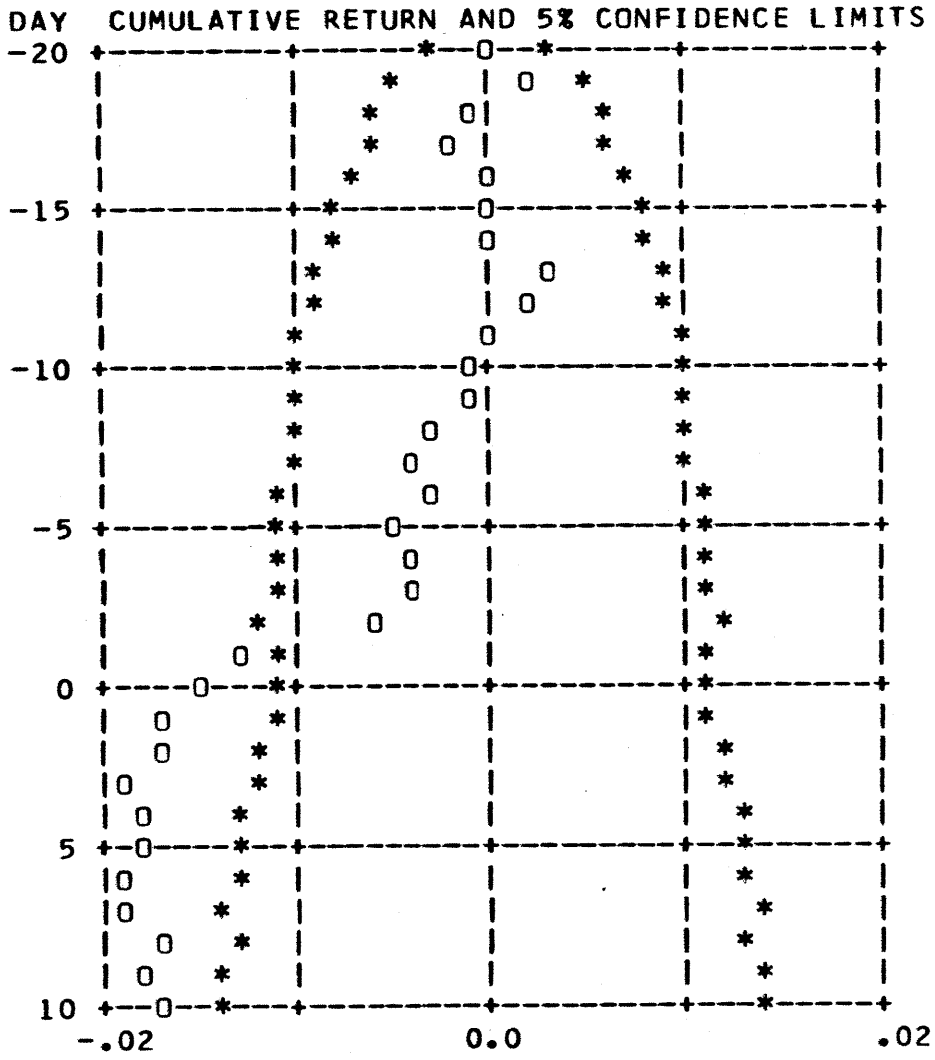


Table 33

CROSS-SECTIONAL ABNORMAL RETURNS
UTILITY ISSUES & HIGH % OWNERSHIP
68 STOCKS

DAY	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-20	-0.00143	-0.00143	0.01192	-0.9893
-19	-0.00039	-0.00182	0.01580	-0.9521
-18	0.00046	-0.00136	0.01661	-0.6765
-17	-0.00036	-0.00172	0.01877	-0.7569
-16	0.00382	0.00209	0.02144	0.8053
-15	0.00110	0.00320	0.02350	1.1231
-14	-0.00148	0.00172	0.02700	0.5257
-13	-0.00020	0.00152	0.02508	0.4984
-12	0.00138	0.00290	0.02636	0.9060
-11	0.00148	0.00438	0.02720	1.3291
-10	0.00086	0.00525	0.02911	1.4859
-9	-0.00205	0.00319	0.03108	0.8462
-8	-0.00107	0.00212	0.03261	0.5360
-7	-0.00130	0.00081	0.03363	0.1994
-6	-0.00058	0.00023	0.02942	0.0654
-5	0.00120	0.00143	0.03545	0.3333
-4	0.00076	0.00220	0.03707	0.4885
-3	0.00067	0.00287	0.04041	0.5846
-2	-0.00211	0.00075	0.03926	0.1568
-1	-0.00467	-0.00393	0.03757	-0.8626
0	-0.00725	-0.01115	0.04322	-2.1280
1	-0.00098	-0.01212	0.04468	-2.2362
2	-0.00540	-0.01745	0.04427	-3.2509
3	0.00558	-0.01197	0.04455	-2.2154
4	0.00165	-0.01034	0.04852	-1.7574
5	-0.00110	-0.01143	0.04800	-1.9630
6	-0.00143	-0.01285	0.04851	-2.1835
7	0.00042	-0.01243	0.04878	-2.1010
8	-0.00231	-0.01471	0.04673	-2.5961
9	0.00082	-0.01390	0.04977	-2.3032
10	0.00045	-0.01346	0.05254	-2.1125

Figure 15

CROSS-SECTIONAL ABNORMAL RETURNS
UTILITY ISSUES & HIGH % OWNERSHIP
68 STOCKS

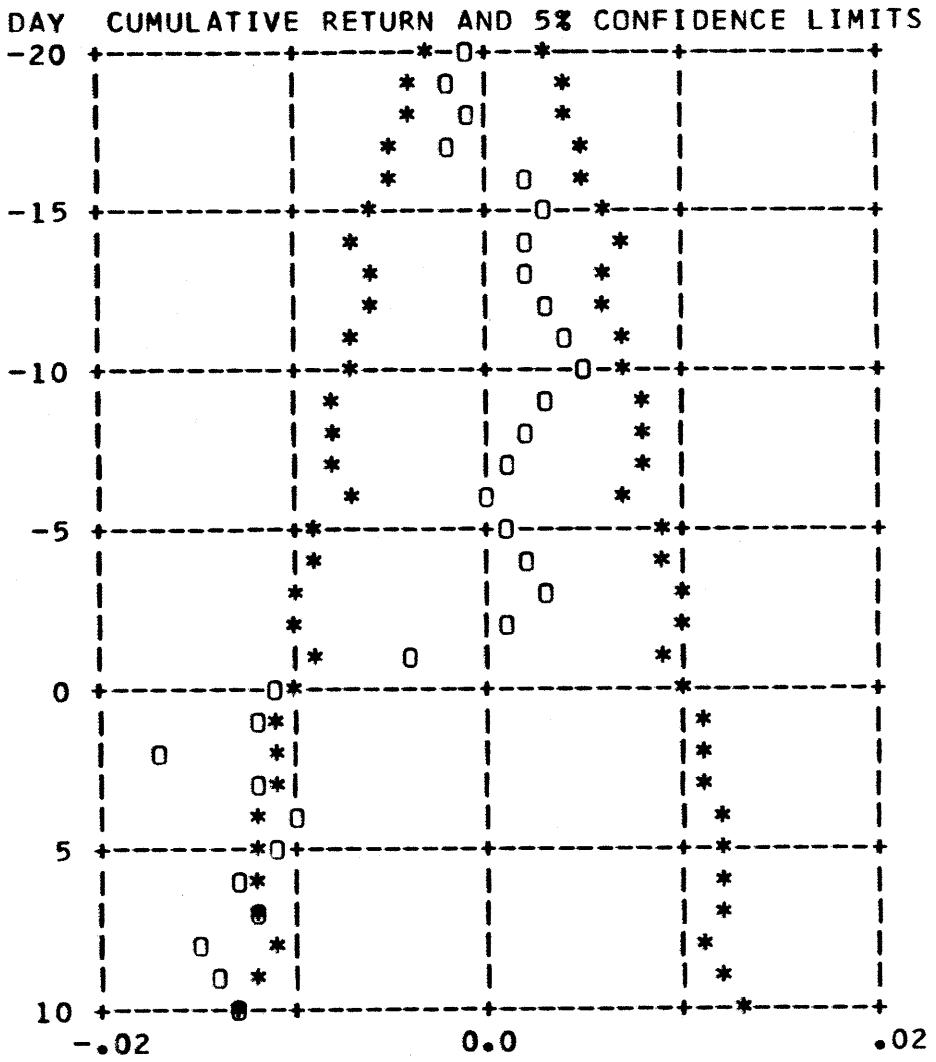


Table 34

CROSS-SECTIONAL ABNORMAL RETURNS
NON-UTILITY ISSUES & LOW % OWNERSHIP
62 STOCKS

DAY MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-20	-0.00080	0.00080	0.02470	0.2538
-19	0.00237	0.00317	0.03413	0.7306
-18	0.00517	0.00836	0.03504	1.8778
-17	0.00554	0.01394	0.04258	2.5788
-16	0.00186	0.01583	0.04968	2.5090
-15	-0.00269	0.01310	0.05219	1.9763
-14	0.00135	0.01447	0.05844	1.9495
-13	0.00031	0.01478	0.05123	2.2714
-12	0.00586	0.02073	0.06514	2.5051
-11	0.00786	0.02875	0.07494	3.0212
-10	-0.00205	0.02664	0.07745	2.7087
-9	0.00171	0.02840	0.07353	3.0409
-8	0.00144	0.02988	0.07556	3.1140
-7	0.00137	0.03129	0.07425	3.3186
-6	0.00078	0.03210	0.07977	3.1686
-5	0.00079	0.03292	0.08802	2.9445
-4	-0.00232	0.03052	0.09310	2.5810
-3	-0.00079	0.02970	0.09249	2.5288
-2	-0.00529	0.02425	0.08831	2.1627
-1	-0.00512	0.01901	0.09709	1.5417
0	-0.01248	0.00629	0.08922	0.5553
1	-0.00092	0.00537	0.09049	0.4672
2	0.00104	0.00641	0.08682	0.5814
3	-0.00235	0.00405	0.07989	0.3989
4	0.00234	0.00639	0.08338	0.6039
5	0.00225	0.00866	0.08446	0.8073
6	0.00230	0.01098	0.08713	0.9926
7	-0.00183	0.00914	0.08688	0.8281
8	0.00134	0.01049	0.09137	0.9038
9	0.00538	0.01593	0.09575	1.3099
10	0.00139	0.01734	0.09693	1.4091

Figure 16

CROSS-SECTIONAL ABNORMAL RETURNS
NON-UTILITY ISSUES & LOW % OWNERSHIP
62 STOCKS

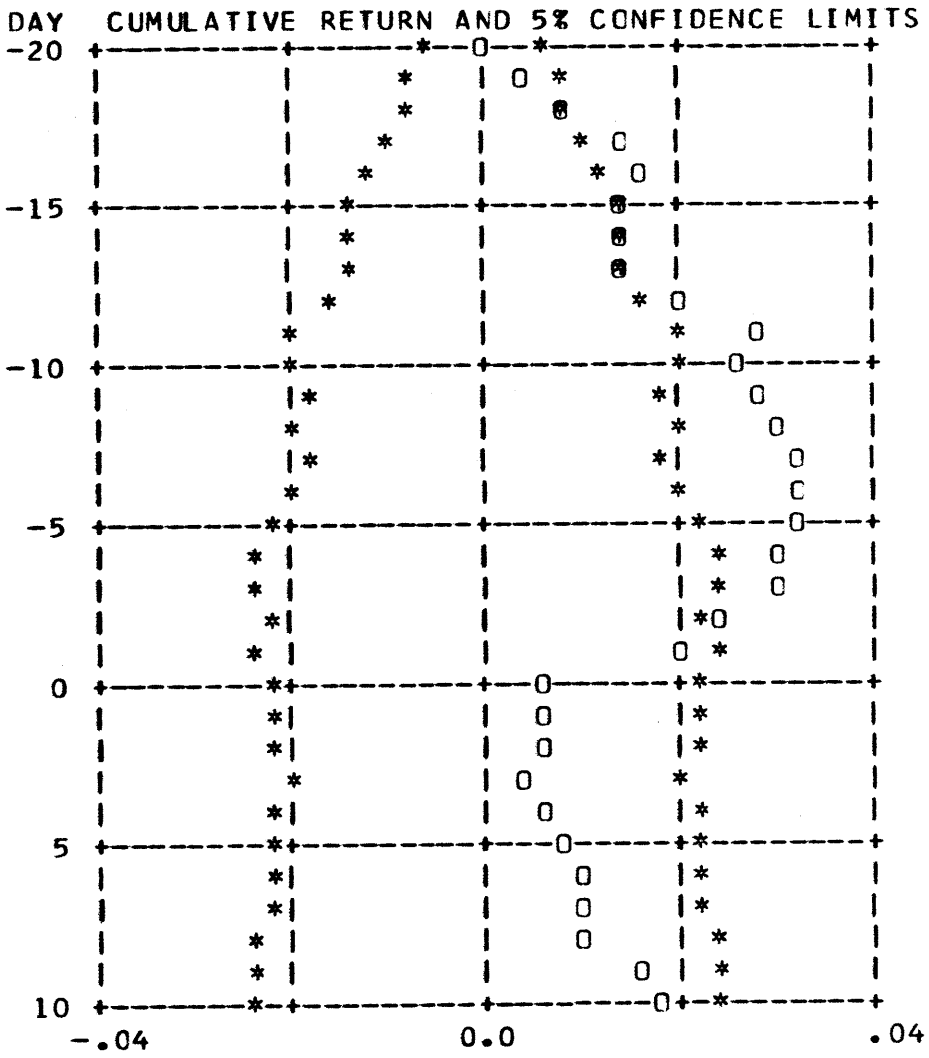


Table 35

CROSS-SECTIONAL ABNORMAL RETURNS
NON-UTILITY ISSUES & MEDIUM % OWNERSHIP
62 STOCKS

DAY	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-20	0.00016	0.00016	0.01734	0.0737
-19	0.00346	0.00363	0.02807	1.0176
-18	-0.00347	0.00015	0.03975	0.0296
-17	0.00072	0.00087	0.03854	0.1770
-16	-0.00172	-0.00085	0.04102	-0.1639
-15	0.00023	-0.00062	0.05071	-0.0969
-14	0.00046	-0.00016	0.05392	-0.0234
-13	0.00122	0.00106	0.05048	0.1651
-12	-0.00300	-0.00195	0.05444	-0.2817
-11	-0.00265	-0.00459	0.05550	-0.6517
-10	-0.00001	-0.00460	0.05452	-0.6642
-9	0.00026	-0.00434	0.05802	-0.5884
-8	0.00153	-0.00281	0.05864	-0.3773
-7	-0.00286	-0.00566	0.05665	-0.7864
-6	-0.00179	-0.00743	0.05648	-1.0364
-5	-0.00095	-0.00838	0.06402	-1.0307
-4	-0.00111	-0.00948	0.07044	-1.0598
-3	-0.00474	-0.01418	0.06797	-1.6423
-2	-0.00506	-0.01916	0.06840	-2.2060
-1	-0.01378	-0.03268	0.06613	-3.8913
0	-0.01066	-0.04299	0.06864	-4.9312
1	-0.00313	-0.04599	0.06700	-5.4044
2	-0.00159	-0.04750	0.06604	-5.6635
3	-0.00159	-0.04902	0.06203	-6.2221
4	-0.00085	-0.04982	0.06301	-6.2260
5	-0.00229	-0.05200	0.06423	-6.3746
6	-0.00160	-0.05352	0.06768	-6.2259
7	0.00179	-0.05182	0.07757	-5.2603
8	-0.00239	-0.05409	0.08119	-5.2454
9	0.00163	-0.05254	0.07872	-5.2552
10	0.00223	-0.05043	0.07760	-5.1165

Figure 17

CROSS-SECTIONAL ABNORMAL RETURNS
NON-UTILITY ISSUES & MEDIUM % OWNERSHIP
62 STOCKS

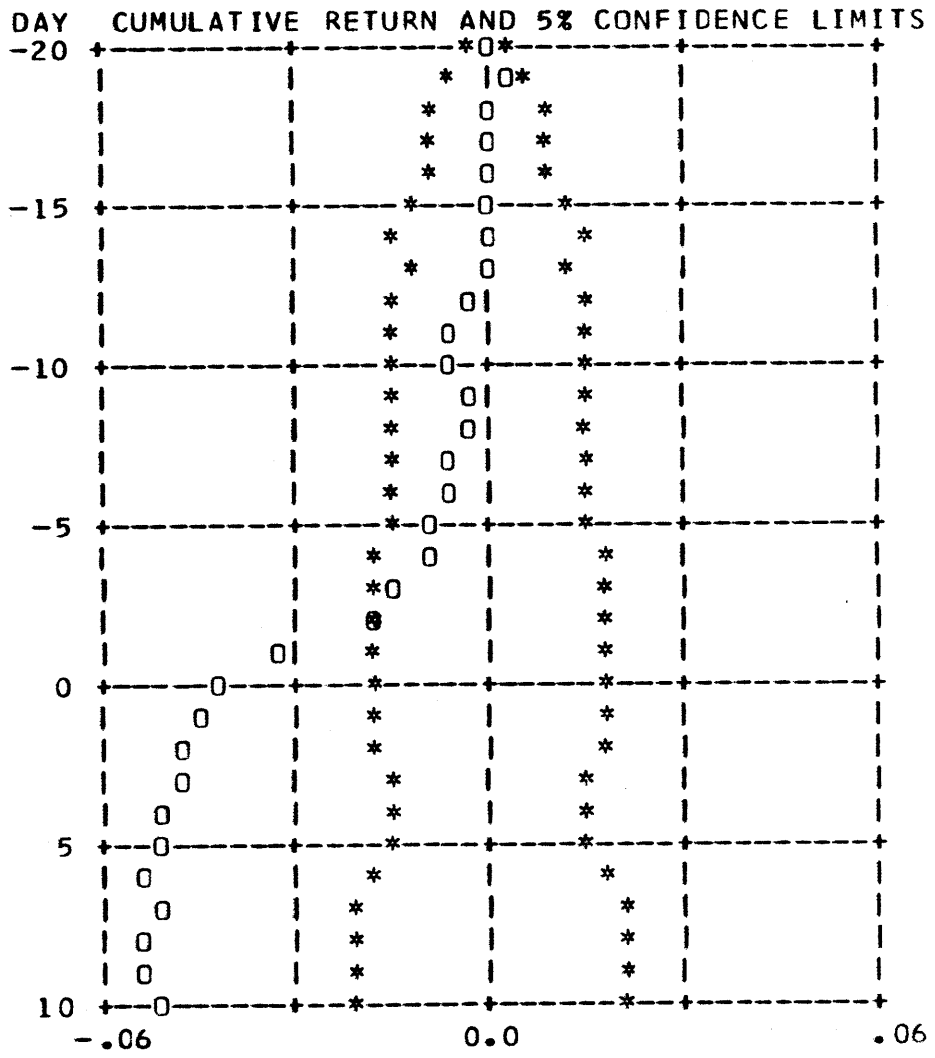


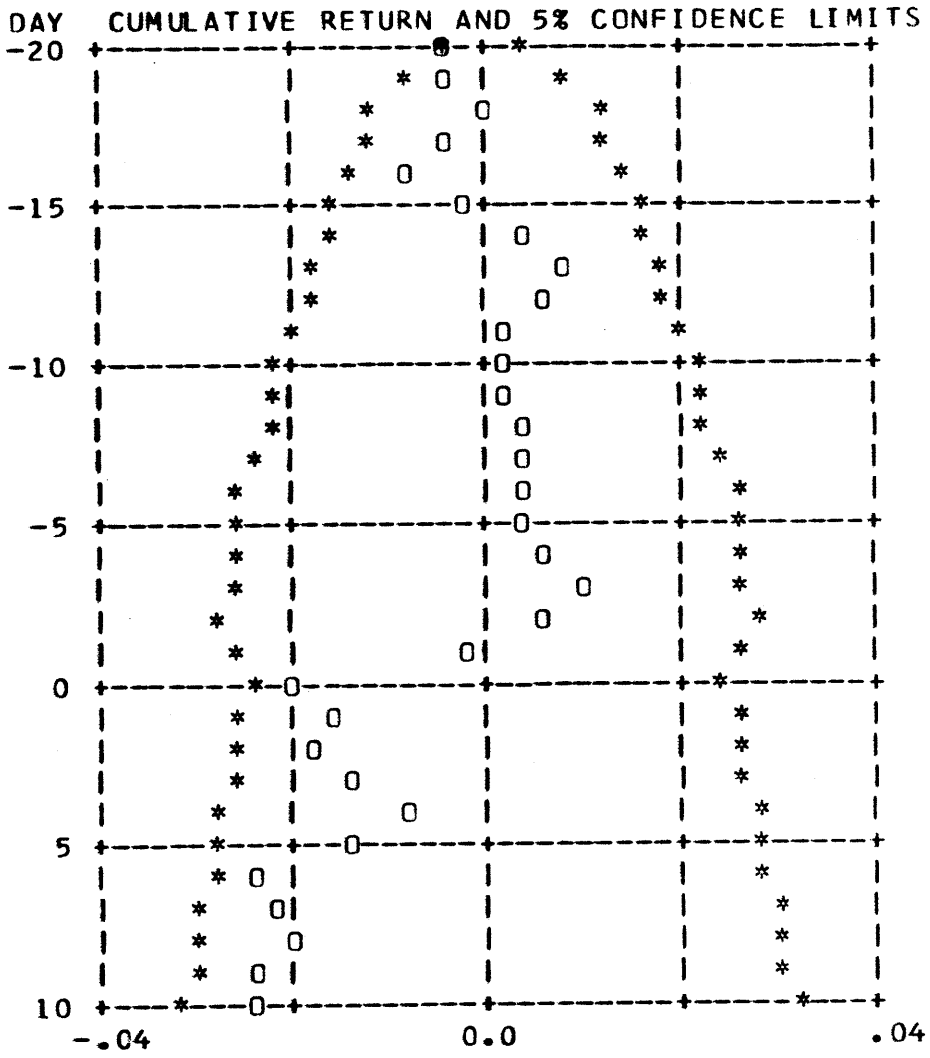
Table 36

CROSS-SECTIONAL ABNORMAL RETURNS
NON-UTILITY ISSUES & HIGH % OWNERSHIP
63 STOCKS

DAY	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-20	-0.00475	-0.00475	0.01975	-1.9081
-19	0.00007	-0.00467	0.03140	-1.1817
-18	0.00496	0.00027	0.04376	0.0488
-17	-0.00470	-0.00443	0.05099	-0.6902
-16	-0.00318	-0.00760	0.05427	-1.1119
-15	0.00662	-0.00103	0.06074	-0.1346
-14	0.00570	0.00466	0.06394	0.5789
-13	0.00248	0.00716	0.07072	0.8034
-12	-0.00210	0.00504	0.07299	0.5479
-11	-0.00320	0.00182	0.07664	0.1886
-10	-0.00052	0.00130	0.08485	0.1215
-9	0.00128	0.00258	0.08698	0.2352
-8	0.00064	0.00322	0.08706	0.2936
-7	0.00089	0.00411	0.09236	0.3530
-6	-0.00000	0.00411	0.10237	0.3184
-5	-0.00017	0.00393	0.10431	0.2994
-4	0.00156	0.00550	0.10248	0.4258
-3	0.00388	0.00940	0.10696	0.6977
-2	-0.00257	0.00680	0.10984	0.4917
-1	-0.00850	-0.00175	0.10083	-0.1379
0	-0.01904	-0.02076	0.09827	-1.6770
1	0.00525	-0.01562	0.10336	-1.1994
2	-0.00235	-0.01793	0.10640	-1.3377
3	0.00308	-0.01490	0.10584	-1.1178
4	0.00635	-0.00865	0.10972	-0.6257
5	-0.00564	-0.01424	0.11049	-1.0228
6	-0.01011	-0.02421	0.11050	-1.7389
7	0.00311	-0.02117	0.11777	-1.4268
8	0.00057	-0.02061	0.11858	-1.3797
9	-0.00350	-0.02404	0.12131	-1.5729
10	-0.00018	-0.02421	0.12363	-1.5545

Figure 18

CROSS-SECTIONAL ABNORMAL RETURNS
NON-UTILITY ISSUES & HIGH % OWNERSHIP
63 STOCKS



offered. We find a significant difference between the two, however, the difference between firms with medium percentage equity offered, as represented in Tables 31 and 35 is significant in the opposite direction, and there is no significant difference between the high percentage groups. This leaves us with the results shown in Chapter IV between Tables 13 and 16, that no distinction has been found in the short-term excess returns of utilities and non-utilities.

We will now examine the long-term movements in excess returns associated with percentage equity offered. Using the three groups of stocks, cross-sectional analysis was performed, and the results have been summarized in Tables 37, 38 and 39 and Figures 19, 20 and 21. The general characteristics of these returns are the same as shown in Table 11. There is an increase in excess returns over the 26 month period, and a decline on the date of announcement. As shown in the difference of the means tests in Table 27, there seems to be a significant increase in excess returns depending on the percentage equity issued. The size of an issue is a measure of the size of the capital requirements causing the issue. Greater price movements should be associated with greater capital requirements, all other things equal.

In order to test this further, the main sample was partitioned according to utilities and non-utilities, and

Table 37

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH LOW % OWNERSHIP OFFERED
114 STOCKS

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.00327	0.00327	0.05363	0.6508
-11	0.01118	0.01448	0.09528	1.6229
-10	0.00124	0.01574	0.12134	1.3851
-9	-0.00018	0.01556	0.15485	1.0726
-8	-0.00071	0.01483	0.15553	1.0181
-7	0.01497	0.03002	0.18628	1.7206
-6	-0.00162	0.02835	0.19015	1.5919
-5	0.00469	0.03317	0.20596	1.7197
-4	-0.00480	0.02821	0.21717	1.3869
-3	0.00668	0.03508	0.22672	1.6520
-2	0.00750	0.04285	0.24838	1.8418
-1	0.00518	0.04825	0.27339	1.8843
0	-0.01828	0.02909	0.27922	1.1123
1	-0.00212	0.02691	0.30916	0.9292
2	-0.00129	0.02558	0.31538	0.8659
3	0.00198	0.02761	0.31506	0.9358

Figure 19

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH LOW % OWNERSHIP OFFERED
114 STOCKS

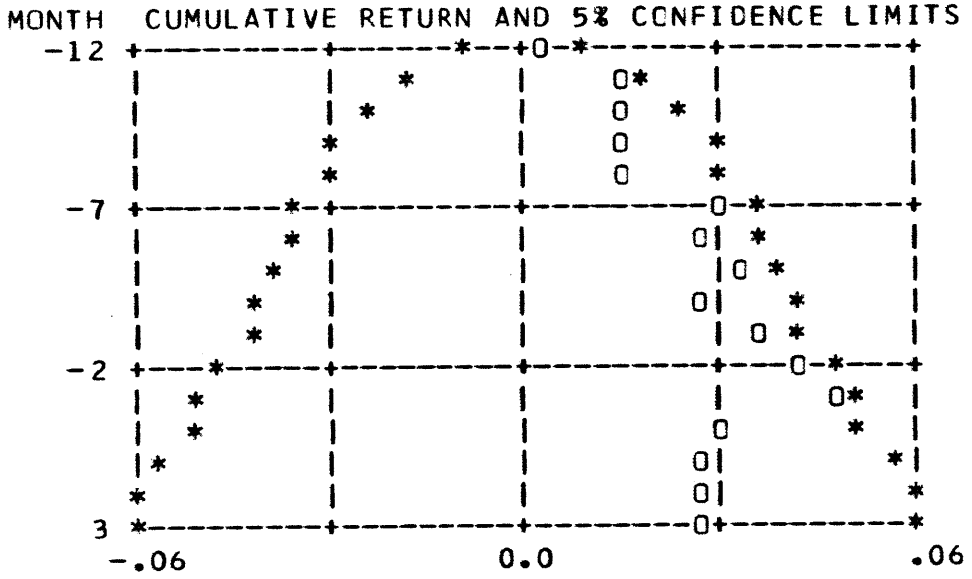


Table 38

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH MEDIUM % OWNERSHIP OFFERED
101 STOCKS

DAY MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	-0.00231	-0.00231	0.05892	-0.3936
-11	-0.00086	-0.00317	0.09801	-0.3247
-10	0.02326	0.02002	0.16531	1.2172
-9	0.00410	0.02421	0.15605	1.5589
-8	0.00358	0.02787	0.21449	1.3057
-7	0.01106	0.03924	0.27201	1.4498
-6	-0.00410	0.03498	0.27048	1.2996
-5	-0.01777	0.01659	0.26233	0.6355
-4	0.01524	0.03208	0.29810	1.0816
-3	0.01864	0.05132	0.34880	1.4787
-2	-0.00277	0.04841	0.35403	1.3742
-1	-0.00392	0.04430	0.46920	0.9488
0	-0.02065	0.02273	0.41120	0.5556
1	0.00078	0.02353	0.43097	0.5488
2	0.00082	0.02438	0.45246	0.5415
3	0.00573	0.03024	0.49338	0.6160

Figure 20

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH MEDIUM % OWNERSHIP OFFERED
101 STOCKS

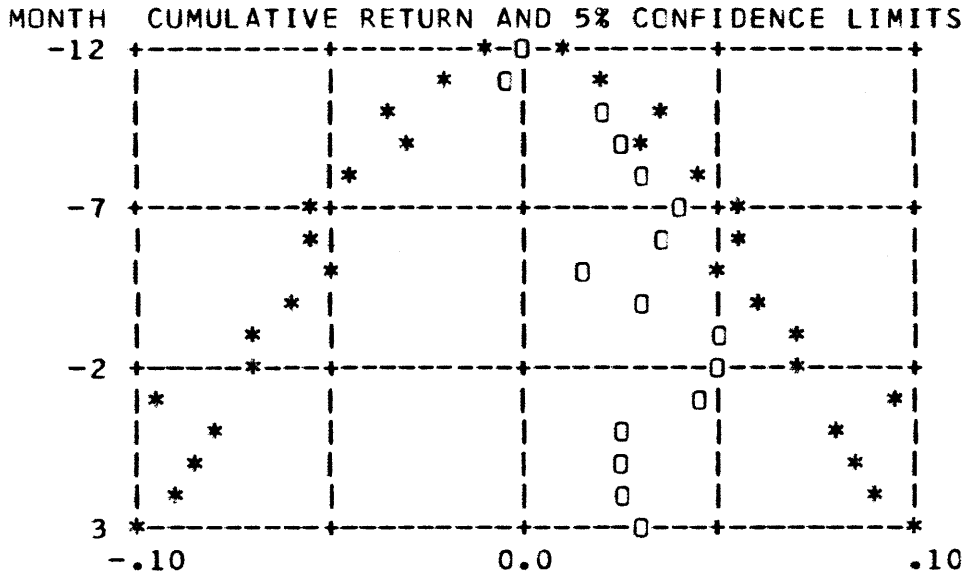


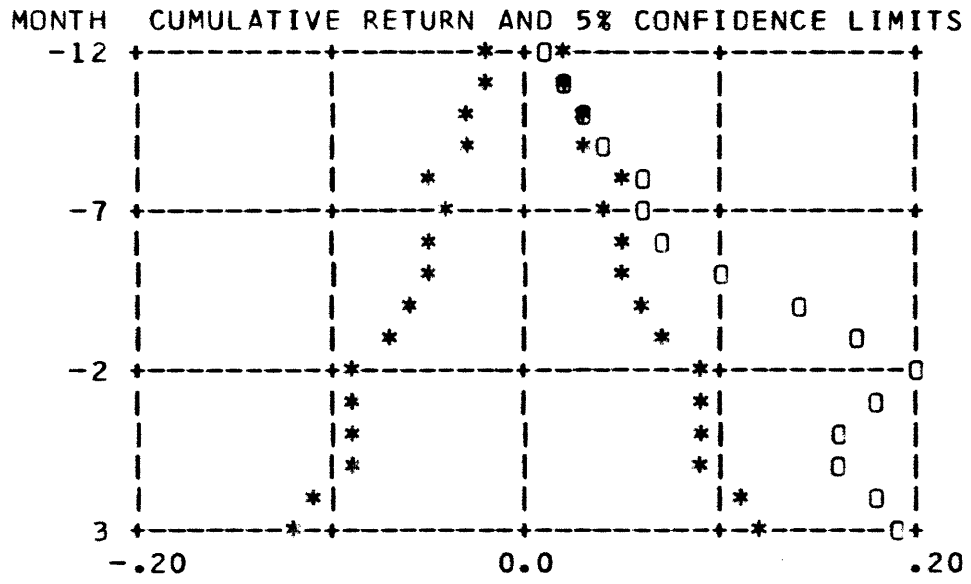
Table 39

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH HIGH % OWNERSHIP OFFERED
118 STOCKS

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.00869	0.00869	0.10571	0.8934
-11	0.01392	0.02273	0.13348	1.8501
-10	0.01130	0.03429	0.16415	2.2692
-9	0.00758	0.04213	0.17511	2.6138
-8	0.01267	0.05533	0.24988	2.4054
-7	0.00856	0.06436	0.22885	3.0551
-6	0.00636	0.07114	0.25490	3.0316
-5	0.02442	0.09729	0.28434	3.7169
-4	0.03500	0.13569	0.33501	4.3999
-3	0.03056	0.17040	0.38775	4.7738
-2	0.02447	0.19905	0.47306	4.5706
-1	-0.01340	0.18298	0.46909	4.2372
0	-0.02188	0.15710	0.46202	3.6936
1	0.00170	0.15907	0.50057	3.4519
2	0.01911	0.18122	0.59828	3.2904
3	0.00746	0.19003	0.63788	3.2362

Figure 21

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH HIGH % OWNERSHIP OFFERED
118 STOCKS



then partitioned again by percentage equity offered. Recall from Tables 20 and 22 that non-utilities experienced a large increase in price prior to the issue, and utilities experienced a large decrease. If this hypothesis holds, then we would expect the non-utilities to show increasingly positive excess returns for increasing percentage equity issued. Utilities would be expected to show increasingly negative returns for increasing percentage equity issued. The results of cross-sectional monthly analysis of the six groups are summarized in Tables 40, 41, 42, 43, 44 and 45 and Figures 22, 23, 24, 25, 26, and 27.

We find no clear indication that excess returns for non-utilities increase with the percentage equity offered. As Tables 40, 41 and 42 and the difference in the means tests in Table 19 show, while the high equity firms do have a greater cumulative excess return than the low equity firms, the increase is not monotonic across the three groups. At best we have a suggestion that a trend exists. Similarly, for utilities no significant relationship is indicated. In Tables 43, 44 and 45 the results of cross-sectional monthly analysis on the utilities are given. Difference in the means tests are performed in Table 19, and we find that none of the excess returns are significantly different from each other. So, we find no clear support for the hypothesis that the long term price movements will be greater for larger

Table 40

CROSS-SECTIONAL ABNORMAL RETURNS
UTILITY ISSUES & LOW % OWNERSHIP
59 STOCKS

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	-0.00352	-0.00352	0.04322	-0.6254
-11	0.00593	0.00239	0.06169	0.2977
-10	-0.01148	-0.00912	0.06705	-1.0442
-9	-0.01453	-0.02351	0.07812	-2.3121
-8	-0.00906	-0.03236	0.07827	-3.1756
-7	0.00232	-0.03011	0.08027	-2.8814
-6	-0.01253	-0.04226	0.08843	-3.6712
-5	-0.00016	-0.04242	0.09581	-3.4007
-4	-0.01159	-0.05352	0.09732	-4.2241
-3	-0.00220	-0.05560	0.09720	-4.3940
-2	-0.00450	-0.05985	0.10897	-4.2189
-1	-0.00743	-0.06684	0.10510	-4.8847
0	-0.02412	-0.08935	0.10484	-6.5460
1	-0.01092	-0.09929	0.10868	-7.0172
2	-0.00383	-0.10273	0.12174	-6.4818
3	0.00770	-0.09583	0.12232	-6.0178

Figure 22

CROSS-SECTIONAL ABNORMAL RETURNS
UTILITY ISSUES & LOW % OWNERSHIP
59 STOCKS

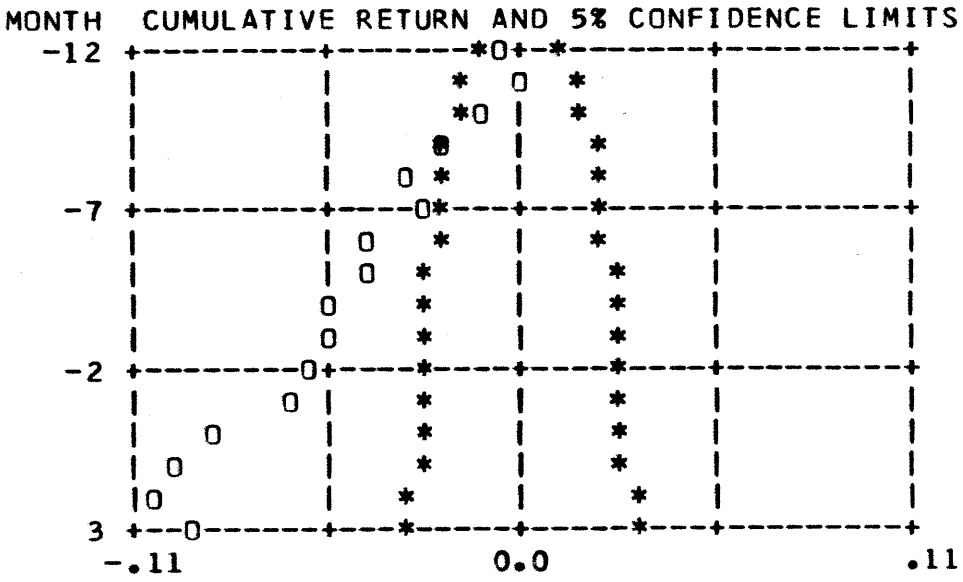


Table 41

CROSS-SECTIONAL ABNORMAL RETURNS
UTILITY ISSUES & MEDIUM % OWNERSHIP
52 STOCKS

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	-0.00487	-0.00487	0.03654	-0.9606
-11	-0.00852	-0.01334	0.05264	-1.8278
-10	0.00618	-0.00724	0.06614	-0.7897
-9	-0.00022	-0.00746	0.07739	-0.6953
-8	-0.00002	-0.00748	0.08793	-0.6136
-7	-0.00574	-0.01318	0.10868	-0.8746
-6	-0.00688	-0.01997	0.09514	-1.5135
-5	-0.01288	-0.03259	0.07987	-2.9428
-4	0.00198	-0.03068	0.08350	-2.6493
-3	0.00533	-0.02551	0.08891	-2.0686
-2	-0.01554	-0.04065	0.09689	-3.0251
-1	-0.02053	-0.06034	0.09137	-4.7622
0	-0.00933	-0.06910	0.09665	-5.1557
1	-0.00768	-0.07625	0.10024	-5.4854
2	0.00352	-0.07301	0.10825	-4.8633
3	0.00263	-0.07056	0.11102	-4.5832

Figure 23

CROSS-SECTIONAL ABNORMAL RETURNS
UTILITY ISSUES & MEDIUM % OWNERSHIP
52 STOCKS

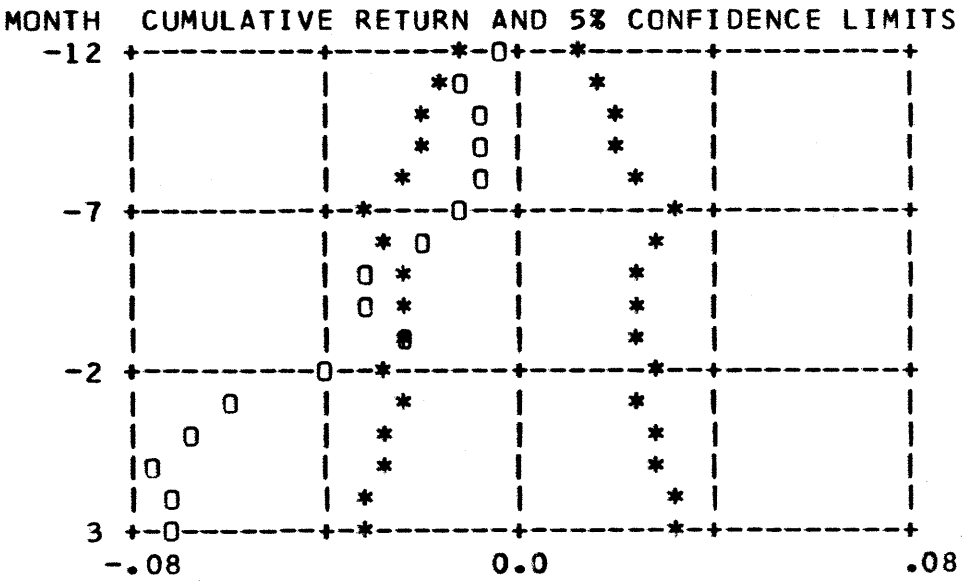


Table 42

CROSS-SECTIONAL ABNORMAL RETURNS
UTILITY ISSUES & HIGH % OWNERSHIP
49 STOCKS

DAY MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	-0.01181	-0.01181	0.04434	-1.8647
-11	0.00168	-0.01015	0.06116	-1.1620
-10	0.00408	-0.00611	0.06980	-0.6128
-9	-0.00521	-0.01129	0.08059	-0.9809
-8	-0.01918	-0.03025	0.06858	-3.0879
-7	-0.00902	-0.03900	0.07297	-3.7415
-6	-0.00004	-0.03904	0.08020	-3.4070
-5	-0.01149	-0.05007	0.08143	-4.3047
-4	-0.00314	-0.05306	0.08641	-4.2981
-3	-0.00552	-0.05828	0.09078	-4.4943
-2	-0.01189	-0.06948	0.08985	-5.4135
-1	-0.00845	-0.07735	0.09023	-6.0002
0	-0.01848	-0.09439	0.10788	-6.1249
1	-0.00470	-0.09865	0.12012	-5.7486
2	-0.00676	-0.10474	0.13043	-5.6214
3	0.00533	-0.09997	0.14628	-4.7839

Figure 24

CROSS-SECTIONAL ABNORMAL RETURNS
UTILITY ISSUES & HIGH % OWNERSHIP
49 STOCKS

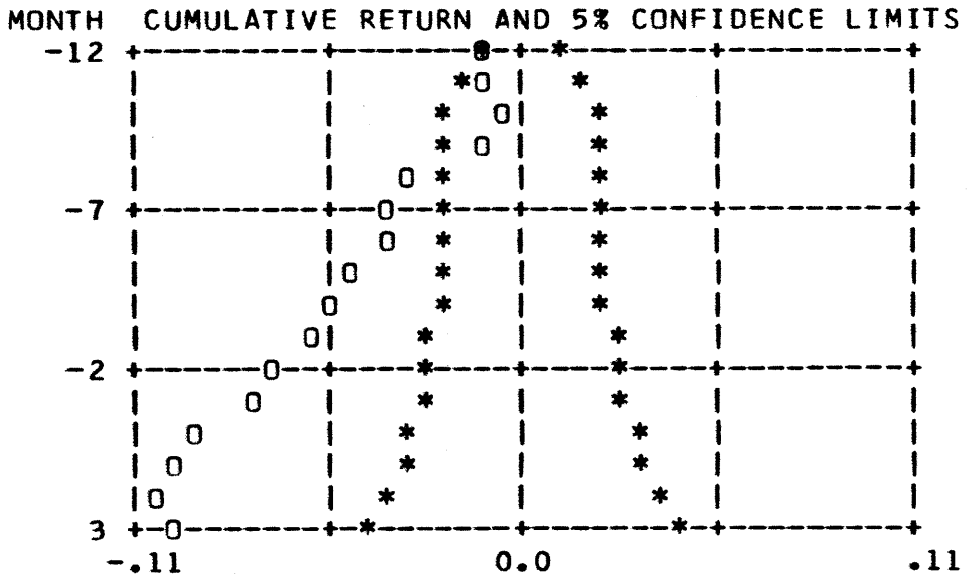


Table 43

CROSS-SECTIONAL ABNORMAL RETURNS
NON-UTILITY ISSUES & LOW % OWNERSHIP
55 STOCKS

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.01619	0.01619	0.07129	1.6841
-11	0.00777	0.02409	0.12756	1.4005
-10	0.02292	0.04756	0.17048	2.0688
-9	0.02679	0.07562	0.21052	2.6641
-8	0.00766	0.08387	0.21938	2.8351
-7	0.03780	0.12483	0.27634	3.3502
-6	0.01569	0.14248	0.29764	3.5502
-5	0.00656	0.14998	0.31829	3.4945
-4	0.01867	0.17146	0.36551	3.4789
-3	0.02634	0.20231	0.39400	3.8081
-2	0.02276	0.22968	0.40652	4.1900
-1	0.03714	0.27535	0.58459	3.4932
0	-0.01400	0.25750	0.52362	3.6470
1	0.00292	0.26117	0.53520	3.6190
2	0.00797	0.27121	0.56852	3.5379
3	0.00208	0.27386	0.62035	3.2739

Figure 25

CROSS-SECTIONAL ABNORMAL RETURNS
NON-UTILITY ISSUES & LOW % OWNERSHIP
55 STOCKS

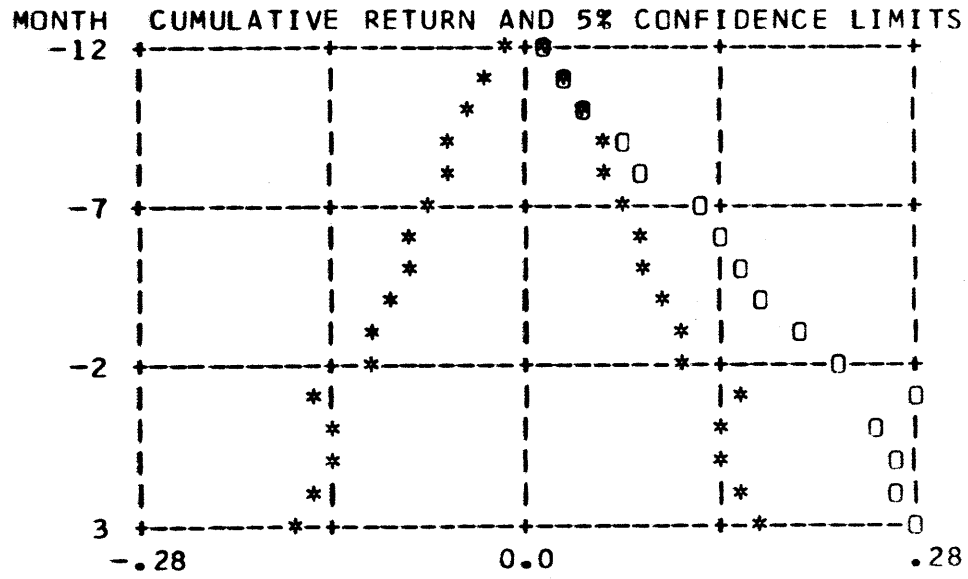


Table 44

CROSS-SECTIONAL ABNORMAL RETURNS
NON-UTILITY ISSUES & MEDIUM % OWNERSHIP
56 STOCKS

DAY MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	-0.00487	-0.00487	0.07617	-0.4780
-11	0.02478	0.01980	0.13233	1.1194
-10	0.02960	0.04999	0.21983	1.7016
-9	0.00251	0.05262	0.20685	1.9038
-8	0.01468	0.06808	0.27711	1.8384
-7	0.03817	0.10885	0.33222	2.4518
-6	-0.01198	0.09556	0.31511	2.2694
-5	-0.00780	0.08701	0.30827	2.1122
-4	0.03011	0.11974	0.35608	2.5164
-3	0.02476	0.14746	0.41626	2.6510
-2	0.00535	0.15361	0.41592	2.7637
-1	-0.03215	0.11652	0.41462	2.1029
0	-0.02897	0.08417	0.39507	1.5943
1	0.01270	0.09795	0.46063	1.5912
2	0.00581	0.10433	0.49392	1.5807
3	-0.00035	0.10394	0.49817	1.5613

Figure 26

CROSS-SECTIONAL ABNORMAL RETURNS
NON-UTILITY ISSUES & MEDIUM % OWNERSHIP
56 STOCKS

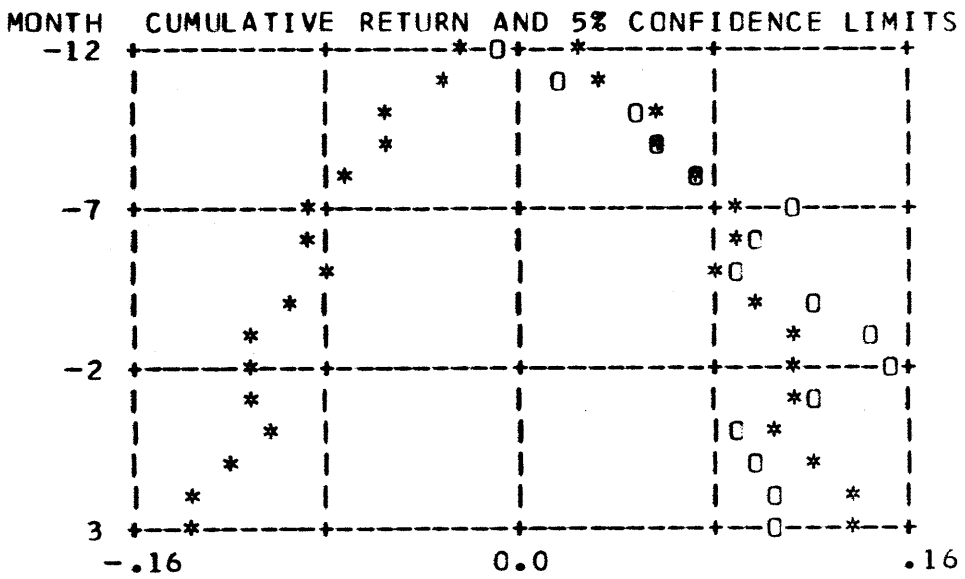


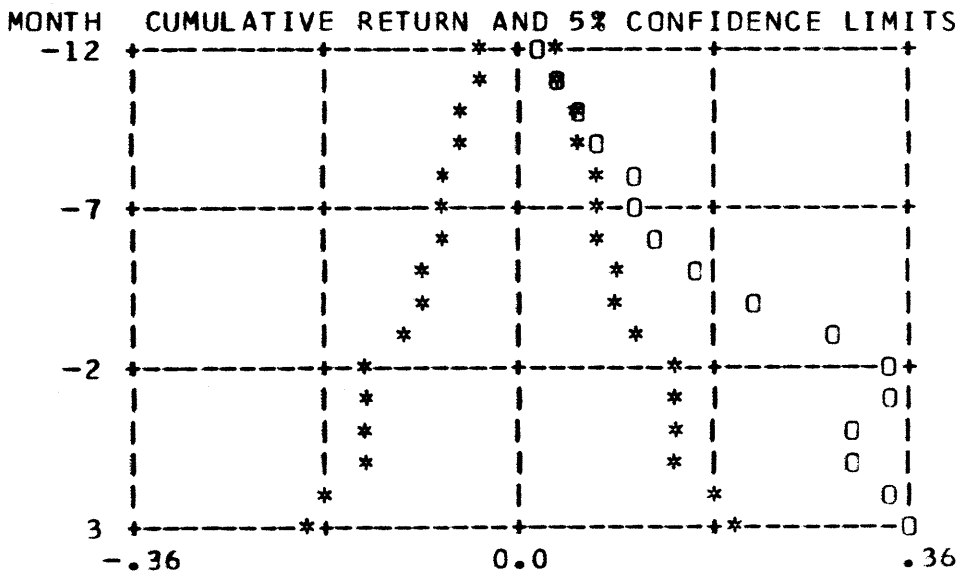
Table 45

CROSS-SECTIONAL ABNORMAL RETURNS
NON-UTILITY ISSUES & HIGH % OWNERSHIP
62 STOCKS

REL. MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.02560	0.02560	0.13187	1.5284
-11	0.01641	0.04243	0.16161	2.0670
-10	0.01596	0.05907	0.19509	2.3840
-9	0.01143	0.07117	0.20186	2.7760
-8	0.02979	0.10307	0.31079	2.6114
-7	0.00002	0.10310	0.27017	3.0048
-6	0.01497	0.11961	0.30384	3.0997
-5	0.04396	0.16883	0.33434	3.9761
-4	0.04440	0.22073	0.37256	4.6652
-3	0.04866	0.28013	0.43273	5.0973
-2	0.04673	0.33995	0.55655	4.8096
-1	-0.00372	0.33496	0.55251	4.7737
0	-0.02421	0.30264	0.54041	4.4097
1	0.00320	0.30681	0.59094	4.0881
2	0.02433	0.33860	0.71580	3.7246
3	0.01172	0.35428	0.77722	3.5892

Figure 27

CROSS-SECTIONAL ABNORMAL RETURNS
NON-UTILITY ISSUES & HIGH % OWNERSHIP
62 STOCKS



percentage equity issues.

While the utilities and non-utilities were broken into these six groups, we again compared their long-term excess returns across the sample, as was done in Tables 20 and 21. The difference of the means tests are summarized in Table 19. As previously discovered, the returns on utilities are significantly different from those on non-utilities, for all three classes of percentage equity issued.

B. D-E Ratios

In order to test the hypothesis that for firms with greater percentage debt in their capital structure, the shift in value from equityholders to debtholders will be greater upon announcement of a new equity issue, various tests were done on samples partitioned according to debt-to-equity ratios. The "book" debt-to-equity (D-E) ratios for each firm were computed as stated by their balance sheet figures. The sample was partitioned into two groups, putting the lowest D-E firms in the first group, and the highest D-E firms in the second. Other tests were done using a "market" D-E ratio. This ratio was computed by using the market value of equity and the book value of debt. It was hoped that since this market ratio was not as dependent upon the firms' accounting techniques, it would represent a better partitioning of the main sample for the purpose of testing our hypotheses. Cross-sectional and portfolio

analyses were performed and their results were summarized in Tables 70-90, and Figures 29-34, all of which can be found in Appendix B. Difference in the means tests were performed and have been summarized in Table 91, also in Appendix B.

As brought out by Table 1 in Chapter 2, for our sample, essentially all the low D-E firms are non-utilities, and the high D-E firms are utilities. By partitioning according to D-E ratios, we are really only separating the utilities and non-utilities once again. The results of the analyses according to D-E ratios, as shown by the tables, are essentially the same as the analyses done previously for utilities and non-utilities. For short-term results, there is no significant difference between the 1.7%-2.8% decrease the low and high D-E ratio firms show, and in the long-term, there is the same dramatic difference in excess returns first shown in Tables 20 and 22. Thus, the analysis of debt-to-equity ratios cannot be separated from the analysis of utilities and non-utilities. Even though we do find significant distinctions in the excess returns of the two groups, we cannot be sure whether the reason for this difference is due to the D-E ratio, or due to the fact that utilities and non-utilities behave differently. If a larger sample of firms issuing equity could be found, perhaps separate analyses of the effects of D-E ratios within the

classifications of utilities and non-utilities could be done. Such an analysis would shed considerable light on this question.

CHAPTER VI

SUMMARY AND CONCLUSIONS

A. Hypotheses

Modern Capital Theory predicts three major stock price reactions to the announcement of an additional equity issue by established corporations:

1. Every stock issue is caused by a need for capital[11], and this need will generally have been discounted in the price of the firm's stock preceeding the announcement of the issue. In general, if managers are investing capital profitably, the stock price will have already risen to reflect the value of their investments.

2. There are significant transactions costs involved in floating an equity issue. This cost will cause a small and permanent decline in the price of the firm's stock. The timing of this decline will be dependent upon the degree to which the announcement of the issue type (equity or debt) is anticipated.

3. The fact that an equity issue is occurring, in contrast to a debt issue, has several ramifications for the old debt and equityholders. First, the opportunity for a

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[11]It is possible, but unlikely, that management issues equity since it feels the firm's stock is overvalued.

debt issue, with its resulting tax benefits, has been foregone. Second, the debtholders will experience an increase in the value of their debentures due to decreased default risk after the equity issue. These factors will cause a shift in the value of the firm from equityholders to debtholders, and the price of the firm's equity will decline. The effect should be small and permanent. Again, the timing of the decline will depend on the extent to which the announced issue is anticipated.

B. Results

Through a variety of analyses on the sample of 401 firms issuing equity from 1962-1972, we have found the following results:

1. Cross-sectional and portfolio analysis both show significant negative adjusted returns on the date of the issue announcement.

2. For some of the analyses, there were also significant negative returns on the day prior to the announcement, implying that a certain amount of information has been leaked to the marketplace.[12] The negative returns over the two days together are about 2-3%.

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[12]Or, alternatively, that the timing of the announcement in the Wall Street Journal [29] was off. See footnote 8 on page 49.

3. The adjusted returns prior to the day before the announcement, and the adjusted returns after the day of announcement are not significantly different from zero in the short-term.

4. There is considerably more variation present in the portfolio analyses than in the cross-sectional analyses. This indicates the magnitude of time-series variation ignored by the cross-sectional method, and the superiority of the portfolio method.

5. There were no significant differences between adjusted returns on utility issues and adjusted returns on non-utility issues in the short-term.

6. During the 16 month period around the announcement date, non-utilities experienced significant adjusted returns of about 24.8%.

7. During this same period, utilities experienced significant adjusted returns of about -8.9%.

8. Cross-sectional analysis showed that the adjustments in stock price associated with the issuance of new equity occur at the date of announcement, and not at the actual issue date, and were permanent.

9. Analysis of the percentage equity issued suggests that in the short-term, firms issuing more equity experience greater price declines. However, these results were not always significant for certain subgroups of the main sample.

10. Further analysis of the percentage equity issued also suggests that in the long-term, non-utilities issuing more equity experience greater price increases prior to the announcement of the issue. Utilities did not experience significantly different returns for different size issues.

11. Analysis of debt-to-equity ratios yields essentially the same information as analysis of utilities and non-utilities. This was expected, since utilities tend to have much more debt in their capital structures than non-utilities.

C. Conclusions

The results give support to the above hypotheses in a number of ways. We see that both utilities and non-utilities which eventially issued new equity experience price changes significantly different from the rest of the market. These changes may be reflecting operations of the firms which later will result in an equity issue: expansion into potentially profitable new ventures, a poor internal cash flow, or an imbalanced capital structure. Utilities had negative adjusted returns prior to their issues, while non-utilities had positive adjusted returns. Within the context of the hypotheses, we can attribute this distinction to the differences in the firms' operations which required an equity issue.

Since the market is giving significantly different returns on these firms than might otherwise be expected, it may be anticipating a security issue of some sort. Utilities, with their high debt-to-equity ratios, are far more likely to issue equity, while non-utilities can choose between debt and equity issues more easily. Unless the exact date of announcement, type of issue, and the terms of the issue are known, the market cannot totally anticipate the upcoming information, and so we see short-term price adjustments on the date of announcement. These short-term price movements reflect the unanticipated part of the information generated by the issue announcement.

The price adjustments made on and near the date of announcement represent a 2-3% decline in the value of the equity. We hypothesize a permanent decline in the value of equity due to both the transactions cost and the shifts in value from equityholders to debtholders. If the announcement is anticipated to some extent, as has been suggested, then the ultimate price decline due to the equity issue may be somewhat larger than the 2-3% indicated.

Using tables of transactions costs for issues, we can estimate the magnitude of the first component (transactions costs) of the price decrease. In Table 46 the percentage transactions cost for floating an equity issue are given for various size issues and years. The average transactions

Table 46

Cost of an Underwritten Common Stock Issue as a Percent of the Issue

	Value of Issue in Millions					
Year	2-5	5-9	10-19	20-49	50-up	Average (includes small issues)
1962	9.20	7.06	4.72	4.24	3.44	6.71
1963	8.13	6.36	5.64	7.04	3.13	5.81
1964	8.27	6.53	5.15	3.52	3.02	4.95
1965	8.40	6.60	4.15	3.58	3.13	4.67
1966	8.45	6.43	5.15	4.68	4.14	5.09
1967	9.13	7.49	5.35	5.41	2.53	6.15
1968	9.60	7.48	6.02	5.10	6.38	7.05
1969	10.83	7.89	6.29	5.89	4.50	7.41
Simple Average	9.00	7.98	5.31	4.93	3.78	5.98

	Number of Issues				
Year	2-5	5-9	10-19	20-49	50-up
1962	95	29	18	8	3
1963	57	28	25	4	3
1964	74	35	17	12	7
1965	98	57	27	19	5
1966	85	40	28	13	10
1967	130	77	49	24	6
1968	255	150	87	47	15
1969	382	177	105	66	22
Total	1176	593	356	193	71

cost over the 1962-1969 period is about 6% of the equity issue. We saw in Table 3 (Chapter I) that for the sample studied, the new issue represents about 10% of the old outstanding equity. If the old equityholders suffer the total cost of a new issue, their equity would decline in value by about 10% x 6% = 0.6%. This is significantly less than the observed decline on the days near the announcement. We can conclude that at least the rest of the decline, and perhaps more, is associated with the shift in value from equityholders to debtholders. Only the unanticipated part of this shift is observed on the announcement date, the rest having already been discounted in stock price prior to the announcement.

The second and third hypotheses predict that larger equity issues will cause larger declines in the stock price, due to increased transactions costs and a larger shift in value from equityholders to debtholders. The timing of this decline in stock price, and therefore the differences in this decline due to issue size, depends on the extent to which the market anticipates an equity issue and the issue's size. Our analysis of firms by percentage equity issued suggests that this relationship of price changes to issue size holds, however, the results are not strong. Part of this weakness may be due to the problem of partitioning the sample according to the size of the issue (as previously discussed).

The third hypothesis predicts that firms with more debt will experience larger declines in stock price due to the shift in the value of the firm from equityholders to debt-holders. Our anlaysis of the sample by debt-to-equity ratio was confounded by the dissimilar debt characteristics of utilities and non-utilities. Analysis of utilities and non-utilities show no significant differences in short-term price declines, and a dramatic difference in long-term price movements. Thus, any price changes due to differences in amount of debt did not occur in the short-term. As previously mentioned, we cannot determine if part of the difference in long-term returns between utilities and non-utilities is due to the debt differences without additional research.

The entire adjustment mechanism, as suggested by the analyses, is consistent with the Efficient Markets Hypothesis. The market immediately reacts to any changes in its expectations. No further adjustments are necessary after the announcement date.

The results run counter th the "segmented market" hypothesis, which claims that a new equity issue will cuase a decline in stock price due to an increased supply of the stock given the demand. The results also run counter to the "dilution" hypothesis, which claims that the stock price will fall since current earnings per share fall for a firm issuing equity. For instance, we found in the case of

non-utilities, significant increases in the value of equity in the long-term, instead of the predicted decreases.

D. Ideas for Future Research

The topic of new security issues offers fascinating research. This study concentrated entirely on new equity issues. Just as no such work has been done on new equity issues, so is there a lack of evidence on certain other types of security issues. Research on the market's reaction to debenture and convertable debenture issues would be most interesting in itself, and may help explain the mechanisms by which the market reacts to equity issues.[13]

Within the area of equity issues, there are several excellent opportunities for further research. Perhaps the most useful work would examine the requirement for capital, as stated in the prospectus for an equity issue. This requirement could then be compared with the actual price movements experienced by the firm's stock. Hopefully, they would be closely related. In any case, this work would shed considerable light on the market's anticipation mechanisms. We have hypothesized that bondholders experience price increases in their bonds as a result of an equity issue. Research on bond price movements associated with equity

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[13]Preliminary work on debentures and convertable debentures was conducted in [7].

issues should be conducted to exam this assumption.

The work within this thesis would have been facilitated by a larger sample covering a longer span of time. In addition to the types of analyses used in the thesis, a monthly (long-term) portfolio analysis would be most useful for comparison with the cross-sectional monthly results. This comparison would yield information on the time-series variation in the long-term for which the cross-sectional analysis cannot adjust.

With a larger sample, separate investigations into the effects of different debt-to-equity ratios within the classifications of utilities and non-utilities could be conducted. This would give more information about the effect of debt on the informational content of new equity issues. Finally, if a model could be developed using dollar movements in equity instead of percentage movements, then a much clearer analysis of the effect of different issue size could be done.

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INTRODUCTION TO APPENDIX A

Appendix A contains a list of the 401 firms used in the analysis. The list is arranged alphabetically and gives several pieces of information:

Date of Announcement--This is the date on which the first concrete announcement that an equity issue will take place occurs.

Issue Month --The month and year on which the issue finally takes place.

Issue Mil $ --The value of the issue in millions of dollars as computed by multiplying the number of shares issued times the initial offering price.

New/Old --The ratio of new issued shares to old outstanding shares. If this ratio were 100, the firm would be doubling its number of shares outstanding.

Utilities are denoted by a "U" after the company name.

#	COMPANY NAME		DATE OF ANNOUN.	ISSUE MONTH	ISSUE MIL $	NEW / OLD
1	ADMIRAL CO		6-01-72	8-72	10.7	12.59
2	AILEEN INC		4-01-71	5-71	9.8	8.65
3	ALASKA INTERSTATE CO		8-21-69	10-69	15.7	27.66
4	ALLEGHENY POWER SYSTEM	U	9-24-71	11-71	45.4	10.58
5	ALLIED SUPERMARKETS		8-26-71	11-71	5.2	33.32
6	AMER CREDIT CORP		8-13-68	10-68	14.0	16.06
7	AMER ELECTRIC & POWER	U	7-30-70	10-70	99.5	8.00
8	AMER ELECTRIC & POWER	U	6-23-71	8-71	138.9	10.19
9	AMER ELECTRIC & POWER	U	6-05-69	8-69	76.8	5.35
10	AMER MEDICAL ENTERP		6-01-71	7-71	14.1	11.89
11	AMER NATURAL GAS	U	4-06-70	6-70	39.9	7.73
12	AMER STERLIZER		3-16-71	4-71	11.4	13.78
13	AMER TEL & TEL	U	1-27-64	2-64	1225.0	5.01
14	AMFAC CORP		7-19-71	8-71	38.7	24.98
15	APACHE CORP		3-19-68	5-68	8.5	15.56
16	AMER PHOTO EQUIP		2-20-70	3-70	8.4	9.58
17	AQUA-CHEM INC		7-07-67	8-67	15.5	24.92
18	ARIZONA PUBLIC SERVICE	U	8-27-62	9-62	19.4	8.64
19	ARIZONA PUBLIC SERVICE	U	2-04-71	3-71	22.1	11.76
20	ARIZONA PUBLIC SERVICE	U	10-20-72	11-72	23.5	10.53
21	ARMOUR & CO		1-13-65	2-65	25.5	11.21
22	ASHLAND OIL INC		1-24-63	2-63	7.0	3.56
23	ATLANTIC CITY ELECTRIC	U	9-13-72	10-72	15.3	9.13
24	ATLANTIC CITY ELECTRIC	U	12-19-68	2-69	18.6	10.37
25	ATLANTIC CITY ELECTRIC	U	3-12-71	4-71	17.8	10.84
26	ATLANTIC RICHFIELD CO		6-18-69	7-69	172.9	3.54
27	AVERY PRODUCTS CORP		9-09-70	10-70	10.7	4.18
28	BALT GAS & ELECTRIC	U	2-10-72	5-72	43.5	7.08
29	BALT GAS & ELECTRIC	U	5-19-69	6-69	45.9	10.01
30	BALT GAS & ELECTRIC	U	11-23-70	12-70	60.3	12.08
31	BALT GAS & ELECTRIC	U	6-01-71	6-71	75.6	13.47
32	BARD C.R.		6-23-69	7-69	9.8	5.23

#	COMPANY NAME		DATE OF ANNOUN.	ISSUE MONTH	ISSUE MIL $	NEW / OLD
33	BARD C.R.		5-25-72	6-72	16.0	10.23
34	BECTON, DICKINSON & CO		3-03-67	3-67	14.1	5.83
35	BLACK & DECKER MFG CO		4-16-71	5-71	24.5	3.10
36	BLUE BELL INC		3-29-71	4-71	11.3	12.34
37	BOBBIE BROOKS, INC		12-21-71	1-72	7.8	13.09
38	BOEING COMPANY		4-20-66	5-66	114.8	26.46
39	BOND INDUSTRIES		5-20-69	7-69	2.1	12.10
40	BOSTON EDISON	U	6-14-72	7-72	34.4	13.95
41	BRITISH PETE ORD ADR		6-23-71	11-71	307.7	6.66
42	BROADWAY HALE -NEW-		12-27-71	1-72	34.1	4.97
43	BUDGET INDUSTRIES INC		6-04-68	7-68	2.8	14.45
44	BURNDY CORPORATION		2-28-67	3-67	6.0	6.03
45	BURROUGHS CORP		6-28-63	7-63	17.6	11.11
46	BURROUGHS CORP		10-19-70	11-70	110.0	5.80
47	CABOT CORP		10-14-70	12-70	19.4	9.84
48	CAROLINA POWER & LIGHT	U	3-14-66	4-66	10.8	2.21
49	CAROLINA POWER & LIGHT	U	9-18-70	10-70	28.8	9.86
50	CAROLINA POWER & LIGHT	U	5-26-71	6-71	33.4	10.75
51	CAROLINA POWER & LIGHT	U	10-11-72	11-72	71.9	16.11
52	CAROLINA TEL + TEL CO	U	12-07-64	1-65	4.3	9.99
53	CAROLINA TEL + TEL CO	U	10-12-66	10-66	10.2	10.05
54	CASE, J.I. CO		8-27-64	9-64	19.3	38.42
55	CASE, J.I. CO		11-14-67	12-67	20.5	31.04
56	CASTLE & COOKE		5-24-71	6-71	18.9	8.97
57	CELANESE CORP		9-26-63	10-63	43.4	12.50
58	CELANESE CORP		2-21-66	3-66	94.7	12.50
59	CENTRAL HUDSON G & E	U	11-23-71	1-72	12.0	14.61
60	CENTRAL ILLINOIS LIGHT	U	4-22-71	6-71	16.7	12.83
61	CENT ILLINOIS PUB SERV	U	8-04-70	9-70	18.3	10.59
62	CENTRAL LOUISIANA ELEC	U	2-25-69	4-69	7.4	5.56
63	CENTRAL LOUISIANA ELEC	U	7-22-70	8-70	8.4	6.36
64	CENTRAL LOUISIANA ELEC	U	4-14-72	6-72	6.5	43.04
65	CENTRAL & SO WEST CORP	U	3-19-70	4-70	37.8	4.68
66	CNTRL TEL & UTIL CORP	U	2-16-70	3-70	20.0	6.48
67	CNTRL TEL & UTIL CORP	U	2-29-72	3-72	29.6	9.04
68	U S PLYWD CHAMP PAPERS		9-07-67	9-67	50.5	9.51

#	COMPANY NAME		DATE OF ANNOUN.	ISSUE MONTH	ISSUE MIL $	NEW / OLD
69	CHELSEA INDS		9-30-68	12-68	12.4	37.67
70	CHICAGO + EAST ILL		7-17-67	7-67	6.2	48.05
71	CHICAGO + EAST ILL		10-08-70	10-70	5.1	33.32
72	CHRYSLER CORP		3-19-65	4-65	269.3	14.32
73	CINCINNATI GAS & ELEC	U	8-24-71	9-71	36.5	9.66
74	CINCINNATI GAS & ELEC	U	12-22-72	1-73	42.1	10.00
75	CLARK EQUIPMENT CO		7-26-71	12-71	42.8	8.14
76	COLUMBIA GAS SYSTEM	U	4-21-72	6-72	42.5	4.51
77	COLUMBUS & SO OHIO EL	U	5-14-71	7-71	15.4	10.71
78	COLUMBUS & SO OHIO EL	U	5-02-72	5-72	15.9	9.68
79	COMMONWEALTH EDISON	U	2-19-71	4-71	148.7	10.00
80	CONSOLIDATED EDISON NY	U	2-27-63	3-63	107.4	8.34
81	CONSOLIDATED EDISON NY	U	8-25-69	9-69	46.6	5.00
82	CONSOLIDATED EDISON NY	U	3-25-70	4-70	73.4	8.33
83	CONSOLIDATED EDISON NY	U	1-15-71	2-71	60.3	5.74
84	CONSOLIDATED EDISON NY	U	9-29-71	11-71	101.5	8.70
85	CONSOLIDATED EDISON NY	U	5-24-72	6-72	123.1	10.01
86	CONSOLIDATED FOODS		10-11-63	2-64	10.7	4.59
87	CONSUMERS POWER CO	U	8-11-72	10-72	60.8	9.15
88	CONT AIRLINES		2-18-69	3-69	21.6	14.32
89	CONT AIRLINES		6-15-72	7-72	27.0	10.82
90	CONT OIL		5-22-67	6-67	148.9	11.13
91	CONT TELEPHONE	U	10-09-69	11-69	34.8	5.62
92	CONTROL DATA CORP		8-03-72	8-72	91.8	8.26
93	COOK UNITED		6-09-71	8-71	13.0	12.68
94	CROWN CORK & SEAL		2-28-63	3-63	12.5	9.40
95	DAYTON POWER AND LIGHT	U	7-10-72	8-72	29.7	12.37
96	DELMARVA POWER & LIGHT	U	8-11-66	9-66	12.0	7.14
97	DELMARVA POWER & LIGHT	U	7-09-69	7-69	12.0	6.67
98	DELMARVA POWER & LIGHT	U	4-27-70	7-70	8.5	6.25
99	DELMARVA POWER & LIGHT	U	2-24-71	3-71	17.8	10.00
100	DELMARVA POWER & LIGHT	U	2-29-72	4-72	17.1	10.56
101	DELMARVA POWER & LIGHT	U	10-13-72	11-72	21.9	10.12
102	DELTONA CORP		5-02-72	6-72	6.4	4.93
103	DENNISON MANUFACTURING		6-08-67	7-67	9.2	6.58
104	DETROIT EDISON CO	U	5-28-71	6-71	76.5	12.60

#	COMPANY NAME		DATE OF ANNOUN.	ISSUE MONTH	ISSUE MIL $	NEW / OLD
105	DETROIT EDISON CO	U	7-18-72	9-72	77.5	11.19
106	DEXTER CORPORATION		10-23-69	1-70	13.0	11.66
107	DIGIORGIO CORP		5-26-71	4-71	18.1	28.30
108	DIEBOLD INCORPORATED		7-12-65	9-65	4.9	6.39
109	DIGITAL EQUIPMENT		8-04-69	8-69	15.5	2.75
110	DIGITAL EQUIPMENT		9-12-72	9-72	52.2	5.86
111	DIGITAL EQUIPMENT		9-15-70	9-70	38.3	5.28
112	DOMINICK FUND, INC		4-26-68	6-68	15.7	36.24
113	DORIC CORPORATION		5-24-72	6-72	10.7	33.57
114	DORR-OLIVER INC		5-21-71	5-71	8.6	50.28
115	DUKE POWER CO	U	1-02-70	2-70	62.2	10.77
116	DUKE POWER CO	U	1-20-71	2-71	105.0	15.47
117	DUKE POWER CO	U	1-31-72	2-72	113.7	16.59
118	DUKE POWER CO	U	12-12-72	1-73	68.6	8.46
119	DUQUESNE LIGHT CO	U	10-23-70	11-70	26.6	9.47
120	DUQUESNE LIGHT CO	U	4-26-71	7-71	35.1	9.90
121	DUQUESNE LIGHT CO	U	11-09-72	12-72	35.4	9.01
122	EASTERN AIR LINES		11-10-65	11-65	31.5	10.15
123	EASTERN AIR LINES		2-09-67	2-67	42.8	9.94
124	EASTERN AIR LINES		4-25-72	5-72	54.3	11.74
125	ECKERD JACK CORP		11-19-70	1-71	21.1	8.49
126	ELECTRONIC ASSOCIATES		7-28-67	8-67	4.8	10.96
127	EVANS PRODUCTS		2-08-66	3-66	13.9	12.12
128	EXXON		1-30-70	3-70	387.1	4.00
129	FABERGE INC		9-17-69	10-69	18.6	8.76
130	FAIRCHILD CAMERA		4-22-66	6-66	32.2	11.10
131	FARAH MFG CO INC		4-29-71	6-71	19.9	9.18
132	FEDDERS CORPORATION		2-11-69	3-69	23.5	5.68
133	FEDDERS CORPORATION		4-15-70	6-70	18.8	8.35
134	FERRO CORPORATION		3-02-72	3-72	13.4	11.75
135	FIBREBOARD CORP		3-15-71	4-71	15.0	18.85
136	FLEETWOOD ENTERPRISES		4-19-72	5-72	20.6	4.56
137	FLORIDA POWER CORP	U	9-12-63	10-63	18.0	5.00
138	FLORIDA POWER CORP	U	4-16-71	5-71	43.5	10.01
139	FLORIDA POWER & LIGHT	U	11-09-66	12-66	21.4	2.21
140	FLORIDA POWER & LIGHT	U	11-14-69	12-69	45.3	5.04

#	COMPANY NAME		DATE OF ANNOUN.	ISSUE MONTH	ISSUE MIL $	NEW / OLD
141	FLORIDA POWER & LIGHT	U	3-30-71	4-71	53.9	5.48
142	FLORIDA POWER & LIGHT	U	1-12-72	2-72	67.5	6.49
143	FOREMOST-MCKESSON		6-23-67	7-67	24.0	9.36
144	FOXBORO COMPANY		9-02-65	9-65	9.9	6.83
145	FOXBORO COMPANY		3-12-71	4-71	20.4	7.14
146	FRANKLIN STORES CORP		10-30-67	12-67	4.2	30.53
147	GCA CORP		9-10-65	9-65	7.5	90.54
148	GARLOCK INC		3-11-71	5-71	4.5	12.82
149	GEN AMER INVESTORS		8-22-66	9-66	10.5	20.52
150	GEN CIGAR CO INC		4-15-71	5-71	18.4	35.83
151	GEN HOST CORP		2-21-68	4-68	4.5	12.21
152	GEN MILLS INC		6-18-68	7-68	43.3	7.02
153	GEN PUB UTILITIES	U	10-11-66	10-66	28.2	4.15
154	GEN PUB UTILITIES	U	5-27-68	7-68	31.9	5.14
155	GEN PUB UTILITIES	U	7-11-69	9-69	28.8	5.14
156	GEN PUB UTILITIES	U	3-10-70	4-70	24.6	5.13
157	GEN PUB UTILITIES	U	9-17-70	11-70	19.6	3.47
158	GEN PUB UTILITIES	U	3-08-71	5-71	60.0	10.07
159	GEN PUB UTILITIES	U	10-01-71	12-71	30.1	4.27
160	GEN PUB UTILITIES	U	3-20-72	5-72	65.4	10.06
161	GEN PUB UTILITIES	U	9-08-72	12-72	34.3	3.83
162	GEN TEL & ELECTRONIC		3-04-66	3-66	104.4	2.69
163	GEN TEL & ELECTRONIC		2-05-71	3-71	142.9	4.23
164	GLOBE-UNION INC		12-03-71	2-72	10.5	25.27
165	GORDON JEWELRY A		11-13-64	12-64	2.7	24.24
166	GORDON JEWELRY A		8-31-71	11-71	6.6	5.96
167	HAMILTON WATCH CO		9-09-66	10-66	3.7	33.87
168	HACKENSACK WATER CO	U	6-01-67	5-67	4.3	12.49
169	HAWIIAN ELECTRIC	U	9-01-65	10-65	6.0	5.76
170	HAWAIIAN TELEPHONE	U	3-16-66	4-66	10.6	6.88
171	HITCO		1-30-69	3-69	15.5	13.02
172	HOLIDAY INNS INC		10-04-67	11-67	21.2	7.28
173	HOLIDAY INNS INC		4-14-71	4-71	35.6	3.07
174	HOMESTAKE MINING CO		10-21-65	11-65	13.2	14.31
175	HOMESTAKE MINING CO		4-07-69	4-69	18.9	11.12
176	HONEYWELL INCORPORATED		3-05-70	3-70	75.0	3.94

#	COMPANY NAME		DATE OF ANNOUN.	ISSUE MONTH	ISSUE MIL $	NEW / OLD
177	HOSP CORP OF AMER		4-23-71	7-71	20.9	10.02
178	HOWARD JOHNSON		12-22-70	2-71	15.8	5.99
179	HUNT CHEMICAL A CORP		11-11-69	12-69	7.3	11.60
180	IDAHO POWER CO	U	12-07-64	1-65	10.0	3.94
181	ILLINOIS POWER CO	U	12-26-68	1-69	19.5	3.89
182	ILLINOIS POWER CO	U	8-14-72	9-72	44.6	10.39
183	IMPERIAL CORP OF AM		7-23-69	10-69	19.2	16.11
184	INDIANAPOLIS POW & LT	U	9-29-71	11-71	15.1	8.94
185	INTERCO		2-09-71	3-71	17.6	5.39
186	INTL BUSINESS MACH		4-26-66	5-66	377.3	2.51
187	INTNATL INDUSTRIES INC		12-28-67	1-68	7.5	8.58
188	INTERSTATE POWER CO	U	3-25-63	5-63	3.3	3.84
189	INTERSTATE POWER CO	U	2-19-65	5-65	4.9	5.01
190	INTERSTATE POWER CO	U	3-20-67	5-67	5.8	7.15
191	IOWA ELECTRIC LT & PWR	U	4-27-71	6-71	12.1	20.12
192	IOWA-ILLINOIS GAS & EL	U	8-29-72	11-72	9.3	10.01
193	IPCO HOSP SUPPLY CORP		11-21-68	1-69	4.6	4.88
194	IPCO HOSP SUPPLY CORP		6-29-71	10-71	5.6	9.21
195	JORGENSEN, E.M. CO		9-15-65	10-65	5.6	28.57
196	JOY MANUFACTURING		7-08-71	7-71	21.8	8.64
197	KANSAS CITY PWR & LT	U	4-03-72	5-72	15.3	9.18
198	KENTUCKY UTILITIES	U	6-10-71	6-71	13.4	10.00
199	KIMBERLY CLARK		4-30-69	6-69	57.3	10.03
200	KLM ROYAL DUTCH AIR		10-20-66	11-66	27.6	25.01
201	KLM ROYAL DUTCH AIR		6-06-69	6-69	16.8	12.00
202	LING-TEMCO-VOUGHT INC		10-16-67	11-67	69.0	15.50
203	LONG ISLAND LIGHTING	U	3-26-70	5-70	31.5	10.02
204	LONG ISLAND LIGHTING	U	3-30-72	5-72	39.4	10.03
205	MGIC INVESTMENT CORP		10-22-68	11-68	30.9	34.50
206	MAC ANDREWS & FORBES		4-15-71	5-71	6.3	22.79
207	MADISON FUND INC		6-27-68	7-68	26.6	10.16
208	MAGIC CHEF INC		12-30-71	2-72	21.4	13.69
209	MAPCO,INC		3-06-69	4-69	11.8	15.21
210	MAREMONT CORPORATION		4-13-72	6-72	19.3	23.09
211	MARRIOT CORP		10-19-70	10-70	21.9	7.44
212	MASSEY FERGUSON LTD		2-23-66	4-66	79.0	20.18

#	COMPANY NAME		DATE OF ANNOUN.	ISSUE MONTH	ISSUE MIL $	NEW / OLD
213	MATTEL INC		4-14-69	5-69	19.1	5.15
214	MC CALL CORP		7-16-64	7-64	13.8	25.18
215	MICHIGAN GAS UTILITIES	U	8-10-72	9-72	1.5	9.99
216	MID CONT TELEPHONE	U	6-27-66	7-66	4.8	12.52
217	MID CONT TELEPHONE	U	8-06-71	9-71	13.0	11.42
218	MIDDLE SOUTH UTILITIES	U	2-02-66	4-66	30.6	4.15
219	MIDDLE SOUTH UTILITIES	U	2-12-70	4-70	65.1	8.77
220	MILES LABORATORIES		8-22-68	9-68	22.3	10.38
221	MILTON BRADLEY CO		4-06-72	5-72	9.3	6.86
222	MINN MINING & MFG		12-14-70	1-71	107.3	2.04
223	MISSOURI PUBLIC SERV	U	8-06-70	11-70	3.2	6.61
224	MOHASCO INDUSTRIES INC		8-27-71	9-71	21.1	14.44
225	MONOGRAM INDUSTRIES		3-16-67	4-67	16.0	24.39
226	MOTOROLA INC		10-15-69	11-69	59.4	7.73
227	MOUNTAIN FUEL SUPPLY	U	5-04-64	5-64	7.9	10.00
228	MT STATES TEL & TEL	U	5-25-72	6-72	193.7	20.00
229	MURPHY OIL CORP		5-06-71	6-71	29.2	17.79
230	NATL AVIATION CORP		3-22-66	3-66	12.7	21.68
231	NATL AVIATION CORP		3-06-67	4-67	15.8	22.03
232	NATOMAS CO		6-17-68	9-68	15.0	15.74
233	NATOMAS CO		1-26-72	4-72	46.8	16.00
234	NEVADA POWER CO	U	6-30-64	7-64	5.8	6.64
235	NEVADA POWER CO	U	11-09-70	12-70	5.8	7.43
236	NEW ENGLAND ELEC SYST	U	12-14-64	2-65	18.3	5.00
237	NEW ENGLAND ELEC SYST	U	2-25-71	5-71	23.1	6.82
238	NEW ENGLAND TEL & TEL	U	4-21-66	5-66	143.3	12.50
239	NEW ENGLAND TEL & TEL	U	8-05-63	8-63	94.5	8.33
240	NEW ENGLAND TEL & TEL	U	8-15-69	9-69	137.8	12.50
241	NEW ENGLAND TEL & TEL	U	1-26-72	2-72	187.4	16.67
242	N Y STATE ELECT & GAS	U	9-26-69	10-69	22.5	9.99
243	N Y STATE ELECT & GAS	U	11-13-72	1-73	23.7	9.18
244	NIAGARA MOHAWK POWER	U	3-15-66	4-66	32.9	5.12
245	NIAGARA MOHAWK POWER	U	6-17-70	8-70	37.5	10.00
246	NIAGARA MOHAWK POWER	U	12-17-70	2-71	36.0	6.30
247	NORTHEAST UTILITIES	U	10-06-71	12-71	48.6	9.12
248	NORTHEAST UTILITIES	U	8-24-72	10-72	59.5	9.55

#	COMPANY NAME		DATE OF ANNOUN.	ISSUE MONTH	ISSUE MIL $	NEW / OLD
249	NORTHEAST UTILITIES	U	8-29-68	10-68	28.6	5.06
250	NORTHEAST UTILITIES	U	9-10-70	10-70	36.8	8.48
251	NORTHERN ILL. GAS	U	3-22-71	4-71	29.6	7.66
252	NO INDIANA PUBL SERV	U	12-15-72	1-73	25.8	5.27
253	NORTH NATURAL GAS	U	10-07-70	10-70	26.4	6.81
254	NORTH NATURAL GAS	U	7-13-71	9-71	30.1	6.73
255	NORTH STATES POW MINN	U	6-21-65	7-65	25.5	5.00
256	NORTH STATES POW MINN	U	10-20-70	10-70	37.2	10.00
257	NORTH STATES POW MINN	U	5-26-72	7-72	44.7	10.00
258	NORTH STATES POW MINN	U	9-16-68	1-69	29.2	6.67
259	NORTHWEST AIRLINES		2-26-64	3-64	31.0	25.00
260	NORTHWEST AIRLINES		3-11-69	3-69	79.7	7.16
261	OCCIDENTAL PETROLEUM		12-16-64	1-65	22.3	13.72
262	OKLAHOMA GAS & ELEC	U	3-12-69	3-69	14.1	5.00
263	OKLAHOMA GAS & ELEC	U	1-14-71	2-71	35.5	10.00
264	ORANGE & ROCKLAND UTIL	U	2-02-71	3-71	14.6	14.43
265	ORANGE & ROCKLAND UTIL	U	10-08-71	11-71	17.1	18.01
266	ORANGE & ROCKLAND UTIL	U	6-30-72	10-72	24.9	26.54
267	PAC GAS & ELEC	U	6-01-64	6-64	64.4	4.00
268	PAC GAS & ELEC	U	4-29-70	6-70	49.9	4.00
269	PAC POW & LT	U	10-02-63	11-63	17.1	5.03
270	PAC POW & LT	U	5-07-70	6-70	24.3	10.01
271	PAC POW & LT	U	12-20-71	4-72	36.7	10.13
272	PAC S W AIRLINES		2-17-66	3-66	6.3	17.99
273	PAC S W AIRLINES		7-02-71	9-71	18.8	25.11
274	PAC TEL & TEL	U	3-29-65	5-65	200.9	9.59
275	PAC TEL & TEL	U	10-24-66	11-66	197.2	9.54
276	PAC TEL & TEL	U	12-30-68	3-69	156.1	6.54
277	PACKARD-BELL ELECTR		1-10-66	2-66	4.2	17.18
278	PALM BEACH CO		1-14-70	3-70	5.9	14.55
279	PAN AM WORLD AIRWAYS		3-17-71	4-71	67.0	11.44
280	PENNSYLVANIA POW & LT	U	4-17-67	4-67	18.6	5.00
281	PENNSYLVANIA POW & LT	U	8-28-69	10-69	25.0	7.66
282	PENNSYLVANIA POW & LT	U	7-23-70	8-70	28.1	10.02
283	PENNSYLVANIA POW & LT	U	9-24-71	11-71	38.4	10.35
284	PENNSYLVANIA POW & LT	U	9-15-72	10-72	48.5	11.73

#	COMPANY NAME		DATE OF ANNOUN.	ISSUE MONTH	ISSUE MIL $	NEW / OLD
285	PERKIN-ELMER CORP		4-05-65	4-65	5.5	7.63
286	PHIL ELECTRIC	U	9-18-67	10-67	38.0	5.00
287	PHIL ELECTRIC	U	8-26-69	10-69	66.8	10.00
288	PHIL ELECTRIC	U	7-28-70	10-70	59.9	10.01
289	PHIL ELECTRIC	U	5-12-71	6-71	55.0	7.12
290	PHIL ELECTRIC	U	7-25-72	9-72	92.7	11.26
291	PIEDMONT NATURAL GAS	U	5-14-70	6-70	3.4	11.84
292	PITNEY-BOWES, INC		2-18-70	3-70	28.4	17.44
293	PLANNING RESEARCH CORP		1-29-68	4-68	3.4	13.35
294	POLAROID CORP		2-03-69	3-69	100.5	3.34
295	PORTLAND GENERAL ELEC	U	10-06-72	10-72	20.9	10.53
296	POTOMAC ELECTRIC POWER	U	12-20-63	1-64	21.7	6.67
297	POTOMAC ELECTRIC POWER	U	2-09-71	2-71	28.3	10.00
298	POTOMAC ELECTRIC POWER	U	8-25-72	10-72	37.5	11.45
299	PUB SERV OF COLORADO	U	8-06-62	9-62	29.2	10.00
300	PUB SERV OF INDIANA	U	7-24-72	9-72	29.8	7.32
301	PUB SERV ELEC & GAS	U	7-22-70	9-70	67.9	9.09
302	PUB SERV ELEC & GAS	U	4-07-72	6-72	94.3	11.11
303	PUGET SOUND PWR & LGT	U	2-07-68	2-68	12.2	10.02
304	QUAKER STATE OIL		6-14-71	7-71	16.6	5.44
305	RAMADA INNS INC		2-26-68	4-68	14.1	19.07
306	READING & BATES OFFSH		6-09-72	8-72	19.9	15.91
307	REDMAN INDUSTRIES INC		6-27-69	8-69	15.0	9.70
308	REVCO D.S. INC		9-28-72	11-72	31.1	12.06
309	RIEGEL PAPER CORP		4-02-65	4-65	9.2	14.30
310	RITE AID CORP		11-11-70	11-70	7.1	8.62
311	RITE AID CORP		4-10-72	5-72	66.4	15.49
312	RIVIANA FOODS INC		10-04-68	12-68	12.4	18.53
313	RIVIANA FOODS INC		9-20-71	11-71	12.8	12.36
314	ROCHESTER GAS & ELEC	U	6-19-72	8-72	15.7	11.89
315	ROCHESTER TELEPHONE	U	8-18-65	9-65	16.0	16.68
316	ROCHESTER TELEPHONE	U	8-17-67	9-67	13.1	9.98
317	RUBBERMAID, INC		6-04-71	7-71	8.0	4.98
318	SCM CORP		9-13-67	10-67	23.6	9.59
319	ST JOSEPH LIGHT & POW	U	2-11-72	3-72	1.9	9.72
320	SAN DIEGO GAS & ELEC	U	8-22-62	9-62	15.5	11.11

#	COMPANY NAME		DATE OF ANNOUN.	ISSUE MONTH	ISSUE MIL $	NEW / OLD
321	SAN DIEGO GAS & ELEC	U	10-17-72	12-72	30.8	15.00
322	SAVANNAH ELEC & PWR	U	2-12-70	3-70	2.9	8.26
323	SAXON INDUSTRIES INC		6-02-69	9-69	27.1	31.96
324	SEDCO INC		9-26-72	10-72	27.4	5.28
325	SHARON STEEL CORP		1-10-66	1-66	6.9	16.36
326	SHELL OIL CO		2-16-68	3-68	306.2	10.01
327	SIERRA PACIFIC POWER	U	7-26-72	1-73	7.9	10.46
328	SIGNODE CORP		3-30-71	4-71	12.4	5.83
329	SIMMONDS PRECISION PRO		8-24-67	10-67	4.9	5.58
330	SIMMONS CO		4-01-71	4-71	18.0	8.70
331	SKIL CORP		5-26-72	8-72	5.9	9.03
332	SO CAROLINA EL & GAS	U	1-31-69	2-69	11.2	5.01
333	SO CAROLINA EL & GAS	U	1-29-70	2-70	18.8	10.01
334	SO CAROLINA EL & GAS	U	5-07-71	6-71	58.9	31.45
335	SO CAROLINA EL & GAS	U	9-28-72	11-72	26.5	10.06
336	SOUTH JERSEY INDS		2-24-69	4-69	2.6	6.64
337	SO CALIFORNIA EDISON	U	9-22-64	10-64	53.3	4.17
338	SO CALIFORNIA EDISON	U	2-14-69	4-69	54.4	3.85
339	SOUTHERN CO	U	1-23-64	2-64	28.0	2.20
340	SOUTHERN CO	U	1-19-67	2-67	51.8	3.86
341	SOUTHERN CO	U	1-21-69	2-69	65.9	5.09
342	SOUTHERN CO	U	11-11-71	12-71	134.7	12.62
343	SOUTHERN CO	U	8-25-72	11-72	159.8	13.29
344	SO INDIANA GAS & ELEC	U	9-13-72	10-72	8.7	11.89
345	SURVEYOR FUND INC		10-21-68	1-69	29.1	26.63
346	TAFT BROADCASTING CO		5-26-72	6-72	24.5	14.51
347	TAMPA ELECTRIC CO	U	3-01-68	4-68	12.5	4.94
348	TAMPA ELECTRIC CO	U	10-10-72	12-72	18.8	6.99
349	TANDY CORPORATION		2-29-68	4-68	17.3	23.68
350	TANDY CORPORATION		11-06-70	12-70	39.8	8.61
351	TAPPAN CO		4-25-72	6-72	27.4	30.27
352	TENNECO		10-22-70	11-70	117.0	10.89
353	TESORO PETROLEM CORP		7-18-72	9-72	20.1	11.86
354	TEXAS EAST TRANSMISS	U	2-07-72	2-72	41.6	4.54
355	TEXAS INSTRUMENTS, INC		8-31-66	9-66	55.1	5.92
356	TEXAS UTILITIES CO	U	10-02-69	11-69	33.4	2.36

#	COMPANY NAME		DATE OF ANNOUN.	ISSUE MONTH	ISSUE MIL $	NEW / OLD
357	TEXAS UTILITIES CO	U	1-18-71	3-71	43.7	2.88
358	TEXAS UTILITIES CO	U	2-24-64	2-64	17.6	1.20
359	THATCHER GLASS MFG CO		5-05-65	5-65	5.0	6.66
360	TOOL RESEARCH & ENGR		5-09-72	6-72	24.9	12.25
361	TRANS WORLD AIRLINES		6-10-71	7-71	37.9	14.70
362	TSC INDUSTRIES INC		12-20-68	3-69	4.3	13.85
363	UAL INC		4-18-66	5-66	70.8	21.46
364	UNIONAMERICA CORP		4-14-72	5-72	46.0	17.10
365	UNION ELECTRIC CO	U	7-20-65	11-65	29.7	5.01
366	UNION ELECTRIC CO	U	7-31-70	9-70	47.4	9.83
367	UNION ELECTRIC CO	U	2-22-72	3-72	55.1	9.99
368	US LEASING INTL INC		3-19-69	4-69	10.0	16.83
369	U S SHOE CORP		12-20-68	2-69	9.8	5.10
370	UNIT UTILITIES	U	2-13-64	3-64	21.1	10.05
371	UNIT UTILITIES	U	11-22-65	12-65	15.4	5.11
372	UNIT UTILITIES	U	4-15-68	4-68	19.4	2.92
373	UNIT UTILITIES	U	11-14-69	12-69	22.0	3.68
374	UNIT UTILITIES	U	8-19-70	10-70	27.4	5.08
375	UNIT UTILITIES	U	11-12-71	12-71	27.0	4.70
376	UTAH POWER & LIGHT	U	3-28-72	5-72	24.0	13.37
377	VA ELECTRIC & POWER	U	2-25-64	5-64	37.2	3.80
378	VA ELECTRIC & POWER	U	4-22-68	5-68	54.0	8.56
379	VA ELECTRIC & POWER	U	12-22-69	3-70	74.3	9.00
380	VA ELECTRIC & POWER	U	7-24-72	9-72	86.3	12.34
381	WALWORTH COMPANY		7-01-66	8-66	2.6	12.70
382	WASHINGTON GAS LIGHT	U	4-04-68	4-68	10.3	12.52
383	WASHINGTON GAS LIGHT	U	4-16-71	5-71	10.5	11.35
384	WASHINGTON WATER POWER	U	7-25-69	8-69	8.9	6.88
385	WEIL-MCLAIN CO A		3-28-72	4-72	12.1	15.92
386	WESTCOAST TRANS		9-15-71	12-71	35.0	20.87
387	WESTERN BANCORPORATION		8-19-64	9-64	50.9	7.29
388	WESTERN UNION CORP	U	4-21-69	5-69	65.0	17.27
389	WESTINGHOUSE ELECTRIC		11-17-71	12-71	170.0	5.01
390	WHITE MOTOR CORP		5-15-72	6-72	24.5	18.43
391	WICKES CORPORATION		8-27-71	9-71	58.5	17.21
392	WILLIAMS BROS CO COM		6-02-72	7-72	39.4	13.52

#	COMPANY NAME		DATE OF ANNOUN.	ISSUE MONTH	ISSUE MIL $	NEW / OLD
393	WISCONSIN ELECTRIC PWR	U	8-05-64	9-64	30.5	10.00
394	WISCONSIN ELECTRIC PWR	U	9-04-68	9-68	28.5	10.01
395	WISCONSIN PUBL SERVICE	U	3-13-70	4-70	10.2	10.74
396	WISCONSIN PUBL SERVICE	U	9-20-71	12-71	12.0	11.31
397	WISCONSIN PUBL SERVICE	U	5-24-72	8-72	13.2	11.61
398	WOMETCO ENTERPRISES		12-13-67	1-68	8.2	10.66
399	WOODS CORP		2-20-68	4-68	5.5	16.94
400	YALE EXPRESS SYSTEM		7-22-63	8-63	5.5	23.04
401	ZALE CORP		6-14-68	7-68	30.8	12.09

INTRODUCTION TO APPENDIX B

Appendix B contains the results of various analyses performed on the sample of 401 stocks issuing new equity from 1962 to 1972. Each table and figure is referred to within the main text.

Table 47

PORTFOLIO EXCESS RETURNS
ALL NON-UTILITIES WITH ISSUES, 1962-1972
DAILY 200 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY -6

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00335	0.01764	1.04045	0.357	0.10051
1963	0.00118	0.01167	0.90707	0.331	0.09467
1964	0.00024	0.00810	0.30815	0.561	0.02595
1965	0.00032	0.00813	0.37730	0.357	0.02910
1966	-0.00054	0.01173	-0.50165	0.687	-0.06447
1967	-0.00183	0.01062	-1.56113	0.327	-0.15007
1968	0.00032	0.01073	0.33040	0.827	0.03933
1969	-0.00051	0.01250	-0.57069	1.236	-0.09938
1970	-0.00034	0.01114	-0.45877	1.988	-0.07684
1971	-0.00014	0.00918	-0.22572	2.391	-0.03171
1972	-0.00043	0.00686	-0.95523	3.104	-0.10073
TOTAL	-0.00016	0.01032	-0.59374	1.106	-0.23901

SERIAL CORRELATION=-0.0442

Table 48

PORTFOLIO EXCESS RETURNS
ALL NON-UTILITIES WITH ISSUES, 1962-1972
DAILY 200 STOCKS
ENTER PORTFOLIO DAY -5
LEAVE PORTFOLIO DAY -1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.00093	0.01371	-0.24436	0.119	-0.01208
1963	0.00001	0.00971	0.00285	0.100	0.00014
1964	0.00030	0.01019	0.19135	0.198	0.01279
1965	-0.00236	0.00710	-1.81962	0.119	-0.07078
1966	-0.00279	0.01181	-1.54977	0.218	-0.12002
1967	-0.00177	0.01134	-0.85549	0.120	-0.05316
1968	-0.00006	0.01129	-0.03677	0.265	-0.00305
1969	0.00163	0.01389	1.10573	0.420	0.14489
1970	-0.00114	0.01324	-0.89589	0.610	-0.12330
1971	-0.00139	0.01238	-1.31592	0.830	-0.19067
1972	-0.00178	0.01015	-2.25482	1.056	-0.29396
TOTAL	-0.00076	0.01175	-1.74689	0.369	-0.55700

SERIAL CORRELATION=-0.1187

Table 49

PORTFOLIO EXCESS RETURNS
ALL NON-UTILITIES WITH ISSUES, 1962-1972
DAILY 200 STOCKS
ENTER PORTFOLIO DAY 1
LEAVE PORTFOLIO DAY 5

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.00189	0.01300	-0.52409	0.119	-0.02457
1963	-0.00045	0.01270	-0.17740	0.100	-0.01126
1964	0.00002	0.00767	0.01407	0.198	0.00071
1965	0.00151	0.00823	1.00379	0.119	0.04524
1966	-0.00028	0.01201	-0.15290	0.218	-0.01204
1967	-0.00149	0.01660	-0.49287	0.120	-0.04482
1968	-0.00346	0.01282	-1.90767	0.239	-0.17295
1969	-0.00075	0.01327	-0.53215	0.424	-0.06625
1970	-0.00065	0.01377	-0.49898	0.630	-0.07304
1971	-0.00095	0.01182	-0.94150	0.830	-0.13030
1972	-0.00014	0.01046	-0.16867	1.048	-0.02252
TOTAL	-0.00057	0.01205	-1.28815	0.368	-0.42066

SERIAL CORRELATION=-0.0707

Table 50

PORTFOLIO EXCESS RETURNS
ALL NON-UTILITIES WITH ISSUES, 1962-1972
DAILY 200 STOCKS
ENTER PORTFOLIO DAY 6
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.00125	0.00617	-0.73045	0.119	-0.01625
1963	-0.00142	0.01061	-0.61512	0.084	-0.02990
1964	-0.00102	0.01135	-0.61763	0.213	-0.04806
1965	-0.00123	0.00949	-0.71210	0.119	-0.03701
1966	-0.00123	0.01103	-0.72874	0.218	-0.05272
1967	-0.00096	0.01181	-0.44730	0.120	-0.02894
1968	-0.00107	0.01217	-0.58845	0.208	-0.04803
1969	0.00023	0.01122	0.19673	0.436	0.02082
1970	0.00079	0.01143	0.74848	0.642	0.09217
1971	-0.00185	0.01114	-1.93471	0.826	-0.25123
1972	0.00107	0.00962	1.41103	1.036	0.17169
TOTAL	-0.00034	0.01082	-0.85703	0.366	-0.25065

SERIAL CORRELATION=-0.0986

Table 51

PORTFOLIO EXCESS RETURNS
ALL UTILITIES WITH ISSUES, 1962-1972
DAILY 187 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY -6

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00650	0.00966	1.34519	0.032	0.02599
1963	0.00002	0.01364	0.01648	0.343	0.00204
1964	0.00290	0.01680	1.67497	0.407	0.27276
1965	0.00033	0.01822	0.20355	0.722	0.04130
1966	0.00093	0.02364	0.43545	0.833	0.11415
1967	-0.00034	0.02353	-0.20583	1.199	-0.06814
1968	-0.00138	0.02550	-0.70530	1.389	-0.23453
1969	0.00035	0.01763	0.26869	1.320	0.06496
1970	0.00342	0.02072	1.93802	1.004	0.47175
1971	-0.00102	0.01134	-1.27972	2.502	-0.20731
1972	-0.00052	0.01848	-0.34574	1.542	-0.07849
TOTAL	0.00016	0.01961	0.31827	1.027	0.23976

SERIAL CORRELATION=-0.0243

Table 52

PORTFOLIO EXCESS RETURNS
ALL UTILITIES WITH ISSUES, 1962-1972
DAILY 187 STOCKS
ENTER PORTFOLIO DAY -5
LEAVE PORTFOLIO DAY -1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	-0.00517	0.01643	-1.72254	0.120	-0.15505
1964	-0.00595	0.02005	-1.62438	0.119	-0.17838
1965	-0.00146	0.02218	-0.46013	0.218	-0.07144
1966	-0.00165	0.02472	-0.52473	0.317	-0.10213
1967	-0.00359	0.02628	-1.31909	0.398	-0.33433
1968	0.00033	0.02437	0.12041	0.465	0.02608
1969	0.00202	0.02006	1.01919	0.440	0.20646
1970	-0.00510	0.01693	-2.50438	0.335	-0.35217
1971	-0.00256	0.01795	-1.58042	0.830	-0.31461
1972	-0.00486	0.02113	-2.16900	0.518	-0.43247
TOTAL	-0.00121	0.02154	-1.51591	0.342	-0.87981

SERIAL CORRELATION= 0.1542

Table 53

PORTFOLIO EXCESS RETURNS
ALL UTILITIES WITH ISSUES, 1962-1972
DAILY 187 STOCKS
ENTER PORTFOLIO DAY 1
LEAVE PORTFOLIO DAY 5

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	-0.00006	0.01322	-0.02487	0.120	-0.00180
1964	-0.00088	0.01454	-0.32970	0.119	-0.02625
1965	-0.00186	0.01497	-0.87188	0.218	-0.09135
1966	0.00013	0.02304	0.04596	0.317	0.00834
1967	0.00154	0.02485	0.58484	0.382	0.13709
1968	0.00145	0.03008	0.44022	0.482	0.12065
1969	-0.00169	0.01669	-1.02141	0.440	-0.17215
1970	-0.00092	0.01665	-0.45983	0.335	-0.06358
1971	0.00082	0.01636	0.54541	0.810	0.09735
1972	-0.00007	0.01761	-0.03601	0.538	-0.00611
TOTAL	-0.00006	0.02003	-0.07507	0.342	-0.04052

SERIAL CORRELATION= 0.0887

Table 54

PORTFOLIO EXCESS RETURNS
ALL UTILITIES WITH ISSUES, 1962-1972
DAILY 187 STOCKS
ENTER PORTFOLIO DAY 6
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	0.00092	0.01784	0.28272	0.120	0.02762
1964	0.00610	0.02425	1.37835	0.119	0.18305
1965	0.00014	0.01813	0.05377	0.218	0.00682
1966	0.00130	0.02587	0.39663	0.317	0.08081
1967	0.00137	0.02294	0.56095	0.378	0.12069
1968	-0.00107	0.02699	-0.35607	0.451	-0.08596
1969	0.00022	0.01739	0.13075	0.472	0.02341
1970	0.00001	0.01433	0.00653	0.319	0.00075
1971	-0.00125	0.01397	-0.96991	0.794	-0.14714
1972	0.00029	0.01708	0.16556	0.570	0.02799
TOTAL	0.00030	0.01979	0.40671	0.342	0.21683

SERIAL CORRELATION=-0.0183

Table 55

PORTFOLIO EXCESS RETURNS
ISSUES WITH LOW % OWNERSHIP OFFERED
DAILY 129 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00650	0.00966	1.34519	0.032	0.02599
1963	-0.00012	0.01130	-0.12428	0.618	-0.01644
1964	-0.00016	0.00913	-0.22334	1.087	-0.02651
1965	-0.00047	0.01330	-0.49690	0.984	-0.09229
1966	-0.00013	0.01647	-0.11101	1.262	-0.02514
1967	0.00012	0.01613	0.09574	1.080	0.02031
1968	-0.00065	0.01485	-0.60192	1.314	-0.12289
1969	-0.00050	0.01023	-0.72739	2.780	-0.11116
1970	0.00033	0.01010	0.48577	2.748	0.07378
1971	0.00105	0.01048	1.58086	2.538	0.26152
1972	-0.00070	0.01181	-0.83777	1.570	-0.14027
TOTAL	-0.00010	0.01250	-0.35233	1.456	-0.19472

SERIAL CORRELATION= 0.0008

Table 56

PORTFOLIO EXCESS RETURNS
ISSUES WITH MEDIUM % OWNERSHIP OFFERED
DAILY 129 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00098	0.01484	0.44586	0.738	0.04488
1963	-0.00050	0.01097	-0.42915	0.494	-0.04414
1964	-0.00068	0.01079	-0.54756	0.296	-0.05116
1965	-0.00020	0.01663	-0.10852	0.317	-0.01614
1966	-0.00055	0.01861	-0.24855	0.369	-0.03870
1967	-0.00142	0.01878	-0.99143	1.076	-0.24486
1968	-0.00184	0.01506	-1.59386	0.987	-0.31390
1969	-0.00069	0.01635	-0.59399	1.320	-0.13772
1970	-0.00058	0.00979	-0.93147	2.909	-0.14363
1971	-0.00095	0.00928	-1.55850	3.621	-0.22037
1972	-0.00080	0.00835	-1.50430	4.179	-0.19629
TOTAL	-0.00048	0.01333	-1.45956	1.482	-0.78514

SERIAL CORRELATION= 0.0084

Table 57

PORTFOLIO EXCESS RETURNS
ISSUES WITH HIGH % OWNERSHIP CFFERED
DAILY 129 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	-0.00127	0.01833	-0.54461	0.247	-0.07860
1964	0.00159	0.02026	0.94219	0.613	0.22983
1965	-0.00069	0.01492	-0.53501	0.857	-0.09171
1966	-0.00081	0.02426	-0.46394	1.603	-0.15719
1967	-0.00264	0.02020	-1.61845	0.992	-0.40436
1968	-0.00139	0.02254	-0.91605	2.173	-0.30760
1969	-0.00111	0.01428	-1.00081	1.256	-0.18364
1970	0.00075	0.02603	0.28908	0.398	0.07563
1971	-0.00169	0.01052	-2.56390	3.988	-0.42882
1972	-0.00028	0.00853	-0.48006	3.976	-0.05964
TOTAL	-0.00051	0.01823	-1.12628	1.464	-0.83127

SERIAL CORRELATION=-0.0062

Table 58

PORTFOLIO EXCESS RETURNS
UTILITY ISSUES & LOW % OWNERSHIP
DAILY 66 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	-0.00006	0.01220	-0.04348	0.386	-0.00501
1964	0.00018	0.00798	0.26717	0.964	0.02578
1965	-0.00046	0.00736	-0.66566	0.492	-0.05211
1966	-0.00088	0.01140	-0.84599	0.770	-0.10522
1967	-0.00183	0.01145	-1.46967	0.339	-0.15514
1968	-0.00082	0.01287	-0.79191	0.920	-0.12687
1969	-0.00112	0.00967	-1.64737	1.524	-0.22630
1970	0.00023	0.01301	0.24700	1.421	0.04498
1971	0.00064	0.01020	0.83852	0.830	0.11347
1972	-0.00283	0.01155	-2.76511	0.558	-0.35990
TOTAL	-0.00045	0.01095	-1.53849	0.746	-0.63202

SERIAL CORRELATION=-0.0715

Table 59

PORTFOLIO EXCESS RETURNS
UTILITY ISSUES & MEDIUM % OWNERSHIP
DAILY 66 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00044	0.01650	0.18079	0.492	0.02023
1963	0.00065	0.00867	0.58659	0.247	0.04005
1964	-0.00064	0.01119	-0.45073	0.245	-0.03970
1965	0.00009	0.00977	0.05368	0.123	0.00292
1966	0.00055	0.01222	0.35343	0.246	0.03401
1967	0.00016	0.01145	0.11053	0.247	0.00997
1968	-0.00157	0.01139	-1.08172	0.274	-0.09704
1969	-0.00015	0.01183	-0.14329	0.732	-0.01955
1970	-0.00045	0.01115	-0.62104	1.890	-0.10726
1971	-0.00136	0.00929	-1.97475	1.545	-0.24749
1972	-0.00054	0.00826	-1.01064	2.319	-0.12804
TOTAL	-0.00038	0.01062	-1.22540	0.760	-0.44654

SERIAL CORRELATION=-0.0603

Table 60

PORTFOLIO EXCESS RETURNS
UTILITY ISSUES & HIGH % OWNERSHIP
DAILY 68 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00125	0.00990	0.70201	0.246	0.03869
1963	0.0	0.0	0.0	0.0	0.0
1964	0.0	0.0	0.0	0.0	0.0
1965	-0.00047	0.00860	-0.30366	0.123	-0.01454
1966	-0.00097	0.01472	-0.63750	0.369	-0.09049
1967	-0.00439	0.01401	-1.74395	0.124	-0.13602
1968	-0.00057	0.01128	-0.47582	0.398	-0.05090
1969	0.00024	0.01649	0.13637	0.340	0.02073
1970	-0.00057	0.01225	-0.52884	0.685	-0.07357
1971	-0.00074	0.01095	-1.06883	2.668	-0.18623
1972	0.00004	0.00705	0.07611	3.578	0.00787
TOTAL	-0.00043	0.01147	-1.14861	0.776	-0.40792

SERIAL CORRELATION=-0.0850

Table 61

PORTFOLIO EXCESS RETURNS
NON-UTILITY ISSUES & LOW % OWNERSHIP
DAILY 62 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NC STOCKS	CUM YEARLY RETURN
1962	0.00650	0.00966	1.34519	0.032	0.02599
1963	-0.00020	0.01002	-0.14864	0.231	-0.01134
1964	-0.00223	0.01370	-0.90512	0.123	-0.06904
1965	-0.00095	0.01837	-0.55481	0.492	-0.10881
1966	0.00072	0.02250	0.30662	0.369	0.06653
1967	0.00446	0.02927	1.83926	0.705	0.65048
1968	-0.00169	0.02475	-0.62777	0.434	-0.14238
1969	0.00092	0.02074	0.61242	1.132	0.17604
1970	-0.00068	0.01683	-0.54478	1.449	-0.12371
1971	0.00112	0.01532	1.10269	1.953	0.25402
1972	-0.00038	0.01491	-0.27903	0.765	-0.04615
TOTAL	0.00045	0.01976	0.80944	0.699	0.56610

SERIAL CORRELATION= 0.0743

Table 62

PORTFOLIO EXCESS RETURNS
NON-UTILITY ISSUES & MEDIUM % OWNERSHIP
DAILY 62 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	-0.00131	0.01548	-0.81693	0.371	-0.12197
1964	0.00107	0.01325	0.45006	0.174	0.03320
1965	-0.00096	0.01461	-0.66602	0.563	-0.09877
1966	-0.00069	0.02129	-0.32800	0.492	-0.07054
1967	-0.00174	0.02213	-1.03342	0.869	-0.30084
1968	-0.00291	0.02421	-1.43369	0.938	-0.41369
1969	-0.00112	0.01650	-0.89926	1.132	-0.19686
1970	-0.00427	0.02150	-1.63866	0.366	-0.29047
1971	-0.00090	0.01636	-0.73782	1.545	-0.16241
1972	-0.00060	0.01502	-0.50723	1.283	-0.09638
TOTAL	-0.00070	0.01866	-1.32324	0.703	-0.86565

SERIAL CORRELATION=-0.0073

Table 63

PORTFOLIO EXCESS RETURNS
NON-UTILITY ISSUES & HIGH % OWNERSHIP
DAILY 63 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	-0.00215	0.02053	-0.58312	0.124	-0.06664
1964	0.00153	0.02062	0.82415	0.490	0.18847
1965	0.00001	0.02230	0.00311	0.365	0.00049
1966	-0.00105	0.02820	-0.46992	0.988	-0.16712
1967	-0.00290	0.02218	-1.47124	0.865	-0.36781
1968	0.00036	0.02162	0.22105	1.509	0.06429
1969	-0.00054	0.01833	-0.29899	0.496	-0.05536
1970	0.00126	0.03212	0.30980	0.244	0.07835
1971	-0.00262	0.01506	-2.41247	1.605	-0.50479
1972	-0.00187	0.01906	-1.03066	1.223	-0.20608
TOTAL	-0.00066	0.02187	-1.01834	0.719	-0.75093

SERIAL CORRELATION=-0.0018

Table 64

PORTFOLIO EXCESS RETURNS
UTILITY ISSUES & LOW % OWNERSHIP
DAILY 66 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	0.00250	0.01007	0.74488	0.036	0.02251
1964	0.00048	0.01056	0.20934	0.095	0.01013
1965	-0.00375	0.01058	-1.22781	0.048	-0.04499
1966	-0.00135	0.01027	-0.49275	0.071	-0.01893
1967	-0.00464	0.00993	-1.40186	0.036	-0.04175
1968	-0.00235	0.01338	-0.78704	0.093	-0.04710
1969	-0.00274	0.01261	-1.23108	0.144	-0.08779
1970	-0.00690	0.01841	-2.12025	0.130	-0.22080
1971	-0.00035	0.01141	-0.13473	0.083	-0.00670
1972	-0.00725	0.01412	-1.98874	0.060	-0.10876
TOTAL	-0.00243	0.01335	-2.45832	0.072	-0.44397

SERIAL CORRELATION=-0.1056

Table 65

PORTFOLIO EXCESS RETURNS
UTILITY ISSUES & MEDIUM % OWNERSHIP
DAILY 66 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.01167	0.01659	-1.72316	0.048	-0.07002
1963	-0.00739	0.00507	-3.56904	0.024	-0.04433
1964	0.00119	0.01115	0.26149	0.024	0.00714
1965	0.00730	0.00330	3.82444	0.012	0.02189
1966	0.00257	0.01226	0.51347	0.024	0.01542
1967	0.00404	0.00909	1.08785	0.024	0.02421
1968	-0.00328	0.00690	-1.16325	0.027	-0.01965
1969	-0.00469	0.01393	-1.38959	0.072	-0.07978
1970	-0.00323	0.01508	-1.33607	0.177	-0.12586
1971	-0.00543	0.01247	-2.61438	0.154	-0.19561
1972	-0.00091	0.01105	-0.58687	0.227	-0.04629
TOTAL	-0.00233	0.01271	-2.47515	0.074	-0.42449

SERIAL CORRELATION=-0.1154

Table 66

PORTFOLIO EXCESS RETURNS
UTILITY ISSUES & HIGH % OWNERSHIP
DAILY 68 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.00493	0.01081	-0.79038	0.024	-0.01480
1963	0.0	0.0	0.0	0.0	0.0
1964	0.0	0.0	0.0	0.0	0.0
1965	-0.00462	0.01541	-0.51932	0.012	-0.01386
1966	0.00466	0.02205	0.63462	0.036	0.04198
1967	-0.01595	0.00421	-6.55621	0.012	-0.04786
1968	-0.00080	0.00952	-0.25232	0.040	-0.00721
1969	-0.00052	0.01766	-0.07810	0.028	-0.00365
1970	0.00015	0.01621	0.03878	0.067	0.00259
1971	-0.00689	0.01623	-3.26085	0.261	-0.40658
1972	-0.00340	0.01530	-1.90879	0.347	-0.25128
TOTAL	-0.00313	0.01599	-2.65268	0.075	-0.57528

SERIAL CORRELATION=-0.0271

Table 67

PORTFOLIO EXCESS RETURNS
NON-UTILITY ISSUES & LOW % OWNERSHIP
DAILY 62 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	-0.00705	0.01306	-1.32284	0.024	-0.04232
1964	-0.00335	0.01315	-0.44131	0.012	-0.01005
1965	-0.00355	0.01493	-0.82391	0.048	-0.04262
1966	-0.00117	0.03729	-0.09424	0.036	-0.01054
1967	-0.00182	0.02568	-0.30031	0.072	-0.03272
1968	-0.01166	0.01435	-2.43652	0.040	-0.10490
1969	-0.00807	0.02613	-1.60479	0.108	-0.21788
1970	-0.00308	0.02474	-0.71473	0.142	-0.10156
1971	-0.00553	0.02433	-1.47230	0.190	-0.23214
1972	-0.01066	0.02206	-2.04981	0.072	-0.19187
TOTAL	-0.00373	0.02410	-2.06142	0.067	-0.66095

SERIAL CORRELATION=-0.2088

Table 68

PORTFOLIO EXCESS RETURNS
NON-UTILITY ISSUES & MEDIUM % OWNERSHIP
DAILY 62 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	-0.01033	0.02437	-1.27126	0.036	-0.09294
1964	-0.00660	0.01765	-0.64806	0.012	-0.01981
1965	-0.00987	0.02649	-1.44351	0.060	-0.14811
1966	0.00560	0.01497	1.29483	0.048	0.06716
1967	-0.00888	0.02805	-1.45064	0.084	-0.18646
1968	-0.01197	0.02233	-2.45570	0.093	-0.25128
1969	-0.00501	0.01951	-1.33457	0.108	-0.13528
1970	-0.01680	0.03271	-1.54057	0.035	-0.15118
1971	-0.00953	0.02895	-2.00169	0.154	-0.35252
1972	-0.00613	0.02897	-1.07798	0.120	-0.15926
TOTAL	-0.00446	0.02638	-2.26980	0.068	-0.80329

SERIAL CORRELATION=-0.0292

Table 69

PORTFOLIO EXCESS RETURNS
NON-UTILITY ISSUES & HIGH % OWNERSHIP
DAILY 63 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	-0.01816	0.01386	-2.26905	0.012	-0.05448
1964	-0.00741	0.02163	-1.18708	0.047	-0.08895
1965	-0.01230	0.02206	-1.36637	0.024	-0.07382
1966	-0.01353	0.04381	-1.48127	0.107	-0.31121
1967	-0.00221	0.02564	-0.39476	0.084	-0.04638
1968	-0.00577	0.03461	-0.92807	0.146	-0.17885
1969	-0.00847	0.02826	-1.03864	0.048	-0.10169
1970	-0.00887	0.02480	-0.87584	0.024	-0.05321
1971	-0.00651	0.02564	-1.48113	0.154	-0.22145
1972	-0.00293	0.02833	-0.53812	0.120	-0.07921
TOTAL	-0.00421	0.03047	-1.83026	0.070	-0.73762

SERIAL CORRELATION= 0.0918

Table 70

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH LOW AVERAGE D-E RATIO
88 STOCKS

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.01877	0.01877	0.09002	1.9564
-11	0.00713	0.02604	0.13391	1.8243
-10	0.01441	0.04083	0.19536	1.9603
-9	0.02139	0.06309	0.19655	3.0108
-8	0.00983	0.07353	0.24742	2.7880
-7	0.03531	0.11144	0.29881	3.4984
-6	0.00294	0.11470	0.29092	3.6986
-5	0.01144	0.12745	0.30509	3.9189
-4	0.03068	0.16204	0.35303	4.3059
-3	0.03228	0.19955	0.38385	4.8769
-2	0.02061	0.22428	0.43964	4.7856
-1	-0.00276	0.22090	0.44573	4.6491
0	-0.01225	0.20595	0.44208	4.3701
1	0.01783	0.22745	0.52377	4.0737
2	0.02227	0.25479	0.61262	3.9015
3	0.00348	0.25915	0.62672	3.8790

Figure 28

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH LOW AVERAGE D-E RATIO
88 STOCKS

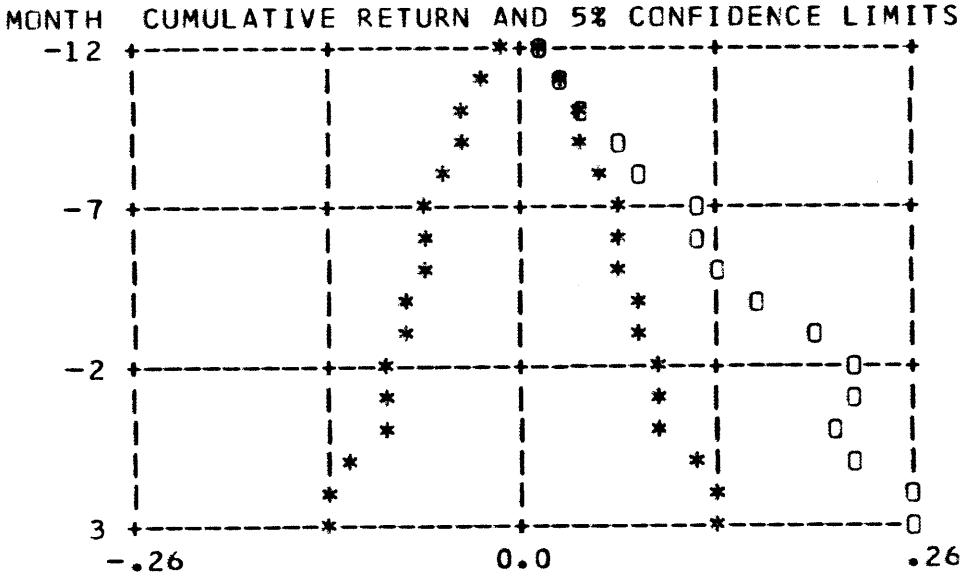

Table 71

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH MEDIUM AVERAGE D-E RATIO
84 STOCKS

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	-0.00508	-0.00508	0.05512	-0.8452
-11	0.01176	0.00662	0.06872	0.8829
-10	0.01708	0.02381	0.10046	2.1723
-9	-0.00725	0.01639	0.13524	1.1109
-8	-0.00784	0.00843	0.15001	0.5149
-7	0.01616	0.02472	0.18796	1.2056
-6	-0.00130	0.02339	0.21784	0.9843
-5	-0.00022	0.02317	0.22261	0.9540
-4	0.00101	0.02420	0.26406	0.8400
-3	0.00580	0.03015	0.30043	0.9197
-2	-0.00702	0.02291	0.30572	0.6868
-1	0.00658	0.02964	0.46177	0.5883
0	-0.02407	0.00486	0.41013	0.1086
1	0.00040	0.00526	0.40562	0.1189
2	0.00758	0.01288	0.42927	0.2750
3	0.01103	0.02406	0.47659	0.4626

Figure 29

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH MEDIUM AVERAGE D-E RATIO
84 STOCKS

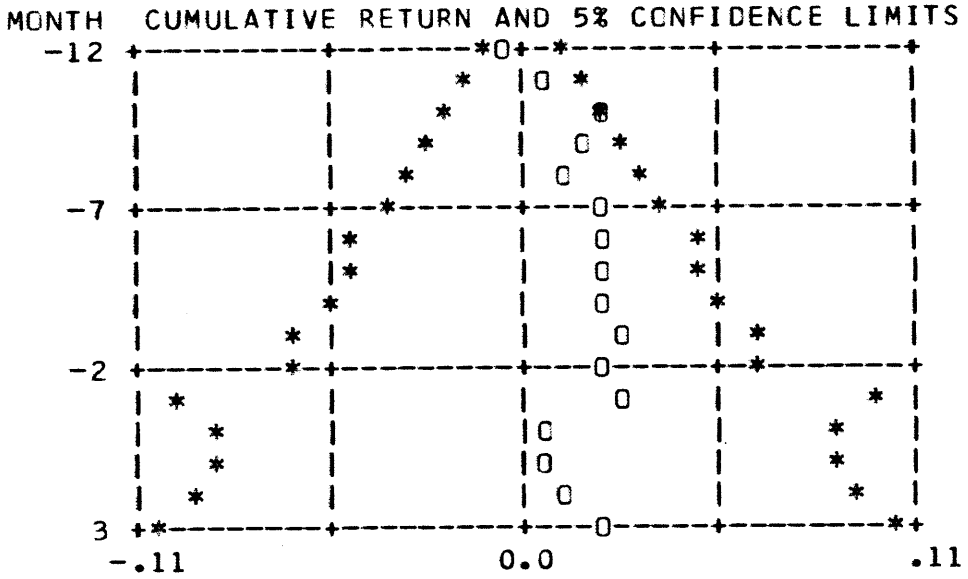

Table 72

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH HIGH AVERAGE D-E RATIO
88 STOCKS

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.00556	0.00556	0.08349	0.6248
-11	0.01204	0.01767	0.10886	1.5225
-10	0.00668	0.02447	0.13469	1.7041
-9	-0.01105	0.01315	0.11694	1.0548
-8	-0.01304	-0.00007	0.14187	-0.0044
-7	-0.00884	-0.00890	0.13564	-0.6156
-6	-0.00155	-0.01044	0.14828	-0.6605
-5	-0.00463	-0.01502	0.15911	-0.8858
-4	0.00121	-0.01383	0.17324	-0.7490
-3	0.00873	-0.00523	0.19323	-0.2537
-2	-0.00217	-0.00739	0.20865	-0.3321
-1	-0.01702	-0.02428	0.18952	-1.2020
0	-0.01379	-0.03774	0.21223	-1.6682
1	-0.00583	-0.04335	0.22270	-1.8259
2	-0.01019	-0.05310	0.23248	-2.1427
3	-0.00067	-0.05374	0.22580	-2.2326

Figure 30

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH HIGH AVERAGE D-E RATIO
88 STOCKS

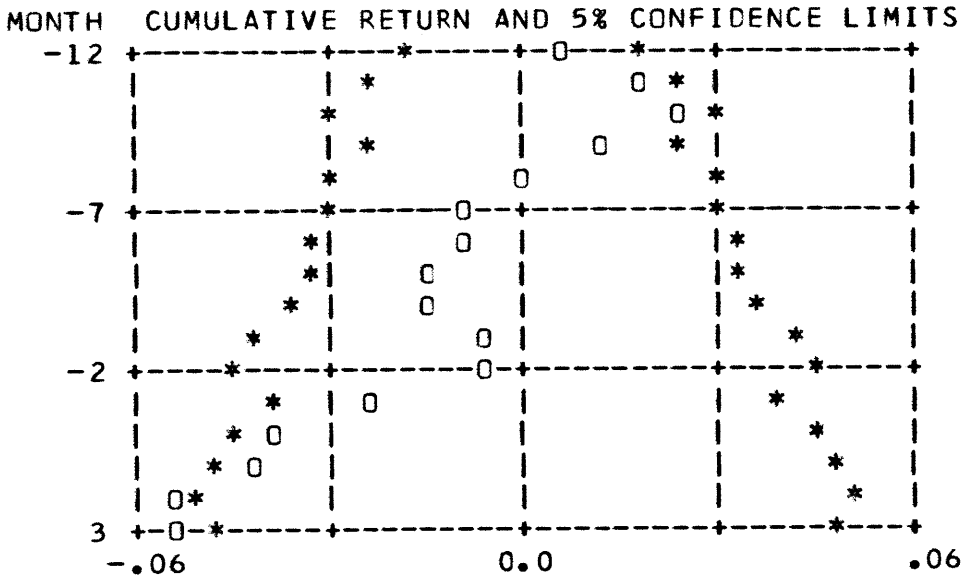

Table 73

PORTFOLIO EXCESS RETURNS
ISSUES WITH LOW AVERAGE D-E RATIO
DAILY 97 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00650	0.00966	1.34519	0.032	0.02599
1963	-0.00009	0.00909	-0.09373	0.367	-0.00772
1964	0.00020	0.01206	0.14742	0.478	0.01581
1965	-0.00130	0.01582	-1.03502	0.984	-0.20647
1966	0.00103	0.02102	0.51043	0.738	0.11149
1967	-0.00140	0.02244	-0.80558	0.988	-0.23365
1968	-0.00097	0.01700	-0.74152	1.217	-0.16340
1969	0.00079	0.01528	0.76707	1.628	0.17308
1970	-0.00111	0.01887	-0.79701	1.571	-0.20288
1971	0.00030	0.01031	0.45515	3.020	0.07271
1972	-0.00005	0.01436	-0.04711	1.048	-0.00905
TOTAL	-0.00026	0.01619	-0.64932	1.097	-0.41872

SERIAL CORRELATION=-0.0002

Table 74

PORTFOLIO EXCESS RETURNS
ISSUES WITH MEDIUM AVERAGE D-E RATIO
DAILY 97 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00044	0.01650	0.18079	0.492	0.02023
1963	-0.00081	0.01333	-0.70900	0.622	-0.11059
1964	0.00054	0.01031	0.64727	0.609	0.08174
1965	-0.00066	0.00822	-0.88037	0.615	-0.07992
1966	-0.00065	0.01584	-0.57307	1.262	-0.12639
1967	0.00188	0.02191	1.07991	1.044	0.29735
1968	-0.00166	0.01617	-1.23736	1.221	-0.24178
1969	-0.00047	0.01072	-0.65141	1.976	-0.10402
1970	0.00033	0.01199	0.38947	1.240	0.06668
1971	-0.00185	0.01528	-1.86878	1.984	-0.44055
1972	-0.00025	0.01113	-0.30083	1.211	-0.04466
TOTAL	-0.00034	0.01408	-1.01156	1.116	-0.60357

SERIAL CORRELATION= 0.0365

Table 75

PORTFOLIO EXCESS RETURNS
ISSUES WITH HIGH AVERAGE D-E RATIO
DAILY 98 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00125	0.00990	0.70201	0.246	0.03869
1963	-0.00052	0.00651	-0.44605	0.124	-0.01617
1964	0.00143	0.01581	0.71226	0.245	0.08867
1965	0.00005	0.02150	0.01423	0.123	0.00170
1966	-0.00039	0.01905	-0.15113	0.246	-0.02135
1967	-0.00224	0.01851	-1.13642	0.371	-0.19735
1968	0.00129	0.01527	0.86888	0.686	0.13657
1969	-0.00100	0.01220	-0.94104	0.992	-0.13237
1970	-0.00028	0.01064	-0.41166	2.512	-0.06859
1971	-0.00130	0.00952	-2.17874	4.455	-0.33005
1972	-0.00072	0.00893	-1.16960	2.231	-0.15205
TOTAL	-0.00044	0.01252	-1.22835	1.112	-0.54324

SERIAL CORRELATION=-0.0244

Table 76

PORTFOLIO EXCESS RETURNS
ISSUES WITH LOW AVERAGE D-E RATIO
DAILY 97 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.0	0.0	0.0	0.0	0.0
1963	-0.00497	0.01145	-1.30080	0.036	-0.04469
1964	-0.00391	0.00995	-1.24157	0.047	-0.03908
1965	-0.00372	0.01509	-1.20842	0.095	-0.08932
1966	-0.00132	0.03081	-0.17159	0.071	-0.02115
1967	0.00423	0.02740	0.75682	0.096	0.10157
1968	-0.00942	0.01924	-2.34674	0.119	-0.21659
1969	-0.00766	0.02589	-1.84683	0.156	-0.29860
1970	-0.00824	0.02742	-1.77810	0.154	-0.28849
1971	-0.00551	0.02119	-2.08077	0.296	-0.35278
1972	-0.00427	0.02363	-0.88573	0.096	-0.10254
TOTAL	-0.00297	0.02346	-2.07115	0.106	-0.79529

SERIAL CORRELATION= 0.0123

Table 77

PORTFOLIO EXCESS RETURNS
ISSUES WITH MEDIUM AVERAGE D-E RATIO
DAILY 97 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.01167	0.01659	-1.72316	0.048	-0.07002
1963	-0.00468	0.02093	-0.86649	0.060	-0.07022
1964	0.00081	0.01194	0.26360	0.059	0.01219
1965	-0.00131	0.01163	-0.43481	0.060	-0.01959
1966	-0.00749	0.01641	-2.41466	0.119	-0.20961
1967	-0.00910	0.02126	-2.22483	0.108	-0.24579
1968	-0.00720	0.01413	-2.59698	0.119	-0.18709
1969	-0.00187	0.01308	-0.91747	0.184	-0.07682
1970	-0.00517	0.02017	-1.38154	0.114	-0.15006
1971	-0.00772	0.02350	-2.27503	0.202	-0.37035
1972	-0.00338	0.01333	-1.34273	0.120	-0.09473
TOTAL	-0.00293	0.01827	-2.67266	0.108	-0.81403

SERIAL CORRELATION=-0.0965

Table 78

PORTFOLIO EXCESS RETURNS
ISSUES WITH HIGH AVERAGE D-E RATIO
DAILY 98 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.00493	0.01081	-0.79038	0.024	-0.01480
1963	-0.01093	0.00399	-4.75015	0.012	-0.03279
1964	0.00045	0.01398	0.07836	0.024	0.00268
1965	-0.01515	0.04311	-0.60864	0.012	-0.04545
1966	0.00274	0.02138	0.31446	0.024	0.01647
1967	-0.00093	0.01591	-0.17615	0.036	-0.00841
1968	0.00552	0.02644	0.80901	0.066	0.08283
1969	-0.00351	0.02006	-0.85749	0.096	-0.08426
1970	-0.00437	0.01561	-2.05893	0.236	-0.23620
1971	-0.00494	0.01841	-2.51764	0.439	-0.43481
1972	-0.00419	0.01291	-2.24665	0.215	-0.20094
TOTAL	-0.00265	0.01790	-2.37963	0.108	-0.68557

SERIAL CORRELATION=-0.1181

Table 79

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH LOW "MARKET" D-E RATIOS
133 STOCKS

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.01433	0.01433	0.07891	2.0945
-11	0.01146	0.02595	0.12070	2.4799
-10	0.02252	0.04906	0.18345	3.0842
-9	0.01134	0.06096	0.18878	3.7242
-8	0.00677	0.06815	0.23435	3.3538
-7	0.03133	0.10162	0.27999	4.1857
-6	0.00774	0.11015	0.29101	4.3653
-5	0.01562	0.12749	0.30369	4.8415
-4	0.02437	0.15497	0.35888	4.9801
-3	0.02594	0.18493	0.39927	5.3415
-2	0.01237	0.19959	0.44020	5.2289
-1	0.00787	0.20904	0.50944	4.7321
0	-0.01321	0.19306	0.48519	4.5889
1	0.01699	0.21334	0.53403	4.6070
2	0.01872	0.23605	0.60226	4.5200
3	0.00491	0.24212	0.63021	4.4307

Figure 31

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH LOW "MARKET" D-E RATIOS
133 STOCKS

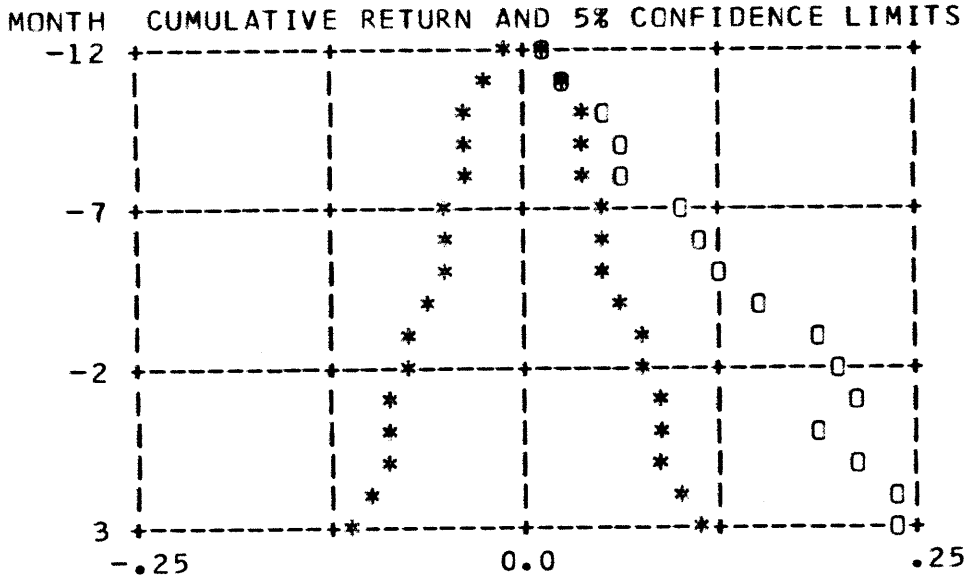

Table 80

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH HIGH "MARKET" D-E RATIOS
127 STOCKS

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	-0.00151	-0.00151	0.07716	-0.2204
-11	0.00901	0.00748	0.09146	0.9222
-10	0.00211	0.00961	0.09796	1.1057
-9	-0.00969	-0.00018	0.09995	-0.0199
-8	-0.01472	-0.01489	0.11022	-1.5225
-7	-0.00419	-0.01902	0.11564	-1.8536
-6	-0.00878	-0.02764	0.11051	-2.8184
-5	-0.01301	-0.04029	0.10411	-4.3608
-4	-0.00344	-0.04359	0.09682	-5.0738
-3	0.00472	-0.03908	0.10371	-4.2467
-2	-0.00469	-0.04358	0.11677	-4.2064
-1	-0.02037	-0.06307	0.12452	-5.7079
0	-0.02066	-0.08242	0.12113	-7.6684
1	-0.01084	-0.09237	0.11873	-8.7672
2	-0.00723	-0.09893	0.12883	-8.6539
3	0.00401	-0.09532	0.13499	-7.9575

Figure 32

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH HIGH "MARKET" D-E RATIOS
127 STOCKS

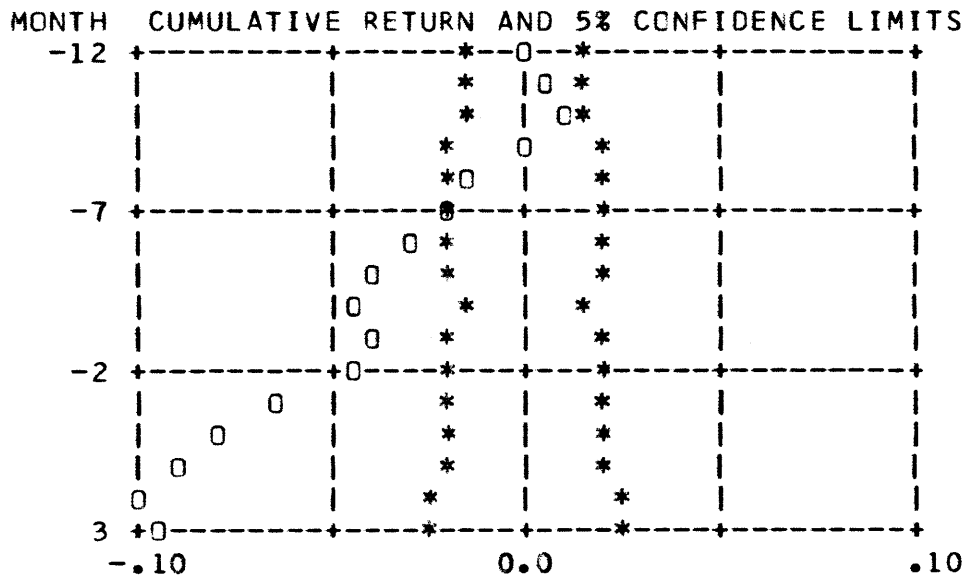

Table 81

PORTFOLIO EXCESS RETURNS
ISSUES WITH LOW "MARKET" D-E RATIOS
DAILY 146 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00094	0.01608	0.41123	0.524	0.04675
1963	-0.00070	0.01214	-0.60111	0.633	-0.07582
1964	0.00062	0.00986	0.84072	1.194	0.11120
1965	-0.00094	0.01238	-1.05269	1.599	-0.18112
1966	0.00045	0.01387	0.43180	1.599	0.08059
1967	0.00018	0.01797	0.14781	1.817	0.03877
1968	-0.00109	0.01643	-0.96315	1.872	-0.23046
1969	0.00065	0.01402	0.69248	2.188	0.14437
1970	0.00002	0.01739	0.01762	1.902	0.00447
1971	-0.00039	0.00948	-0.63479	3.545	-0.09364
1972	-0.00011	0.01329	-0.11423	1.542	-0.02060
TOTAL	-0.00011	0.01411	-0.35539	1.674	-0.22412

SERIAL CORRELATION= 0.0261

Table 82

PORTFOLIO EXCESS RETURNS
ISSUES WITH HIGH "MARKET" D-E RATIOS
DAILY 146 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00125	0.00990	0.70201	0.246	0.03869
1963	-0.00088	0.01176	-0.76986	0.478	-0.09365
1964	0.00078	0.00882	0.52394	0.138	0.02733
1965	0.00065	0.00705	0.51244	0.123	0.02011
1966	-0.00061	0.01568	-0.43573	0.647	-0.07638
1967	-0.00189	0.01101	-1.82910	0.586	-0.21503
1968	-0.00082	0.01716	-0.62850	1.252	-0.14269
1969	-0.00079	0.01030	-1.13379	2.408	-0.17325
1970	-0.00032	0.00991	-0.51079	3.421	-0.08068
1971	-0.00133	0.00866	-2.43535	5.913	-0.33529
1972	-0.00093	0.00833	-1.73517	2.948	-0.22476
TOTAL	-0.00048	0.01129	-1.68993	1.651	-0.75983

SERIAL CORRELATION=-0.0219

Table 83

PORTFOLIO EXCESS RETURNS
ISSUES WITH LOW "MARKET" D-E RATIOS
DAILY 146 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.01167	0.01659	-1.72316	0.048	-0.07002
1963	-0.00817	0.02005	-1.57765	0.060	-0.12250
1964	-0.00071	0.01108	-0.31927	0.119	-0.01769
1965	-0.00368	0.01724	-1.33241	0.155	-0.14348
1966	-0.00598	0.02537	-1.41557	0.155	-0.21546
1967	-0.00349	0.02634	-0.88819	0.179	-0.15692
1968	-0.00418	0.02117	-1.16684	0.186	-0.14613
1969	-0.00667	0.02292	-2.03766	0.204	-0.32687
1970	-0.00730	0.02588	-1.80666	0.177	-0.29944
1971	-0.00567	0.02107	-2.33179	0.356	-0.42547
1972	-0.00492	0.01984	-1.38112	0.143	-0.15260
TOTAL	-0.00229	0.02227	-2.05275	0.162	-0.91097

SERIAL CORRELATION=-0.0465

Table 84

PORTFOLIO EXCESS RETURNS
ISSUES WITH HIGH "MARKET" D-E RATIOS
DAILY 146 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.00493	0.01081	-0.79038	0.024	-0.01480
1963	-0.00175	0.01151	-0.52631	0.048	-0.02098
1964	0.00276	0.00574	0.83282	0.012	0.00828
1965	-0.00166	0.00543	-0.52872	0.012	-0.00497
1966	0.00136	0.01406	0.37529	0.060	0.02043
1967	-0.00152	0.01366	-0.43154	0.060	-0.02284
1968	-0.00584	0.01526	-1.98912	0.119	-0.15769
1969	-0.00193	0.01704	-0.81066	0.232	-0.09868
1970	-0.00376	0.01640	-1.86011	0.327	-0.24790
1971	-0.00450	0.01751	-2.63454	0.581	-0.47271
1972	-0.00370	0.01339	-2.24618	0.287	-0.24434
TOTAL	-0.00213	0.01591	-2.56375	0.160	-0.78047

SERIAL CORRELATION=-0.0426

Table 85

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH LOW "BOOK" D-E RATIOS
130 STOCKS

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.01266	0.01266	0.08472	1.7031
-11	0.00883	0.02160	0.12014	2.0501
-10	0.01798	0.03997	0.17224	2.6461
-9	0.01510	0.05568	0.18125	3.5027
-8	0.00668	0.06273	0.22201	3.2217
-7	0.02892	0.09347	0.26291	4.0535
-6	0.00293	0.09667	0.25976	4.2432
-5	0.01452	0.11260	0.27131	4.7318
-4	0.02211	0.13719	0.31302	4.9972
-3	0.02283	0.16315	0.34480	5.3950
-2	0.01325	0.17857	0.39240	5.1885
-1	-0.00220	0.17598	0.39921	5.0261
0	-0.01368	0.15989	0.40661	4.4836
1	0.01657	0.17911	0.47414	4.3070
2	0.01999	0.20268	0.54424	4.2461
3	0.00562	0.20944	0.55335	4.3154

Figure 33

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH LOW "BOOK" D-E RATIOS
130 STOCKS

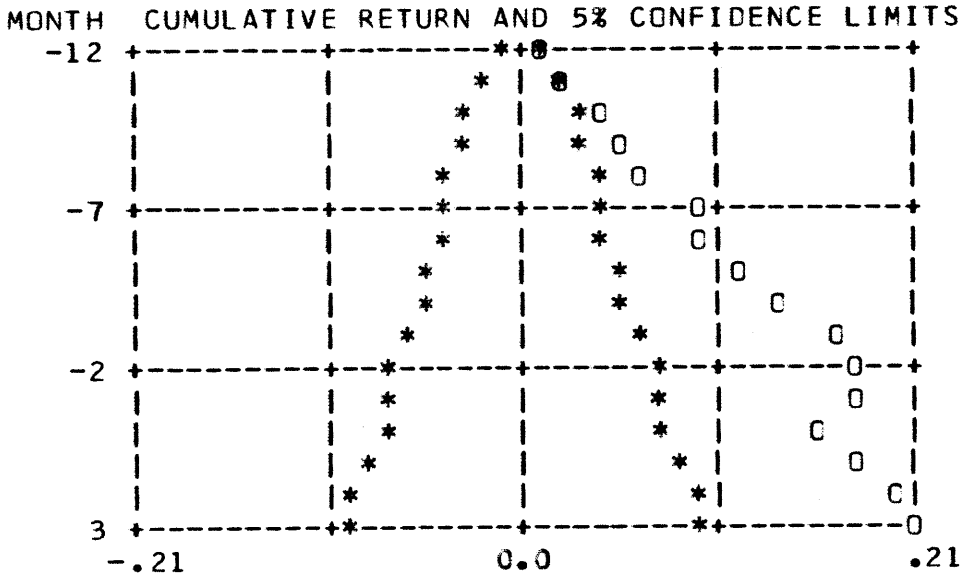

Table 86

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH HIGH "BOOK" D-E RATIOS
130 STOCKS

MONTH	MEAN RETURN	CUM RETURN	STD DEV	T STATISTIC
-12	0.00053	0.00053	0.07114	0.0854
-11	0.01173	0.01226	0.09367	1.4929
-10	0.00726	0.01961	0.12132	1.8429
-9	-0.01284	0.00651	0.11847	0.6269
-8	-0.01398	-0.00756	0.14056	-0.6130
-7	-0.00053	-0.00808	0.16214	-0.5685
-6	-0.00291	-0.01097	0.18664	-0.6705
-5	-0.01066	-0.02152	0.19096	-1.2848
-4	0.00030	-0.02123	0.22400	-1.0804
-3	0.00929	-0.01213	0.25403	-0.5445
-2	-0.00488	-0.01695	0.26104	-0.7403
-1	-0.00690	-0.02373	0.37219	-0.7270
0	-0.01963	-0.04289	0.32769	-1.4925
1	-0.00856	-0.05109	0.31803	-1.8315
2	-0.00711	-0.05783	0.33687	-1.9573
3	0.00317	-0.05485	0.37438	-1.6703

Figure 34

CROSS-SECTIONAL ABNORMAL RETURNS
ISSUES WITH HIGH "BOOK" D-E RATIOS
130 STOCKS

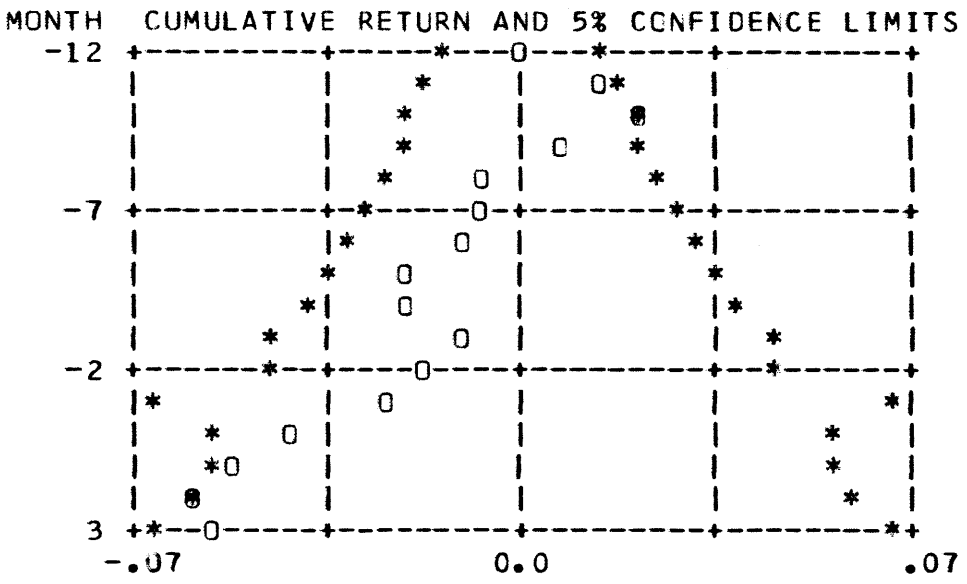

Table 87

PORTFOLIO EXCESS RETURNS
ISSUES WITH LOW "BOOK" D-E RATICS
DAILY 146 STOCKS
ENTER PORTFOLIO DAY -20
LEAVE PORTFOLIC DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00129	0.01486	0.59685	0.524	0.06079
1963	-0.00100	0.01220	-0.96156	0.737	-0.13728
1964	0.00047	0.01106	0.56429	0.968	0.08207
1965	-0.00119	0.01240	-1.23826	1.107	-0.19787
1966	0.00035	0.01515	0.29490	1.353	0.05773
1967	-0.00092	0.01774	-0.75337	1.482	-0.19368
1968	-0.00028	0.01710	-0.20167	1.283	-0.04294
1969	0.00069	0.01359	0.75197	2.436	0.15195
1970	0.00015	0.01693	0.13296	1.780	0.03309
1971	-0.00112	0.00913	-1.85359	4.403	-0.25607
1972	0.00029	0.01024	0.38067	2.283	0.05287
TOTAL	-0.00021	0.01389	-0.65271	1.669	-0.39564

SERIAL CORRELATION= 0.0071

Table 88

PORTFOLIC EXCESS RETURNS
ISSUES WITH HIGH "BOOK" D-E RATICS
DAILY 146 STOCKS
ENTER PORTFOLIC DAY -20
LEAVE PORTFOLIO DAY 10

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	0.00068	0.01303	0.28890	0.246	0.02096
1963	-0.00036	0.01082	-0.29088	0.375	-0.02743
1964	0.00121	0.01100	0.86650	0.364	0.07506
1965	-0.00065	0.01838	-0.42723	0.615	-0.09423
1966	-0.00079	0.01372	-0.65735	0.893	-0.10240
1967	0.00221	0.02242	1.23090	0.920	0.34465
1968	-0.00135	0.01537	-1.23409	1.841	-0.26699
1969	-0.00095	0.01041	-1.31160	2.160	-0.19699
1970	-0.00057	0.01036	-0.87239	3.543	-0.14399
1971	-0.00080	0.00935	-1.36566	5.055	-0.20320
1972	-0.00097	0.00819	-1.82223	2.207	-0.22936
TOTAL	-0.00037	0.01327	-1.15222	1.656	-0.63894

SERIAL CORRELATION= 0.0411

Table 89

PORTFOLIO EXCESS RETURNS
ISSUES WITH LOW "BOOK" D-E RATIOS
DAILY 146 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.00704	0.00811	-2.12552	0.048	-0.04222
1963	-0.00742	0.01877	-1.67575	0.072	-0.13348
1964	-0.00255	0.01044	-1.09113	0.095	-0.05096
1965	-0.00073	0.01271	-0.29904	0.107	-0.01976
1966	-0.00629	0.02758	-1.24989	0.131	-0.18878
1967	-0.00328	0.02671	-0.73746	0.143	-0.11820
1968	-0.00378	0.02470	-0.79419	0.133	-0.10195
1969	-0.00546	0.02252	-1.76601	0.228	-0.28953
1970	-0.00421	0.02593	-1.02639	0.165	-0.16832
1971	-0.00588	0.01992	-2.70375	0.439	-0.49356
1972	-0.00500	0.01862	-1.84160	0.215	-0.23510
TOTAL	-0.00228	0.02185	-2.06004	0.161	-0.88647

SERIAL CORRELATION=-0.0114

Table 90

PORTFOLIO EXCESS RETURNS
ISSUES WITH HIGH "BOOK" D-E.RATIOS
DAILY 146 STOCKS
ENTER PORTFOLIO DAY -1
LEAVE PORTFOLIO DAY 1

YEAR	MEAN RETURN	STANDARD DEVIATION	T-STAT	AVERAGE NO STOCKS	CUM YEARLY RETURN
1962	-0.01446	0.02496	-1.00363	0.024	-0.04339
1963	-0.00095	0.01189	-0.24038	0.036	-0.00857
1964	0.00437	0.00984	1.33153	0.036	0.03929
1965	-0.00870	0.02161	-1.55975	0.060	-0.13056
1966	-0.00063	0.01296	-0.22106	0.083	-0.01313
1967	-0.00274	0.01885	-0.71202	0.096	-0.06573
1968	-0.00623	0.01648	-2.36059	0.173	-0.24291
1969	-0.00224	0.01700	-0.90546	0.208	-0.10550
1970	-0.00587	0.01797	-2.71162	0.339	-0.40477
1971	-0.00494	0.01830	-2.63228	0.498	-0.46943
1972	-0.00326	0.01206	-1.92912	0.215	-0.16619
TOTAL	-0.00225	0.01720	-2.55556	0.161	-0.85910

SERIAL CORRELATION=-0.0884

Table 91

Difference in the Means Tests

Table	Title	Mean	Tables	Difference in Means T-Stat
40	C-S Monthly, low Av. D-E	.25915	40×41	2.7769
41	C-S Monthly, med Av. D-E	.02406	40×42	4.4061
42	C-S Monthly, high Av. D-E	-.05374	41×42	1.3577
46	Port (-1,1), low Av. D-E	-.00297	46×47	-0.0133
47	Port (-1,1), med Av. D-E	-.00293	46×48	-0.0107
48	Port (-1,1), high Av. D-E	-.00265	47×48	-0.0108
49	C-S Monthly, low market D-E	.24212	49×50	6.0318
50	C-S Monthly,high market D-E	-.09532		
53	Port (-1,1), low market D-E	-.00229	53×54	-0.0706
54	Port (-1,1),high market D-E	-.00213		
55	C-S Monthly, low book D-E	.20944	55×56	4.5104
56	C-S Monthly, high book D-E	-.05485		
59	Port (-1,1), low book D-E	-.00228	59×60	-0.0130
60	Port (-1,1), high book D-E	-.00225		

NORMAL TERMINATION